
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 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 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 spent \$28.8 billion (in 2001-02 dollars)¹ on public (non-psychiatric) hospitals, medical services (including payments to general practitioners [GPs] and other specialist practitioners) and community and public health in 2002-03. These three areas of health care activity accounted for 65.0 per cent of government recurrent health expenditure in 2002-03 (table EA.2 and chapter 10).

The Report also examines the interactions among different service mechanisms for dealing with two health management issues: mental health and breast cancer (see chapter 11). There are no specific estimates of government expenditure on the detection and management of breast cancer but government recurrent expenditure on specialist mental health services was estimated to be around \$3.2 billion in 2002-03. Some of this expenditure was on psychiatric care provided by public (non-psychiatric) hospitals (see chapters 9 and 11).

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 chapters 8 ('Emergency management') and 12 ('Aged care').

¹ The published source data from the Australian Institute of Health and Welfare (AIHW) use 2001-2002 as the base year. The same base year is used here for consistency.

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]). 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]) — 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 (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:

- government support for pharmaceuticals (the PBS)
- 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 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 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 format as \Publications\Reports\2005\AttachEA.xls and in Adobe PDF format as \Publications\Reports\2005\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 also (www.pc.gov.au/gsp). Users without Internet access can contact the Secretariat to obtain these tables (see details on the inside front cover of the Report).

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

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- 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 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
- health policy research and policy development.

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.

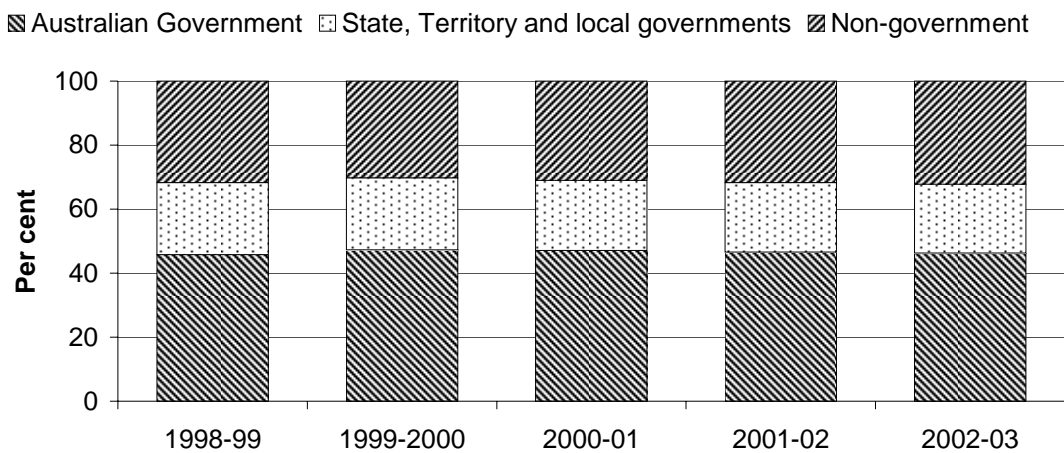
Funding

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 and the private health insurance rebate) and contributes funding to a number of nationally coordinated public health programs. It also provides funding under the AHCA's 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.

Australian, state, territory and local governments spent \$49.0 billion on health services (67.9 per cent of total health expenditure) in 2002-03. The remainder was paid by individuals, health insurance funds, and workers compensation and compulsory motor vehicle third party insurance providers. The Australian Government accounts for the largest proportion of health care expenditure in Australia — \$33.4 billion (or 46.2 per cent of the total) in 2002-03. State, territory and local governments contributed \$15.6 billion (or 21.6 per cent of total health expenditure) in that year (figure E.1 and table EA.1).

Figure E.1 **Total health expenditure, by source of funds^{a, b, c, d, e}**



^a Includes recurrent and capital expenditure. ^b Includes expenditure on high level residential aged care (reported in chapter 12) and ambulance services (reported in chapter 8). ^c 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. ^d 'Non-government' includes expenditure by individuals, health insurance funds, and workers compensation and compulsory motor vehicle third party insurers. ^e Expenditure for 2002-03 is based on preliminary estimates by the Australian Institute of Health and Welfare (AIHW) and the Australian Bureau of Statistics (ABS).

Source: AIHW (2004); table EA.1.

Size and scope of sector

Total expenditure (recurrent and capital) on health care services in Australia was estimated to be \$72.2 billion in 2002-03 (AIHW 2004; table EA.1). This total was estimated to account for 9.5 per cent of gross domestic product in 2002-03, up from 9.3 per cent in 2001-02 and 8.2 per cent in 1992-93 (AIHW 2004). This indicates that health expenditure grew faster than the whole economy over the decade to 2002-03.

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, territory and local governments, and non-government sources. Between 1992-93 and 2002-03, the average annual rate of growth in real expenditure was 5.7 per cent for the Australian Government, 4.5 per cent for state, territory and local governments, and 2.9 per cent for non-government sources (AIHW 2004).

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 1998, the Australian Government replaced the Private 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 \$1.6 billion in 1999-2000 to \$2.3 billion in 2002-03 (AIHW 2004).

Public (non-psychiatric) hospitals were the single largest item of recurrent health care expenditure by government and non-government sources in 2002-03. Total real expenditure on public (non-psychiatric) hospitals was \$16.9 billion, of which governments paid \$15.6 billion (in 2000-01 dollars)² (tables EA.2 and EA.3). Public (non-psychiatric) hospitals accounted for 35.2 per cent of government recurrent expenditure on health care services in 2002-03. Medical services accounted for \$9.0 billion of government expenditure (20.3 per cent) and pharmaceuticals accounted for \$5.1 billion (11.6 per cent) (figure E.2 and table EA.2).

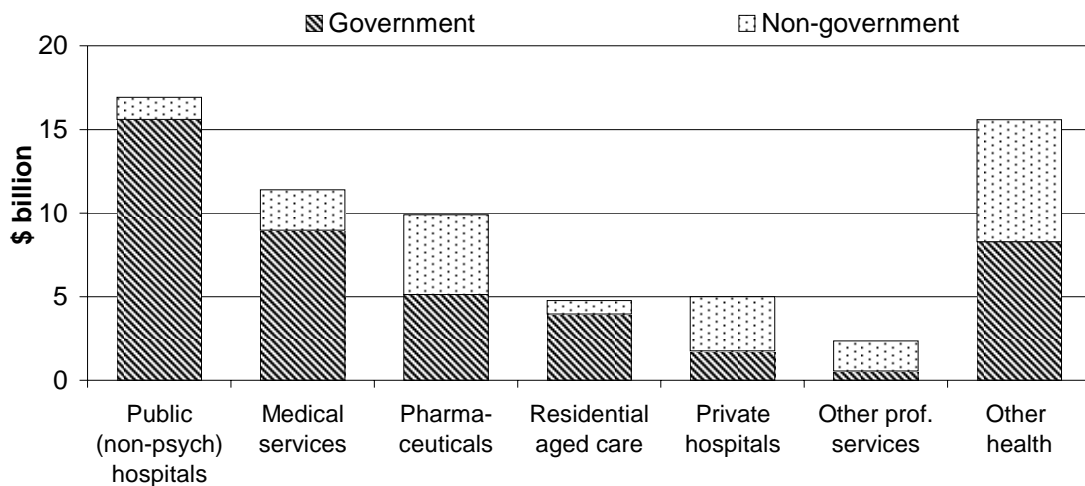
The relative share of government recurrent health expenditure allocated to public hospitals has fallen since 1992-93, when it was 40.6 per cent. This decline reflects the more rapid growth over the decade of government expenditure on private hospitals and pharmaceuticals (figure E.3 and table EA.2). The average annual growth rate of government real recurrent expenditure on private hospitals was 23.7 per cent between 1992-93 and 2002-03, compared with 10.5 per cent for

² The published source data from the AIHW use 2001-02 as the base year. The same base year is used here for consistency.

pharmaceuticals and 3.7 per cent for public hospitals (AIHW 2004). 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 pharmaceutical brands, and increases in co-payments for pharmaceuticals.

The high annual growth in expenditures on pharmaceuticals and private hospitals meant they also grew as a proportion of government health care expenditure over the period 1992-93 to 2002-03. Government expenditure on pharmaceuticals increased from 7.1 per cent of government health expenditure in 1992-93 to 11.6 per cent in 2002-03, while expenditure on private hospitals increased from 0.8 per cent to 4.0 per cent over the same period (table EA.2).

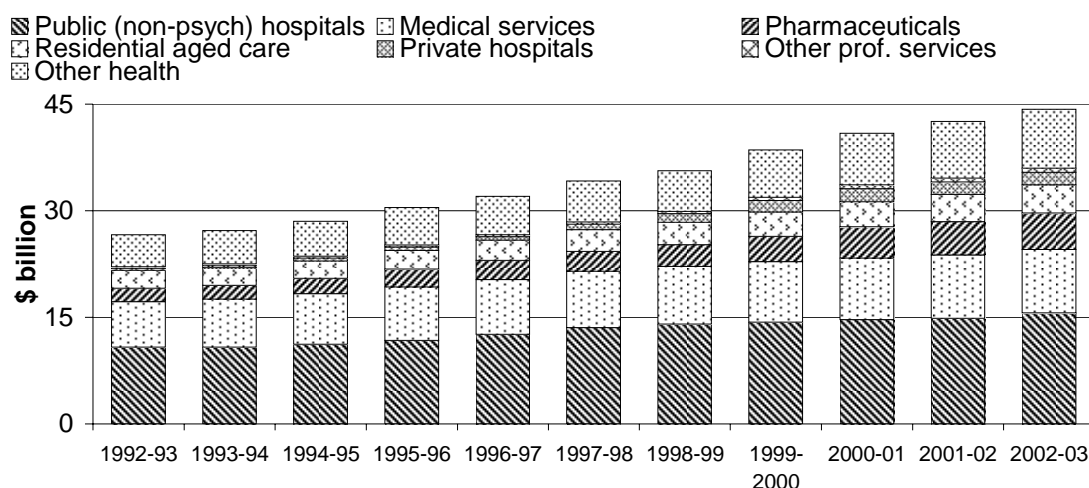
Figure E.2 Recurrent health expenditure, by area of expenditure, 2002-03 (2001-02 dollars)^{a, b, c, d}



^a 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. ^b Pharmaceuticals include (but are not limited to) those provided under the PBS. ^c 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 (see chapter 12). ^d Other health expenditure 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 (2004); tables EA.2 and EA.3.

Figure E.3 Government recurrent expenditure, by area of expenditure (2001-02 dollars)^{a, b, c, d, e}



^a Pharmaceuticals include (but are not limited to) those provided under the PBS. ^b 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. ^c High level residential aged care is reported in chapter 12. ^d 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. ^e Real (constant price) estimates have been calculated by applying the AIHW total health price index (table EA.8).

Source: AIHW (2004); tables EA.2, EA8.

Health expenditure per person

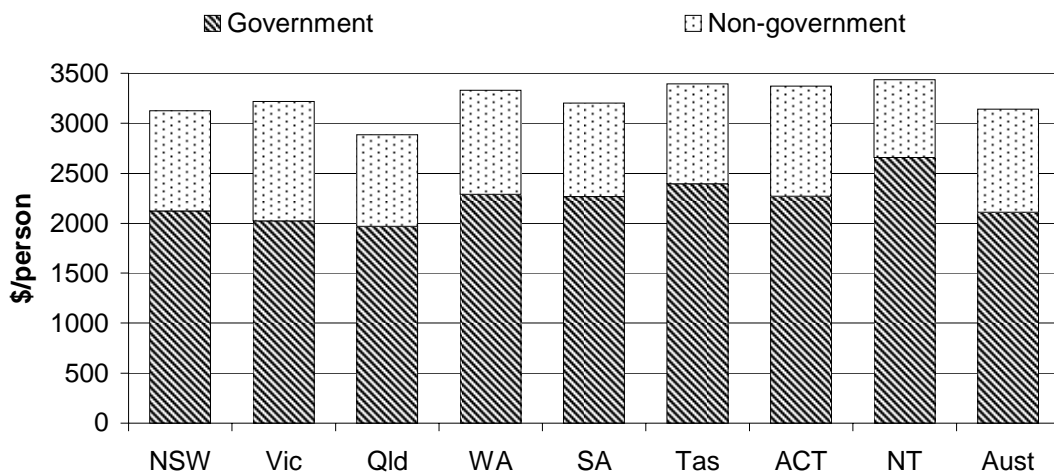
Health expenditure per person in each jurisdiction is affected by different policy initiatives and socioeconomic and demographic characteristics. Nationally, total health expenditure (recurrent and capital) per person in 2002-03 was \$3652, rising by 32.9 per cent in nominal terms in the five years since 1998-99 (when it was \$2748). Across jurisdictions, it was highest in the NT (\$4126 per person) and lowest in Queensland (\$3392 per person) (table EA.5).

The most recent data on recurrent health expenditure per person by jurisdiction are for 2001-02. Real recurrent health expenditure per person in Australia increased from \$2637 (in 2001-02 dollars) in 1997-98 to \$3142 in 2001-02. In 2001-02, total recurrent health expenditure per person was highest in the NT (\$3437) and lowest in Queensland (\$2885) (figure E.4 and table EA.6). If spending on high level residential aged care is removed from these data, then total recurrent health expenditure per person ranged from \$3383 in NT to \$2659 in Queensland in 2001-02 (table EA.7).

Government real recurrent health expenditure per person in Australia increased from \$1776 in 1997-98 to \$2112 in 2001-02 (in 2001-02 dollars). In 2001-02 it was highest in the NT (\$2658) and lowest in Queensland (\$1972) (figure E.4 and table EA.6). If spending on high level residential aged care is removed from these data, then government recurrent health expenditure per person ranged from \$2614 in the NT to \$1784 in Queensland in 2001-02 (table EA.7).

Non-government recurrent expenditure per person in Australia rose from \$862 in 1997-98 to \$1030 in 2001-02 (in 2001-02 dollars). In 2001-02, it was highest in Victoria (\$1193 per person) and lowest in the NT (\$778 per person) (figure E.4 and table EA.6). If spending on high level residential aged care is removed from these data, then non-government recurrent health expenditure per person ranged from \$1155 in Victoria to \$769 in the NT in 2001-02 (table EA.7).

Figure E.4 Recurrent expenditure per person, 2001-02^{a, b, c}



^a Preliminary data. ^b Includes expenditure on high level residential aged care (reported in chapter 12) and ambulance services (reported in chapter 8). ^c Government expenditure includes expenditure by Australian, state, territory and local governments.

Source: AIHW (2004); table EA.6.

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.

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 (WHO 2001; SIMC 2004). 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 (see chapter 9); and suicide (see chapter 11).

Other recent publications, such as the *National Summary of 2001 and 2002 Jurisdictions Reports against Aboriginal and Torres Strait Islander Health Performance Indicators* (SIMC 2004), *The Health and Welfare of Australia's Aboriginal and Torres Strait Islander Peoples* (ABS and AIHW 2003) and *Overcoming Indigenous Disadvantage: Key Indicators 2003* (SCRGSP 2003), include more comprehensive data on the health status of Indigenous people and Indigenous health-related factors.

International comparisons

It has been estimated that there are over 300 million Indigenous people worldwide. They are located mainly in Asia and South America but also in many 'first world' countries such as Australia, Canada and the United States. Despite improvements in Indigenous health outcomes in recent decades, the health status of Indigenous peoples has not kept pace with global health improvements. Their health status remains significantly lower than that of non-Indigenous peoples in almost every country they inhabit (Paradies and Cunningham 2002; UNICEF 2004; WHO 2001).

Based on key population health indicators such as mortality and life expectancy, the average health status of Indigenous Australians appears to be lower than that of Indigenous people in countries such as New Zealand, the United States and Canada. During 1996–2001, for example, it appears that life expectancy at birth for Indigenous people in Australia was at least 10 years lower than that for Indigenous people in New Zealand and Canada (SIMC 2004).³ Caution is needed in making international comparisons of Indigenous health outcomes because the quality of international Indigenous health data is variable and coverage may be incomplete.

³ Indigenous population data reported in SIMC 2004 and quoted in this Report do not reflect ABS revised Indigenous population estimates for 1999 and 2000.

Contributing factors

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

- language and cultural barriers to accessing health and health-related services
- relatively low education levels — in the 2001 Census, 28 per cent of Indigenous males and 32.6 per cent of Indigenous females aged 20–24 years had completed year 12 or equivalent, compared with 64.1 per cent of non-Indigenous males and 74.2 per cent of non-Indigenous females aged 20–24 years (SIMC 2004)
- relatively low employment and income levels that lead to financial barriers to accessing health services — in 2001, the median gross weekly equivalised household income⁴ of Indigenous people was 56 per cent of that of non-Indigenous people (SCRGSP 2003)
- relatively high imprisonment rates — in June 2002, Indigenous people were 15 times more likely than non-Indigenous people to be in prison (SCRGSP 2003)
- relatively high rates for health risk factors such as obesity, smoking, harmful alcohol use, substance abuse and violence — in the 2001 Australian Bureau of Statistics (ABS) National Health Survey for example, 53 per cent of Indigenous people aged 18 years or over said they were current smokers (compared with around 22 per cent of non-Indigenous people) and 48 per cent reported being obese or overweight (SIMC 2004)
- 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 (SIMC 2004)
- inadequate and overcrowded housing, particularly in remote and very remote regions — based on 2001 Census data and AIHW definitions of ‘overcrowded’, Indigenous people were estimated to be more than five times as likely as non-Indigenous people to live in overcrowded households (SCRGSP 2003)
- inadequate water supply, sewerage and other health-related infrastructure, particularly in very remote areas (SCRGSP 2003).

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 2003). The extent to

⁴ Weekly household income adjusted for household size and composition.

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 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 2003* (SCRGSP 2003), examines these and other multiple contributors (and their complex cross-links) to health outcomes for Indigenous people.

Government policy and programs

The majority of government expenditure on Indigenous health is made 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. 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 within their jurisdiction (see chapter 10).

Agreements on Aboriginal and Torres Strait Islander Health (framework agreements) have been established in each state and territory between 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.

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 ACCHSs:

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- 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 to be further complemented by a National Strategic Framework for Aboriginal and Torres Strait Islander Social and Emotional Wellbeing, which was agreed by the Australian Health Ministers Advisory Council in March 2004. This will be implemented through social health teams in the ACCHSs and through State and Territory government programs (Department of Health and Ageing 2004).

Expenditure

The most recent estimates of health services expenditure for Indigenous people are for 1998-99 (AIHW 2001). These estimates were examined in previous reports (2002 and 2003), with key issues listed in the 2004 Report also. In summary, the Indigenous health expenditure estimates for 1998-99 (in 1998-99 dollars) showed that national real recurrent health expenditure (that is, recurrent expenditure by all governments) per person was higher for Indigenous people than for non-Indigenous people (\$3065 per person and \$2518 per person respectively).⁵ Health status, geographic, demographic, socioeconomic, linguistic and other factors contributed to the higher average health service costs for Indigenous people (AIHW 2001).

⁵ Recurrent expenditure only, not including capital costs.

The 1998-99 expenditure data indicated that Indigenous Australians use secondary/tertiary care (that is, hospitals) at a higher rate than they use primary care (such as doctors and community health services), and at a higher rate than non-Indigenous Australians use secondary/tertiary health care (AIHW 2001). This pattern of use may reflect lower levels of access to primary healthcare (particularly in remote areas), as well as higher incidences of health conditions that require hospital care rather than primary care among Indigenous Australians.

Indigenous people are less likely than other Australians to use private health services for both primary and secondary/tertiary healthcare. In 1998-99, government public hospital expenditure per person was twice as much for Indigenous people as for non-Indigenous people. In community and public health services, expenditure per person was more than five times as much for Indigenous people as for non-Indigenous people (AIHW 2001). The AIHW has published data on government expenditure in 2000-01 and 2001-02 on specific Indigenous health programs, such as programs to promote social and emotional wellbeing and mental health (SIMC 2004).

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, Indigenous health data remain limited in availability, timeliness and quality. The following problems are associated with Indigenous health data in Australia (ABS 2004; ABS and AIHW 2003; SIMC 2004).

- Indigenous people are not always accurately or consistently identified in administrative health data collections (such as hospital records and birth and death registrations), given variation in definitions, different data collection methods and inaccurate or incomplete recording of Indigenous status.
- 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, more detailed health status information is collected, together with health service use, health actions, health related aspects of lifestyle and other health risks. Other health related surveys, which may include an Indigenous identifier, do not necessarily provide reliable data on Indigenous people, because of their small sample size, geographic coverage or survey design (although considerable improvement has been made in this area in recent years).

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- Inconsistent administrative data definitions and collection methods mean comprehensive comparisons between jurisdictions and/or between surveys have rarely been possible.
 - Experimental estimates of the Indigenous population are re-based by the ABS every five years to take account of unexplained population growth (that is, other than natural increase). This requires re-estimation of various rates and rate ratios.

Similar problems of quality and availability of Indigenous health data have been identified in international data also (Paradies and Cunningham 2002; WHO 2001).

In Australia, the National Aboriginal and Torres Strait Islander Health Council is finalising an Aboriginal and Torres Strait Islander Health Performance Framework to provide a nationally consistent basis for reporting against outcomes under the national strategic framework (see above). Improving the quality of Indigenous health data is, in itself, a performance indicator in the draft framework. Jurisdictional outcomes have been published against the draft and interim versions of this performance framework (SIMC 2004).

In existing data collections, agencies such as the ABS and the Australian Institute of Health and Welfare (AIHW) have identified jurisdictions with acceptable Indigenous data quality for particular data 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 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 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.

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.

As discussed in previous reports, the National Health Performance Committee has developed the National Health Performance Framework to guide the reporting and measurement of health service 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 National Public Health Partnership, the Australian Council for Safety and Quality in Health Care, the National Mental Health Working Group, the Australian Council on Healthcare Standards, and the Aboriginal and Torres Strait Islander Technical Advisory Group on Health Performance (established by the Office of Aboriginal and Torres Strait Islander Health).

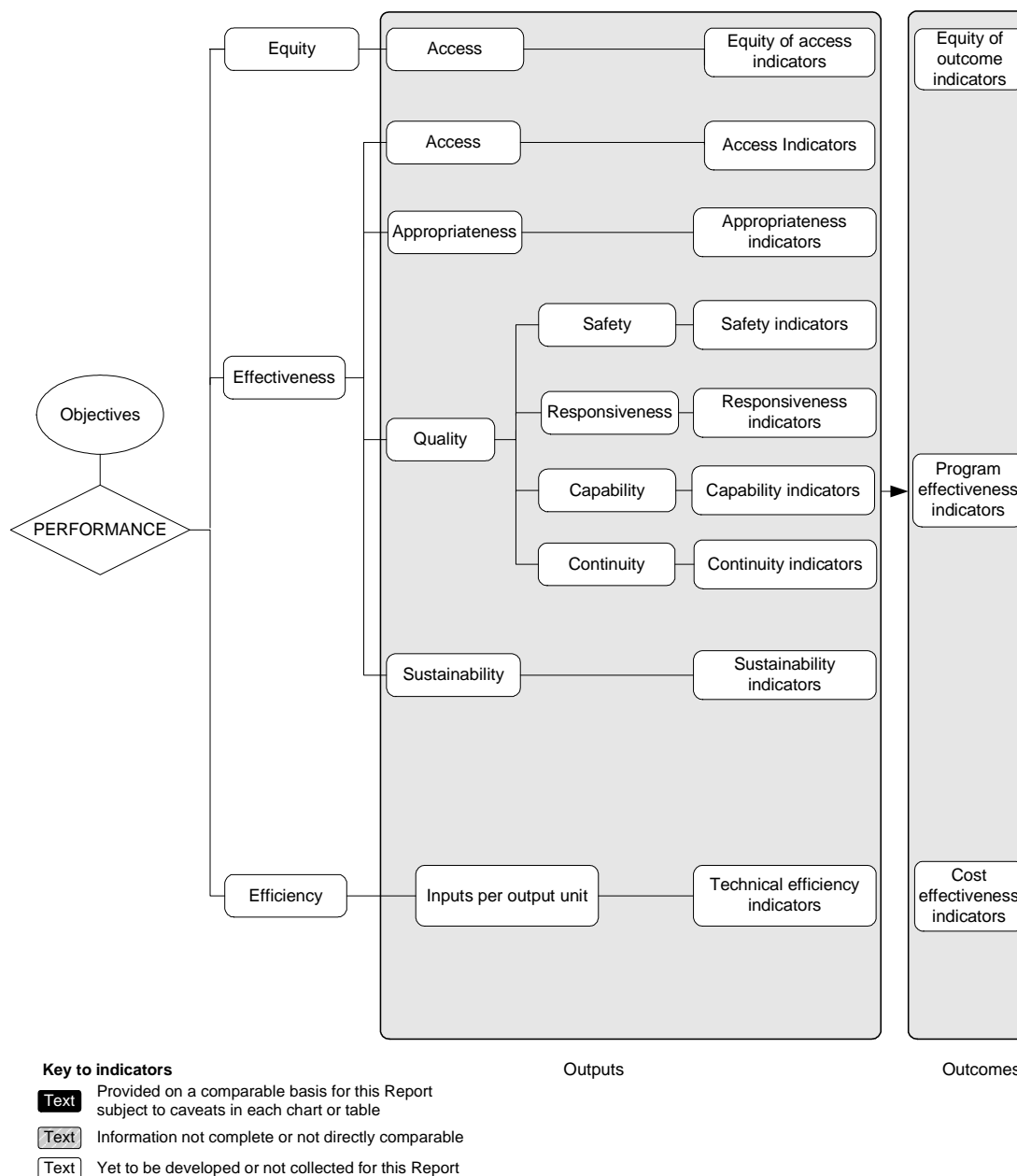
In the 2004 Report, the Steering Committee sought to align the general Review framework with the National Health Performance Framework as far as possible, for application to government health services. Complete alignment was not possible, given the different terms of reference of the two committees. 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.5). 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 individual performance indicator frameworks are discussed in chapters 9, 10 and 11.

Figure E.5 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. It is important to remember the limits of these data as indicators of health services given the effects of other non-health-related factors and services (see above).

Self-assessed health status

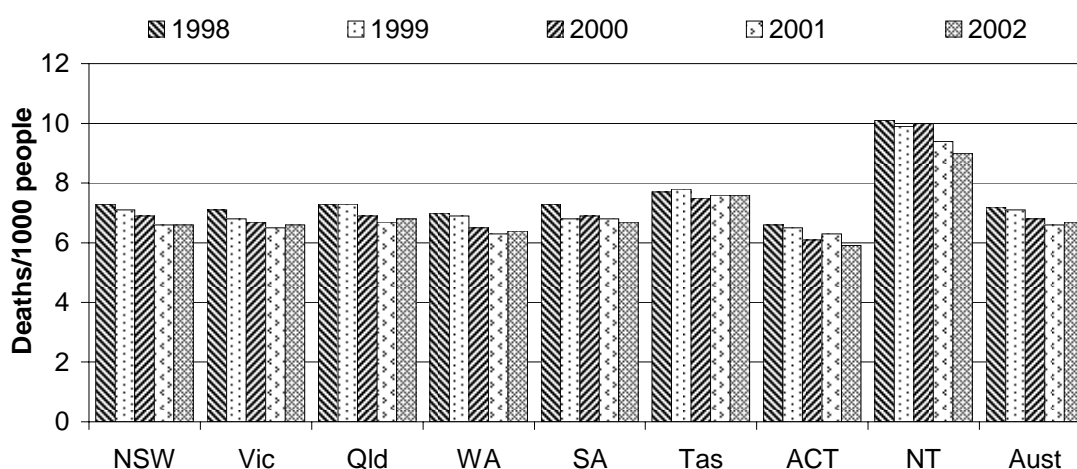
The 1995 and 2001 National Health Surveys conducted by the ABS provided information on people's perceptions of their own health status. These data were presented in the 2004 Report. In summary, around half of all Australians aged 18 years or over assessed their health as being excellent or very good in 2001, with the proportion being highest in the ACT (54.2 per cent) and lowest in SA (47.7 per cent). For all people aged 15 years or over, the proportion who assessed their health as excellent or very good fell from 55.0 per cent in 1995 to 51.7 per cent in 2001 (table EA.9). The proportion of people with a self-assessed health status of excellent or very good declined with age (ABS 2002b), so differences in age profiles across jurisdictions and across the two surveys (1995 and 2001) affected these results.

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 have a strong influence on mortality rates.

There were 133 707 deaths in Australia in 2002 (ABS 2003a), which translated into an age standardised mortality rate of 6.7 per 1000 people (figure E.6). Across jurisdictions, mortality rates were highest in the NT (9.0 per 1000) and lowest in the ACT (5.9 per 1000). They fell between 2001 and 2002 in SA, the ACT and NT. In other states, mortality rates increased or remained stable between 2001 and 2002.

Figure E.6 Mortality rates, age standardised^a



^a Calculated using direct methods of age standardisation, based on the 2001 Census standard population.

Source: ABS (2003a); table EA.10.

Indigenous mortality rates

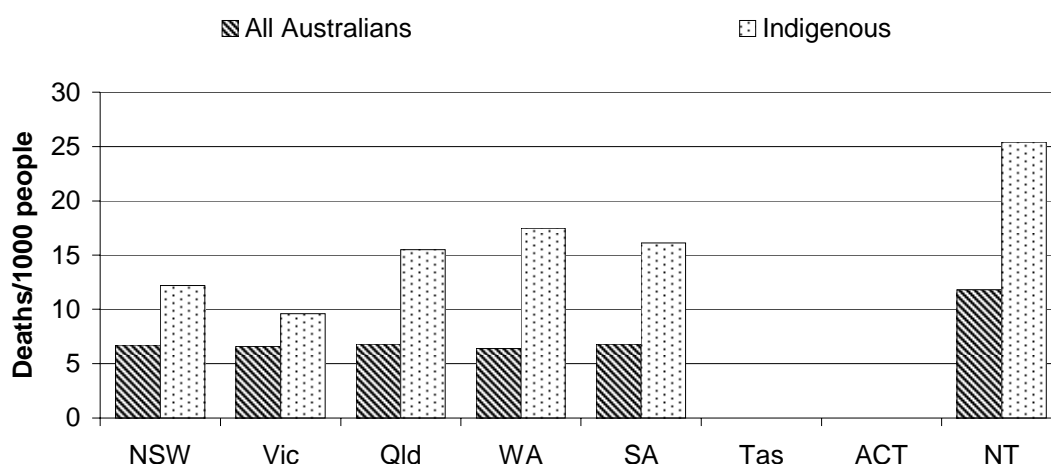
Data on Indigenous mortality are collected through State and Territory death registrations. Although these data collections have good data for the total Australian population, the completeness of the identification of Indigenous Australians in these collections varies significantly across states and territories. The NT, WA, SA and Queensland are generally considered to have the best coverage (in that order) of death registrations for Indigenous people.⁶ Each jurisdiction has different levels of coverage however, so care is required in drawing conclusions from the data. Raw deaths data for Indigenous people in NSW and Victoria are included in ABS publications but are not considered suitable for most analyses (ABS unpublished).

The ABS recently announced changes to its methodology for experimental Indigenous population estimates and projections. In making these changes, 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. The ABS Indigenous population estimates and projections assume, for each jurisdiction, constant age-specific mortality rates across the period 1991–2009 (ABS 2004). It can be useful to look at Indigenous mortality data, provided these different levels of Indigenous identification (or coverage) are taken into account.

⁶ The term ‘coverage’ refers to the number of Indigenous deaths registered as a percentage of the number of expected deaths based on Census population data.

Due to the relatively small number of Indigenous deaths and the consequent volatility in annual mortality rates, the data are presented for the three year period 2000–02. To improve the comparability of age-related mortality rates, indirect age standardisation methods have been used for both the Indigenous and total population rates. Comparisons between mortality rates for the Indigenous and ‘all Australian’ populations are significantly affected by the incompleteness of Indigenous death rates in all jurisdictions except the NT. Comparisons of Indigenous mortality rates across jurisdictions are similarly affected. Despite the under-identification of Indigenous deaths, in all jurisdictions for which data are available, mortality rates for Indigenous people were much higher than for all Australians in 2000–02 (figure E.7).

Figure E.7 Mortality rates, age standardised, by Indigenous status, three year average, 2000–02^{a, b, c}



^a Calculated using indirect methods of age standardisation, based on the 2001 Census, for NSW, Victoria, Queensland, WA, SA and the NT. Rates are not adjusted for differences across jurisdictions in the extent of identification of Indigenous deaths. ^b Estimated data coverage of Indigenous deaths in NSW and Victoria are below 50 per cent. ^c No data are available for Tasmania and the ACT.

Source: ABS (unpublished); table EA.10.

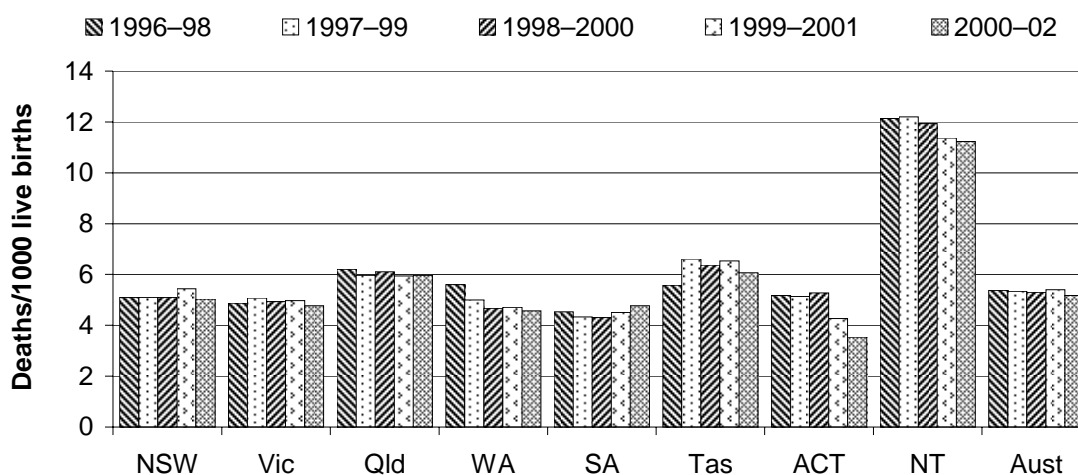
Infant mortality rates

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.8). The infant mortality rate⁷ in Australia declined from 6.3 deaths per 1000 live births in 1992–94 to 5.2 per 1000 live births in 2000–02,

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

although the rate has been relatively static in recent years (table EA.11). The rate in 2000–02 was highest in the NT (11.2 per 1000 live births) and lowest in the ACT (3.5 per 1000 live births) (figure E.8).

Figure E.8 **Infant mortality rate, three year average**



Source: ABS (2002a, 2003a); table EA.11.

Indigenous infant mortality rates

For the period 2000–02, the average infant mortality rate for Indigenous Australians is publishable for NSW, Queensland, WA, SA and the NT. For these five jurisdictions, the coverage of Indigenous infant deaths was 80 per cent or higher for this time period. The accuracy of Indigenous mortality data is variable, however, due to varying rates of coverage across jurisdictions and over time. Further, the ability to detect changes in Indigenous infant mortality is affected by the small numbers involved. In all jurisdictions for which data are published (and taking data quality issues into account) Indigenous infant mortality rates do not appear to have changed significantly between 1999–2001 and 2000–02. Indigenous infant mortality rates were markedly higher than the national average for all Australians in both time periods (table EA.11).

Principal causes of death

The most common causes of death among Australians in 2002 (measured as an age standardised death rate per 100 000 people) were: diseases of the circulatory system including heart disease, heart attack and stroke (250 deaths per 100 000 people); cancers (188 deaths per 100 000 people); and diseases of the respiratory system

including influenza, pneumonia and chronic lower respiratory diseases (58 deaths per 100 000 people). External causes, including suicides and transport and other accidents, accounted for 39 deaths per 100 000 people (ABS 2003b; table E.1).

Table E.1 Cause of death, age standardised death rates, 2002^a

	<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>
Cancers ^b	182	193	190	188	188	225	170	193	188
Lung cancer ^c	36	35	39	40	33	49	24	55	37
Diabetes mellitus	14	20	15	18	16	18	13	52	17
Mental and behavioural disorders	15	17	13	15	18	15	17	47	16
Diseases of the nervous system	24	23	22	28	16	24	26	21	23
Diseases of the circulatory system	256	240	262	223	247	283	226	276	250
Heart disease ^d	129	124	145	117	129	145	103	149	130
Heart attack ^e	70	67	81	64	78	73	49	79	71
Stroke ^f	67	57	66	52	59	69	63	57	62
Diseases of the respiratory system	57	55	57	56	70	64	54	107	58
Influenza and pneumonia	14	14	15	14	27	13	13	23	15
Chronic lower respiratory diseases	30	31	34	29	28	42	30	70	31
Diseases of the digestive system	22	22	22	23	22	25	15	21	22
Accidents	25	22	27	24	22	30	22	53	25
Transport accidents	9	9	10	10	11	10	5	30	10
Suicide ^g	10	11	15	13	11	15	8	28	12
All causes	664	660	679	641	666	758	594	900	667

^a Age standardised death rates per 100,000 people, based on the mid-year 2001 population. Rounded to whole numbers. ^b Malignant neoplasms. ^c Cancer of the trachea, bronchus and lung. ^d Ischaemic heart disease and heart attacks. ^e Acute myocardial infarction. ^f Cerebrovascular diseases. ^g Intentional self-harm.

Source: ABS (2003b).

The death rate from all causes was highest in the NT (900 per 100 000 people) and lowest in the ACT (594 per 100 000 people). Death rates from lung cancer, diabetes, mental and behavioural disorders, diseases of the respiratory system, accidents and suicides were all highest in the NT (table E.1). These causes of death affect the whole population in the NT, but are especially significant among Indigenous people due to a combination of demographic, social, economic, environmental and health system-related factors (tables E.2 and EA.13).

National data on causes of death are also presented as proportions of actual deaths that can be attributed to particular causes (table EA.12). These data are less comparable across jurisdictions, given the different age profiles of the populations.

Causes of death for Indigenous people

The number of deaths of Indigenous people from some causes in some jurisdictions is very small or is not identifiable. In the jurisdictions for which age standardised death rates are available by Indigenous status (Queensland, WA, SA and NT), death rates were far higher for Indigenous people than for non-Indigenous people during the period 1999–2001, for all causes of death identified in the refined National Performance Indicators for Aboriginal and Torres Strait Islander Health. 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 (table E.2).⁸

A more basic measure of deaths from different causes is the proportion of registered deaths in each year that are attributed to each cause. External causes of death accounted for a higher proportion of deaths of Indigenous people in 2002 (19.0 per cent of Indigenous males and 11.4 per cent of Indigenous females) than of all Australians (7.7 per cent for males and 3.9 per cent for females). Similarly, diabetes mellitus caused 6.7 per cent of deaths of Indigenous males and 8.7 per cent of deaths of Indigenous females in 2002, compared with 2.6 per cent of all male deaths and 2.4 per cent of all female deaths. By contrast, malignant cancers accounted for a smaller proportion of Indigenous deaths (13.9 per cent of males and 16.7 per cent of females) than of all deaths (30.5 per cent of males and 25.6 per cent of females) (tables EA.12 and EA.14). These data are not age standardised, so some of the differences in the proportions of deaths from particular causes are due to differences in the age distribution of the Indigenous and total Australian populations.

⁸ 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.

Table E.2 **Cause of death, age standardised Indigenous mortality ratios, 1999–2001^{a, b, c}**

	<i>Qld</i>	<i>WA</i>	<i>SA</i>	<i>NT</i>
Lung cancer	2.7	1.1	2.0	1.7
Diabetes ^d	13.2	15.9	12.2	9.2
Circulatory diseases ^e	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 ^f	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

^a 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.

^b 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. ^c Excludes deaths for which Indigenous status was not stated. ^d Diabetes as an underlying cause or part of a multiple cause. ^e Includes all heart disease, acute myocardial infarction (heart attack) and cerebrovascular diseases (stroke). ^f External causes of death such as land and water transport accidents, falls, poisonings, drownings, other accidents, self-harm and assault. **np** Not published.

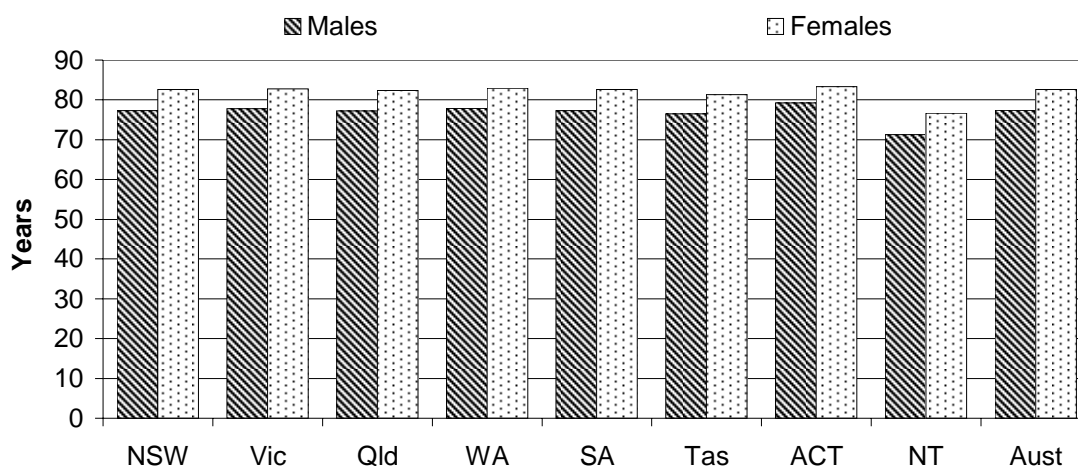
Source: SIMC (2004); table EA.13.

Life expectancy

The life expectancy of Australians improved dramatically during the twentieth century. The average life expectancy at birth in the period 1901–10 was 55.2 years for males and 58.8 years for females (ABS 2002a). It has risen steadily in each decade since, reaching 77.4 years for males and 82.6 years for females in 2000–02 (figure E.9).

Life expectancy at birth was similar across most jurisdictions in 2000–02, being at least 77 years for males and 82 years for females in all states and territories except Tasmania and the NT. Lower average life expectancy in the NT reflects the larger proportion of Indigenous people in the NT population (compared with other jurisdictions) and the shorter life expectancy of Indigenous people generally (figure E.9 and table EA.15).

Figure E.9 **Average life expectancy at birth, by sex, three year average, 2000–2002**



Source: ABS (2002a, 2003a); table EA.15.

Indigenous life expectancy

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 (ABS 2004; table EA.15). Care needs to be taken when interpreting these data because they are estimates. 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, p. 18).

Another life expectancy measure is the probability of a person dying before the age of 55 years (sometimes known as ‘early adult death’). This measure is also based on ABS experimental life tables and carries similar caveats to those data on life expectancy at birth. For the jurisdictions in which Indigenous life expectancy data were available, Indigenous males aged 20–24 years in 1999–2001 had from 40 per cent (in SA) to 36 per cent (in Queensland) chance of dying before the age of 55 years, whereas all Australian males in that age group had from 14 per cent (in the NT) to 7 per cent (in Queensland) probability. Indigenous females aged 20–24 years

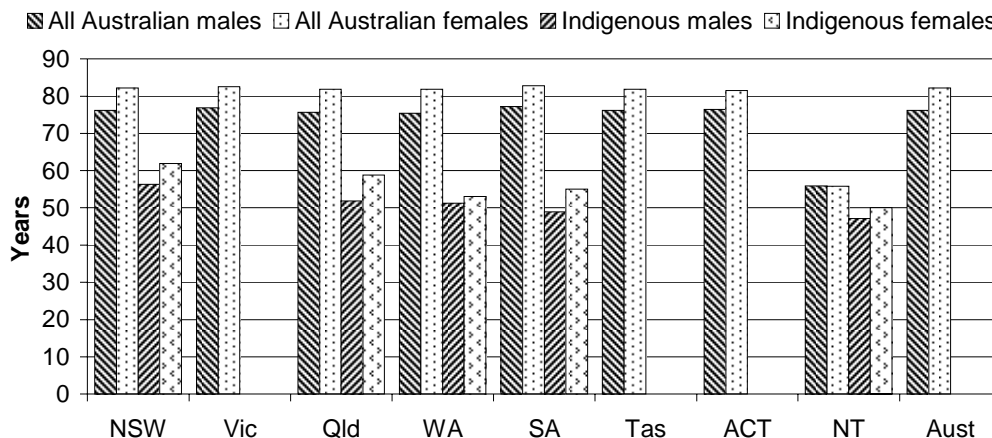
in 1999–2001 had from 27 per cent (in SA) to 22 per cent (in both Queensland and WA) probability of dying before the age of 55 years, whereas all Australian females in that age group had from 8 per cent (in the NT) to 4 per cent (in Queensland, WA and SA) (SIMC 2004). The same caveats as noted above in relation to data for ‘Indigenous causes of death’ from SIMC 2004 apply to these data also.

Median age at death

The median age at death is a measure of the distribution of deaths by 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 an underestimate (ABS unpublished).

In 2002, the median age at death was 76.2 years for males and 82.2 years for females among all Australians. For both males and females in 2002, the median age at death was highest in SA (77.2 years and 82.7 years respectively) and lowest in the NT (55.9 years and 55.8 years respectively). In the jurisdictions for which the data were available for Indigenous people in 2002, the median age at death for both male and female Indigenous Australians was highest in NSW (56.3 years and 61.9 years respectively) and lowest in the NT (47.1 and 50 years respectively) (figure E.10 and table EA.16).

Figure E.10 Median age at death, by sex and Indigenous status, 2002^{a, b}



^a Data for Australia include ‘Other territories’. ^b Median age at death is available for Indigenous males and females in NSW, Qld, WA, SA and the NT only. The accuracy of Indigenous mortality data is variable as a result of varying rates of coverage across jurisdictions and age groups, and of changes in the estimated Indigenous population caused by changing rates of identification in the Census and births data.

Source: ABS (2003b); table EA.16.

Birthweight of babies

The birthweight of a baby is an important indicator of its health status and future wellbeing. In 2001 (the latest year for which data are available), 91.9 per cent of liveborn babies in Australia weighed between 2500 and 4499 grams (Laws and Sullivan 2004). The mean birthweight for all live births was 3375 grams. Across jurisdictions, the mean birthweight of liveborn babies ranged from 3395 grams in Tasmania to 3268 grams in the NT. The mean birthweight of live babies born to Indigenous mothers was lower than that of babies born to all mothers nationally and in all jurisdictions for which data were available (tables EA.17 and EA.18).

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 2004). In 2001, 6.2 per cent of all liveborn babies in Australia weighed less than 2500 grams (figure E.11). They included 1.1 per cent of babies who weighed less than 1500 grams and 0.5 per cent of babies who weighed less than 1000 grams (table EA.17).

Figure E.11 **Babies with birthweights under 2500 grams, by Indigenous status, 2001**^{a, b, c, d}



^a Proportion of live births with birthweights under 2500 grams. ^b Babies with Indigenous fathers and non-Indigenous mothers are not included as Indigenous. ^c The ACT data for births to Indigenous mothers may vary from year to year as a result of small numbers. Some low birthweight babies born to Indigenous mothers in the ACT might have been born to women from NSW, so the proportion of such births may not reflect the health status of Indigenous mothers and babies who are residents of the ACT. ^d Data for births to Indigenous mothers are not available for Tasmania. Totals for Australia exclude Tasmania.

Source: Laws and Sullivan (2004); tables EA.17 and EA.18.

Among live babies born to Indigenous mothers in 2001, the proportions with low and very low birthweights were more than 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.11 and table EA.18). Across jurisdictions, the proportion of live babies who weighed less than 2500 grams who were born to Indigenous mothers ranged from 28.3 per cent in the ACT to 11.2 per cent in Queensland (figure E.11).⁹

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 common 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 then developed in 2003, and improvements have since been made where possible. In this Report, Indigenous data are reported for fetal, neonatal and perinatal death rates for the first time (see chapter 9). The Steering Committee will consider the Aboriginal and Torres Strait Islander Health Performance Framework (see above) once it is finalised, with a view to adopting new Indigenous health and environmental health indicators in the Review.

In preparation for the 2006 Report, the Steering Committee will commence a 'stocktake' of the performance indicators used in the health chapters of the Report, including the outcome indicators reported in the 'Health preface'. This review will aim to better coordinate performance indicators across the health services chapters and to address the remaining gaps in reporting against the performance framework.

⁹These data are only for babies born to Indigenous mothers and do not include babies with Indigenous fathers and non-Indigenous mothers.

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