HSC core 1

Health priorities in Australia
Chapter 1

Overview
Introduction to health priorities
Measuring health status
  The role of epidemiology
  Measures of epidemiology
The health status of Australians
  Current trends
  Groups experiencing health inequities
Identifying priority areas
  Social justice principles
  Priority population groups
  Prevalence of condition
  Costs to individuals
  Costs to the community
  Potential for change

Outcomes
On completion of this chapter, you will be able to:
  • describe the nature, and justify the choice of, Australia’s health priorities (H1)
  • analyse and explain the health status of Australians in terms of current trends and groups at risk (H2)
  • analyse the determinants of health and health inequities (H3)
  • devise methods of gathering, interpreting and communicating information about health and physical activity concepts. (H16)

CRITICAL QUESTION
How are priority areas for Australia’s health identified?
Australians enjoy a relatively good level of health compared with that of other nations. Statistics reveal that our population has a relatively long life expectancy, declining death rates and reasonable access to health care.

- Australian population: 21 million in mid-2007
- Indigenous population: 493,000 people as at June 2005 (2.4 per cent of the total Australian population)
- Fertility rate: 1.77 births per woman in 2004. This is below replacement level but figures are stable.
- Unemployment rate: 4.6 per cent in January 2007
- Climate: mainly dry; high exposure to sun radiation
- Home ownership: high

It would seem we are a healthy population, but the reality is somewhat different. Within our population inequities in health status exist. Australians, whether as individuals, groups, local communities or the whole population, share a national identity. However, we vary greatly in terms of our ethnicity and race, religion, urbanisation, socioeconomic status and age. These social, economic and physical factors influence the health status of individuals and groups within our population. People living in rural and remote areas of Australia, for example, have higher mortality and illness rates than those of people living in metropolitan areas. Factors contributing to this inequity include the former group’s poor access to health services, lower socioeconomic status and lower employment levels.

The high prevalence of certain diseases, illnesses and injuries, particularly in specific groups of people, is a major concern to health authorities. To address inequities in health status, as well as the physical, social and economic burden that ill health places on individuals and communities, health authorities have identified specific health priority areas in Australia. These major causes of sickness and death, which we discuss in detail in chapter 2, are:

1. cardiovascular disease
2. cancer
3. injury
4. mental health
5. diabetes
6. asthma
7. arthritis and musculoskeletal conditions.

To identify health priority areas within a population it is necessary to understand the health status of that population and its subgroups. The health status of a nation is the pattern of health of the population in general over a period of time. To create an accurate and comprehensive picture of the health status of Australians, a range of information needs to be accessed. The following factors, for example, are analysed to determine health priority areas:

- inequities in health among subgroups within the Australian population
- the application of social justice principles
- the prevalence of the disease or injury
- the social, physical and economic burden to individuals and communities
The social, cultural, physical and political factors that have an impact on health
the potential to change the prevalence of the disease or injury to improve levels of health.

**MEASURING HEALTH STATUS**

The process of gathering information about sickness and death evolved in the seventeenth century in an effort to improve public health. We know that advances in science and technology have improved the health of the world's population. But we also know that we have moved from a high incidence of sickness and death from infectious diseases in the early 1900s to a prevalence of chronic lifestyle diseases in today's society. To understand the health status of the current population we need to consider not only the scientific aspects of disease but also the many environmental determinants of health.

The diagram in figure 1.2 illustrates how Australia's level of health is influenced by a range of health determinants and different types of interventions, supported by a variety of resources and systems.

**Determinants of health**
- Biomedical (e.g. blood pressure)
- Genetic
- Health behaviours (e.g. alcohol use)
- Socioeconomic
- Environmental

**Australia's levels of health and wellbeing**
- Life expectancy
- Mortality
- Subjective health
- Functioning, disability
- Illness and disease
- Injury

**Interventions**
- Prevention and health promotion
- Treatment and care
- Rehabilitation

**Resources and systems**
- Human
- Material
- Financial
- Research
- Evaluation
- Monitoring
- Surveillance
- Technology

**Figure 1.2**: A framework for Australia’s health (Source: Adapted from Australia's Health 2006, Australian Institute of Health and Welfare, Canberra, 2006, p. 5.)

**The role of epidemiology**

Traditionally we have measured health status through the process of data and information collection known as epidemiology, which is the study of disease in groups or populations. Epidemiology considers the patterns of disease in terms of:
- prevalence
- incidence
- distribution (extent)
- apparent causes (determinants and indicators).

Observations and statistics help researchers and health authorities to:
- describe and compare the patterns of health of groups, communities and populations

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**Chronic** means persisting over a long time, such as a chronic disease or illness.

**Determinants** are the range of personal, social, economic and environmental factors that determine the health status of individuals and populations.

**Epidemiology** is the study of disease in groups or populations.

**Prevalence** refers to the number of cases of disease that exists in a defined population at a point in time.

**Incidence** refers to the number of new cases of disease occurring in a defined population over a period of time.
• identify health needs and allocate health-care resources accordingly
• evaluate health behaviours and strategies to control and prevent disease
• identify and promote behaviours that can improve the health status of the overall population, such as eating less dietary fat and more dietary fibre.

The data collected through the epidemiological process focus on quantifiable and direct measures of ill health (or the lack of good health), such as patterns of illness, injury and death, rather than on the positive qualities of health and wellbeing. Epidemiology commonly uses statistics on births, deaths, disease incidence and prevalence, contact with health-care providers, hospital use (that is, treatment received in hospitals for medical problems), injury incidence, workdays lost and money spent on health care. For example, the Australian Bureau of Statistics report *Health of Children 2004* tells us that children aged 0–14 years made up 20 per cent of the total population; in 2002–03, this group represented 8.2 per cent of all hospitalisations; and the main reasons for hospitalisation were diseases of the respiratory system, injuries and poisons.

Epidemiology has proved to be an effective approach to measuring health status, but it has some limitations. Epidemiological statistics, for example, do not:
• always show the significant variations in the health status among population subgroups (for example, between Aboriginal and non-Aboriginal Australians)
• accurately indicate quality of life. A person’s health-related quality of life — in terms of their level of distress, impairment, disability or handicap is difficult to assess and poorly documented. Statistics tell us little about the degree and impact of illness.
• provide the whole health picture. Data on some areas are incomplete or non-existent. There is a lack of data on mental health, for example.
• answer ‘why’ health inequities persist
• account for the social, economic and cultural factors that shape health. Epidemiology emphasises controlled measurement based on disease and associated risk factors, with limited consideration of other contributing factors to health.

Statistics also have limitations due to the varying reliability (see page 274) of data, the numerous sources of information, imprecise methods of data collection, and whether surveys use standard instruments, definitions and classifications. For example, the National Health Survey conducted by the Australian Bureau of Statistics collects data through surveying one adult and one child from each sample dwelling to gain a picture of the health status of Australians. This type of data collection gives fairly reliable data on illnesses such as asthma and colds but unreliable data on illnesses such as cancer. To achieve an accurate picture of the health status of Australians, data would also need to be collected from places such as hospitals and nursing homes.

Despite its limitations, epidemiology provides valuable scientific information about disease and associated risk factors. It has been useful in providing a basis for investigating issues such as the impact of social, cultural and economic factors that support health or cause disease.

Recently, health authorities have acknowledged the need to adopt a measurement approach that focuses on the health of populations more than the diseases of individuals. To address inequities in health we must go beyond the disease and its risk factors to the environmental and social frameworks in which individuals live. The epidemiological measurement process must incorporate a social perspective to identify and combat Australia’s health priority areas effectively, and to reduce inequities in health. The higher rates of morbidity and mortality in rural and remote populations, for example, are
directly related to the social and environmental context of these communities. To reduce health inequities, factors such as poor access to health services, low socioeconomic status, attitudes to illness and health promotion, limited education about self-care and health practices must be addressed.

**Health status**
(groups, communities, populations, nation)

Collection bodies (Examples of)

<table>
<thead>
<tr>
<th>Medical Research Council</th>
<th>Australian Bureau of Statistics</th>
<th>Government departments</th>
<th>Workplace Safety Australia</th>
<th>National Heart Foundation</th>
<th>National Injury Surveillance Unit</th>
<th>Roads and Traffic Authority</th>
</tr>
</thead>
</table>

Collection, observation, analysis, reporting, dissemination, comparisons

**Figure 1.3:** The epidemiological process revealing Australia’s health status

### The role of epidemiology

1. What is epidemiology?
2. What can epidemiology show?
3. Who uses epidemiological measures?
5. Does epidemiology measure health or ill health?
6. Explain why there is an identified need to ‘focus on the health of populations more than the diseases of individuals’.
7. What other information is needed to ensure health priority areas are identified accurately and addressed effectively?

### Measures of epidemiology

The common indicators of the health of a community include measures of mortality (deaths), infant mortality, morbidity (ill health) and life expectancy.

**Mortality** refers to the number of deaths in a given population from a particular cause and/or over a period of time.

**Mortality rates**

Mortality rates indicate the number of deaths in a group of people or from a disease over a specific time period, usually one year. An objective and often
easily determined measure of health status, the mortality rate can be used to compare health status across groups — for example, there were 132,508 deaths registered in 2004 in Australia, of which 68,395 (51.6 per cent) were males and 64,113 (48.4 per cent) were females. When using mortality rates to compare the health status of Australians born overseas and those born in Australia, we find that standardised mortality rates for all categories of overseas-born Australians (both male and female) are lower than those of the Australian-born population.

Standardised death rates (deaths per 100,000 of population) can be used to compare Australia’s health with that of other nations, as shown in table 1.1. They can also help us to compare the health of Australians in different states; for example, in 2004, the Northern Territory recorded the highest standardised death rate and the ACT had the lowest rate.

Table 1.1: Comparisons of death rates (age standardised, per 100,000 population) for males and females, selected causes and selected countries

<table>
<thead>
<tr>
<th>Country (latest year)</th>
<th>Malignant neoplasms</th>
<th>Diabetes mellitus</th>
<th>Circulatory</th>
<th>Bronchitis, emphysema, asthma</th>
<th>Accidents and adverse events</th>
<th>All causes</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>M</td>
<td>F</td>
<td>M</td>
<td>F</td>
<td>M</td>
<td>F</td>
</tr>
<tr>
<td>Australia (2004)</td>
<td>128</td>
<td>85</td>
<td>11</td>
<td>7</td>
<td>126</td>
<td>79</td>
</tr>
<tr>
<td>Australia (2001)</td>
<td>138</td>
<td>90</td>
<td>10</td>
<td>6</td>
<td>144</td>
<td>96</td>
</tr>
<tr>
<td>Canada (2000)</td>
<td>146</td>
<td>104</td>
<td>14</td>
<td>9</td>
<td>151</td>
<td>93</td>
</tr>
<tr>
<td>Czech Republic (2002)</td>
<td>209</td>
<td>116</td>
<td>7</td>
<td>6</td>
<td>312</td>
<td>205</td>
</tr>
<tr>
<td>France (2000)</td>
<td>179</td>
<td>85</td>
<td>9</td>
<td>6</td>
<td>131</td>
<td>79</td>
</tr>
<tr>
<td>Italy (2001)</td>
<td>160</td>
<td>88</td>
<td>11</td>
<td>10</td>
<td>160</td>
<td>108</td>
</tr>
<tr>
<td>Japan (2002)</td>
<td>141</td>
<td>72</td>
<td>5</td>
<td>3</td>
<td>107</td>
<td>65</td>
</tr>
<tr>
<td>Korea, Republic of (2002)</td>
<td>183</td>
<td>74</td>
<td>27</td>
<td>19</td>
<td>137</td>
<td>94</td>
</tr>
<tr>
<td>Sweden (2001)</td>
<td>118</td>
<td>95</td>
<td>9</td>
<td>6</td>
<td>185</td>
<td>118</td>
</tr>
<tr>
<td>United Kingdom (2002)</td>
<td>148</td>
<td>109</td>
<td>6</td>
<td>4</td>
<td>188</td>
<td>122</td>
</tr>
<tr>
<td>United States (2000)</td>
<td>144</td>
<td>104</td>
<td>16</td>
<td>13</td>
<td>200</td>
<td>136</td>
</tr>
</tbody>
</table>


Application

Analysing health data

Examine the information in table 1.1 on death rates for males and females due to selected causes in selected countries.

1. Choose one cause of death and four countries from the table.
2. Draw a graph to present the data on that cause of death for the chosen countries. You may like to use a software program such as Excel to create the graph.
3. Write a paragraph describing what the graph illustrates about the differences between the countries. Share your findings with the class.
Infant mortality rates

Infant mortality rates are defined as the number of infant deaths in the first year of life per 1000 live births. This measure is considered to be the most important indicator of the health status of a nation, and can also predict adult life expectancy.

Infant mortality can be divided into neonatal (deaths in the first 28 days of life) and postneonatal (deaths in the remainder of the first year of life). The former is influenced by the quality of maternal and neonatal care.

The infant mortality rate in Australia has declined steadily over the past few decades (see figure 1.4). The neonatal mortality rate declined from 7.1 per 1000 live births in 1980 to 3.5 deaths per 1000 live births in 2000. The infant mortality rate was 5 infant deaths per 1000 live births in 2002. However, this is higher among indigenous infants. Most infant deaths were attributed to congenital malformations.

Despite a continued decline, infant mortality still accounts for two-thirds of all deaths of children aged 0–14 years (Australian Bureau of Statistics, *Health of Children Report 2004*; ABS 2003b, Deaths Australia cat. no. 3302.0.)

The decline in the infant mortality rate over recent decades can be attributed to:

- improved medical diagnosis and treatment of illness
- improved public sanitation
- health education
- improved support services for parents and newborn babies and children.

**Figure 1.4:** Infant mortality rate, Australia, 1902–2002 (number of infant deaths per 1000 live births) (*Source: Australian Bureau of Statistics, Health of Children Report 2004*; ABS 2003b, Deaths Australia cat. no. 3302.0.)

**Figure 1.5:** Improved support services such as baby health clinics have contributed to the reduction in infant mortality in Australia over the last century.
Significance of infant mortality rates

1. Investigate reasons for the decline in infant mortality rates over the past few decades.


3. Why is the infant mortality rate a good indicator of the general health and wellbeing of a population?

4. Suggest preventative measures that could be undertaken during pregnancy that would support a continued decline in infant mortality rates.

Morbidity

Morbidity (sickness) refers to patterns of illness, disease and injury that do not result in death. Illness, disease and injury are all conditions that reduce our quality of life, either temporarily or permanently. Information about the incidence and prevalence of these conditions in the total population gives us a broader perspective on the nation’s health than that provided by mortality statistics.

Morbidity measures and indicators include:

- *hospital use* (the cause and number of admissions to hospital). These statistics provide some measure of the rates of illness (acute rather than chronic) and accidents in the community. The causes of hospital use indicate the major reasons for our ill health as a nation. They also provide useful information about the pattern of more serious diseases, such as cancer and stroke, which require medical treatment. However, they do not describe less serious illness and ill health that remain untreated.

  Hospitalisation statistics have limitations as indicators of morbidity as they do not distinguish between readmissions for the same condition and conditions that require further care. Rather, they treat each episode of inpatient care as a new case.

- *doctor visits and Medicare statistics*. Medicare statistics (services claimed on Medicare) indicate the reasons for doctor visits and the number of visits. They can also provide the number of days absent from work as a result of sickness. However, this information does not always include visits to doctors for checkups (either yearly health checks or checks for the purpose of pregnancy or contraception) or for advice and counselling. As with hospital use statistics, doctor visits by females may not always reflect ill health; for example, the statistics count visitations for pregnancy and childbirth.

- *health surveys and reports*. National health and other surveys can provide a range of key health indicators and bring together an extensive range of health information. Often, health surveys depend on self-reporting, so individual perceptions of health and illness will affect the information gathered to varying degrees.

- *disability and handicap*. The incidence of disease or accident can lead to impairment, disability and handicap. A person...
incurred injury in an accident, for example, could be impaired. The resulting abnormal function or loss of physical or mental capacities could cause disability by disturbing the individual’s normal activity or performance. Disability can be in terms of self-care, mobility, verbal communication, schooling and/or employment. A handicap is a perceived social disadvantage that results from the impairment or disability.

The 2004–05 National Health Survey obtained information about the health status of Australians. It found that 77 per cent of the population had one or more long-term disease or medical condition, of which many were minor, temporary and/or easily managed.

Figure 1.7 shows selected health characteristics of age groups within the Australian population, reflecting their perception of their own health status and long-term health conditions.

Figure 1.7: Five most commonly reported long-term conditions, by age group, 2004–05 (Source: Data derived from Australia’s Health 2006, AIHW, 2006, table 2.15, p. 41.)

**Inquiry**

**Accessing data from the National Health Survey**

Access the summary of results of the latest National Health Survey by going to the website for this book and clicking on the National Health Survey weblink for this chapter (see ‘Weblinks’, pages x–xi). Download the document then information to answer the following questions.

1. Do Australians consider themselves to be healthy? Why do you think this is so?

2. What is the most significant health condition affecting:
   - (a) 15- to 17-year-olds
   - (b) 18- to 64-year-olds
   - (c) people aged over 65?

3. Over half of those surveyed in the 15–17 years age group did very little exercise. Why could this be a concern for the future health of these people?
Life expectancy

Life expectancy refers to the average number of years of life remaining to a person at a particular age, based on the current death rates.

Life expectancy is a measure of current mortality, not a predictor of future life span. It is defined as the average number of years of life a person of a particular age has remaining. It is based on the current death rate and therefore does not account for subsequent changes in mortality. Life expectancy at birth is a common indicator of health status and is often used as evidence in statements about the improved health of Australians.

We are now living longer. Our average life expectancy at birth was 83 years for females and 78 years for males in 2002–04. Australia has one of the highest life expectancy rates, ranking in the top five nations in the world. It has continued to rise steadily since the 1920s (see table 1.2), although in the 1960s there was a marked increase in male deaths from cardiovascular disease. Improvements in life expectancy since the 1970s have resulted from a reduction in death rates at all ages. These improvements can be attributed to:

- lower infant mortality
- declining death rates for cardiovascular disease
- declining overall death rates from cancer
- fall in deaths from traffic accidents.

We may be living longer because medical knowledge and management have improved, not necessarily because some health problems no longer exist. It is also important to consider the quality of life of people who have had their life extended through medical intervention. For some the quality of life is improved, for others it is not.

As life expectancy increases, so too does our ageing population. At present, a significant percentage of our population are aged; this number continues to increase. The impact this has had and will have on society needs to be considered. For example, increased life expectancy has led to an increased demand for health services that cater for the elderly, an increased need for nursing homes, and the need to provide care for a growing number of dependent people.

Life expectancies are useful indicators because they are unaffected by the age distribution of the population and can be used to make comparisons with other countries (see figure 1.9).

Table 1.2: Life expectancy at selected ages, by sex, 1901–10 to 2002–04 (years)

<table>
<thead>
<tr>
<th>Year</th>
<th>At birth</th>
<th>At age 25</th>
<th>At age 65</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Males</td>
<td>Females</td>
<td>Males</td>
</tr>
<tr>
<td>1901–10</td>
<td>55.2</td>
<td>58.8</td>
<td>40.6</td>
</tr>
<tr>
<td>1920–22</td>
<td>59.2</td>
<td>63.3</td>
<td>42.7</td>
</tr>
<tr>
<td>1946–48</td>
<td>66.1</td>
<td>70.6</td>
<td>45.0</td>
</tr>
<tr>
<td>1960–62</td>
<td>67.9</td>
<td>74.2</td>
<td>45.8</td>
</tr>
<tr>
<td>1980–82</td>
<td>71.2</td>
<td>78.3</td>
<td>48.2</td>
</tr>
<tr>
<td>1990–92</td>
<td>74.3</td>
<td>80.4</td>
<td>50.8</td>
</tr>
<tr>
<td>2000–02</td>
<td>77.4</td>
<td>82.6</td>
<td>53.5</td>
</tr>
<tr>
<td>2002–04</td>
<td>78.1</td>
<td>83.0</td>
<td>54.1</td>
</tr>
</tbody>
</table>

Measuring health status

Carry out research to find more information on one of the measures of epidemiology — that is, either mortality rates, infant mortality, life expectancy or morbidity. Visit the website for this book and click on the weblinks for the following organisations to find the most recent information on trends (see ‘Weblinks’, pages x–xi). Present your findings as a brief oral or PowerPoint presentation.

- Australian Bureau of Statistics
- Australian Institute of Health and Welfare
- Department of Health and Ageing
- National Heart Foundation
- National Injury Surveillance Unit
- World Health Organization.

THE HEALTH STATUS OF AUSTRALIANS

To develop a clear understanding of the health status of Australians, a number of factors must be taken into account. These include:

- epidemiological data and information and the trends they highlight
- the social, cultural, political, economic and physical environmental determinants of health
- the health inequities that exist among groups of people.
Current trends in Australian epidemiological data on life expectancy, mortality and morbidity rates can provide a general picture of the health status of Australians. These trends in part reflect the political, social and economic environment of the time and, as a result, change over time. They also reveal inequities in health among our population’s subgroups.

Health levels vary significantly across various subgroups of people. Epidemiological data reveal that some groups of people suffer from higher levels of disease and injury. The increased incidence of ill health among these groups is often the result of a complex interaction of individual behaviours and environmental factors that shape health. Groups that experience health inequities include:

- Aboriginal and Torres Strait Islander peoples
- Socioeconomically disadvantaged groups
- Australians born overseas
- People living in rural and isolated locations
- People with disabilities
- Women
- Men
- Older people.

Australia improves its health ranking

Read the snapshot ‘Australia improves its health ranking’ and answer the following questions.

1. List the areas of Australia’s health that have improved.
2. Give an example of a rising trend that affects health status.
3. Give an example of a falling trend.
4. Which population group experiences inequities in health status?
5. Identify three areas of concern outlined in the article and discuss the risk factors contributing to them.
6. Read some recent media releases on health trends by visiting the website for this book and clicking on the AIHW Media Centre weblink for this chapter (see ‘Weblinks’, pages x–xi). Choose one media release and summarise it in point form.

SNAPSHOT

Australia improves its health ranking

Australia’s international ranking for numerous aspects of health is among the top 10 of the world’s developed countries, according to the Australian Institute of Health and Welfare’s latest national report card on health, Australia’s Health 2006.

It shows that while we should be pleased with the overall improvements in health, lifestyle-related risk factors such as insufficient physical activity, obesity and type 2 diabetes are still a concern. Smoking also remains a public health challenge, and there is still too little evidence that the health of Aboriginal and Torres Strait Islander peoples is improving.

Australia’s Health 2006 looks at the health status of the Australian population and the factors that influence it, including health services and expenditure. This edition of the biennial publication also includes a special chapter on the health of Australia’s children, and shows that children under 15 years of age are generally much healthier than in previous generations.

‘Vaccination rates have improved in recent years and smoking rates halved between 1994 and 2002. However, childhood obesity is still a great cause for concern, as is the increased incidence of diabetes,’ said Dr Penny Allbon, Director of the AIHW.
Australia’s Health 2006 editor Dr Paul Magnus noted that Australia’s overall cancer death rates declined by about 14 per cent between 1986 and 2004.

‘Australia’s smoking rates are already low when compared with other Western countries, so with rates continuing to fall, Australia’s ranking has improved from the middle third to the best third,’ Dr Magnus said.

Australia’s international ranking for death rates from coronary heart disease, stroke, lung cancer and transport accidents have also improved markedly.

‘There is now much better information in the community about health, and Australia’s network of health services has continued to improve, providing prevention, early intervention and better treatment of disease,’ Dr Allbon said.

Our international rankings have fallen, however, in relation to diabetes (self-reported diabetes more than doubled between 1989–90 and 2004–05), respiratory diseases, and mortality from suicide, even though the overall suicide rate for males in 2004 was the lowest since records began in 1907,’ she added.

The other disturbing fact that continues to pervade the overall health picture is the poorer health of Australia’s indigenous population. Death rates of indigenous infants remain about three times those of other Australian infants, and about 70 per cent of indigenous Australians die before reaching 65, compared with a little over 20 per cent for other Australians.’

Australia’s Health 2006 explores many aspects of Australia’s complex health system in one volume. It brings statistics together in a way designed to inform policy makers, service providers, consumers and interested citizens alike.

‘Overall, the picture that emerges is of a high quality health system serving the bulk of the population well, but under pressure to deliver even more,’ Dr Allbon said.

Australia’s Health 2006 highlights

- Australians continue to live longer. Babies born today can expect to live for over 80 years on average. For females, life expectancy at birth in 2002–04 was 83 years and for males it was 78 years. (Australia’s Health 2006, p. 17)
- Death rates for cardiovascular disease continue to decline, including heart attack and stroke. (pp. 54, 64)
- Australia’s overall cancer death rates declined by about 14 per cent between 1986 and 2004 and these rates are low when compared with other Western countries. (pp. 78, 79)
- Despite improvements, cancer is now Australia’s leading cause of death among 45- to 64-year-olds and causes more premature deaths and overall disease burden than cardiovascular disease. (pp. 52, 131)
- Mental ill health is the leading cause of the non-fatal burden of disease and injury in Australia. Also, it is estimated to have caused about one eighth of the total Australian disease burden in 2003, exceeded only by cancer and cardiovascular disease. (p. 131)
- The prevalence of self-reported diabetes more than doubled between 1989–90 and 2004–05. However, between 1997 and 2004, death rates from diabetes were stable for males and fell slightly for females. (p. 70)
- Smoking rates continue to fall, with one in six Australians aged 14 years or over smoking tobacco daily in 2004, compared with seven in 10 men and three in 10 women in the 1950s. (pp. 158–9)
- About one in 12 young people aged 12–19 years smoked daily in 2004, more females (9.1 per cent) than males (7.3 per cent). (pp. 159–60)
- In 2004, about five in six Australians aged 14 years or over had drunk alcohol in the previous 12 months. About one in 12 had drunk at levels that risked harm in both the short and long term. (pp. 167–8)
- The proportion of children under 15 years who are overweight or obese continues to rise, according to state-level data. (p. 272)
- Dementia is the greatest single contributor to the burden of disease due to disability at older ages, as well as the greatest single contributor to the cost of care in residential aged care. It is estimated that in 2004 about 171 000 people aged 65 years or over had dementia. (p. 218)
- A 2004 survey of prison entrants found that their prevalence of hepatitis C was 25 times as high as in the general population. (p. 250)
- About 70 per cent of indigenous Australians die before reaching 65 years of age, compared with a little over 20 per cent for other Australians. (p. 226)
- Death rates of indigenous infants and children (under 15 years) generally remain about three times those of other Australian infants and children. (p. 278)

(continued)
• Average per person expenditure on health for Aboriginal and Torres Strait Islander peoples was 18 per cent higher than for other Australians, although the general health status of indigenous peoples was considerably poorer. (p. 291)
• In 2005, one in 17 of all employed people were in health occupations — nearly 570 000 Australians, representing a growth of 26 per cent since 2000. (p. 315)
• According to OECD figures, Australia had higher numbers of general practitioners and nurses relative to population in 2003 than did New Zealand, Canada, the United States and the United Kingdom. (p. 330)
• Health service use has increased by almost any measure: medical services up by 4.4 per cent in just one year; hospital stays up almost 9 per cent in the public sector over the last five years and 30 per cent in the private sector; and pharmaceutical prescriptions up 41 per cent over the latest decade. (pp. 344, 356, 361)
• Around 85 per cent of Australians visit a doctor at least once a year, at an average of five GP visits per Australian. However, this includes 4 per cent of people having more than 50 medical services in a year. (pp. 342, 343–4)


Current trends
The health statistics and information gathered through the epidemiological process enable us to examine the current rates of, and trends in, mortality and morbidity in Australia.

Life expectancy trends
As we saw in table 1.2 (page 12), life expectancy for both males and females has increased significantly over the past century. Most Australians can now expect to live for an average of 80 years. This trend does not, however, apply to all groups in Australian society, as illustrated in the case study on life expectancy in the Northern Territory.

CASE STUDY

Aborigines’ life span 20 years shorter in NT
By Chantal Rumble
The life expectancy of Aborigines in the Northern Territory is almost 20 years below the national average as increasing rates of chronic illness undermine improvements in the fight against infectious diseases.

A study in the latest Medical Journal of Australia reveals that between 1981 and 2000 the vast gap between the life expectancy of Aboriginal and non-Aboriginal people in the territory continued to widen, growing by more than two years for women and almost four years for men.

Aboriginal men and women born in 2000 have a life expectancy respectively 17 and 19 years less than their non-Aboriginal counterparts. Study author and NT Health Department senior health economist Yuejen Zhao said the persistent life expectancy gap masked the many gains in treating endemic Aboriginal health problems, such as infectious and parasitic diseases, but pointed to the growing problem of chronic diseases.

These diseases, including diabetes, heart disease and cancer, are now responsible for 80 per cent of the life expectancy gap between the populations.

Dr Zhao said social, economic and educational disadvantage, as well as poor access to primary health care services, were responsible for the growing disparity.

The study comes as the Australian Medical Association prepares to launch its latest report card on Aboriginal health.

The report, written by Access Economics and due for release on Thursday, will call for almost $500 million to be ploughed into Aboriginal primary health care.
AMA president Mukesh Haikerwal said better, more accessible primary care was essential to combat chronic diseases which, although increasing across the entire population, were of particular concern in Aboriginal communities because they struck earlier and with more severe consequences.

Dr Haikerwal also said it was too soon to declare the battle won against infectious diseases. ‘We have got better with infectious disease but we haven’t got rid of it and we haven’t got rid of the conditions that cause it, like poor housing, poor nutrition, poor water, poor sanitation, low-birth-weight babies and poor access to health care,’ he said.

The call for increased investment in primary health care was echoed by NT Health Minister Peter Toyne.

Mr Toyne said the territory had implemented a five-year plan to minimise the mushrooming problem of chronic disease through prevention and better acute care facilities, but needed more support.

Federal Health Minister Tony Abbott said the Government would spend $350 million on Aboriginal health this year.

**Tale of two peoples**
- The life expectancy of Aborigines in the NT is below that of non-Aborigines by 19 years for women and almost 17 years for men.
- The life expectancy gap grew by more than two years for women and by almost four years for men between 1981 and 2000.
- Non-communicable diseases, such as heart disease, diabetes and cancer, now account for almost 80 per cent of the gap.
- Between 1981 and 2000, the mortality rates for Aboriginal people were two to three times higher than for non-Aborigines.
- Aboriginal people are nine times more likely to die between the ages of 40 and 50 than non-Aborigines.


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**Inquiry**

**Life expectancy in the Northern Territory**

Read the case study ‘Aborigines’ life span 20 years shorter in the NT’, then answer the following questions.

1. What was the trend reported in the *Medical Journal of Australia*?
2. Identify from the article the disparities in life expectancy between indigenous and non-indigenous people in the Northern Territory.
3. Explain the factors that have contributed to the poorer life expectancy of indigenous people in the Northern Territory.
4. What does the article suggest should be done to improve the life expectancy of indigenous people?

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**Trends in the major causes of illness and death**

- *Diseases of the circulatory system (cardiovascular disease)* were the leading cause of death for men and women in Australia in 2004, accounting for 36 per cent of all deaths (the figure was 41.9 per cent in 1996). Coronary heart disease was the major cardiovascular cause of death (accounting for 19 per cent of all deaths in 2004) followed by stroke, heart failure and peripheral vascular disease.

  - The death rate from cardiovascular disease continues to fall. This can be attributed to declines in risk factors such as the prevalence of smoking and high blood pressure in adults, and to improvements in medical technology (including responses to, treatment of and management of disease and injury). Levels of physical activity have hardly improved, and there is a disturbing number of Australians who are overweight or obese; an estimated 2.5 million adults were obese in 2004–05. If these trends continue, they may counter the effects of reduced smoking and reduced high blood pressure.
The death rate from stroke has declined steadily, possibly as a result of the declining rates of smoking among adults.

- Cancer is one of the major causes of death in Australia. In each of the years 2002–04, cancer was a major underlying cause of 28 per cent of all deaths. A large percentage of reported cancer cases are skin cancer.
- Prostate cancer is the most common cancer in males, followed by colorectal cancer, lung cancer and melanoma. According to the report Cancer in Australia — A Snapshot, 2004–2005 (Australian Bureau of Statistics), these four cancers together accounted for 60 per cent of all registered cancers in males in 2001.
- Breast cancer is the most common cancer in females, followed by colorectal cancer, melanoma and lung cancer. These four cancers together accounted for 60 per cent of all registered cancers in females in 2001.
- Cancer was the cause of 17 per cent of all deaths reported for indigenous Australians in 2004, with cancers of the digestive organs and lung cancer the most common types. Leading a sedentary lifestyle, being overweight or obese, smoking, poor diet and high alcohol consumption are all suspected risk factors for developing cancer.

### Table 1.3: Leading causes of death in Australia, 2004

<table>
<thead>
<tr>
<th></th>
<th>Share (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Males</strong></td>
<td></td>
</tr>
<tr>
<td>Ischaemic heart disease</td>
<td>19.2</td>
</tr>
<tr>
<td>Cerebrovascular disease</td>
<td>7.1</td>
</tr>
<tr>
<td>Lung cancer</td>
<td>6.9</td>
</tr>
<tr>
<td>Other heart diseases</td>
<td>4.8</td>
</tr>
<tr>
<td>Chronic obstructive pulmonary disease</td>
<td>4.4</td>
</tr>
<tr>
<td>Prostate cancer</td>
<td>4.0</td>
</tr>
<tr>
<td><strong>Females</strong></td>
<td></td>
</tr>
<tr>
<td>Ischaemic heart disease</td>
<td>17.8</td>
</tr>
<tr>
<td>Cerebrovascular disease</td>
<td>11.3</td>
</tr>
<tr>
<td>Other heart diseases</td>
<td>6.7</td>
</tr>
<tr>
<td>Dementia and related disorders</td>
<td>5.1</td>
</tr>
<tr>
<td>Breast cancer</td>
<td>4.1</td>
</tr>
<tr>
<td>Lung cancer</td>
<td>3.9</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Age group</th>
<th>Conditions</th>
</tr>
</thead>
<tbody>
<tr>
<td>Aged less than 1</td>
<td>Conditions emerging from the perinatal period</td>
</tr>
<tr>
<td>1–14 years</td>
<td>Injury and poisoning</td>
</tr>
<tr>
<td>15–24 years</td>
<td>Injury and poisoning</td>
</tr>
<tr>
<td>25–44 years</td>
<td>Injury and poisoning (males), Cancer (females)</td>
</tr>
<tr>
<td>45–64 years</td>
<td>Cancer</td>
</tr>
<tr>
<td>65–84 years</td>
<td>Cancer (males), Cardiovascular disease (females)</td>
</tr>
<tr>
<td>85+ years</td>
<td>Cardiovascular disease</td>
</tr>
</tbody>
</table>

**Source:** Data derived from Australia’s Health 2006, Australian Institute of Health and Welfare, Canberra.

- Diabetes accounted for 5.8 per cent of the overall disease burden in Australia in 2003. It is a serious chronic disease that can lead to disability and premature death. There are three main types of diabetes: type 1, type 2 and gestational diabetes. In 2004, diabetes was the underlying cause of 2.7 per cent of all deaths and an associated cause of 6.1 per cent of all deaths.
- Evidence suggests that the incidence of type 1 diabetes is increasing among children.
Self-reported data in the National Health Survey 2004–05 indicates 3.5 per cent of the population had been diagnosed with diabetes, 13 per cent with type 1 and 83 per cent with type 2.

Indigenous people have a significantly higher rate of diabetes.

*Injuries* are a significant cause of death and disability in children. The 2004–05 National Health Survey revealed that 18 per cent of all respondents had had an injury in the previous four weeks. The most common events were falls and hitting, or being hit by something.

*Respiratory diseases*, including asthma, bronchitis, emphysema, pneumonia and influenza, are a leading cause of death in Australians.

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**Figure 1.10:** Trends in the incidence rates (per 100 000 persons) of selected cancers in Australia, 1986–2006 (projected) (excluding non-melanocytic skin cancers) (Source: Data from *Australia’s Health 2006*, AIHW, table 2.25, p. 75.)

**Trends in cancer as a cause of illness**

Analyse figure 1.10 on the leading cancers in Australia.

1. In point form, describe the trends in cancer rates evident in the graph.
2. What risk factors are associated with the leading three types of cancer? Discuss.
3. What other information is required to develop a more comprehensive understanding of cancer as a health priority area for Australia?

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**Groups experiencing health inequities**

The mortality statistics described earlier appear to indicate a generally improved health status for Australians, but unfortunately this is not shared Australia-wide. There are some fundamental differences in the health of our generally affluent society. These differences exist in terms of:

- **inequality** — that is, the unequal distribution of some illnesses or conditions throughout the population (across different cultures, ethnic origins, geographic locations, ages and genders)
- **inequity** — that is, the unjust impact of social, economic and cultural factors such as income, education, availability of transport and access to health services. Inequities in these areas can lead to inequalities in health status by minimising an individual’s choices about their health or simply by being a determinant of health.
Major indicators such as the incidence and prevalence of disease, and different rates of sickness, hospitalisation and death point to areas in which inequalities exist. A number of groups within the Australian population are most at risk of experiencing health inequities, including Aboriginal and Torres Strait Islander peoples, socioeconomically disadvantaged groups and people living in rural and isolated locations.

**Aboriginal and Torres Strait Islander peoples**

Major inequalities exist in the health status of Aboriginal and Torres Strait Islander peoples. These indigenous people experience a much poorer level of health compared with that of non-indigenous people, they die at a younger age and are more likely to have reduced quality of life. Indigenous people are reported to have:

- lower life expectancy rates at birth for both males and females. Life expectancy for the period 1996–2001 was 59 years for indigenous males and 65 years for indigenous females.
- higher mortality rates at all ages compared with the rates for non-indigenous people. In the four states with the largest indigenous populations, 70 per cent of indigenous people who died were younger than 65 years, compared with the 21 per cent of non-indigenous people who died younger than 65 years.
- mortality from preventable causes was significantly higher than that for Australia as a whole. Death rates were almost three times as high for indigenous males and females as for the non-indigenous population.
- high death rates from diseases of the circulatory system (including heart disease and stroke), injuries (including motor vehicle crashes, homicide and suicide), respiratory diseases (including pneumonia), cancer, endocrine disorders (specifically diabetes), and digestive disorders
- an infant mortality rate that is three times higher than the national average.

Trends in the health status of Aboriginal and Torres Strait Islander people include:

- a decline in death rates from all causes for indigenous males (reflecting a similar reduction for all Australian males)
- a similar decline in death rates for indigenous females.

![Figure 1.11: Age distribution of deaths among indigenous and non-indigenous people, 2000–04 (Source: Australia’s Health 2006, Australian Institute of Health and Welfare, figure 4.9, p. 226.)](image-url)
Indigenous people more likely to have heart attacks, less likely to receive medical procedures

A new report released today by the Australian Institute of Health and Welfare (AIHW) reveals some concerning statistics about heart attacks and treatment in Aboriginal and Torres Strait Islander people.

Ms Sushma Mathur of the AIHW’s Cardiovascular Disease and Diabetes Unit said that the report, *Aboriginal and Torres Strait Islander People with Coronary Heart Disease: Further Perspectives on Health Status and Treatment*, is the first study of this scale to measure indigenous hospital procedure rates relative to the need for those procedures, taking case complexity into account.

‘It is well known that indigenous Australians have much higher death rates from heart attacks than other Australians, but what we haven’t known is whether this is because they are more likely to have a heart attack in the first place, have lower survival rates, receive less treatment, or present as more complex cases,’ she said.

The study found that indigenous Australians are considerably more likely to suffer a heart attack and to die from it, regardless of whether or not they are admitted to hospital. And even when admitted to hospital they are less likely to receive some medical investigations or common life saving procedures.

‘This is a complex issue, and there are many factors that impact on the health outcomes for indigenous people — socioeconomic differences and location are just two of the factors that could contribute to these lower procedure rates,’ Ms Mathur said.

The report found that compared with other Australians, Aboriginal and Torres Strait Islander people had three times the rate of ‘major coronary events’ such as heart attacks.

When admitted to hospital for coronary heart disease indigenous Australians had:
- more than twice the chance of dying in hospital
- a 40 per cent lower rate of being investigated by angiography
- a 40 per cent lower rate of coronary angioplasty or stent procedures
- a 20 per cent lower rate of coronary bypass surgery.

‘It should be noted that the study was limited in some respects because it did not control for socio-economic status or remoteness, and only data from Queensland, Western Australia, South Australia and the Northern Territory had adequate identification of indigenous Australians.

‘However, even allowing for those limitations, the size of the disparities in health outcomes and treatment is disturbing. It makes a compelling case that ways must be found to better understand and eliminate those disparities,’ Ms Mathur said.


Report shows disparity between diabetes hospitalisation rates for Indigenous people and other Australians

A new report released today by the Australian Institute of Health and Welfare (AIHW) showed that diabetes hospitalisation rates for Aboriginal and Torres Strait Islander peoples are substantially higher than hospitalisation rates for other Australians with diabetes.

Ms Kathleen O’Brien of the AIHW’s Cardiovascular Disease and Diabetes Unit said the report looked at trends in diabetes-related hospitalisations using hospital statistics over the period 1996–97 to 2003–04.

It found that diabetes-related hospitalisations increased by 20 per cent between 2000–01 and 2003–04, and the average length of stay for someone with diabetes was more than three times the overall average length of stay.

*(continued)*
The report, *Diabetes Hospitalisations in Australia, 2003–04*, found that in cases where diabetes was the main reason for hospitalisation, the rate for Aboriginal and Torres Strait Islander peoples was over seven times the rate of diabetes hospitalisations for other Australians.

The report also examined variations in hospitalisation rates across different socioeconomic groups and geographic regions. It showed that hospitalisation rates rose with increasing socioeconomic disadvantage and increasing remoteness.

Diabetes was most commonly associated with hospitalisations for circulatory diseases such as coronary heart disease and stroke.

‘Diabetes is a chronic condition that can have a major impact on life expectancy and quality of life, especially if undetected or poorly controlled,’ Ms O’Brien said.

*Source: Australian Institute of Health and Welfare, media release, 30 August 2006.*

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**Inquiry**

**Aboriginal health inequities**

Read the snapshots above about reports on indigenous health and answer the following questions.

1. Summarise the issues that are raised in the two snapshots relating to the health of indigenous people in Australia.
2. What inequities exist in the health status of indigenous people?
3. Why do they exist? Suggest some measures that could be taken to address the inequities.
4. Conduct some research into the diseases that disproportionately affect Aboriginal people. Present a one-page report on your findings.

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**Socioeconomically disadvantaged groups**

Socioeconomic status can be measured by income, education level, occupation or areas of socioeconomic disadvantage. There is a consistent relationship between an individual’s socioeconomic status and their health. In all age groups, men and women from lower socioeconomic status backgrounds have higher mortality and higher levels of illness than those of the more affluent. Studies have revealed that in Australia:

- higher socioeconomic groups have a lower infant mortality rate
- higher socioeconomic groups are better educated about their health — that is, lower education is associated with higher levels of blood pressure in both sexes, higher LDL (low-density lipoproteins) cholesterol levels in women and a higher body mass index in both sexes
- the decline in heart disease death rates is greater in higher socioeconomic groups
- smoking prevalence tends to fall as occupational status rises. In 2004, 27 per cent of people living in the most disadvantaged areas smoked, compared with 15 per cent of people living in the least disadvantaged areas.
- people of low socioeconomic status appear to be less informed about health
- lower socioeconomic groups make less use of preventative health services such as immunisation, family planning, dental checkups and Pap smears
- people from low socioeconomic groups are sick more often and die younger. People from lower socioeconomic areas have higher rates of mortality overall and for most causes of death.
What are the reasons behind the health traits of population subgroups that have low socioeconomic status? In small groups, discuss a health issue that affects socioeconomically disadvantaged groups and list some ways to address the problem. Present your group’s ideas in a short PowerPoint presentation.

**Australians born overseas**

In 2004, 24 per cent of the Australian population was born overseas. Australians born overseas generally enjoy a higher level of health than that of the Australian-born population. Statistics reveal lower death rates, lower hospitalisation rates and a reduced incidence of lifestyle-related risk factors; for example, the mortality rate for skin cancer is very low among overseas-born Australians. In 2001–03, death rates for overseas-born people were 7 per cent below that of Australian-born people. These statistics can be attributed to migration eligibility criteria, whereby people who are in good health are more likely to be accepted as immigrants to this country. As the time of residence in Australia lengthens, the more likely overseas-born Australians are to adopt the Australian lifestyle.

Given the general good health of overseas-born Australians, there are some significant inequities in health between our overseas-born population and Australian-born population, including:

- high rates of mortality from lung cancer for people from the United Kingdom and Ireland
- higher rates of diabetes and cervical cancer in the population groups of Asian origin
- markedly lower death rates for people born in China and Vietnam
- a much lower incidence of skin cancer in overseas-born Australians.

**People living in rural and isolated locations**

Approximately 34 per cent of the Australian population lives in rural or remote areas. The health of people living in rural and isolated areas is poorer than that of people living in city areas. Statistics reveal higher mortality and illness rates for this group. This reflects the poorer health status of indigenous Australians. People living in rural and remote areas are more likely to:

- be smokers
- drink alcohol in hazardous quantities
- be overweight or obese
- be physically inactive
- have lower levels of education
• have poorer access to specialist and other medical services
• have risky occupations
• be at higher risk on the road due to longer travelling distances.

Regardless of these factors, this does not necessarily mean that remoteness equates to poor health. There are individuals and groups within rural and remote communities who are of good health.

There have been some improvements in death rates in rural and remote locations with a 3 per cent decline in male death rates and a 2 per cent decline in female death rates. This is largely due to a reduction in cardiovascular and cancer death rates.

People with disabilities

Disability can be measured along a continuum. Components of functioning and disability reflect an interaction between the health condition of the person and his or her environment.

In 2003, 3.9 million people, or 20 per cent of Australia’s population, were affected by an impairment, activity limitation or participation restriction in the environment in which they lived. Around 2.6 million of these people were under the age of 65.

The actual number of people living with a disability is increasing as a result of the ageing population. Statistics reveal that the numbers of indigenous people living with severe disability are more than double that of other Australians.

Of young Australians, about 9 per cent were living with a disability in 2003. Twenty-four per cent of these young people with disabilities had profound or severe core activity limitation. These people need help or supervision with self-care, communication or mobility.

People aged 65 years or older are more likely to have a disability than younger people. Trends show that the prevalence of disability among older people has not changed much over the past five years. In 2003, 22 per cent of older people had a profound or severe core activity limitation.

Men and women 25–64 years of age

As of June 2004, men and women in the 25–64 years age group comprised 53 per cent of the population. This age group enjoys relatively good levels of health and has one of the longest life expectancies in the world. As people age, morbidity and mortality rates increase. For example, rates of heart disease and cancer are higher in the latter part of this age group than for 25-year-olds.

As with all age groups, there are significant variations in health status among people; for example, the health status of 25- to 64-year-old indigenous people and those from socioeconomically disadvantaged backgrounds is worse than others. These people are more likely to have behaviours that are detrimental to their health, such as smoking and drinking alcohol at hazardous levels. They are more likely to assess their health as poor, be obese and have high blood pressure.

There are also significant variations in the health of males and females, as there is in the 15–24 years age group. Although heart disease is a significant cause of death for both sexes, death rates for lung cancer are much higher in males and breast cancer is a significant cause of death for women. Males are much more at risk of injury and poisoning, particularly in the 25–44 years age range.
Differences in morbidity and mortality rates may be attributed to attitudes towards health between the sexes and differences in health behaviours. For example, higher rates of injury due to transport accidents in males can be attributed to their driving behaviours. Rates of suicide are higher for males than females.

Women’s health

Read the snapshot ‘Struggle to juggle home and work hurts women’ and answer the following questions.

1. What health issues are identified as being a concern for women?
2. What factors have contributed to these health concerns?
3. Suggest strategies to address these health concerns.

SNAPSHOT

Struggle to juggle home and work hurts women

By Louise Hall

Women’s health is suffering as rapid social changes force them to have busy careers on top of their role as primary caregivers, experts warn.

An international conference on women’s health in Sydney has been told women are failing to care for themselves as they adjust to life in the workforce.

The warning comes as the latest figures show women are paying the price for their smoking and sunbaking habits, with female cancers up 8 per cent over the past decade.

Melanoma rates jumped 21 per cent and lung cancer rates were up 11 per cent in the 10 years to 2004.

Male cancer has generally remained stable, aside from a spike in the incidence of prostate cancer since 2002.

NSW cancer minister Frank Sartor said the figures published in the annual Cancer in NSW: Incidence and Mortality report reinforced the importance of improving smoking rates and the impact of other lifestyle choices such as poor diet, lack of exercise, obesity and binge drinking in women.

At the three-day International Council on Women’s Health Issues Congress, which finished yesterday, researchers said work and family pressures were placing extra stress on women’s health and wellbeing, putting them at higher risk of heart disease, diabetes and cancer.

Co-convenor, associate professor Patricia Davidson, from the University of Western Sydney, said worldwide data showed women made up one-third of the labour force but performed two-thirds of the working hours for just a tenth of the income. ‘Globalisation has increased access to education, information and resources — enhancing the position of women in society — but the blurred gender roles have left women continuing to carry the burden of primary caregivers in the family and in society,’ she said.

Mr Sartor said survival rates for most cancers were improving, despite the fact that more people were being diagnosed.

Death rates were down 16 per cent in men and 10 per cent in women over the past decade.


Older people

Older Australians, 65 years or older, make up 13 per cent of the population (2,604,900 people in 2004). Australia has an ageing population. The increases in life expectancy can be attributed to lower mortality rates among older people, with falling death rates from cardiovascular disease (specifically heart disease and stroke) and improvements in medical treatments and interventions.

Cancer and cardiovascular disease are the leading causes of death in the elderly. Arthritis was the most common health condition, affecting 50 per cent
of older people with a profound or severe core activity limitation. Hearing disorders (43 per cent), hypertension (38 per cent), heart disease (30 per cent) and stroke (23 per cent) were also common conditions among this group. The high levels of these conditions within this age group are often associated with some degree of disability, which places a large financial burden on the health system.

Dementia is another significant health condition among this age group and is more prevalent in females, mainly because they live longer.

**IDENTIFYING PRIORITY AREAS**

The national health priority areas are selected largely on the criteria of:

- how much they contribute to the burden of illness in the community
- their potential for reducing this burden.

In determining the disease burden on the community and its potential to be reduced, health authorities need to consider a number of factors. These include:

- the prevalence of the disease
- inequalities in the incidence and prevalence of the disease among the population
- principles of social justice
- the cost to the individual
- the cost to the community
- the impact of determinants on health status, such as sociocultural, economic and physical factors
- the potential for change.

**Social justice principles**

Social justice refers to the notion of eliminating inequity in health, promoting inclusiveness of diversity and establishing supportive environments for all Australians. The four principles of social justice as they relate to health are:

- **equity** — fair allocation of resources and entitlements without discrimination
- **access** — the availability of health services, information and education
- **participation** — the empowerment of individuals and communities to be involved in planning and decision making for good health
- **rights** — equitable opportunities for all individuals to achieve good health.

The selected priority areas for Australia’s health must reflect the principles of social justice. We need to recognise and address inequities in health. These inequities encompass both differences in the incidence and prevalence of sickness and death and inequalities in the social, economic, political and cultural factors that influence health.

Although our national health status is relatively good compared with that of...
other nations, improvement could occur in some areas. The alarmingly high incidence of diabetes in the indigenous population and the high incidence of injury in the 15–24 years age group are concerning inequities in health. By applying the principles of social justice in our identification of health priorities, we can determine the impact these principles have on reducing health inequities and improving the health of the nation. As an example, the provision of equal access to resources, health services, education and information may reduce the incidence of diabetes in the indigenous population.

**Priority population groups**

Australia is characterised by its diversity and multiculturalism. Our population has subgroups of people who have significantly different health statuses, and these inequities reflect our diverse population. The identification of priority population subgroups with inequitable health status is important for determining health priority areas. It allows health authorities to:

- determine the health disadvantages of groups within the population
- better understand the social determinants of health
- identify the prevalence of disease and injury in specific groups
- determine the needs of groups in relation to the principles of social justice.

Epidemiological information reveals that indigenous populations have much higher death rates from heart disease, injury, respiratory diseases and diabetes; that people from a low socioeconomic background have a higher incidence of disease risk factors such as high blood pressure, high cholesterol levels, smoking and lower use of preventative health services; that people living in rural or isolated locations have higher death rates and a higher incidence of heart disease and injury, compared with people who reside in metropolitan areas; and that men are at much greater risk than women of developing a number of diseases (including heart disease and lung cancer). These are only a few examples of subgroups that have specific health issues.

**Gender and health**

Women are more likely to report and be treated for illness. They are also more likely to live in poverty (which is a social determinant of illness and health) and to use health services. Regardless of these facts, women have a longer life expectancy than that of men.

The inequity in the health status of males and females may be attributed to:

- **biological factors.** Higher female morbidity is related to childbirth, menstruation and menopause.
- **gender-based variations in the reporting of illness.** Men tend not to perceive symptoms and seek medical help as readily as women do.
- **social factors.** Men tend to work in high-risk industries more, which could account for higher mortality rates among men. Further, risk-taking and aggressive behaviour has traditionally been considered more acceptable for men than for women. This socially determined behaviour could contribute to the high rate of mortality and morbidity from motor vehicle accidents among males aged 15–24 years.

The differences in mortality between men and women have reduced over the past decade. This reflects the change in gender roles and relationships. For example, young women are now taking up the habit of smoking at a greater rate than men.
Priority population groups and social justice

Choose either Aboriginal health or gender-related health as a topic. Research the health inequities in your chosen area that exist as a result of a lack of social justice, and write a report on your findings. Your research should include the impact of:
(a) education level
(b) employment status
(c) economic status
(d) housing
(e) access to health services.

Prevalence of condition

Epidemiological data provide a guiding path for determining the priority areas for Australia’s health. Epidemiology provides information on the incidence of mortality and morbidity in the Australian population and thus, to a certain degree, on the health status of the population. It reveals the prevalence of disease and illness, and helps us to identify risk factors. The identification of risk factors can indicate the potential for change in a health area.

High prevalence rates of a disease indicate the health and economic burden that the disease or condition places on the community. Statistics reveal, for example, that cardiovascular disease is the leading cause of preventable death in Australia.

Costs to individuals

Disease and illness can place a great economic and health burden on the individual, which can be measured in terms of financial loss, loss of productivity, diminished quality of life and emotional stress. The cost of treatment, medication and rehabilitation may be more than the individual can afford. Further, injury and disease may affect the individual’s ability to be productive, and often the need to stop work during treatment and rehabilitation reduces the individual’s ability to earn and thus to maintain their quality of life. The emotional stress and social upheaval that often result from illness and injury are another burden. It is difficult to estimate the pain and suffering that an individual experiences as a result of illness and injury, but it is a significant factor.

Costs to the community

Illness, disease and premature death all place an economic burden on the community. The impact of disease in economic terms can provide some estimate of the cost to the community. This cost can be useful for health authorities when they are determining health priorities and health interventions, particularly preventative ones.

Illness results in both direct and indirect costs.
• Direct costs include the money spent on diagnosing, treating and caring for the sick, plus the money spent on prevention. These costs can be estimated from the expenses of medical services, hospital admissions, pharmaceutical prescriptions, prevention initiatives, research, screening and education, for example.
• Indirect costs are the value of the output lost when people become too ill to work or die prematurely (for example, the cost of forgone earnings, absenteeism and the retraining of replacement workers).
### Health spending grows 10 per cent to $87 billion

Health expenditure in Australia was $87.3 billion in 2004–05, according to a new report by the Australian Institute of Health and Welfare.

Head of the Institute’s Expenditure and Economics Unit, Mr John Goss, said that total growth since 2003–04 was about 10 per cent, or 6 per cent adjusted for inflation and that average health services expenditure was up $361 per person to $4319.

The report, *Health Expenditure Australia 2004–05*, shows that as a proportion of gross domestic product (GDP), expenditure on health increased to 9.8 per cent, up from 9.4 per cent in 2003–04 and 8.1 per cent in 1994–95.

‘Australia’s health expenditure to GDP ratio is comparable to Canada, Austria and Norway. It is more than the UK and New Zealand, and considerably lower than the USA, which in 2004 was 15.3 per cent of GDP,’ Mr Goss said.

The areas of health expenditure that showed relatively high increase were public health (14 per cent), medical services (13 per cent), ambulance services (12 per cent), community health (11 per cent), research (10 per cent) and high-level residential care (10 per cent).

‘These six areas accounted for close to 40 per cent of the health spending increase between 2003–04 and 2004–05,’ he said.

The report showed the majority of health spending was funded by governments (68 per cent), with the Australian government contributing 46 per cent. State, territory and local governments contributed 23 per cent, and the non-government sector funded 32 per cent.

The relative share of funding for public hospitals has been changing over the past decade. Between 1994–95 and 2004–05, the Australian government share of public hospital funding decreased from 47.6 per cent to 44.2 per cent, while the state and territory government share of public hospital funding increased from 43.3 per cent to 48.0 per cent.

Hospitals represented the largest area of health expenditure in 2004–05 (33 per cent of the total). Public hospitals accounted for $22.1 billion and private hospitals $6.9 billion. The private hospital share of hospital expenditure increased in the last decade from 21 per cent of hospital expenditure in 1994–95 to 24 per cent in 2004–05.

Private health insurance funding of $5.7 billion was mainly spent on private hospital services (48 per cent), dental services (12 per cent), administration (10 per cent) and medical services (10 per cent).


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### Potential for change

The majority of the priority areas for Australia’s health result from poor lifestyle behaviours. It would seem easy to improve health status by encouraging individuals to change their poor behaviours, but the situation is not this simple. It is difficult to change individual behaviours because often they reflect the environmental situation in which the individual lives. Socioeconomic status, access to information and health services, employment status, housing, support networks and environmental infrastructure, for example, are increasingly being viewed as the determinants of health inequities across the population.

For change to occur — that is, for the burden of the priority health areas to be reduced — we must address both individual behaviours and environmental determinants. All the priority areas have social and individual determinants that can be modified, so their selection as priority areas may lead to improved health status while the potential for change remains evident.
Identifying health priority areas

Choose one priority area for Australia’s health (listed on page 4). Research the major determinants of the disease — that is, the individual and environmental factors that cause the disease. For each determinant, identify how its impact on health could be reduced. Report your findings to the class.

Potential for change

1. For the priority area that you selected in the above application, is there potential for change? Explain.
2. Do you agree that your selected priority area should be a priority area for Australia’s health? Explain your answer.
3. Why is it important that health authorities and governments address the social determinants of health? Provide an example to illustrate your response.
4. How do the trends in the incidence and prevalence of cardiovascular disease support its potential for change? Take into account modifiable risk factors.

Priority population groups

Health status is the result of individual behaviours and environmental factors. The environment in which the individual lives includes physical, sociocultural and economic factors. When determining health priority areas, health authorities must consider those population subgroups that are characterised by health inequities. Each cause of these inequities is a significant factor, whose reversal may improve the health status of all individuals and reduce the inequities that exist.

Complete the following table by providing examples of how sociocultural and economic factors influence the health status of groups within the population.

<table>
<thead>
<tr>
<th>Population group</th>
<th>Sociocultural factors</th>
<th>Economic factors</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Aboriginal and Torres Strait Islander peoples</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2. Rural and isolated populations</td>
<td></td>
<td></td>
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<tr>
<td>3. Socioeconomically disadvantaged groups</td>
<td></td>
<td></td>
</tr>
<tr>
<td>4. Females</td>
<td></td>
<td></td>
</tr>
<tr>
<td>5. Males</td>
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</tbody>
</table>

Identifying health priority areas for Australia

1. Why do we have health priority areas?
2. How do we identify health priority areas?
3. How do sociocultural, physical or economic environmental factors affect the health status of populations?
4. How is health linked to gender?
5. What is the role of social justice in determining health priority areas?
6. How can social justice contribute to improved health for all Australians?
SUMMARY

- Epidemiology provides data and information about disease, injury, illness and death.
- It indicates the risk factors for and apparent determinants of disease.
- The common measures of epidemiology include mortality, infant mortality, morbidity and life expectancy.
- Epidemiological data reveal that the major causes of sickness and death in Australia are cardiovascular disease and cancer.
- Epidemiology is a valuable tool in providing information to health authorities. However, it has limitations, such as its failure to provide information about the social determinants of health.
- There are major inequities in the health status of population subgroups, specifically between indigenous and non-indigenous Australians; between men and women; between rural and metropolitan dwellers; and between the socioeconomically disadvantaged and advantaged.
- Statistics reveal that Aboriginal and Torres Strait Islander people have lower life expectancy rates, higher mortality rates at all ages, higher infant mortality rates and higher hospitalisation rates than those of non-indigenous Australians.
- Health inequities can be attributed to poor health behaviours and sociocultural, physical, economic and environmental factors.
- In identifying health priority areas, health authorities need to apply the principles of social justice — equal allocation of resources; equal access to health services, information and education; participation in planning and decision making for health; and equal right to achieve good health.
- In identifying health priority areas, health authorities also need to consider groups that experience inequities in health, the prevalence of different diseases, the costs of disease to the individual and community, and the potential for change in health areas.

QUESTIONS

Revision

1. What is the role of epidemiology? Explain how epidemiology can be used to determine the priority areas for Australia’s health. (H2)
2. Explain the main measures of epidemiology. What information do they provide about the current health status of Australians? (H2)
3. Does epidemiological information measure everything about health status? (H2)
4. Which groups within the Australian population experience health inequities? Describe the inequities that exist. (H2)
5. What are the major causes of sickness and death in Australia? Describe the trends in their prevalence rates. (H2)
6. What population subgroups are most at risk of developing the diseases/conditions you listed in question 5? Analyse the reasons for these groups being at risk. (H2)
7. Justify the choice of Australia’s health priorities. (H1)
8. Analyse the determinants of health. (H3)
9. Analyse the factors that have contributed to health inequities. (H3)
10. Visit the website for this book and click on the National Health Information weblink for this chapter (see ‘Weblinks’, pages x–xi). What is the NHIA, why was it established and what are its objectives? (H16)

Extension

1. Identify one population group most at risk of disease and injury. Analyse the factors that contribute to this. (H3)
2. Why is it important to prioritise health areas? (H1)