

PART E

---

# HEALTH



---

## E Health preface

Health care 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. More broadly defined, the health system includes a range of activities that raise awareness of health issues, thereby reducing the risk and onset of illness and injury (box E.1).

Health care services in Australia are delivered by a variety of government and non-government providers in a range of service settings. The Report primarily concentrates on the performance of public hospitals (see chapter 9), and primary and community health services (including general practice) (see chapter 10) because these services represent a significant component of government recurrent expenditure on health care. Australian governments expended \$27.2 billion (2000-01 dollars)<sup>1</sup> on public hospitals, medical services (including payments to general practitioners [GPs] and other specialist practitioners) and community and public health in 2001-02 — 65.4 per cent of government recurrent health expenditure (table EA.2). The Report also examines the interactions between different service mechanisms for dealing with two health management issues: mental health and breast cancer (see chapter 11). While there are no specific estimates of government expenditure for the detection and management of breast cancer, government expenditure on specialist mental health services was estimated to be \$2.9 billion in 2001-02. Some of this expenditure was on psychiatric care provided by public (non-psychiatric) hospitals.

Estimates of government expenditure on health care provision commonly include (by definition) high level residential aged care services. These services are not covered in the health chapters in this Report, but are reported separately in chapter 12 (on aged care services). Patient transport services are also included in estimates of government health expenditure. Ambulance services (defined as pre-hospital care, treatment and transport services) are reported in chapter 8 (on emergency management).

---

<sup>1</sup> In real dollars (2000-01). The published source data from the Australian Institute of Health and Welfare (AIHW) use this base year and the same base year is used here for consistency.

---

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

- government support for pharmaceuticals
- public health programs, other than those for breast cancer and mental health
- 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 (see chapters 3 and 4) and public housing (see 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 community at large. It is a priority of the Review to improve reporting on the performance of government provided health care services for Indigenous people and residents in non-metropolitan regions of 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 health outcomes. It also foreshadows future directions in reporting.

### *Supporting tables*

Supporting tables for the Health preface are provided on the CD-ROM enclosed with the Report. The files are provided in Microsoft Excel 97 format at \Publications\Reports\2004\AttachEA.xls or in Adobe PDF format at \Publications\Reports\2004\AttachEA.pdf.

Supporting tables are identified in references throughout this chapter by an 'A' suffix (for example, table EA.3 is table 3 in the electronic files). These files can be found on the Review web page ([www.pc.gov.au/gsp/2004/index.html](http://www.pc.gov.au/gsp/2004/index.html)). Users without Internet access can contact the Secretariat to obtain these tables (see details on the inside front cover of the Report).

---

### 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 section 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:** Australian Government funding of private medical and optometrical services (the Medicare Benefits Schedule [MBS]). Some people use the term to include other forms of Australian Government funding — for example, funding of selected pharmaceuticals (under the Pharmaceutical Benefits Scheme [PBS]) and public hospital funding (under the Australian Health Care Agreements [AHCAs]) — that is 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 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 as a whole or population 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. However, 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).

## Profile of health services

### Roles and responsibilities

The Australian Government's health services activities include:

- funding public hospital services, GPs, some specialist medical services, and public health programs

- 
- funding the PBS
  - funding high level residential aged care services
  - funding private health insurance rebates
  - funding Aboriginal Community Controlled Health Services (ACCHSs)
  - promulgating and coordinating health regulations
  - undertaking health policy research and policy coordination across the Australian, State and Territory governments.

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.

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 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 various components of the 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 and the private health insurance rebate) and funds a number of nationally coordinated public health

---

programs. It also provides funding to the States and Territories for public hospital services under the Australian Health Care Agreements (AHCAs).

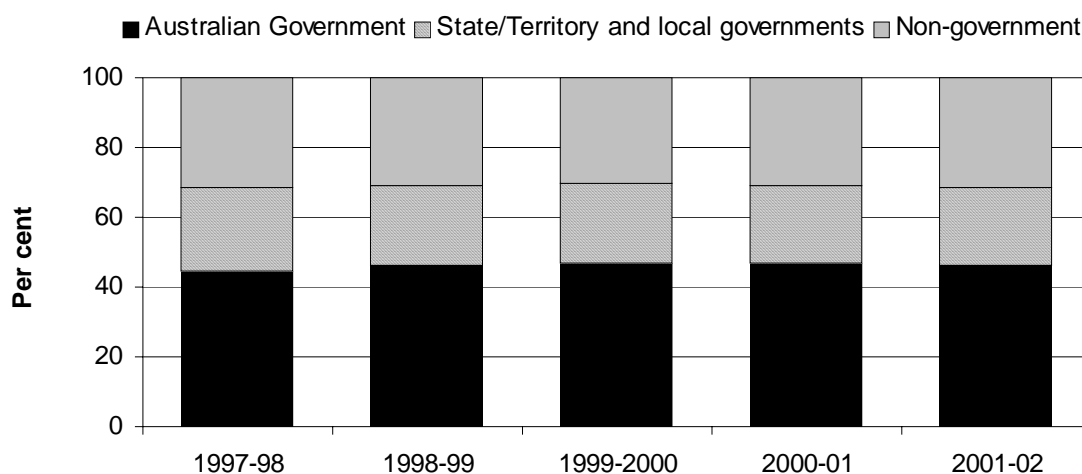
State and Territory governments, through income raised by taxes and from both general and specific purpose grants received from the Australian Government, contribute funds to community health services and public hospitals (through casemix and other payments), which in turn fund specialists (through limited 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.

Governments (at all levels) funded \$45.5 billion (68.4 per cent) of total health expenditure in 2001-02, with the remainder coming from individuals, health insurance funds, and workers compensation and compulsory motor vehicle third party insurance providers. The Australian Government accounts for the largest proportion of total health care expenditure in Australia — \$30.7 billion, or 46.1 per cent in 2001-02 (figure E.1). State, Territory and local governments contributed \$14.8 billion, or 22.3 per cent of total health care expenditure.

### **Size and scope of sector**

Total expenditure (recurrent and capital) on health care services in Australia was estimated to be \$66.6 billion in 2001-02. This total was equivalent to 9.3 per cent of gross domestic product, up from 8.1 per cent in 1991-92 (AIHW 2003). This implies that health care expenditure grew faster than the economy over the past decade.

Figure E.1 Total health expenditure by source<sup>a, b, c, d, e</sup>



<sup>a</sup> Includes recurrent and capital expenditure. <sup>b</sup> Includes expenditure on high level residential aged care, which is reported in chapter 12 (on aged care services). <sup>c</sup> Expenditure by the Australian Government and non-government sources has been adjusted for tax expenditures in respect of private health incentives claimed through the taxation system. <sup>d</sup> 'Non-government' includes expenditure by individuals, health insurance funds, and workers compensation and compulsory motor vehicle third party insurers. <sup>e</sup> Expenditure for 2001-02 is based on preliminary estimates by the Australian Institute of Health and Welfare (AIHW) and the Australian Bureau of Statistics (ABS).

Source: AIHW (2003); table EA.1.

The growth of total health expenditure over the past decade was partly the result of an increase in expenditure by the Australian Government, which grew proportionally faster than expenditure by State and Territory governments and non-government sources. Between 1991-92 and 2001-02, the real average annual rate of growth in expenditure was 5.9 per cent for the Australian Government, 4.2 per cent for State, Territory and local governments, and 3.2 per cent for non-government sources (AIHW 2003). The introduction of programs supporting private health insurance was a significant factor in the increase in expenditure by the Australian Government in the latter part of the decade.

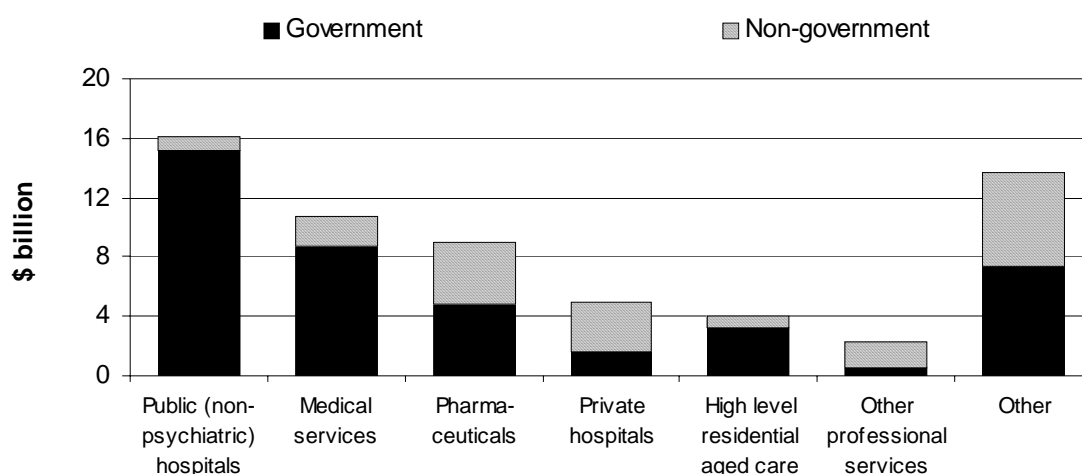
On 1 January 1998, the Australian Government replaced the Private Health Insurance Incentive Scheme with a 30 per cent rebate on private health insurance premiums. Total expenditure on the rebate was \$1.6 billion for 1999-2000, \$1.9 billion for 2000-01 and \$2.0 billion for 2001-02 (AIHW 2003).

Public (non-psychiatric) hospitals were the single largest item of recurrent health care expenditure by government and non-government sources in 2001-02. Total expenditure on these services was \$16.2 billion, of which governments contributed



\$15.2 billion (2000-01 dollars)<sup>2</sup> (tables EA.2 and EA.3). Public (non-psychiatric) hospitals accounted for 36.6 per cent of government recurrent expenditure on health care services in 2001-02. Medical services accounted for \$8.7 billion of government expenditure (21.0 per cent) and pharmaceuticals accounted for \$4.8 billion (11.6 per cent) (figure E.2). More information on health expenditure by area of expenditure and source of funds is included in table EA.14.

Figure E.2 **Total health services recurrent expenditure, 2001-02 (2000-01 dollars)<sup>a, b, c, d</sup>**



<sup>a</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 outpatient medical services provided at public hospitals. <sup>b</sup> 'Pharmaceuticals' include (but are not limited to) those provided under the PBS. <sup>c</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 in residential aged care services. These services are commonly classified as health services expenditure, but are included in the Report in chapter 12 (on aged care services). <sup>d</sup> 'Other' includes community and public health services, dental services, funding for aids and appliances, administration, ambulance services (reported in chapter 8), research and public psychiatric hospitals.

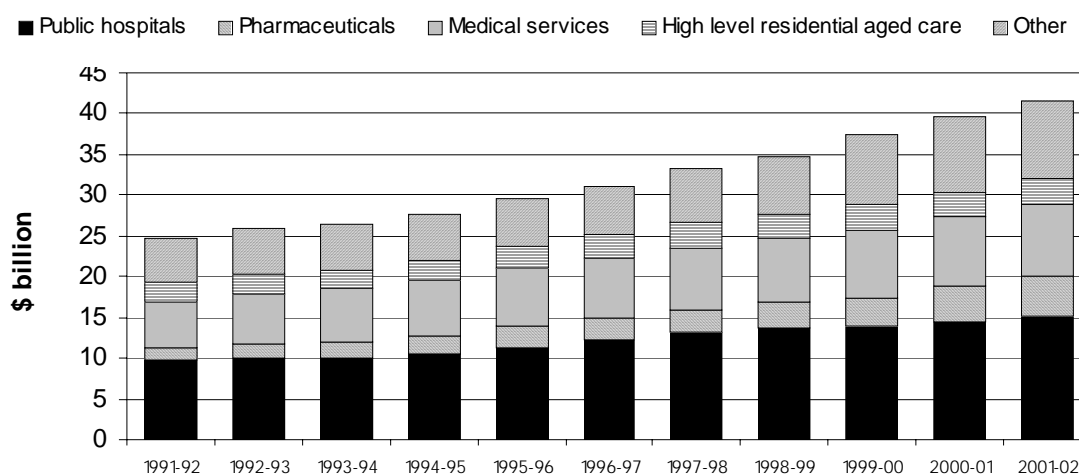
Source: AIHW (2003); tables EA.2 and EA.3.

The relative share of government recurrent health expenditure allocated to public hospitals has fallen since 1991-92, when it was 39.4 per cent. This decline reflects the more rapid growth over the decade of expenditure on private hospitals and pharmaceuticals (figure E.3). The real average annual growth rate of government recurrent expenditure on private hospitals was 25.7 per cent between 1991-92 and 2001-02, compared with 12.0 per cent for pharmaceuticals and 4.5 per cent for public hospitals (AIHW 2003). Several policy measures introduced to restrain growth in health expenditure over the decade include the restriction of Medicare

<sup>2</sup> In real dollars (2000-01). The published source data from the AIHW use this base year and the same base year is used here for consistency.

provider numbers, initiatives to encourage the use of generic pharmaceutical brands, and increases in co-payments for pharmaceuticals.

Figure E.3 **Government real recurrent health expenditure (2000-01 dollars)<sup>a, b, c, d, e</sup>**



<sup>a</sup> 'Pharmaceuticals' 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 outpatient medical services provided at public hospitals. <sup>c</sup> High level residential aged care is included by definition in health expenditure, but is reported along with other aged care services in chapter 12. <sup>d</sup> 'Other' 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.17).

Source: AIHW (2003); table EA.2.

The rapid growth of expenditure on pharmaceuticals and private hospitals means that their proportion of government health care expenditure rose over the period 1991-92 to 2001-02. Expenditure on pharmaceuticals increased from 6.3 per cent of government expenditure in 1991-92 to 11.6 per cent in 2001-02, while expenditure on private hospitals increased from 0.7 per cent to 3.9 per cent over this period (table EA.2).

## Health expenditure per person

Health expenditure in each State and Territory is affected by different policy initiatives and differences in socioeconomic and demographic characteristics. Total health expenditure (recurrent and capital) per person in 2001-02 was \$3397, rising by 25.4 per cent in nominal terms in the two years since 1999-2000 (when it was \$2710). In 2001-02, it was highest in the NT (\$3733) and lowest in NSW (\$3316) (table EA.13).

---

The most recent data for recurrent expenditure by State and Territory are for 2000-01. Recurrent expenditure on health care services rose from \$2834 per person in 1999-2000 to \$2973 per person in 2000-01 (2000-01 dollars) (table EA.11).<sup>3</sup> Recurrent spending per person in 2000-01 was highest in the NT (\$3306) and lowest in Queensland (\$2848).

Government recurrent spending rose from \$1974 per person in 1999-2000 to \$2058 in 2000-01 (2000-01 dollars) (table EA.11).<sup>4</sup> In 2000-01 it was highest in the NT (\$2636 per person) and lowest in the ACT (\$1974 per person) (figure E.4). Non-government recurrent spending per person rose from \$860 per person in 1999-2000 to \$915 in 2000-01 (2000-01 dollars).<sup>5</sup> In 2000-01 it was highest in Victoria (\$1056 per person) and lowest in the NT (\$670 per person) in 2000-01 (figure E.4).

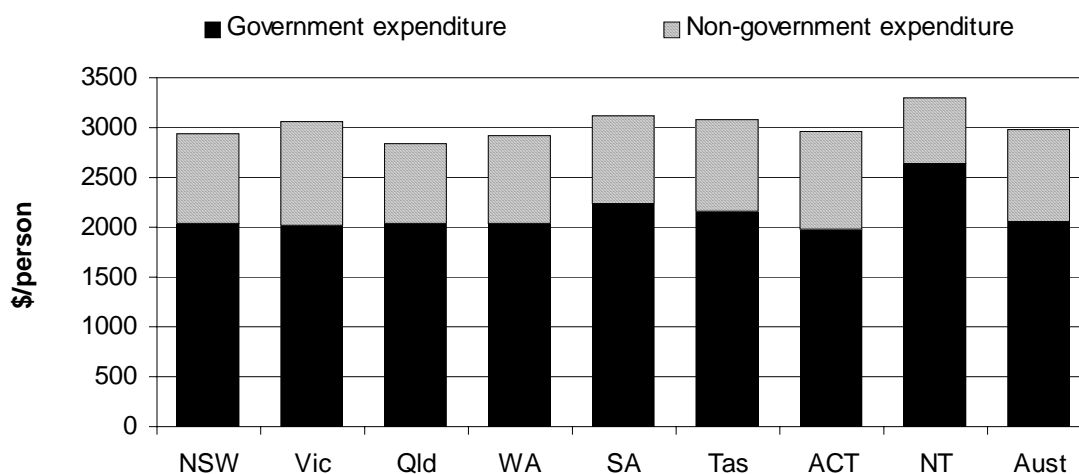
---

<sup>3</sup> For the purposes of separating health expenditure from spending on aged care (covered in chapter 12), recurrent spending per person on health care services can also be calculated excluding expenditure on high level residential aged care. If spending on high level residential aged care is removed, then total recurrent expenditure on health care services rose from \$2613 per person in 1999-2000 to \$2771 per person in 2000-01 (2000-01 dollars) (table EA.12). In 2000-01, it was highest in the NT (\$3248) and lowest in Queensland (\$2646).

<sup>4</sup> If spending on high level residential aged care is removed, then government recurrent expenditure on health care services rose from \$1802 per person in 1999-2000 to \$1894 per person in 2000-01 (2000-01 dollars) (table EA.12). In 2000-01, it ranged from \$2589 in the NT to \$1859 in Victoria.

<sup>5</sup> If spending on high level residential aged care is removed, then non-government recurrent expenditure on health care services increased from \$811 per person in 1999-2000 to \$877 per person in 2000-01 (in 2000-01 dollars) (table EA.12). In 2000-01, it ranged from \$1020 per person in Victoria to \$659 per person in the NT.

Figure E.4 Total recurrent expenditure per person, 2000-01<sup>a, b</sup>



<sup>a</sup> Includes expenditure on high level residential aged care. <sup>b</sup> Government expenditure includes expenditure for Australian, State, Territory and local governments.

Source: AIHW (2003); table EA.11.

## Overview of Indigenous health

The Steering Committee has placed a high priority on reporting on services to Indigenous people. Accordingly, 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 in the interpretation of these data and provide a broader understanding of Indigenous health.

Indigenous people are more likely to experience disability and reduced quality of life due to ill health, and to die at younger ages than other Australians do (NHIMG 2003). These patterns are reflected in the data on mortality, life expectancy and low birthweight babies (later in this preface); hospitalisation for diabetes, assault and infectious pneumonia (see chapter 9); and suicide (see chapter 11). Other publications, such as *The Health and Welfare of Australia's Aboriginal and Torres Strait Islander Peoples* (ABS/AIHW 2003), include more comprehensive data on the health status of Indigenous people.

Mortality rates for Indigenous Australians are also higher than those for Indigenous people in New Zealand and the United States (Ring and Firman 2000). In recent decades the mortality rates for Indigenous populations in these countries have declined to levels well below the rates for Indigenous Australians.

---

Many interrelated factors contribute to the health status of Indigenous people being generally poorer than other Australians, including:

- relatively low education, employment and income levels
- relatively high rates for risk factors such as obesity, smoking, harmful alcohol use and violence
- geographic, language, cultural and financial barriers to accessing health services, particularly primary health services
- inadequate housing, water supply, sewerage and other health related infrastructure.

The determinants of health for Indigenous people also vary across regions and between urban, rural and remote areas (ABS/AIHW 2003). The extent to which differences between jurisdictions in reported health outcomes can be attributed to the performance of government provided health services alone is limited due to the complexity of determinants of health and the data quality problems discussed below. The Steering Committee publication *Overcoming Indigenous Disadvantage: Key Indicators 2003* (SCRGSP 2003), shows some of the multiple contributors (and their complex cross-links) to outcomes for Indigenous people.

### **Government policy and programs**

The majority of government expenditure on Indigenous health is through mainstream health programs (AIHW 2001). In addition, the Australian, State and Territory governments fund Indigenous specific health programs and undertake coordination and research activities. Following the transfer of responsibility from the Aboriginal and Torres Strait Islander Commission (ATSIC) in 1995, the Australian Government Department of Health and Ageing has adopted a leadership role in Indigenous health. Most Australian Government expenditure on Indigenous specific health programs is directed to ACCHSs. State and Territory governments fund a range of community and public health programs that specifically target Indigenous people. More information on these services is included in chapter 10 (on primary and community health).

Agreements on Aboriginal and Torres Strait Islander Health (framework agreements) have been established in each State and Territory to promote a partnership approach. Partners to these agreements are the Australian, State and Territory governments, ATSIC and the community sector. The agreements 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 data collection and evaluation.

At the national level, under the framework agreements, the National Aboriginal and Torres Strait Islander Health Council was established to provide 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 new framework builds on the 1989 National Aboriginal Health Strategy and outlines agreed principles and the following nine key result areas that all jurisdictions and the community controlled sector are committed to achieving cooperatively over the next 10 years:

- *community controlled primary health care*: building community capacity so individuals and communities can better address their own health needs
- *health system delivery framework*: focusing on improving the responsiveness of mainstream services to Indigenous health needs, and forging stronger partnerships between mainstream and Indigenous specific services
- *a competent health workforce*: aiming to improve the training, recruitment and retention of appropriately skilled health professionals in both mainstream and Indigenous specific services
- *emotional and social wellbeing*: focusing on mental health, suicide, family violence, substance misuse and male health
- *environmental health*: delivering safe housing, water, sewerage and waste disposal
- *wider strategies that impact on health*: requiring the involvement of portfolios outside the health sector, such as action in the areas of education, employment and transport
- *data, research and evidence*: improving information on health service effectiveness in meeting the needs of Indigenous Australians
- *resources and finance*: providing resources for Indigenous health commensurate with need, the cost of delivering services and community capacity to deliver health outcomes
- *accountability*: being accountable to communities and governments for the delivery and effectiveness of health services.

---

## Expenditure

The most recent estimates of health services expenditure for Indigenous people are for 1998-99 (AIHW 2001). Expenditure on primary care (including Medicare and the PBS) included in these estimates was based on survey data, with identification of Indigenous status acknowledged as being incomplete. The 2002 and 2003 Reports covered these estimates, so only key points are repeated here.

- Total recurrent expenditure on health services for Indigenous people was around \$1.2 billion in 1998-99.<sup>6</sup> This total was equivalent to \$3065 per Indigenous person, compared with \$2518 per non-Indigenous person — a ratio of 1.22:1 (table E.1). This ratio is low, considering the much lower health status of Indigenous Australians and the higher costs of service delivery in remote areas.
- Expenditure per person on Medicare and the PBS in 1998-99 was much lower for Indigenous people — around 39 per cent of that for non-Indigenous people (AIHW 2001) (table E.1).
- Indigenous Australians are using secondary/tertiary care at a higher rate than they are using primary health care.
- Public expenditure on the health of Indigenous people in 1998-99 appears to have been similar to that on the health of non-Indigenous people in low income groups (when their relative income position is taken into account) (AIHW 2001). Indigenous people, however, have generally lower health status than that of non-Indigenous people in low income groups.
- Indigenous people were much higher users of publicly provided health services in 1998-99, on average but used fewer privately provided services (such as doctors in private practice). Governments funded 90.8 per cent of Indigenous recurrent health costs, compared with 67.5 per cent of the recurrent health care costs of non-Indigenous Australians (table E.1).
- Expenditure on Indigenous people in public hospitals in 1998-99 was twice as much per person as expenditure for non-Indigenous people. In community and public health services it was more than five times as much per person, (table E.2).

In light of the key role that preventative and primary health services play in maintaining health, the apparent low rate of expenditure on these services for Indigenous people is perhaps the most important message from the expenditure data.

---

<sup>6</sup> The Report examines recurrent expenditure only. Capital costs are not included in expenditure estimates.

**Table E.1 Estimated recurrent expenditure per person, by source of funds and Indigenous status, 1998-99<sup>a</sup>**

Source of funds	Indigenous		Non-Indigenous		Indigenous/ non-Indigenous
	\$/person	%	\$/person	%	ratio
State government funding of State government programs	1 376	44.9	484	19.2	2.84
Australian Government funding	1 393	45.5	1 206	47.9	1.15
Indigenous specific	298	9.7	1	–	..
Medicare/PBS	196	6.4	506	20.1	0.39
Other Australian Government programs	163	5.3	366	14.5	0.45
Payments to States	735	24.0	334	13.2	2.20
Local government funding	15	0.5	9	0.4	1.67
<b>Total government</b>	<b>2 783</b>	<b>90.8</b>	<b>1 700</b>	<b>67.5</b>	<b>1.64</b>
<b>Total private<sup>b</sup></b>	<b>281</b>	<b>9.2</b>	<b>819</b>	<b>32.5</b>	<b>0.34</b>
<b>Total health expenditure</b>	<b>3 065</b>	<b>100.0</b>	<b>2 518</b>	<b>100.0</b>	<b>1.22</b>

<sup>a</sup> Totals may not add as a result of rounding. <sup>b</sup> Private funding includes funding from out-of-pocket payments by patients, health insurance funding and other funding sources such as workers compensation. – Nil or rounded to zero. .. Not applicable.

Source: AIHW (2001).



Table E.2 **Estimated recurrent expenditure per person, by program and Indigenous status, 1998-99<sup>a</sup>**

	<i>Indigenous \$/person</i>	<i>Non-Indigenous \$/person</i>	<i>Indigenous/ non-Indigenous ratio</i>
<b>Expenditure through Australian, State and Territory government programs</b>			
Acute care institutions			
Admitted patient services	1 125	558	2.02
Non-admitted patient services	307	139	2.21
Mental health institutions	64	25	2.53
<i>Public hospitals</i>	1 496	722	2.07
High care residential aged care	99	209	0.47
Community and public health	874	170	5.14
Patient transport	106	31	3.39
Medicare and other medical <sup>b</sup>	179	468	0.38
PBS medicines <sup>c</sup>	61	195	0.31
Administration and research	101	72	1.40
<b>Total government program expenditure</b>	<b>2 917</b>	<b>1 868</b>	<b>1.56</b>
<b>Expenditures on private sector services</b>			
Private hospitals	25	222	0.11
Dental and other professional	42	213	0.20
Non-PBS medicines and appliances	66	144	0.46
Medical (compensable etc)	11	37	0.30
Administration	5	34	0.14
<b>Total private sector services expenditure</b>	<b>148</b>	<b>650</b>	<b>0.23</b>
<b>Total health expenditure</b>	<b>3 065</b>	<b>2 518</b>	<b>1.22</b>

<sup>a</sup> Totals may not add as a result of rounding. <sup>b</sup> Includes Medicare optometrical and dental as well as medical services, and includes MBS payments through patient co-payments, and through the Department of Veterans' Affairs. <sup>c</sup> Includes PBS payments through patient co-payments and through the Department of Veterans' Affairs.

Source: AIHW (2001).

## 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 some recent improvements, however, limited data are available on Indigenous health and there are significant quality issues with most of the data that are available.

Some of the following problems are associated with Indigenous health data (ABS/AIHW 2003):

- 
- Estimates of the Indigenous population are affected by variations in the propensity of people to identify as Indigenous and by incomplete identification of Indigenous status in the births and deaths data used in estimating population changes between Census years.
  - Indigenous people are not always accurately or consistently identified in administrative collections (such as hospital records, and birth and death registrations) due to variations in definitions, different data collection methods and failure to record Indigenous status.
  - Various health related surveys include an Indigenous identifier but do not necessarily provide reliable data on Indigenous people due to their sample size or survey design (although considerable improvement has been made in this area in recent years).

In some cases, agencies such as the Australian Bureau of Statistics (ABS) or the AIHW have identified jurisdictions with acceptable data quality for particular collections. These judgments have informed the presentation of Indigenous health data in this Report.

## **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 this objective.

---

**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 the 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.

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 delivered (such as prevention and medical intervention) and of service providers (such as community health centres, GPs and public hospitals), as well as 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 (hospital based versus community-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.

The Steering Committee has not sought to develop a single unifying performance indicator framework that captures all these aspects of the health system. Instead, it has taken a two pronged approach: first, 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.

---

Individual performance indicator frameworks are discussed in more detail in chapters 9, 10 and 11.

### **The National Health Performance Committee framework for measuring the performance of the health system**

As discussed in the 2002 and 2003 Reports the National Health Performance Committee has developed the National Health Performance Framework (NHPF). A number of other groups involved in health performance indicator development have adopted this framework, adapting it for use within specific project areas. These groups include the National Health Priority Performance Advisory Group, the National Public Health Partnership, the Australian Council for Safety and Quality in Health Care, the National Mental Health Working Group and the Australian Council on Healthcare Standards.

This year the Steering Committee has aligned the new general Review framework with the NHPF. This alignment means that the performance indicator frameworks used in the health chapters are as similar as possible to the NHPF, within the constraints of having to reflect the Review's aims and terms of reference.

### **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 ethnicity, 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. Data on health outcomes presented in this Report include self-assessed health status, mortality rates (for infants and all people), leading causes of death, life expectancy and the birthweight of babies. As discussed elsewhere, reporting data for Indigenous people is a priority for the Review. Where possible, data are presented for Indigenous people as well as the Australian population as a whole.

The efforts of governments to address health care needs are influenced by factors external to their control, including geographic dispersion, age profiles, racial characteristics and socioeconomic status. Appendix A summarises some factors that could influence health outcomes and government expenditure. It is important to remember the limits of the data presented, due to the effects of other non-health related factors.

---

## Self-assessed health status

The 2001 National Health Survey conducted by the ABS provides information on people's perceptions of their health status. While self-assessed health status may not always align closely with clinical assessments, it is a health outcome. Around half of all Australians aged 18 years or over assessed their health as being excellent or very good in 2001, with the proportion being highest in the ACT (54.2 per cent) and lowest in SA (47.7) (table E.3). The proportion of people with self-assessed health status of excellent or very good declined with age, so differences in age profiles across jurisdictions affected these results.

Table E.3 **Self-assessed health status, people age 18 years or over, 2001**

	<i>NSW</i>	<i>Vic</i>	<i>Qld</i>	<i>WA</i>	<i>SA</i>	<i>Tas</i>	<i>ACT</i>	<i>NT</i>	<i>Aust</i>
Excellent/very good	51.1	50.6	48.8	51.3	47.7	48.6	54.2	np	50.3
Good	29.9	31.4	32.5	31.7	30.8	28.1	29.9	np	30.9
Fair/poor	19.0	18.0	18.7	17.0	21.4	23.2	15.9	np	18.7

np Not published.

Source: ABS (2002a).

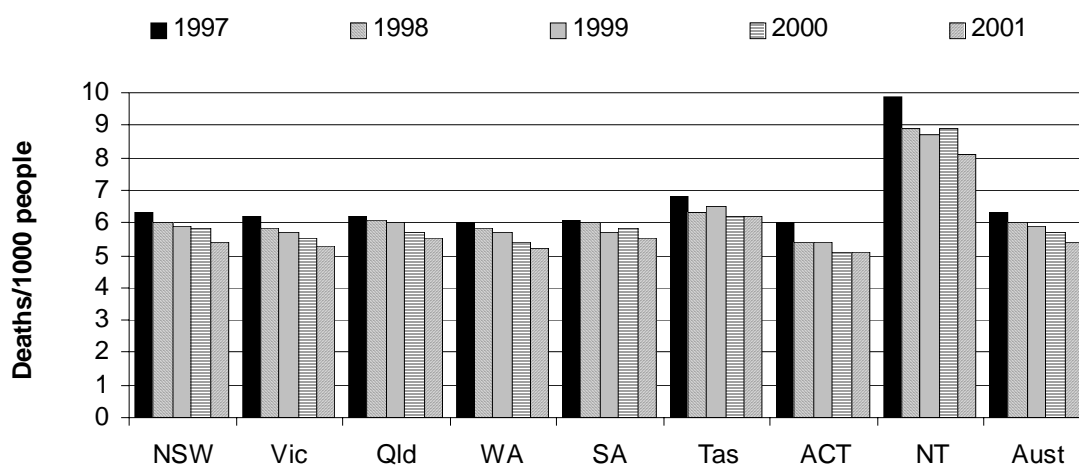
For people aged 15 years or over, the proportion who assessed their health as excellent or very good was 51.7 per cent, lower than the proportion in 1995 (55.0 per cent) (table EA.4).

## 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 decades in the future. Factors external to the health system also influence mortality rates.

There were 128 544 deaths in Australia in 2001 (ABS 2002b), which translated into an age standardised mortality rate of 5.4 per 1000 people (figure E.5). Across jurisdictions, the rates were highest in the NT (8.1 per 1000) and lowest in the ACT (5.1 per 1000).

Figure E.5 Mortality rates, age standardised<sup>a</sup>



<sup>a</sup> Calculated using direct methods of age standardisation.

Source: ABS (2002b); table EA.5.

Data on Indigenous mortality are collected through State and Territory death registrations. Although these data collections have good data for the total Australian population, the accuracy of the identification of Indigenous Australians varies significantly across States and Territories. The term ‘coverage’ refers to the number of Indigenous deaths registered as a percentage of the number of deaths expected based on Census population data. The NT, SA, WA and, more recently, Queensland are generally considered to have the best coverage of death registrations for Indigenous people. In 2001, the estimated coverage ranged from 85 per cent in the NT to 22 per cent in Tasmania, with 55 per cent coverage Australia-wide (based on 1996 low series population projections).

Limitations to identification in the Census and births data also affect the reliability of Indigenous mortality data. The number of Indigenous deaths (or births) can be underestimated; by extension, the mortality (or birth) rate of Indigenous people can also be underestimated (ABS 2002b). The ABS now makes available Indigenous mortality data for all jurisdictions except Tasmania and the ACT. Due to the relatively small number of Indigenous deaths and the consequent volatility in annual mortality rates, the data in table E.4 are presented for a three year period. To improve comparability, indirect age standardisation methods have been used for both the Indigenous and total population rates. With above caveats concerning coverage in mind, the mortality rate for Indigenous people in 1999–2001 was more than twice that for all people in all jurisdictions for which data are available (table E.4).

Table E.4 **Mortality per 1000 people, age standardised for all causes, 1999–2001<sup>a</sup>**

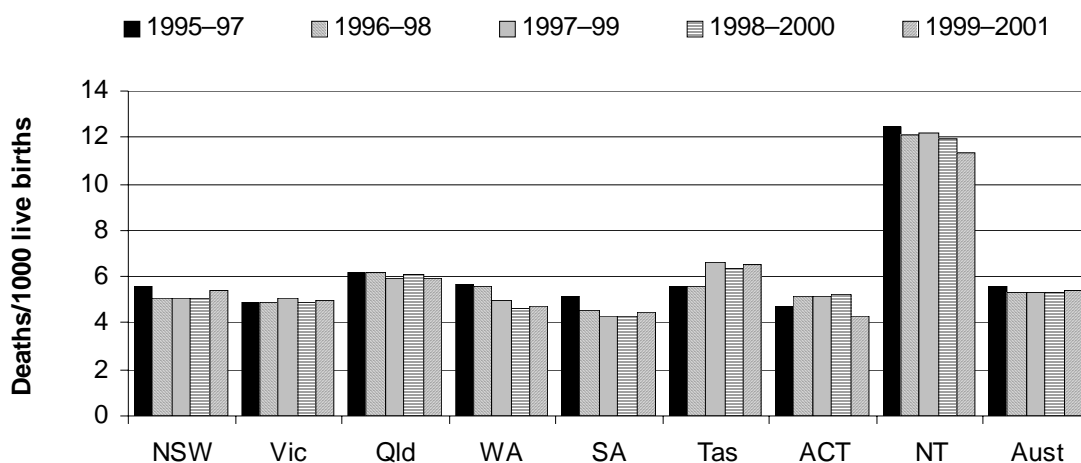
	NSW	Vic	Qld	WA	SA	Tas	ACT	NT	Aust <sup>b</sup>
Total population	6.8	6.7	6.9	6.6	6.8	na	na	11.9	6.8
Indigenous <sup>c, d, e</sup>	14.4	14.9	17.2	21.6	19.5	na	na	27.4	18.5

<sup>a</sup> Calculated using indirect methods of age standardisation. <sup>b</sup> Based on NSW, Victoria, Queensland, WA, SA and the NT. <sup>c</sup> Uses age specific death rates for the total population as the standard and the low series of the projected Indigenous populations. <sup>d</sup> Based on registered deaths with no adjustment for undercoverage of Indigenous death registrations. <sup>e</sup> The accuracy of Indigenous mortality data is variable. ABS assessments indicate that the coverage of death registrations for Indigenous people in Queensland, WA, SA and the NT is higher than that for other jurisdictions. Estimated coverage of Indigenous deaths based on the ABS 1996 Census (per cent): NSW 45, Victoria 41, Queensland 56, WA 62, SA 59, Tasmania 22 and the NT 85. **na** Not available.

Source: ABS (unpublished).

The infant mortality rates shown in figure E.6 have been averaged over three years to reduce the volatility inherent in the annual rates. Infant mortality rates<sup>7</sup> in Australia declined from 6.3 per 1000 live births in 1992–94 to 5.4 per 1000 live births in 1999–2001, although the rate has been relatively static in recent years (table EA.6). Infant mortality rates in 1999–2001 were highest in the NT (11.4 per 1000 live births) and lowest in the ACT (4.3 per 1000 live births) (figure E.6).

Figure E.6 **Infant mortality rate, three year average**



Source: ABS (2002b); table EA.6.

<sup>7</sup> The number of deaths of children under 1 year of age in a calendar year per 1000 live births in the same year.

---

Three year average infant mortality rates for Indigenous Australians are reported for NSW, Queensland, WA and the NT in this year's Report. The accuracy of Indigenous mortality data is variable due to varying rates of coverage across jurisdictions and over time, and to changes in the estimated Indigenous population caused by changing rates of identification in the Census and births data. In all jurisdictions for which data are reported, the Indigenous infant mortality rate was more than twice as high as the national average for all Australians in 1999–2001 (table EA.6).

### **Principal causes of death**

The main causes of death among Australians in 2001, when measured in terms of broad categories of disease and injury, were diseases of the circulatory system (heart diseases, including heart attacks, and strokes), neoplasms (tumours and cancers), diseases of the respiratory system (such as chronic obstructive pulmonary disease) and external causes (including accidents and suicide). These accounted for 83.6 per cent of all deaths among males and 80.0 per cent of all deaths among females (table EA.7).

Table E.5 summarises the most significant individual causes of mortality among Australian males and females. Ischaemic heart disease, acute myocardial infarction and stroke were the most common causes for both males and females in 2001. In the NT, the proportion of deaths for males due to suicide (7.1 per cent) and for females due to diabetes (9.0 per cent) were high relative to the national proportions (2.9 per cent and 2.3 per cent respectively). While high proportions of diabetes and suicide deaths affect the entire NT population, the burden is especially borne by Indigenous people. A combination of demographic, social, economic, environmental and health system related factors affect the prevalence of diabetes and suicide deaths in the NT.



**Table E.5 Principal causes of deaths, 2001 (per cent)**

	<i>NSW</i>	<i>Vic</i>	<i>Qld</i>	<i>WA</i>	<i>SA</i>	<i>Tas</i>	<i>ACT</i>	<i>NT</i>	<i>Aust</i>
<i>Male</i>									
Heart disease <sup>a</sup>	20.5	20.3	22.3	19.6	22.5	20.3	18.2	16.9	20.8
Acute myocardial infarction <sup>c</sup>	10.8	10.7	12.2	10.6	12.9	11.0	10.6	8.9	11.2
Stroke <sup>b</sup>	7.8	7.2	7.3	6.4	6.7	7.3	5.6	3.3	7.3
Lung cancer <sup>d</sup>	7.0	7.0	7.0	7.2	6.4	7.0	6.2	4.7	6.9
Prostate cancer	4.1	4.3	4.2	3.3	4.4	4.1	3.7	1.5	4.1
Suicide	2.6	2.5	3.3	3.7	2.8	2.6	4.7	7.1	2.9
Diabetes mellitus	2.0	3.0	2.2	3.0	2.3	2.6	2.6	3.1	2.5
<i>Female</i>									
Heart disease <sup>a</sup>	20.3	18.7	21.8	18.8	20.6	19.6	18.0	13.7	20.0
Stroke <sup>b</sup>	12.6	11.2	12.2	10.4	12.0	11.5	11.3	4.7	11.8
Acute myocardial infarction <sup>c</sup>	11.1	10.4	12.4	11.2	12.8	11.0	10.0	6.8	11.3
Breast cancer	4.1	4.1	4.5	4.6	4.0	3.6	5.2	2.2	4.2
Lung cancer <sup>d</sup>	3.8	4.1	3.8	4.0	3.7	4.2	2.9	4.7	3.9
Cancer of genital organs	2.4	2.7	2.2	2.7	2.5	1.3	2.9	1.9	2.4
Diabetes mellitus	1.7	3.0	2.2	2.7	2.1	3.0	2.5	9.0	2.3

<sup>a</sup> Ischaemic heart disease. <sup>b</sup> Cerebrovascular disease. <sup>c</sup> Heart attack. <sup>d</sup> Cancer of the trachea, bronchus and lung.

Source: ABS (2002b); table EA.7.

The leading causes of death for Indigenous people in 2001 are presented in table E.6 (and the equivalent results for all Australians are in table EA.7). External causes<sup>8</sup> of death made up a higher proportion of deaths for Indigenous people (20.0 per cent for males and 11.7 per cent for females) than for all Australians (8.1 per cent for males and 3.9 per cent for females). Similarly, diabetes mellitus contributed to 5.3 per cent (males) and 9.9 per cent (females) of Indigenous deaths compared to 2.5 per cent (males) and 2.3 per cent (females) of total deaths (table E.6). Malignant neoplasms (cancers) accounted for a smaller proportion of Indigenous deaths (13.4 per cent for males and 19.6 per cent for females) than for all Australians (31.1 per cent for males and 25.9 per cent for females) (tables EA.7 and EA.8). Some of the difference in the proportions of deaths for particular causes is due to differences in the age profiles of the Indigenous and total Australian populations.

<sup>8</sup> 'External causes' includes transport accidents, suicide, assault and all other external causes of mortality.

**Table E.6 Principal causes of deaths for Indigenous people, 2001 (per cent)<sup>a, b</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>	<i>Aust</i>
<b>Male</b>									
External causes <sup>c</sup>	15.9	24.1	20.2	20.5	31.1	na	na	20.1	20.0
Suicide	4.7	na	10.4	na	6.8	na	na	na	6.8
Transport accidents	3.6	na	na	6.2	na	na	na	5.4	4.8
Assault	1.8	na	na	na	na	na	na	2.7	2.1
Heart disease <sup>d</sup>	26.8	24.1	20.9	14.3	13.5	na	na	13.9	19.5
Diabetes mellitus	3.3	na	5.5	7.1	6.8	na	na	5.4	5.3
<b>Female</b>									
External causes <sup>c</sup>	10.2	12.8	9.6	11.9	9.9	na	na	15.3	11.7
Suicide	2.4	na	3.3	na	3.7	na	na	na	2.6
Transport accidents	2.0	na	na	4.8	na	na	na	5.9	2.7
Assault	1.5	na	na	na	na	na	na	5.9	2.5
Heart disease <sup>d</sup>	21.5	15.4	14.6	8.7	9.9	na	na	10.0	14.7
Diabetes mellitus	4.4	na	9.6	16.7	6.2	na	na	14.1	9.9

<sup>a</sup> The accuracy of Indigenous mortality data is variable. ABS assessments indicate that the coverage of death registrations for Indigenous people in Queensland, WA, SA and the NT is higher than that for other jurisdictions. Estimated coverage of Indigenous deaths based on the 1996 Census (per cent): NSW 45, Victoria 41, Queensland 56, WA 62, SA 59, Tasmania 22 and the NT 85. <sup>b</sup> Numbers of Indigenous deaths from some causes in some jurisdictions are very small and a small change in the number of deaths for one cause may result in a large change in percentage terms. <sup>c</sup> Includes transport accidents, intentional self-harm, assault and all other external causes of mortality. <sup>d</sup> Ischaemic heart disease. **na** Not available.

Source: ABS (2002c); table EA.8.

## Life expectancy

The life expectancy of Australians has improved dramatically since Federation. The average life expectancy at birth in the period 1901–10 was 55.2 years for males and 58.8 years for females. It then rose steadily until it reached 77.0 years for males and 82.4 for females in 1999–2001 (table EA.9).

Life expectancy at birth varies across jurisdictions. Average life expectancy for males at birth was 78.5 years in the ACT in 1999–2001, compared with 70.8 years in the NT (table E.7). The average for females was 82–83 years in all States except Tasmania and the NT (81.2 years and 76.5 years respectively). The lower life expectancy in the NT reflects the large Indigenous proportion of the NT population (compared with other jurisdictions) and the shorter life expectancy of Indigenous people generally (table EA.9).

**Table E.7 Average life expectancy at birth (years)**

	<i>NSW</i>	<i>Vic</i>	<i>Qld</i>	<i>WA</i>	<i>SA</i>	<i>Tas</i>	<i>ACT</i>	<i>NT</i>	<i>Aust</i>
<i>Males</i>									
1995–97	75.4	75.8	75.4	75.7	75.7	74.8	77.1	70.0	75.6
1996–98	75.8	76.3	75.6	76.1	76.0	75.1	77.5	70.6	75.9
1997–99	76.1	76.7	76.0	76.4	76.4	75.4	77.9	70.6	76.2
1998–2000	76.4	77.1	76.4	76.9	76.6	75.7	78.3	70.3	76.6
1999–2001	76.9	77.5	76.9	77.3	77.0	76.0	78.5	70.8	77.0
<i>Females</i>									
1995–97	81.2	81.4	81.3	81.6	81.5	80.1	81.3	74.7	81.3
1996–98	81.6	81.7	81.5	81.9	81.6	80.4	81.6	75.0	81.5
1997–99	81.7	82.0	81.7	82.1	82.1	80.7	81.8	75.1	81.8
1998–2000	81.9	82.3	81.9	82.6	82.3	81.2	82.3	75.2	82.0
1999–2001	82.4	82.7	82.3	82.5	82.8	81.2	82.9	76.5	82.4

Source: ABS (2002b); table EA.9.

Indigenous Australians had considerably lower life expectancies than those of non-Indigenous Australians for all years reported. The ABS has published experimental estimates of life expectancy for Indigenous Australians for a number of years. Based on estimates for 1999–2001, the life expectancies at birth of Indigenous Australians were 56.3 years for males and 62.8 years for females. Indigenous life expectancies are 20.7 years less for males and 19.6 years less for females than the average life expectancies for all Australians (table EA.9). Care needs to be taken when interpreting these figures because they are only estimates and are affected by underreporting of Indigenous deaths.

The method of calculating Indigenous life expectancy estimates has been updated; new estimates are available from the ABS but were not released in time for inclusion in this Report. In updating the estimates of both Indigenous life expectancy and the coverage of Indigenous deaths registrations, the ABS has accounted for the 2001 Census based population estimates and registered deaths since 1996.

The median age at death is an alternative measure of longevity. This measure is less affected by underreporting of Indigenous deaths, although comparisons of the median age at death for Indigenous and non-Indigenous people are affected by the different age structures of these populations. In 2001, the median age at death was 75.5 years for males and 81.8 years for females for all Australians, and 52.0 years for males and 57.6 years for females for Indigenous Australians (table EA.10). The median age at death for male Indigenous Australians was highest in NSW (56.3 years) and lowest in the NT (45.1 years). For female Indigenous Australians it

---

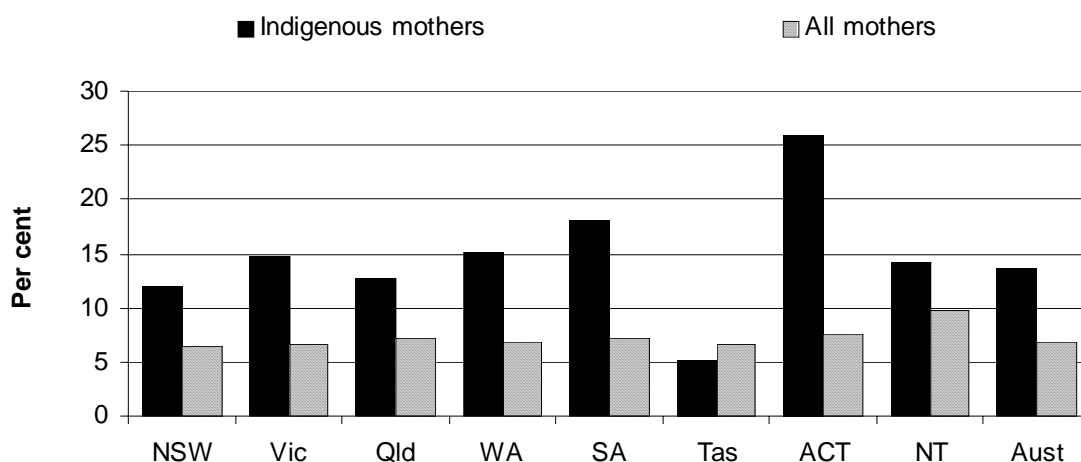
was highest in Victoria (63.8 years) and lowest in the NT (52.8 years) (table EA.10).

### **Birthweight of babies**

The birthweights of babies born to all mothers and to Indigenous mothers are included as part of the Steering Committee's focus on improving reporting on the Indigenous population. It is an important indicator of the health and life expectancy of Indigenous people compared with the population generally.

The birthweight of a baby is an important indicator of its health status and future wellbeing. The most recent data available for birthweights of babies are for 2000 (AIHW NPSU 2003). The mean birthweight of babies born to Indigenous mothers nationally was 3166 grams in 2000, compared with 3364 grams for babies born to all mothers (tables EA.15 and EA.16). The percentage of babies weighing less than 2500 grams born to Indigenous mothers nationally was 13.6 per cent in 2000, compared with 6.8 per cent for babies born to all mothers. For babies born to Indigenous mothers, the percentage ranged from 25.9 per cent in the ACT to 5.2 per cent in Tasmania; for babies born to all mothers, it ranged from 9.8 per cent in the NT to 6.4 per cent in NSW (figure E.7). The data are only for babies born to Indigenous mothers and do not include babies with Indigenous fathers and non-Indigenous mothers.

Figure E.7 **Proportion of babies with birthweights under 2500 grams, 2000<sup>a, b</sup>**



<sup>a</sup> Data are for babies born to Indigenous mothers only. Babies with Indigenous fathers and non-Indigenous mothers are not included. <sup>b</sup> The ACT data for births to Indigenous mothers may vary from year to year due to small numbers. In 2000, most of the low birth weight babies born to Indigenous mothers in the ACT were to women from NSW, so the proportion of such births does not reflect the health status of resident Indigenous mothers and their babies.

Source: AIHW NPSU (2003); tables EA.15 and EA.16.

## Future directions

Each of the health chapters has a section that covers the future directions for reporting that are specific to each area. Improving reporting on Indigenous health is a common priority across all of the health chapters. The Steering Committee has also been aware of the importance of examining the performance implications of interactions between services, and it is researching ways in which to report interface issues in the future.

## Indigenous health

Performance indicators for use of health services by Indigenous Australians were first published in the 2000 Report. Improvements have since been made where possible. During 2003, the Steering Committee developed a strategy for reporting on Indigenous health. Some elements of the strategy have been incorporated in the 2004 Report, such as the Indigenous health overview included in this preface. Other elements of the strategy that will be developed for future reports include:

- focussing on priority areas such as primary and community health, diabetes, substance use and mental health

- 
- developing time series reporting
  - investigating reporting on environmental health across the Review, with a view to addressing gaps in reporting within the health chapters
  - considering the outcomes of the Australian Health Ministers' Advisory Council Standing Committee on Aboriginal and Torres Strait Islander Health review of national performance indicators for Aboriginal and Torres Strait Islander health, with a view to adopting new indicators for this Report
  - continuing to report on expenditure on health services for Indigenous people, if possible by including AIHW data for 2001-02 in the 2005 Report.

### **Interactions between services**

Many people have complex care needs and require a number of services. These services are typically provided by a range of service providers and are funded or provided by both government and non-government organisations within each jurisdiction and across tiers of government. This system means clients usually have contact with, and receive services from, a number of care providers. An important issue for government, therefore, is to determine how to meet complex care needs in a coordinated fashion and to assess performance in meeting those needs across agencies.

There are links between health services and other government services. The performance of health services may influence outcomes for clients of education, aged care, disability, ambulance and justice sector services, while these other service areas, in turn, affect outcomes for clients of health services. A broader discussion of these links is contained in chapter 2. The Steering Committee has commenced work on a long term strategy to enhance the capacity of the Review's reporting frameworks to reflect interrelationships between services.

---

## References

- ABS (Australian Bureau of Statistics) 1998, *Experimental Projections of the Indigenous Population*, Cat. no. 3231.0, AusInfo, Canberra.
- 2000, 2001a, 2002b, *Deaths*, Cat. no. 3302.0, AusInfo, Canberra.
- 2001b, 2002c, *Causes of Death*, Cat. no. 3303.0, AusInfo, Canberra.
- 2002a, 2001 *National Health Survey: Summary of Results*, Cat. no. 4364.0, AusInfo, Canberra.
- ABS/AIHW 2003, *The Health and Welfare of Australia's Aboriginal and Torres Strait Islander Peoples, 2001*, ABS Cat. no. 4704.0, AusInfo, Canberra.
- AIHW 2001, *Expenditures on Health Services for Aboriginal and Torres Strait Islander People 1998-99*, AIHW Cat. no. 7, Australian Institute of Health and Welfare and Commonwealth Department of Health and Aged Care, Canberra.
- 2003, *Health Expenditure Australia 2001-02*, AIHW Cat. no. HWE 24, Health and Welfare Expenditure Series No. 17, Canberra.
- AIHW NPSU (National Perinatal Statistics Unit) 2003, *Australia's Mothers and Babies 2000*, AIHW Cat. No. PER 21, Perinatal Statistics Series No. 12, Sydney.
- NHIMG (National Health Information Management Group) 2003, *National Summary of the 2000 Jurisdictional Reports against the Aboriginal and Torres Strait Islander Health Performance Indicators*, AIHW, Canberra.
- Ring, I.T., and Firman, D. 2000, *Reducing Indigenous Mortality Rates in Australia; Lessons from Other Countries*, [www.mja.com.au](http://www.mja.com.au) (accessed 5 September 2003)
- SCRGSP (Steering Committee for the Review of Government Service Provision) 2003, *Overcoming Indigenous Disadvantage: Key Indicators 2003*, Productivity Commission, Canberra.

