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## E 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 E.1). The Report primarily concentrates on the performance of public hospitals (chapter 9), primary and community health services (including general practice) (chapter 10) and the interactions among different service mechanisms for dealing with two health management issues: mental health and breast cancer (chapter 11). 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.

The Australian, State, Territory and local governments spent \$34.6 billion on public (non-psychiatric) hospitals, medical services (including payments to general practitioners [GPs] and other specialist practitioners) and community and public health in 2004-05. These three areas of health care activity accounted for 64.5 per cent of government recurrent health expenditure in 2004-05 (table EA.4). Public health expenditure on breast cancer screening was \$118 million in 2004-05 (table 11A.5). There are no specific estimates of government expenditure on the management of breast cancer for 2004-05. Government recurrent expenditure on specialist mental health services was estimated to be around \$3.8 billion in 2004-05 (tables 11A.20 and 11A.21). Some of this expenditure was on psychiatric care provided by public (non-psychiatric) hospitals (chapters 9 and 11).

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Estimates of government expenditure on health care provision commonly include (by definition) high level residential aged care services and patient transport services (ambulance services including pre-hospital care, treatment and transport services). These services are not covered in the health chapters in this Report, but are reported separately in chapter 8 ('Emergency management') and chapter 12 ('Aged care').

**Box E.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 Report, include:

- public health programs, other than those for breast cancer and mental health

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- funding for specialist medical practitioners.

A range of 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 3 and 4) and public housing (chapter 16), however, 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.

The remainder of this preface provides a summary of the nature of Australia’s health care system, an overview of Indigenous health, and data on broad health outcomes. It also foreshadows future directions in reporting. A list of electronic data tables for this preface is provided at the end of the preface. Supporting tables are identified in references throughout the chapter by an ‘A’ suffix (for example, table EA.3 is table 3 in the electronic data tables). Supporting tables can be found on the Review web page ([www.pc.gov.au/gsp](http://www.pc.gov.au/gsp)).

## **Profile of health services**

This section provides a brief overview of Australian health services as a whole. More detailed descriptions of public hospitals, primary and community health services, and mental health and breast cancer services are provided in chapters 9, 10 and 11 respectively.

## **Roles and responsibilities**

The Australian Government’s health services activities include:

- funding States and Territories through the Australian Health Care Agreements to deliver public hospital services
- providing rebates to patients for medical services provided by GPs and specialists and delivering public health programs
- funding the PBS
- funding high level residential aged care services
- funding private health insurance rebates

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- funding Indigenous-specific primary health
  - promulgating and coordinating health regulations
  - undertaking health policy research and policy coordination across the Australian, State and Territory governments
  - funding hospital services and the provision of other services through the Department of Veterans' Affairs
  - funding the Medicare Safety Net.

State and Territory governments contribute funding for, and deliver a range of, health care services, such as:

- public hospital services
- public health programs (such as health promotion programs and disease prevention)
- community health services (including services specifically for Indigenous people)
- public dental services
- mental health programs
- patient transport
- the regulation, inspection, licensing and monitoring of premises, institutions and personnel
- health policy research and policy development
- specialist palliative care.

Local governments are generally involved in environmental control and a range of community-based and home care services, although the exact nature of their involvement varies across jurisdictions. The non-government sector too plays a significant role in the health system, delivering general practice and specialist medical and surgical services, dental services, a range of other allied health services (such as optometry and physiotherapy), private hospitals and high level residential aged care services.

## **Funding**

Funding the components of Australia's health care system is a complicated process. The Australian Government subsidises many of the services provided by the non-government sector (mostly through the MBS, the PBS, the private health insurance rebate and the Medicare Safety Net) and contributes funding to a number

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of nationally coordinated public health programs. It also provides funding under the AHCAs to the states and territories for public hospital services.

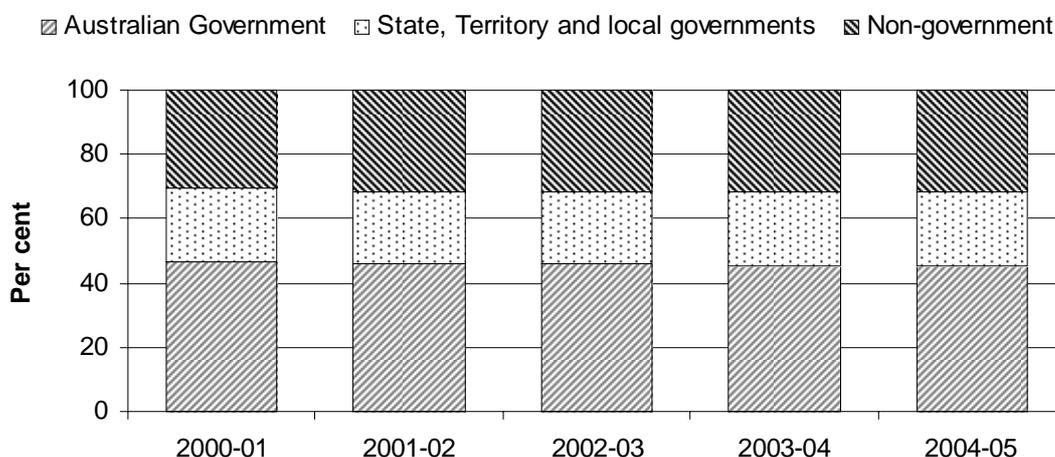
State and Territory governments, through income raised by taxes and from both general and specific purpose grants received from the Australian Government, contribute funds to public health, community health services and public hospitals (through casemix and other payments), which in turn fund specialists (through limited fee-for-service or sessional arrangements). Private individuals, health insurance funds and other non-government institutions also contribute funding to a range of health care providers, both government and non-government.

The Australian, State, Territory and local governments spent \$57.2 billion on health services (expressed in 2003-04 dollars)<sup>1</sup> which represents 68.2 per cent of total health expenditure in 2004-05. The Australian Government accounted for the largest proportion of health care expenditure in Australia — \$38.2 billion (expressed in 2003-04 dollars) or 45.6 per cent of the total in 2004-05. State, Territory and local governments contributed \$19.0 billion (expressed in 2003-04 dollars) or 22.6 per cent of total health expenditure in that year. These shares have remained relatively constant over the last five years. The remainder was paid by individuals, health insurance funds and workers compensation and compulsory motor vehicle third party insurance providers (figure E.1 and table EA.1).

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<sup>1</sup> The published source data from the AIHW use 2003-04 as the base year. The same base year is used here for consistency.

**Figure E.1 Total health expenditure, by source of funds (2003-04 dollars)<sup>a, b, c, d</sup>**



<sup>a</sup> Includes recurrent and capital expenditure. <sup>b</sup> Includes expenditure on high level residential aged care (reported in chapter 12) and ambulance services (reported in chapter 8). <sup>c</sup> Expenditure by Australian Government and non-government sources has been adjusted for tax expenditure in relation to private health incentives claimed through the taxation system. <sup>d</sup> 'Non-government' includes expenditure by individuals, health insurance funds, workers compensation and compulsory motor vehicle third party insurers.

Source: AIHW (2006a); table EA.1.

## Size and scope of sector

Total expenditure (recurrent and capital) on health care services in Australia was estimated to be \$83.8 billion in 2004-05 (in 2003-04 dollars) (table EA.1). This total was estimated to account for 9.8 per cent of gross domestic product in 2004-05, up from 9.4 per cent in 2003-04 and 8.1 per cent in 1994-95 (AIHW 2006a). This indicates that health expenditure grew faster than the economy as a whole over the decade to 2004-05.

The growth of total health expenditure over the past decade was largely the result of an increase in expenditure by the Australian, State, Territory and local governments, which grew proportionally faster than expenditure by non-government sources. Between 1994-95 and 2004-05, the average annual rate of growth in real expenditure was 5.5 per cent for the Australian Government, 6.3 per cent for State, Territory and local governments, and 4.3 per cent for non-government sources (AIHW 2006a).

The introduction of programs supporting private health insurance was a significant factor in the increase in expenditure by the Australian Government in the late 1990s. On 1 January 1999, the Australian Government replaced the Private

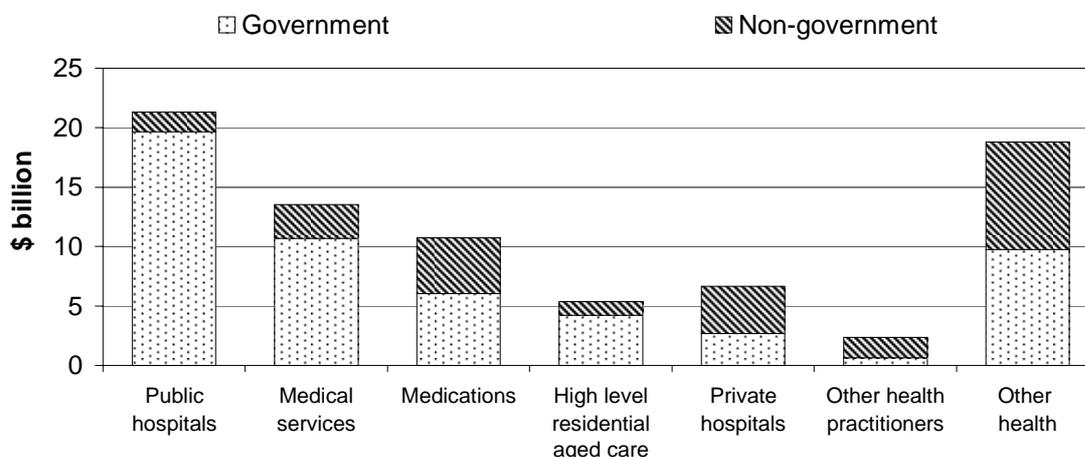
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Health Insurance Incentive Scheme with a 30 per cent rebate on private health insurance premiums. Australian Government expenditure on the rebate has increased each year from \$2.0 billion in 2000-01 to \$3.0 billion in 2004-05 in current prices (AIHW 2006a).

The Medicare Safety Net, introduced in March 2004, has also contributed to increased Australian Government expenditure. Under the Medicare Safety Net patients are reimbursed for 80 per cent of their out-of-pocket costs for medical treatment received in a non-hospital setting once a certain threshold is reached in a calendar year. Total Medicare Benefits Schedule Medicare Safety Net expenditure was \$280.6 million in the year ending 31 December 2005 (DoHA 2006).

Public hospitals were the single largest item of recurrent health care expenditure by government and non-government sources in 2004-05. Total real expenditure on public hospitals was \$21.3 billion of which governments paid \$19.7 billion (in 2003-04 dollars) (figure E.2). Public hospitals accounted for 36.6 per cent of government recurrent expenditure on health care services in 2004-05. Medical services accounted for \$10.7 billion of government expenditure (19.9 per cent of total health expenditure) and medications accounted for \$6.0 billion (11.2 per cent) (table EA.2).

**Figure E.2 Recurrent health expenditure, by area of expenditure, 2004-05 (2003-04 dollars)<sup>a, b, c, d, e, f</sup>**



<sup>a</sup> Government funding of recurrent health expenditure is not adjusted for non-specific tax expenditures. <sup>b</sup> Almost all expenditure on medical services relates to services provided by practitioners on a fee-for-service basis, including those provided to private patients in hospitals. Excluded are the medical component of hospital care provided to public hospital inpatients and the outpatient medical services provided at public hospitals. <sup>c</sup> Medications include (but are not limited to) those provided under the PBS. <sup>d</sup> High level residential aged care services cover services to those residents requiring and receiving a level of care that falls within one of the four highest levels of care. These services are commonly classified as health services expenditure, but are discussed separately in this Report (chapter 12). <sup>e</sup> Government funding on other health practitioners includes DVA funding and DoHA hearing services (audiology component) which was previously included in 'other health'. <sup>f</sup> Other health expenditure includes ambulance, other institutional health nec., dental services, community health, aids and appliances, public health, other non-institutional health nec., administration and research.

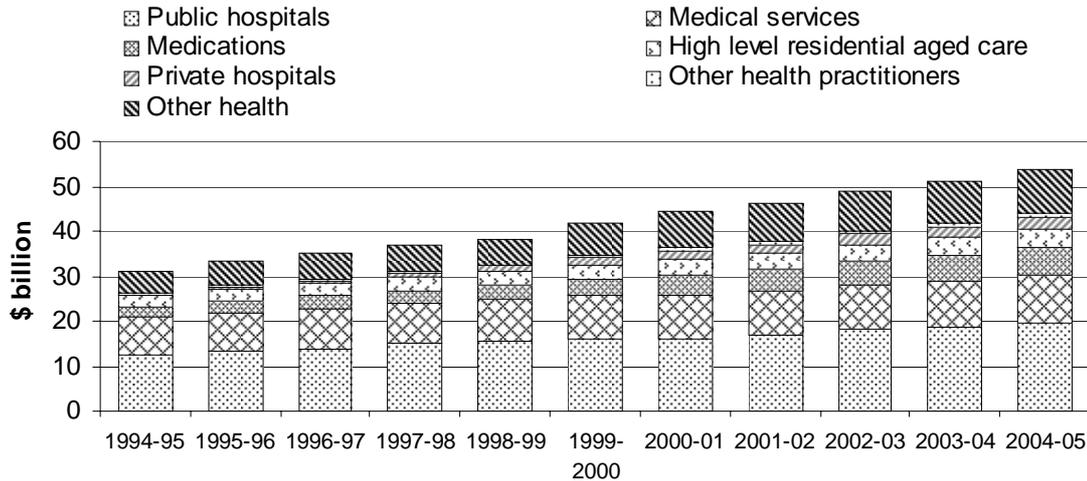
Source: AIHW (2006a); tables EA.2 and EA.3.

The relative share of government recurrent health expenditure allocated to public hospitals has fallen since 1994-95, when it was 40.3 per cent, to 36.6 per cent in 2004-05. This decline reflects the more rapid growth over the decade of government expenditure on private hospitals and medications (figure E.3 and table EA.2). The average annual growth rate of government real recurrent expenditure on private hospitals was 24.4 per cent between 1994-95 and 2004-05 (albeit from a relatively low base), compared with 11.0 per cent for medications and 4.6 per cent for public hospitals (AIHW 2006a). Policy measures introduced over the decade that were aimed at restraining growth in government health expenditure included the restriction of Medicare provider numbers, initiatives to encourage the use of generic medication brands, and increases in co-payments for medications.

The high annual growth in expenditures on medications and private hospitals meant they also grew as a proportion of government health care expenditure over the period 1994-95 to 2004-05. Government expenditure on medications increased from 6.8 per cent of government health expenditure in 1994-95 to 11.2 per cent in

2004-05, while expenditure on private hospitals increased from 1.0 per cent to 5.0 per cent over the same period (table EA.2).

**Figure E.3 Government recurrent expenditure, by area of expenditure (2003-04 dollars)<sup>a, b, c, d, e</sup>**



<sup>a</sup> Medications include (but are not limited to) those provided under the PBS. <sup>b</sup> Almost all expenditure on medical services relates to services provided by practitioners on a fee-for-service basis, including those provided to private patients in hospitals. Excluded are the medical component of hospital care provided to public hospital inpatients, and the outpatient medical services provided at public hospitals. <sup>c</sup> High level residential aged care is reported in chapter 12. <sup>d</sup> Other health expenditure includes community and public health services, funding for aids and appliances, administration, private hospitals, ambulance services (reported in chapter 8), research, dental services and public psychiatric hospitals. <sup>e</sup> Real (constant price) estimates have been calculated by applying the AIHW total health price index (table EA.8).

Source: AIHW (2006a); table EA.2.

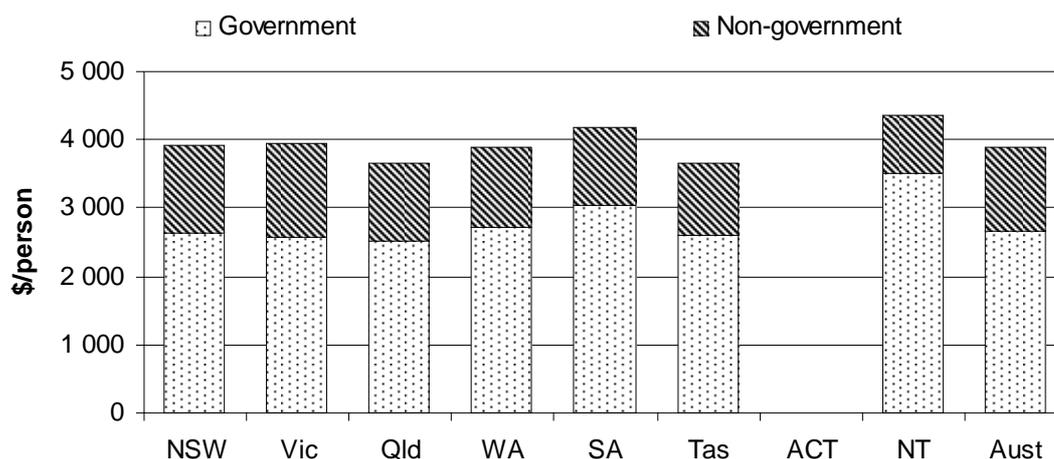
## Health expenditure per person

Health expenditure per person in each jurisdiction is affected by different policy initiatives and socioeconomic and demographic characteristics. Nationally, total health expenditure (recurrent and capital) per person in 2004-05 was \$4138 (table EA.5). The average annual growth rate in average health expenditure per person (expressed in 2003-04 dollars) from 2000-01 to 2004-05 was 4.0 per cent (table EA.5). Average health expenditure per person in Australia increased from \$3539 in 2000-01 to \$4138 in 2004-05 (in 2003-04 dollars) (table EA.5).

Government real recurrent health expenditure per person in Australia increased from \$2291 in 2000-01 to \$2655 in 2004-05 (in 2003-04 dollars). Non-government recurrent expenditure per person in Australia rose from \$1044 in 2000-01 to \$1240 in 2004-05 (in 2003-04 dollars) (figure E.4 and table EA.6). Information on

expenditure per person excluding high level residential aged care is available in table EA.7.

Figure E.4 Recurrent health expenditure per person by source of funds, 2004-05 (2003-04 dollars)<sup>a, b, c</sup>



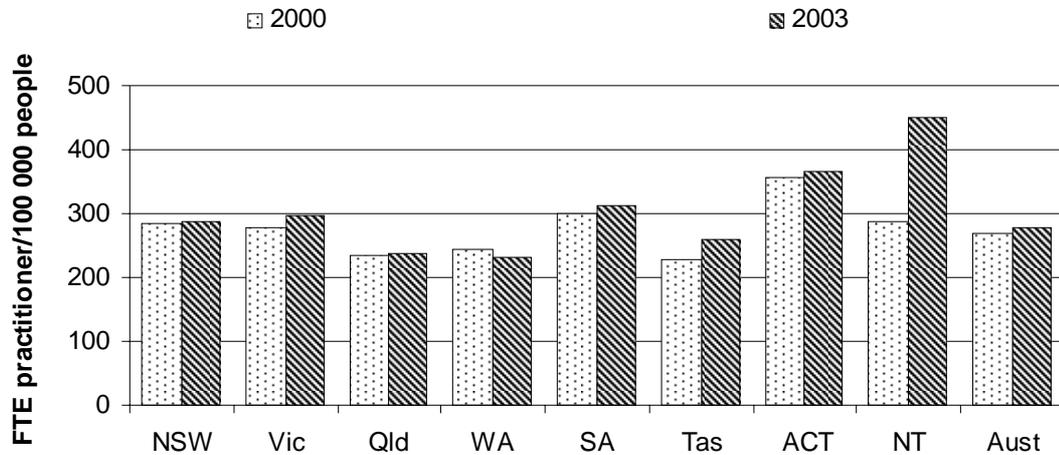
<sup>a</sup> Includes expenditure on high level residential aged care (reported in chapter 12) and ambulance services (reported in chapter 8). <sup>b</sup> Government expenditure includes expenditure by the Australian, State, Territory and local governments. <sup>c</sup> ACT per person figures are not calculated, as the expenditure numbers for the ACT include substantial expenditures for NSW residents. Thus the ACT population is not the appropriate denominator.

Source: AIHW (2006a); table EA.6.

## Health workforce

In 2003, there were 56 207 registered medical practitioners in Australia working in medicine. A further 841 were in the medical labour force but on extended leave or looking for work in the medical labour force. The majority of employed practitioners working in medicine were clinicians (92.2 per cent), of whom 42.3 per cent were primary care practitioners (mainly general practitioners), 34.9 per cent were specialists and 22.8 per cent were either specialists-in-training or hospital non-specialists (AIHW 2005c). The number of full time equivalent (FTE) practitioners per 100 000 people by jurisdiction is illustrated in figure E.5.

Figure E.5 **Employed medical practitioners<sup>a</sup>**

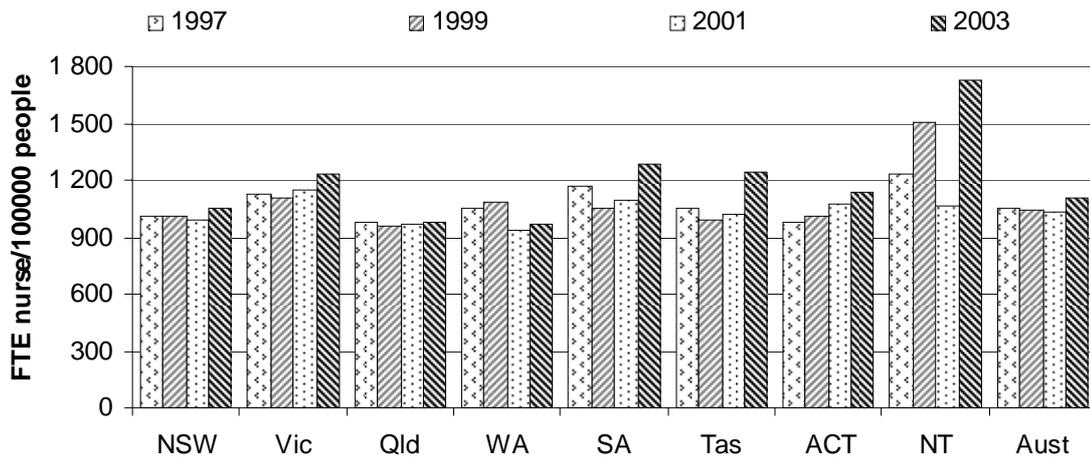


<sup>a</sup> FTE practitioner rate (per 100 000 people) based on a 45-hour week.

Source: AIHW (2005c); table EA.9.

The number of FTE nurses per 100 000 people by jurisdiction is illustrated in figure E.6. The increase in employed nurses in the NT arose from both an increase in the number of nurses employed and an increase in average hours worked (AIHW 2005d).

Figure E.6 **Employed nurses<sup>a</sup>**



<sup>a</sup> FTE nurse rate (per 100 000 people) based on a 35-hour week.

Source: AIHW (2005d); table EA.10.

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## 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 2005). 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 9); and suicide (chapter 11).

A number of recent publications include more comprehensive data on the health status of Indigenous people and Indigenous health-related factors. These include *Australia's Health* (AIHW 2006b), *The Health and Welfare of Australia's Aboriginal and Torres Strait Islander Peoples* (ABS and AIHW 2005), *Overcoming Indigenous Disadvantage: Key Indicators 2005* (SCRGSP 2005) and the *Aboriginal and Torres Strait Islander Health Performance Framework Report 2006* (AHMAC 2006).

### Contributing factors

Many interrelated factors contribute to the poor health status of Indigenous people relative to that of other Australians. These include cultural, socioeconomic, geographic and environmental health factors. Recent reports have highlighted:

- Language and cultural barriers to accessing health and health-related services — in 2002 approximately 11 per cent of Indigenous people aged 18 years and over reported difficulties understanding or being understood by service providers. Indigenous people living in remote areas were more likely to report experiencing difficulties than those in non-remote areas (ABS and AIHW 2005).
- Relatively low education levels — nationally in 2004, Indigenous students were around half as likely to continue to year 12 as non-Indigenous students (SCRGSP 2005).
- Relatively low employment and income levels that lead to financial barriers to accessing health services — in 2004-05 the full time employment rate for Indigenous people was much lower than that for non-Indigenous people for both

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males and females. Both household and individual incomes were lower on average for Indigenous people than for non-Indigenous people (ABS unpublished).

- Relatively high imprisonment rates — after adjusting for age differences, Indigenous people were 11 times more likely than other Australians to be imprisoned at 30 June 2004 (SCRGSP 2005).
- Relatively high rates for health risk factors such as obesity, smoking, harmful alcohol use, substance abuse and violence — in 2004-05, 50 per cent of Indigenous people aged 18 years and over claimed to be cigarette smokers and 16 per cent reported risky/high risk alcohol consumption in the week prior to interview (where risky/high risk alcohol consumption equates to more than 50 millilitres per day for males and more than 25 millilitres per day for females). 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 (ABS 2006c).
- Geographic distance to health services, particularly in remote and very remote areas — in 2001, 606 discrete Indigenous communities were located 25 kilometres or more from the nearest primary health care centre, and 943 communities were 50 kilometres or more from the nearest acute care hospital (ABS and AIHW 2005).
- Inadequate and overcrowded housing, particularly in remote and very remote regions — in 2002, 26 per cent of Indigenous people aged 15 years and over (72 600 people) lived in overcrowded households (SCRGSP 2005).

These influences on the health status of Indigenous people vary across regions and across urban, rural and remote areas. Geographic and environmental health factors, for example, are less relevant in urban areas (ABS and AIHW 2005). The extent to which differences across jurisdictions in the reported health outcomes for Indigenous people can be attributed to the performance of government funded health services alone is limited, given the complexity of these other influences on Indigenous health, and ongoing data quality problems (discussed below).

In addition, a wide range of government provided or funded services (other than health services) seek to address the environmental, socioeconomic and other factors that affect Indigenous health. These services include government schools, housing, justice and correctional services, which are discussed elsewhere in this Report. The Steering Committee publication, *Overcoming Indigenous Disadvantage: Key Indicators 2005* (SCRGSP 2005), examines these and other multiple contributors (and their complex cross-links) to health outcomes for Indigenous people.

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## Government policy and programs

The majority of government expenditure on Indigenous health is made through mainstream health programs (AIHW 2005a). In addition, the Australian, State and Territory governments fund Indigenous-specific health programs and undertake coordination and research activities. Most Australian Government expenditure on Indigenous-specific health programs is directed to Indigenous-specific 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 10).

At the national level, the National Aboriginal and Torres Strait Islander Health Council provides policy advice to the Australian Government Minister for Health 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 jurisdictions and 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

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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 11).

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 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.

## **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 expenditures also have some limitations. Other (non-health) agency contributions to health expenditure, such as those incurred within education departments and prisons are

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not included. There may also be some inconsistencies across data providers resulting from limitations of financial reporting systems and different reporting mechanisms (AIHW 2005a).

The most recent estimates of health services expenditure for Aboriginal and Torres Strait Islander peoples are for 2001-02 (AIHW 2005a). Total recurrent government and non-government expenditure on health services for Indigenous people was estimated at \$1788.6 million in 2001-02. This was equivalent to \$3901 per Indigenous person compared with \$3308 per non-Indigenous person (table E.1). Because Indigenous people relied heavily on publicly funded health care providers, government expenditures were much higher for them than for other people — \$3614 per person compared with \$2225 (AIHW 2005a). Expenditure per person was higher for Indigenous people than non-Indigenous people for admitted patient services in public hospitals and for non-admitted patient services in hospitals. It was also higher for community health services. Expenditure per person was lower for Indigenous people than non-Indigenous people for admitted patient services in private hospitals, medical services, dental and other professional services, pharmaceuticals, aids and appliances and for services for older people (table E.1).

Factors which contribute to the higher levels of health expenditure on Indigenous people include their average higher levels of morbidity and a much larger proportion who live in remote Australia where the cost of service provision is higher.

**Table E.1 Total expenditure on health, Indigenous and non-Indigenous people, by type of health good or service, current prices, Australia, 2001-02<sup>a</sup>**

| <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                                 | 849.5                                 | 21 456.9        | 3.8                  | 1 852.8                            | 1 132.0        | 1.6        |
| Admitted patient services                 | 682.5                                 | 17 927.4        | 3.7                  | 1 488.4                            | 945.8          | 1.6        |
| Private hospital                          | 11.5                                  | 5 057.1         | 0.2                  | 25.1                               | 266.8          | 0.1        |
| Public hospital                           | 671.0                                 | 12 870.2        | 5.0                  | 1 463.3                            | 679.0          | 2.2        |
| Non-admitted patient services             | 142.4                                 | 3 116.5         | 4.4                  | 310.6                              | 164.4          | 1.9        |
| Emergency departments                     | 34.6                                  | 615.7           | 5.3                  | 75.5                               | 32.5           | 2.3        |
| Other services                            | 107.8                                 | 2 500.8         | 4.1                  | 235.1                              | 131.9          | 1.8        |
| Public (psychiatric) hospitals            | 24.7                                  | 413.0           | 5.6                  | 53.8                               | 21.8           | 2.5        |
| Medical services                          | 99.6                                  | 11 112.5        | 0.9                  | 217.2                              | 586.3          | 0.4        |
| Medicare benefit items                    | 75.9                                  | 9 185.4         | 0.8                  | 165.5                              | 484.6          | 0.3        |
| Other                                     | 23.7                                  | 1 927.2         | 1.2                  | 51.7                               | 101.7          | 0.5        |
| Community health services <sup>b, c</sup> | 439.9                                 | 2 810.5         | 13.5                 | 959.3                              | 148.3          | 6.5        |
| Dental services <sup>b</sup>              | 21.8                                  | 3 734.2         | 0.6                  | 47.6                               | 197.0          | 0.2        |
| Other professional services               | 16.9                                  | 2 252.4         | 0.7                  | 36.8                               | 118.8          | 0.3        |
| Pharmaceuticals                           | 66.2                                  | 9 011.6         | 0.7                  | 144.4                              | 475.4          | 0.3        |
| Benefit-paid <sup>d</sup>                 | 42.3                                  | 5 471.8         | 0.8                  | 92.2                               | 288.7          | 0.3        |
| Other pharmaceuticals                     | 23.9                                  | 3 539.8         | 0.7                  | 52.2                               | 186.8          | 0.3        |
| Aids and appliances                       | 15.8                                  | 2 474.0         | 0.6                  | 34.5                               | 130.5          | 0.3        |
| Services for older people                 | 49.9                                  | 4 591.6         | 1.1                  | 108.8                              | 242.3          | 0.4        |
| Patient transport                         | 62.8                                  | 892.7           | 6.6                  | 137.0                              | 47.1           | 2.9        |
| Public health activities                  | 72.5                                  | 1 029.9         | 6.6                  | 158.2                              | 54.3           | 2.9        |
| Other health services (nec)               | 50.6                                  | 1 458.9         | 3.4                  | 110.4                              | 77.0           | 1.4        |
| Health administration (nec)               | 43.1                                  | 1 883.6         | 2.2                  | 94.0                               | 99.4           | 0.9        |
| <b>Total</b>                              | <b>1 788.6</b>                        | <b>62 708.9</b> | <b>2.8</b>           | <b>3 900.8</b>                     | <b>3 308.4</b> | <b>1.2</b> |

<sup>a</sup> Total expenditure by type of health good or service is the same as total funding. <sup>b</sup> Community health services include State and Territory government expenditure on dental services. <sup>c</sup> Includes \$186.3 million in OATSIH expenditure through Indigenous-specific primary health care services. The Indigenous ratio for the non-Indigenous-specific primary health care services component of community health is estimated at 4.06:1 and for the non-Indigenous-specific primary health care services component it is estimated at 1.07:1. <sup>d</sup> Includes estimates of benefits through the PBS and RPBS.

Source: AIHW (2005a).

In 2001-02, governments are estimated to have provided 92.7 per cent of the funding for expenditure on health goods and services for Indigenous people. States and territories contributed 49.5 per cent and the Australian Government, an estimated 43.1 per cent. Non-government sources such as injury compensation

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insurers, private health insurers and out-of-pocket payments supported the remaining funding by users of services (AIHW 2005a).

The majority of health expenditure on Indigenous people was allocated through mainstream health programs — admitted and non-admitted patient services, community health services, medical and pharmaceutical health services, and public health services. A small proportion of health expenditure was allocated through programs directly targeting Indigenous people, the most significant being the Aboriginal and Torres Strait Islander Health Care Services.

About 70.5 per cent of expenditure on health goods and services for Indigenous people were provided through State and Territory and local government programs (table E.2). Almost half (47.5 per cent or \$849.5 million) was allocated to services provided by hospitals (AIHW 2005a). Programs managed by the Australian Government, including Medicare and the PBS, accounted for nearly a quarter of expenditure (23.4 per cent). Non-government health services accounted for 6.2 per cent of expenditure (table E.2), which comprised principally dental services, non-benefit pharmaceuticals, and aids and appliances (AIHW 2005a).

Indigenous people's use of primary, secondary and tertiary health services differed from that of non-Indigenous people. Primary health services are those provided to entire populations (community health services and public health activities) and also those provided in, or flowing from, a patient-initiated contact with a health service. Secondary and tertiary services are those generated within the system by, for example, referral or hospital admission (AIHW 2005a). Average expenditure per person for Indigenous Australians was higher for both primary and secondary/tertiary care services than it was for non-Indigenous Australians. Higher Indigenous spending on primary care services came from a much higher use of community health services by Indigenous people. The higher Indigenous spending on secondary/tertiary services was largely in hospitals (AIHW 2005a).

Indigenous Australians have a significantly poorer health status (measured in terms of life expectancy, mortality rates and morbidity), than non-Indigenous Australians. It could therefore be expected that per capita investment of health resources to Aboriginal and Torres Strait Islanders would be higher than for other Australians.

Table E.2 **Expenditure on health for Indigenous people, by program, 2001-02**

| <i>Program responsibility</i>  | <i>Total expenditure (\$ million)</i> | <i>Per cent of total</i> |
|--|---------------------------------------|--------------------------|
| Through State and Territory and local government programs <sup>a</sup> | 1 260.5                               | 70.5                     |
| Through Australian Government programs <sup>b</sup>                    | 418.1                                 | 23.4                     |
| Australian Government Health and Ageing portfolio programs             | 408.8                                 | 22.9                     |
| Medicare and PBS <sup>b</sup>  | 118.4                                 | 6.6                      |
| Indigenous-specific programs <sup>c</sup>                              | 218.3                                 | 12.2                     |
| Other Health and Ageing portfolio programs                             | 72.1                                  | 4.0                      |
| Department of Veterans' Affairs programs                               | 9.3                                   | 0.5                      |
| RPBS   | 1.3                                   | 0.1                      |
| Other DVA programs   | 8.1                                   | 0.5                      |
| Non-government health services <sup>d</sup>                            | 110.0                                 | 6.2                      |
| <b>Total</b>   | <b>1 788.6</b>                        | <b>100.0</b>             |

<sup>a</sup> Includes Australian Government direct expenditure of \$9.1 million on public hospitals. <sup>b</sup> Patient co-payments of \$10.8 million under Medicare and PBS are included. <sup>c</sup> Excludes benefits paid for medical services under exclusions from Section 19(2) of the *Health Insurance Act 1973* and for pharmaceuticals under Section 100 of the *National Health Act 1953* in respect of remote area AHSs. <sup>d</sup> Includes private hospital services, dental services, other professional services and health aids and appliances.

Source: AIHW (2005a).

## Self-assessed health

In the National Aboriginal and Torres Strait Islander Health Survey 2004-05, just over three-quarters (78 per cent) of the Indigenous people aged 18 years or over reported their health as either, good, very good or excellent and 22 per cent reported their health as fair or poor. Taking into account differences in age structure, Indigenous people overall were almost twice as likely to report their health as fair or poor, than non-Indigenous Australians (ABS 2006c).

## 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 the information and estimates on Indigenous health expenditures is limited by underlying data and the calculation methodology. Some of the problems associated with Indigenous health data are outlined in (ABS 2005), and (ABS and AIHW 2006) including:

- Indigenous people are not always accurately or consistently identified in administrative health data collections (such as hospital records and birth and

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

- 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.
- Inconsistent data definitions and differences in the accuracy of identifying Indigenous status have lead 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.

Coverage of Indigenous Australians is especially a concern in some collections, and therefore, data analysis has been limited to jurisdictions with known better coverage. For hospital separations and recent mortality data, only NT, WA, SA and Queensland have been assessed as having acceptable data quality. These four jurisdictions represent 60 per cent of Australia's Indigenous population. Work is underway to improve data quality and this work is being informed by the Health Performance Framework.

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## Framework for measuring the performance of the health system

Government involvement in health services is predicated on the desire to improve the health of all Australians and to ensure equity of access (box E.2). Governments use a variety of services in different settings to fulfil these objectives.

Measuring the effectiveness, equity and efficiency of Australia's health system is a complex task. It must account for the performance of a range of services (such as prevention and medical intervention) and of service providers (such as community health centres, GPs and public hospitals, and account for the overall outcomes generated by the health system. The appropriate mix of services — including the prevention of illness and injury, and medical treatment (prevention versus medical intervention) — and the appropriate mix of service delivery mechanisms (community-based versus hospital-based) play an important role in determining outcomes. Also relevant are factors external to the health system, such as the socioeconomic and demographic characteristics of the population, infrastructure and the environment.

### Box E.2 Overall objectives of the health system

Government involvement in the health system is aimed at efficiently and effectively protecting and restoring the health of the community by:

- preventing or detecting illness through the provision of services that can achieve improved health outcomes at relatively low cost
- caring for ill people through the use of appropriate health and medical intervention services
- providing appropriate health care services that recognise cultural differences among people
- providing equitable access to these services
- achieving equity in terms of health outcomes.

Primary prevention strategies are implemented before the diagnosis of an illness and generally aim to:

- reduce a person's risk of getting a disease or illness by increasing protective factors
- delay the onset of illness.

Medical intervention strategies are implemented after a diagnosis.

The National Health Performance Committee has developed the National Health Performance Framework to guide the reporting and measurement of health service

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performance in Australia. A number of other groups involved in health performance indicator development have adopted this framework and adapted it for use within specific project areas and in publications. These groups include the National Health Priority Performance Advisory Group, the former Australian Council for Safety and Quality in Health Care, the National Mental Health Working Group and the Australian Council on Healthcare Standards.

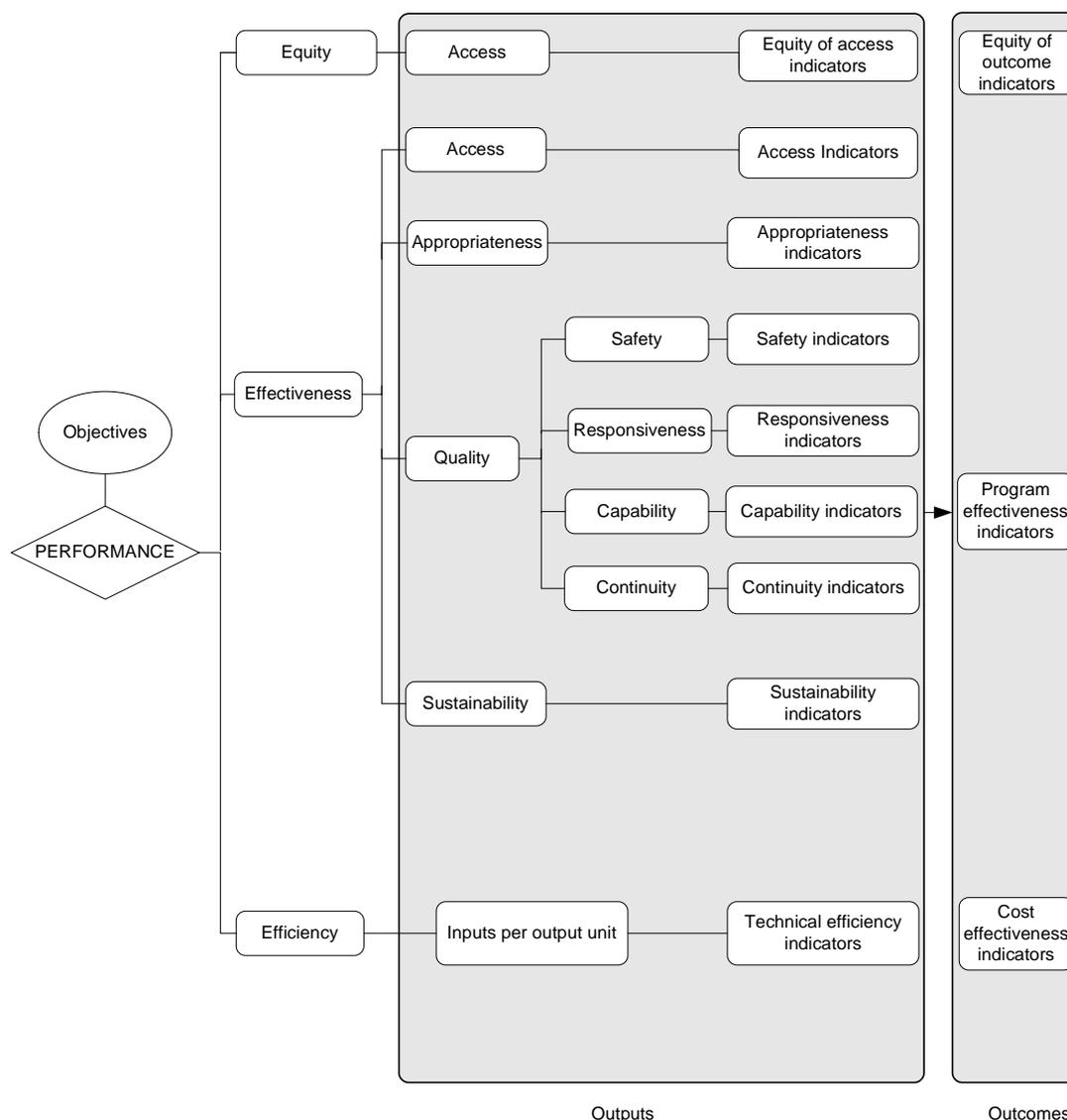
In the 2004 Report, the Steering Committee sought to align the general Review framework with the National Health Performance Framework as far as possible, for application to government health services. Complete alignment was not possible, given the different terms of reference of the two committees. The performance framework for health services in this Report thus reflects and concords with both the general Review framework and the National Health Performance Framework. It differs from the general Review framework (see chapter 1) in two respects. First, it includes four subdimensions of quality — safety, responsiveness, capability and continuity — and, second, it includes an extra dimension of effectiveness — sustainability (figure E.7). These additions are intended to address the following key performance dimensions of the health system in the National Health Performance Framework that were not explicitly covered in the general Review framework:

- *safety*: the avoidance, or reduction to acceptable levels, of actual or potential harm from health care services, management or environments, and the prevention or minimisation of adverse events associated with health care delivery
- *responsiveness*: the provision of services that are client oriented and respectful of clients' dignity, autonomy, confidentiality, amenity, choices, and social and cultural needs
- *capability*: the capacity of an organisation, program or individual to provide health care services based on appropriate skills and knowledge
- *continuity*: the provision of uninterrupted, timely, coordinated healthcare, interventions and actions across programs, practitioners and organisations
- *sustainability*: the capacity to provide infrastructure (such as workforce, facilities and equipment), be innovative and respond to emerging needs (NHPC 2001).

Other aspects and dimensions of the Steering Committee's framework of performance indicators are defined in chapter 1. The Steering Committee has applied this performance framework to health services in two ways. It has developed, first, detailed performance indicator frameworks for significant providers (public hospitals, and primary and community health services) and second, separate frameworks to examine the appropriate mix of services (including

the prevention of illness and injury, and medical treatment) and the appropriate mix of service delivery mechanisms. The latter are measured by focusing on two health management issues: breast cancer and mental health. These performance indicator frameworks are discussed in chapters 9, 10 and 11.

Figure E.7 Performance indicator framework for health services



## 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.

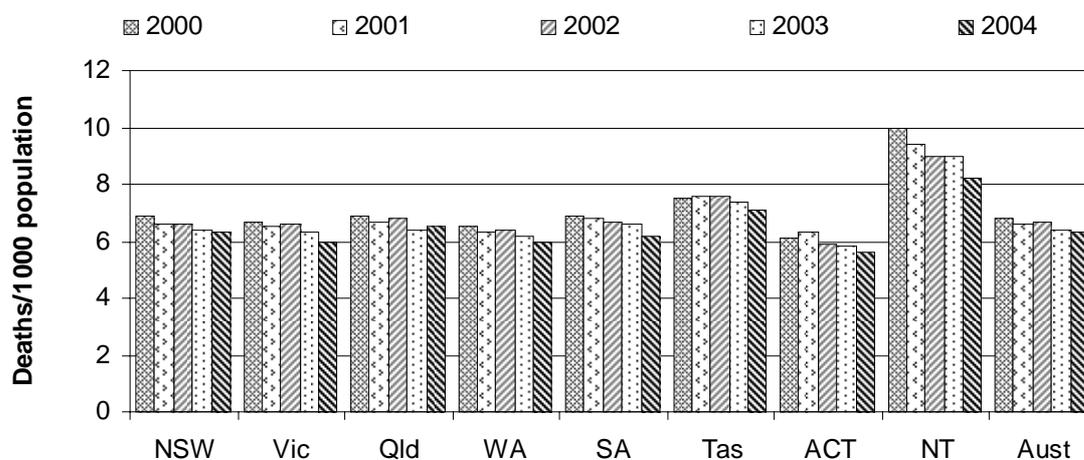
Data on health outcomes presented in this preface include self-assessed health status, mortality rates (for infants and all people), causes of death, life expectancy at birth, median age at death and birthweight. Where possible, data are presented for Indigenous people as well as the Australian population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

## Mortality rates

Most components of the health system can influence mortality rates, although there may be a lag 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.

There were 132 508 deaths in Australia in 2004 (ABS 2005), which translated into an age standardised mortality rate of 6.3 per 1000 people (figure E.8). Death rates over the last 20 years have declined for all states and territories (ABS 2005).

Figure E.8 Mortality rates, age standardised<sup>a</sup>



<sup>a</sup> Deaths per 1000 population. Standardised death rates use total persons in the 2001 Australian population as the standard population. Rates are calculated using the direct method.

Source: ABS (2005); table EA.11.

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### *Indigenous mortality rates*

Data on Indigenous people are limited by the accuracy and extent to which Indigenous people are identified in hospital records. Identification varies across states and territories. The report prepared by the AIHW and endorsed by relevant Australian Health Ministers' Advisory Council committees titled *Improving the Data Quality of Indigenous Identification in Hospital Separations Data* recommends the following:

- Only data from Queensland, WA, SA and the NT should be used for analytical purposes (either at the individual or aggregate level).
- Analyses based on data for Queensland, WA, SA and the NT in aggregate are limited by jurisdictional differences in data quality and the data are not necessarily representative of the jurisdictions excluded.
- Caution should be exercised in using Queensland, WA, SA and the NT time series data for analysis (either individually or in aggregate). Changes in hospitalisation rates for Indigenous people may be a result of changes in the ascertainment of Indigenous status for Indigenous patients (AIHW 2005b).

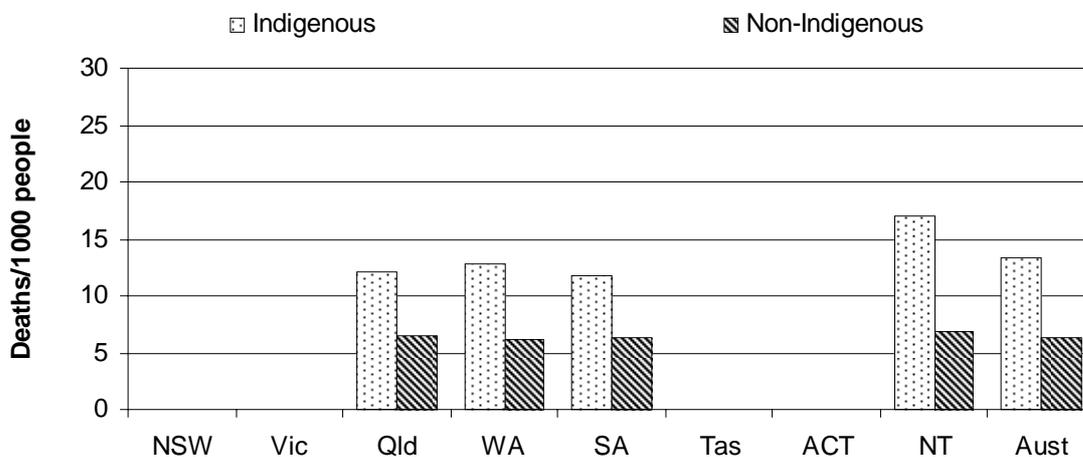
Data on Indigenous mortality are collected through State and Territory death registrations. The completeness of the identification of Indigenous Australians in these collections varies significantly across states and territories. Because of this variation, care is required in making comparisons on the data. The NT, WA, SA and Queensland in that order are generally considered to have the best coverage of death registrations for Indigenous people.<sup>2</sup> For these four jurisdictions combined, the overall rates of mortality for Indigenous people were around twice as high as mortality rates for non-Indigenous people in 2000–2004 (figure E.9 and table EA.11). 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 2005).

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 2000–04. To improve the comparability of age-related mortality rates, indirect age standardisation methods have been used for both the Indigenous and total population rates.

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<sup>2</sup> 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 E.9 **Mortality rates, age standardised, by Indigenous status, five year average, 2000–2004<sup>a, b</sup>**



<sup>a</sup> Standardised death rates use total persons in the 2001 Australian population as the standard population.

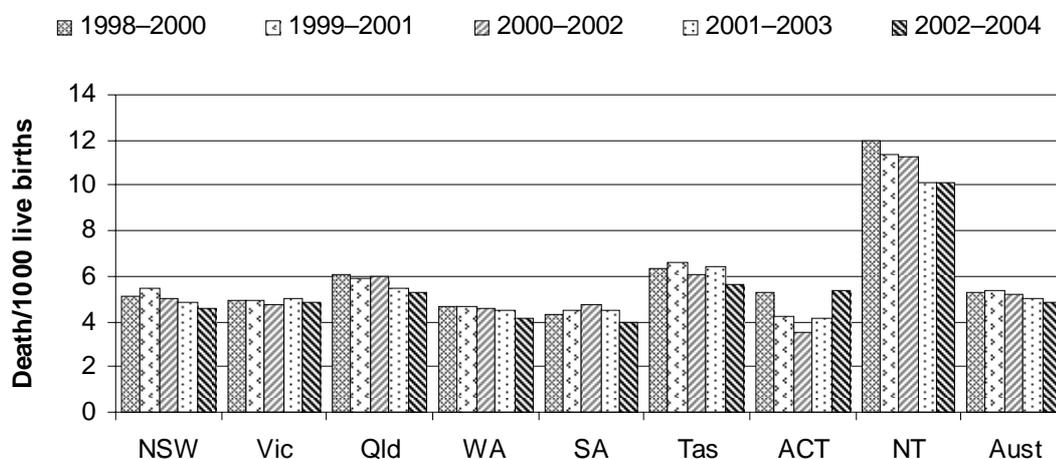
<sup>b</sup> Data for NSW, Victoria, Tasmania and the ACT are of insufficient quality to be published.

Source: ABS Deaths Australia (unpublished); table EA.11.

### *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 (figure E.10). The infant mortality rate in Australia declined from 5.3 deaths per 1000 live births over the period 1998–2000 to an average of 4.8 deaths per 1000 live births over the period 2002–2004 (figure E.10).

Figure E.10 Infant mortality rate, three year average<sup>a</sup>



<sup>a</sup> Figures for Australia include 'Other territories'.

Source: ABS (2005); table EA.12.

### *Indigenous infant mortality rates*

For the period 2002–2004, the average infant mortality rate for Indigenous children is publishable for NSW, Queensland, WA, SA and the NT. While the ability to detect significant changes in Indigenous infant mortality can be affected by the small numbers involved, it is clear that Indigenous infant mortality rates remain markedly higher than the national average for all Australians (tables EA.12 and EA.13).

### **Principal causes of death**

The most common causes of death among Australians in 2004 were: diseases of the circulatory system (including heart disease, heart attack and stroke), cancers, and diseases of the respiratory system (including influenza, pneumonia and chronic lower respiratory diseases) (tables E.3 and EA.14). Malignant neoplasms (cancers) were the main underlying cause of 28.7 per cent of all deaths in 2004 (ABS 2006b) and ischaemic heart disease was the primary cause of a further 18.5 per cent (ABS 2006b).

**Table E.3 Cause of death, age standardised death rates, 2004<sup>a</sup>**

|  | <i>NSW</i> | <i>Vic</i> | <i>Qld</i> | <i>WA</i>  | <i>SA</i>  | <i>Tas</i> | <i>ACT</i> | <i>NT</i>  |
|--|------------|------------|------------|------------|------------|------------|------------|------------|
| Cancers <sup>b</sup>                             | 181        | 179        | 184        | 176        | 178        | 214        | 157        | 167        |
| Lung cancer <sup>c</sup>                         | 35         | 34         | 37         | 35         | 34         | 37         | 25         | 36         |
| Diabetes mellitus                                | 14         | 20         | 16         | 19         | 15         | 26         | 18         | 44         |
| Mental and behavioural disorders                 | 16         | 17         | 15         | 13         | 15         | 18         | 17         | 36         |
| Diseases of the nervous system                   | 21         | 21         | 22         | 26         | 20         | 30         | 29         | 11         |
| Diseases of the circulatory system               | 233        | 207        | 239        | 200        | 218        | 232        | 193        | 262        |
| Heart disease <sup>d</sup>                       | 117        | 106        | 130        | 105        | 113        | 120        | 86         | 146        |
| Heart attack <sup>e</sup>                        | 61         | 53         | 69         | 57         | 62         | 53         | 32         | 48         |
| Stroke <sup>f</sup>                              | 61         | 51         | 61         | 49         | 53         | 47         | 61         | 41         |
| Diseases of arteries, arterioles and capillaries | 12         | 11         | 12         | 10         | 11         | 19         | 11         | 15         |
| Diseases of the respiratory system               | 57         | 51         | 55         | 48         | 61         | 57         | 45         | 80         |
| Influenza and pneumonia                          | 16         | 13         | 16         | 14         | 25         | 11         | 12         | 17         |
| Chronic lower respiratory diseases               | 27         | 28         | 29         | 23         | 23         | 38         | 25         | 52         |
| Diseases of the digestive system                 | 22         | 20         | 22         | 22         | 22         | 18         | 21         | 43         |
| Accidents  | 24         | 24         | 29         | 24         | 25         | 34         | 18         | 38         |
| Transport accidents                              | 7          | 8          | 9          | 10         | 10         | 14         | 5          | 17         |
| Suicide <sup>g</sup>                             | 9          | 10         | 12         | 10         | 12         | 19         | 8          | 25         |
| <b>All causes</b>                                | <b>632</b> | <b>604</b> | <b>647</b> | <b>597</b> | <b>618</b> | <b>711</b> | <b>562</b> | <b>822</b> |

<sup>a</sup> Standardised death rate per 100,000 of the mid-year 2002 population. Rounded to whole numbers.

<sup>b</sup> Malignant neoplasms. <sup>c</sup> Cancer of the trachea, bronchus and lung. <sup>d</sup> Ischaemic heart disease and heart attacks. <sup>e</sup> Acute myocardial infarction. <sup>f</sup> Cerebrovascular diseases. <sup>g</sup> Intentional self-harm.

Source: ABS (2006b); table EA.14.

### *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 1999–2001. In particular, Indigenous people died from rheumatic heart disease at a rate that was up to 19.4 times that for non-Indigenous people. They died from diabetes at a rate that was up to 15.9 times higher than that for non-Indigenous people; from pneumonia at a rate that was up to 14.3 times that for non-Indigenous people; and

from assault at a rate that was up to 12.6 times that for non-Indigenous people (tables EA.15 and E.4).<sup>3</sup>

Table E.4 **Cause of death, age standardised Indigenous mortality ratios, 1999–2001<sup>a, b, c</sup>**

|                                   | <i>Qld</i> | <i>WA</i> | <i>SA</i> | <i>NT</i> |
|-----------------------------------|------------|-----------|-----------|-----------|
| Lung cancer                       | 2.7        | 1.1       | 2.0       | 1.7       |
| Diabetes <sup>d</sup>             | 13.2       | 15.9      | 12.2      | 9.2       |
| Circulatory diseases <sup>e</sup> | 4.1        | 5.4       | 4.7       | 5.0       |
| Coronary heart disease            | 4.3        | 4.9       | 4.9       | 4.0       |
| Rheumatic heart disease           | 19.4       | 10.4      | np        | np        |
| Respiratory diseases              | 4.8        | 5.8       | 7.8       | 6.2       |
| Pneumonia                         | 9.4        | 13.0      | 14.3      | 10.4      |
| Injury and poisoning <sup>f</sup> | 2.0        | 3.5       | 3.7       | 2.2       |
| Road vehicle accidents            | 1.1        | 3.5       | 3.6       | 1.6       |
| Other accidents                   | 1.9        | 3.9       | 6.0       | 1.7       |
| Self-harm                         | 3.9        | 3.2       | 4.3       | 3.1       |
| Assault                           | 5.4        | 12.6      | 5.0       | 10.3      |

<sup>a</sup> Age standardised mortality rate for Indigenous people divided by the age standardised mortality rate for non-Indigenous people. Calculated from death rates per 100 000 people aged less than 75 years.

<sup>b</sup> Indigenous deaths data reported in SIMC 2004 and quoted in this table do not reflect ABS revised Indigenous population estimates for 1999 and 2000, nor are they adjusted for differences in the extent of Indigenous identification across jurisdictions or across causes of death. <sup>c</sup> Excludes deaths for which Indigenous status was not stated. <sup>d</sup> Diabetes as an underlying cause or part of a multiple cause. <sup>e</sup> Includes all heart disease, acute myocardial infarction (heart attack) and cerebrovascular diseases (stroke). <sup>f</sup> External causes of death such as land and water transport accidents, falls, poisonings, drowning, other accidents, self-harm and assault. **np** Not published.

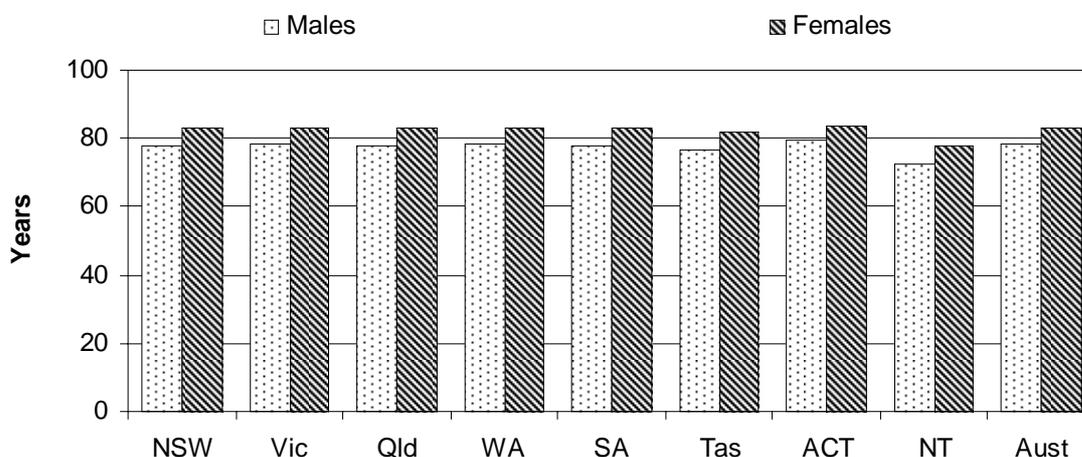
Source: SIMC (2004); table EA.15.

## Life expectancy

The life expectancy of Australians improved dramatically during the twentieth 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 2006a). It has risen steadily in each decade since, reaching 78.1 years for males and 83.0 years for females in 2002–2004 (figure E.11).

<sup>3</sup> Indigenous deaths data reported in SIMC 2004 and quoted in this Report do not reflect ABS revised Indigenous population estimates for 1999 and 2000, nor are they adjusted for differences in the extent of Indigenous identification across jurisdictions or across causes of death.

Figure E.11 **Average life expectancy at birth, by sex, three year average, 2002–2004**



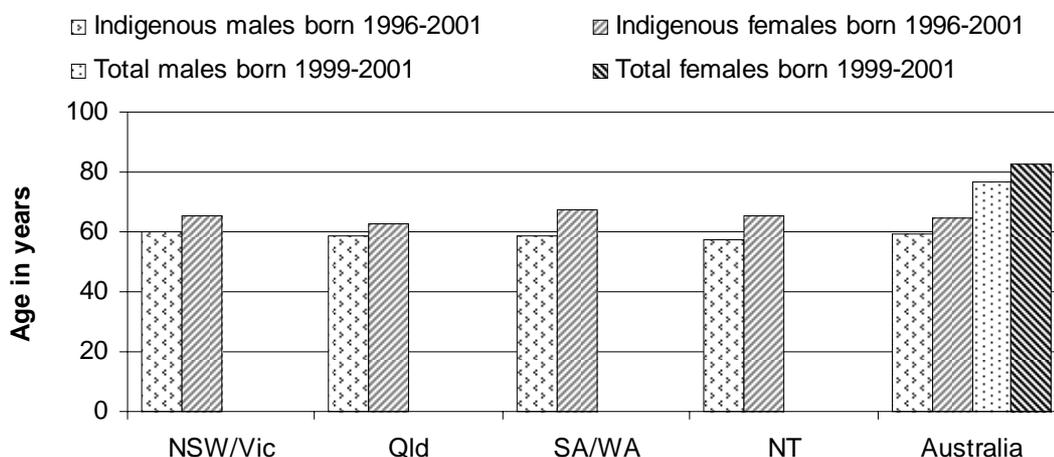
Source: ABS (2005); table EA.16.

### *Indigenous life expectancy*

The ABS noted 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 E.12 and table EA.17). In a similar, but not directly comparable time period (1999–2001) the rates for all Australians were 77.0 years for all males and 82.4 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.

Figure E.12 **Life expectancy at birth, Indigenous 1996–2001, total population 1999–2001<sup>a, b, c</sup>**



<sup>a</sup> Indigenous data are for the Australian Aboriginal and Torres Strait Islander population, and include an adjustment for undercoverage of Indigenous deaths. <sup>b</sup> Indigenous life expectancy excludes Tasmania and the ACT. For Tasmania and the ACT, use data for Victoria and NSW respectively. <sup>c</sup> Life expectancy data for Indigenous males and Indigenous females are for the period 1996–2001. Data for total males and females cover the period 1999–2001.

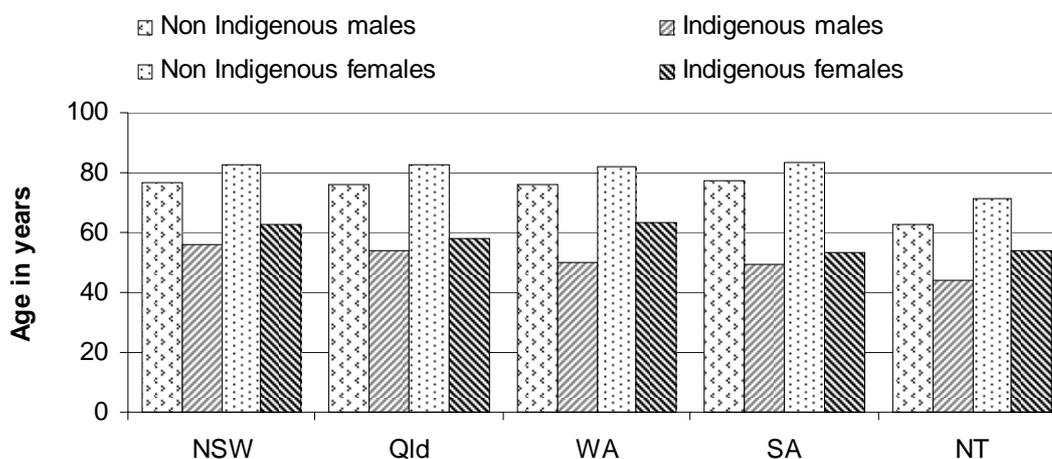
Source: ABS (2005); table EA.17.

## 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 2004, the median age at death was 76.8 years and 82.6 years respectively (figure E.13 and table EA.18). In the jurisdictions for which the data were available for Indigenous people in 2004 the median age at death for male Indigenous Australians varied between 55.8 and 43.8 years. The median age at death for female Indigenous Australians varied between 63.6 years and 53.5 years (figure E.13 and table EA.18).

Figure E.13 Median age at death, by sex and Indigenous status, 2004<sup>a</sup>



<sup>a</sup> 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 (2005); table EA.18.

### Birthweight of babies

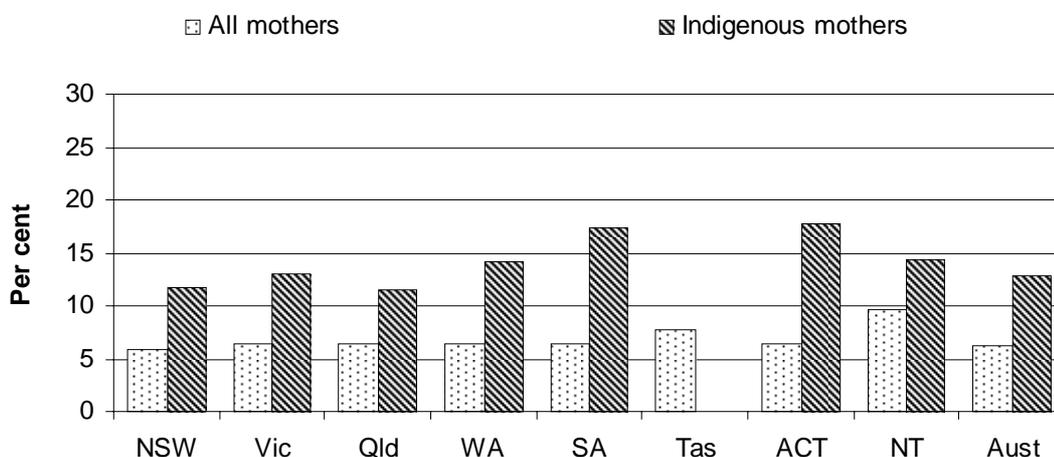
The birthweight of a baby is an important indicator of its health status and future wellbeing. In 2003, 91.8 per cent of liveborn babies in Australia weighed between 2500 and 4499 grams (Laws and Sullivan 2005). The average birthweight for all live births was 3372 grams. In 2003, the average birthweight of liveborn babies of Indigenous mothers was 3160 grams (tables EA.19 and EA.20). This was 212 grams lighter than the average of 3372 grams for liveborn babies of non-Indigenous mothers<sup>4</sup> (Laws and Sullivan 2005).

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 Sullivan 2005). In 2003, 6.3 per cent of all liveborn babies in Australia weighed less than 2500 grams (figure E.14). They included 1.1 per cent of babies who weighed less than 1500 grams (table EA.19).

Among live babies born to Indigenous mothers in 2003, the proportions with low and very low birthweights were around twice the proportions born to all Australian mothers, with 12.9 per cent weighing less than 2500 grams and 2.4 per cent weighing less than 1500 grams (figure E.14 and table EA.20).

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

Figure E.14 **Babies with birthweights under 2500 grams, by Indigenous status, 2003<sup>a, b, c</sup>**



<sup>a</sup> Proportion of live births with birthweights under 2500 grams. <sup>b</sup> In the ACT 15.2 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 for ACT Aboriginal or Torres Strait Islander residents was 8.6 per cent in 2003. <sup>c</sup> Data for Indigenous mothers for Tasmania were not available because the 'Not stated' category for Indigenous status was not able to be distinguished from the 'Neither Aboriginal nor Torres Strait Islander origin' category.

Source: Laws and Sullivan (2005); tables EA.19 and EA.20.

## Future directions

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

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.

The availability of hospital separations data for Indigenous people is significantly reduced in the 2007 Report compared to previous Reports. Analysis into the quality of Indigenous identification of hospital admitted patient statistics has shown that while the quality is good in some jurisdictions, in other jurisdictions it is poor (AIHW 2005b). Research studies conducted at various times since 1997-98 have shown substantial under identification (and incorrect identification) of Indigenous status in hospital data in several jurisdictions.

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The National Committees such as Australian Hospital Statistics Advisory Committee, the Statistical Information Management Group and the National Advisory Group on Aboriginal and Torres Strait Islander Health Information and Data have agreed and endorsed recommendations on the use of hospital data and strategies for improvement. Consequently, Indigenous hospital separations data are only available for Queensland, WA, SA and the NT. Data from NSW, Victoria, Tasmania and the ACT were considered to be of insufficient quality.

The AIHW is currently developing a methodology and sampling strategy (funded by AHMAC and Department of Health and Aging) that will allow each jurisdiction to carry out a validation process to get a more recent indication of the current level of under identification in their hospital data. At the end of this project, the jurisdiction will be in a better position to assess whether the situation has improved. The AIHW is also currently undertaking another project funded by the National Health and Medical Research Council, AHMAC and Department of Health and Aging to develop best practice guidelines for identification.

Although some jurisdictions have improved the quality of Indigenous hospital separations data, the lack of progress and ongoing evaluation of data quality in other jurisdictions is disappointing (the problem has been known for ten years). The Steering Committee supports the work of the AIHW to assist jurisdictions to assess the quality of their data, however, primary responsibility for improvement rests with jurisdictions and the Steering Committee strongly encourages all jurisdictions to address this issue as a matter of urgency.

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## Supporting tables

Supporting tables are identified in references throughout this preface by an 'A' suffix (for example, table EA.3 is table 3 in the electronic data tables). Supporting tables are provided on the CD-ROM enclosed with the Report. Supporting tables can be found on the Review web page ([www.pc.gov.au/gsp](http://www.pc.gov.au/gsp)). The files containing the supporting tables are provided in Microsoft Excel format as `\Publications\Reports\2007\Attach_stat_app.xls` and in Adobe PDF format as `\Publications\Reports\2007\Attach_stat_app.pdf`. Users without access to the CD-ROM or Internet can contact the Secretariat to obtain the supporting tables (see contact details on the inside front cover of the Report).

|                    |   |
|--------------------|---|
| <b>Table EA.1</b>  | Total health expenditure, by source of funds (2003-04 dollars)  |
| <b>Table EA.2</b>  | Government recurrent health expenditure, by area of expenditure (2003-04 dollars)   |
| <b>Table EA.3</b>  | Non-government recurrent health expenditure by area of expenditure (2003-04 dollars)                                      |
| <b>Table EA.4</b>  | Recurrent health expenditure, by source of funds and area of expenditure, 2004-05   |
| <b>Table EA.5</b>  | Total health expenditure per person (2002-03 dollars)   |
| <b>Table EA.6</b>  | Recurrent health expenditure per person by source of funds (2003-04 dollars)  |
| <b>Table EA.7</b>  | Recurrent health expenditure per person, by source of funds, excluding high level residential aged care (2003-04 dollars) |
| <b>Table EA.8</b>  | Total health price index  |
| <b>Table EA.9</b>  | Employed medical practitioners  |
| <b>Table EA.10</b> | Employed nurses   |
| <b>Table EA.11</b> | Mortality rates, age standardised for all causes (per 1000 people)  |
| <b>Table EA.12</b> | Infant mortality rate, three year average (per 1000 live births)  |
| <b>Table EA.13</b> | Indigenous Infant mortality rates, selected years   |
| <b>Table EA.14</b> | All Australians causes of death, standardised death rates 2004  |
| <b>Table EA.15</b> | Suicide deaths, by Indigenous status  |
| <b>Table EA.16</b> | All Australians average life expectancy at birth (years)  |
| <b>Table EA.17</b> | Indigenous life expectancy at birth (years)   |
| <b>Table EA.18</b> | Median age at death (years)   |
| <b>Table EA.19</b> | Birthweights, live births, all mothers, 2003  |
| <b>Table EA.20</b> | Birthweights of babies of Indigenous mothers, live births, by State and Territory 2003                                    |

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## 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.
- 2005, *Deaths 2004, Australia*, Cat. no. 3302.0, ABS, Canberra.
- 2006a, *Australian Historical Population Statistics*, Cat. no. 3105.0.65.001, ABS, Canberra.
- 2006b, *Causes of Death 2004, Australia*, Cat. no. 3303.0, ABS, Canberra.
- 2006c, *National Aboriginal and Torres Strait Islander Health Survey 2004-05, Australia*, Cat. no. 4715.0, ABS, Canberra.
- and AIHW (Australian Institute of Health and Welfare) 2005, *The Health and Welfare of Australia's Aboriginal and Torres Strait Islander Peoples, 2005*, ABS Cat. no. 4704.0, ABS, Canberra.
- and AIHW 2006, *Recent developments in the collection of Aboriginal and Torres Strait Islander health and welfare statistics 2005*, AIHW Cat. no. IHW 15, ABS Cat. No. 4704.0.55.001, Canberra.
- AHMAC (Australian Health Ministers' Advisory Council) 2006, *Aboriginal and Torres Strait Islander Health Performance Framework Report 2006*, AHMAC, Canberra.
- AIHW (Australian Institute of Health and Welfare) 2005a, *Expenditures on Health for Aboriginal and Torres Strait Islander Peoples 2001-02*, Cat. no. HWE 23, AIHW Australian Department of Health and Aged Care, AIHW, Canberra.
- 2005b, *Improving the Quality of Indigenous Identification in Hospital Separations Data*, Cat. no. HSE 101, AIHW Canberra.
- 2005c, *Medical labour force 2003*, Cat. no. HWL 32, National Health Labour Force Series no. 32, AIHW, Canberra.
- 2005d, *Nursing and midwifery labour force 2003*, Cat. no. HWL 31, National Health Labour Force Series no. 31, AIHW, Canberra.
- 2006a, *Health Expenditure Australia 2004-05*, Cat. no. HWE 35, Health and Welfare Expenditure Series no. 28, AIHW, Canberra.
- 2006b, *Australia's Health 2006*, Cat. no. AUS 73, AIHW, Canberra.
- DoHA (Department of Health and Ageing) 2006, *Health and Ageing Fact Book*, <http://www.health.gov.au/internet/wcms/publishing.nsf/Content/Factbook2006-1~factbook2006-ch2-introduction~chapter2-sect-15>, accessed 23 November 2006.

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Laws, P. and Sullivan, E. 2005, *Australia's Mothers and Babies 2003*, AIHW Cat. no. PER 29, National Perinatal Statistics Unit (Perinatal Statistics Series no. 16), AIHW, Sydney.

NHPC (National Health Performance Committee) 2001, *National Health Performance Framework Report*, Queensland Health, Brisbane.

SCRGSP (Steering Committee for the Review of Government Service Provision) 2005, *Overcoming Indigenous Disadvantage: Key Indicators 2005*, Productivity Commission, Canberra.

SIMC (Statistical Information Management Committee) 2004, *National Summary of the 2001 and 2002 Jurisdictional Reports against the Aboriginal and Torres Strait Islander Health Performance Indicators*, Cat. no. IHW 12, AIHW, Canberra.

