TOPIC 1
How are priority issues for Australia’s health identified?

OVERVIEW
1.1 Measuring health status
1.2 Identifying priority health issues
1.3 Topic review

OUTCOMES
In this topic students will:
• 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 most at risk (H2)
• critically analyse key issues affecting the health of Australians and propose ways of working towards better health for all (H15)
• devise methods of gathering, interpreting and communicating information about health and physical activity concepts. (H16)
Australians enjoy relatively high levels of health compared to many other nations. Statistics revealed in figure 1.1 show that we have a relatively long life expectancy, declining death rates and reasonable access to health care.

**FIGURE 1.1 Australia at a glance**

<table>
<thead>
<tr>
<th>Year</th>
<th>Life Expectancy Male</th>
<th>Life Expectancy Female</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>1890</td>
<td>47.2</td>
<td>50.8</td>
<td></td>
</tr>
<tr>
<td>2012–14</td>
<td>80.3</td>
<td>84.4</td>
<td></td>
</tr>
</tbody>
</table>

A boy born between 2012 and 2014 can expect to live to **80.3 years** and a girl **84.4 years** (ABS 2015a). This compares with 47.2 and 50.8 years, respectively, in 1890 (ABS 2014a).

In 2014:
- 3.0% of Australians were Aboriginal and Torres Strait Islander — 714 000 people (ABS 2014b)
- 28% were born overseas — 6.6 million people (ABS 2015f)
- 71% lived in Major cities — 16.6 million people
- 18% lived in Inner regional areas — 4.3 million people
- 8.9% lived in Outer regional areas — 2.1 million people
- 31% of households owned their own homes outright
- 36% had a mortgage
- 26% were renting from a private landlord
- 4.0% were renting from a state or territory housing authority (ABS 2015g)

In 2015, **76%** of people aged 15–64 held a Year 12 or non-school qualification at Certificate II level or above (ABS 2015b).

In 2014, labour force participation rate for Australians aged 15–64 was **76%** (ABS 2015e).

Almost 1 in 3 (30%) employed people aged 15–64 worked part-time (ABS 2015e).

In 2013–14:
- 31% of households owned their own homes outright
- 36% had a mortgage
- 26% were renting from a private landlord
- 4.0% were renting from a state or territory housing authority (ABS 2015d)

**Source:** AIHW, Australia’s health 2016, pages 6–7.

It would seem we are a healthy population and we benefit from Australia’s generally high standards of health care and the wide range of available health services. However, there are many health concerns that the federal, state and local governments identify as **health priority issues** to be addressed in order to achieve better health for all Australians. Health priority issues are those health issues that are of greatest concern to governments and support organisations due to the effect they have on the overall health of Australians and the burden of health on the economy. For example:

- certain groups in society are more at risk of health problems than others
- some diseases and other health problems are more prevalent than others
- changes in the structure of our population affect the types of health service that people require.
1.1 Measuring health status

To identify health priority issues 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.

We measure health status through the process of data and information collection known as epidemiology, which is the study of disease in groups or populations.

1.1.1 Role of epidemiology

Epidemiology is used by governments and health-related organisations to obtain a picture of the health status of a population, to identify the patterns of health and disease, and analyse how health services and facilities are being used.

Epidemiology considers the patterns of disease in terms of:

- **prevalence** (the number of cases of disease in a population at a specific time)
- **incidence** (the number of new cases of disease occurring in a population)
- distribution (the 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
- 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 fat and more 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 well-being. Figure 1.3 shows the wide variety of sources used to collect data for epidemiological studies.

- births
- deaths

**FIGURE 1.2** Data for epidemiological studies are gathered from many sources, including the information collected by doctors and other health professionals, health surveys by government departments and health-related organisations, and the register of births and deaths.
• disease incidence
• disease prevalence
• contact with health-care providers
• hospital use (treatment received in hospitals for medical problems)
• injury incidence
• work days lost
• money spent on health care.

Limitations of epidemiology
Epidemiology has proved to be an effective approach to measuring health status, but it has some limitations. For example, epidemiological statistics:
• do not always show the significant variations in the health status among population subgroups (for example, between Aboriginal and non-Aboriginal Australians)
• might not accurately indicate quality of life in terms of people’s level of distress, impairment (loss or abnormality of body structure or of a physiological or psychological function), disability or handicap. Statistics tell us little about the degree and impact of illness.
• cannot provide the whole health picture. Data on some areas, such as mental health, are incomplete or non-existent.
• fail to explain ‘why’ health inequities persist
• do not account for health determinants — the social, economic, environmental 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 of data
• the numerous sources of information
• imprecise methods of data collection
• whether surveys use standard **instruments**, definitions and classifications. Instruments are methods or devices for recording, measuring or controlling.

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 using strict privacy guidelines.

**Broadening the framework of epidemiology**

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 the leading causes of sickness and death in Australia, 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.

**Inquiry**

**The role of epidemiology**

1. What is epidemiology?
2. What can epidemiology show?
3. Who uses epidemiological measures?

**study on**

Core 1  Question 1  Topic 1  Concept 2

**Role of epidemiology**

**Summary screen and practice questions**

**1.1.2 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**

**Mortality** is 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, data on mortality can be used to compare health status across groups and between years. For example:

- 158,504 deaths were registered in 2016 in Australia, of which 81,867 (51 per cent) were males and 76,637 (49 per cent) were females
- the standardised death rates (deaths per 100,000 of population) for all categories of overseas-born Australians, both male and female, are lower than those of the Australian-born population
• in 2016, the standardised death rate for Australia was 5.4 deaths per 1000 standard population, the same as in 2013 and lower than 2015. In contrast, the standardised death rate (2016) for the Aboriginal and Torres Strait Islander population was 9.6.

In 2013 the total number of deaths due to all types of cancer surpassed the total number of deaths due to cardiovascular disease (which includes coronary heart disease, stroke and heart failure). Coronary heart disease continues to be a leading specific cause of death in Australia.

In Australia overall, the main causes of death are cancers, cardiovascular (heart and blood vessel) diseases, and respiratory diseases. For some of the leading causes of death, such as heart disease, strokes and some types of cancer, the death rates are falling.

<p>| TABLE 1.1 Causes of death, Australia, 2016 |</p>
<table>
<thead>
<tr>
<th>Cause of death</th>
<th>Number</th>
<th>Proportion of deaths (2016)</th>
<th>Standardised death rate</th>
</tr>
</thead>
<tbody>
<tr>
<td>Infectious diseases</td>
<td>2818</td>
<td>1.8</td>
<td>9.5</td>
</tr>
<tr>
<td>Cancer</td>
<td>46307</td>
<td>29.2</td>
<td>161.8</td>
</tr>
<tr>
<td>Blood and immunity disorders</td>
<td>490</td>
<td>0.3</td>
<td>1.7</td>
</tr>
<tr>
<td>Endocrine, nutritional and metabolic diseases</td>
<td>6750</td>
<td>4.2</td>
<td>22.9</td>
</tr>
<tr>
<td>Mental and behavioural disorders</td>
<td>9931</td>
<td>6.3</td>
<td>31.0</td>
</tr>
<tr>
<td>Diseases of the nervous system</td>
<td>8794</td>
<td>5.5</td>
<td>29.5</td>
</tr>
<tr>
<td>Diseases of the heart and blood vessels</td>
<td>43963</td>
<td>27.7</td>
<td>143.0</td>
</tr>
<tr>
<td>Diseases of the respiratory system</td>
<td>14783</td>
<td>9.3</td>
<td>48.9</td>
</tr>
<tr>
<td>Diseases of the digestive system</td>
<td>5753</td>
<td>3.6</td>
<td>19.5</td>
</tr>
<tr>
<td>Diseases of the skin and subcutaneous tissue</td>
<td>532</td>
<td>0.3</td>
<td>1.7</td>
</tr>
<tr>
<td>Diseases of the muscles, bones and tendons</td>
<td>1371</td>
<td>0.9</td>
<td>4.5</td>
</tr>
<tr>
<td>Diseases of the kidney, urinary system and genitals</td>
<td>3458</td>
<td>2.2</td>
<td>11.1</td>
</tr>
<tr>
<td>Conditions originating in the perinatal period</td>
<td>550</td>
<td>0.4</td>
<td>2.3</td>
</tr>
<tr>
<td>Congenital and chromosomal abnormalities</td>
<td>587</td>
<td>0.4</td>
<td>2.3</td>
</tr>
<tr>
<td>Ill-defined causes</td>
<td>1651</td>
<td>1.0</td>
<td>5.7</td>
</tr>
<tr>
<td>External causes</td>
<td>10736</td>
<td>6.8</td>
<td>40.4</td>
</tr>
<tr>
<td>Cause of Death: Other</td>
<td>30</td>
<td>NA</td>
<td>NA</td>
</tr>
<tr>
<td><strong>ALL CAUSES</strong></td>
<td><strong>158504</strong></td>
<td><strong>100.0</strong></td>
<td><strong>535.7</strong></td>
</tr>
</tbody>
</table>

*Source:* Australian Bureau of Statistics, ‘Causes of death, Australia, 2016’, cat. no. 3303.0, table 1.1. Note that totals may not add up due to rounding.

### Application

**Analysing data in a table**

1. Using the data for number of deaths in table 1.1, rank the six most common causes of death.
2. What proportion of total deaths are related to diseases of the heart and blood vessels?
3. Draw a bar graph to show the standardised death rates for the seven most common causes of death.
SNAPSHOT
Recent trends in causes of death
Australia’s leading specific cause of death continues to be heart disease accounting for 12.0% of all deaths in 2016. However, the total number and rate of deaths from heart disease continues to decline. Figures in 2007 revealed 99.1 deaths per 100,000 while in 2016 deaths had dropped to 62.4 per 100,000 according to Australian Bureau of Statistics (ABS) figures. Dementia, including Alzheimer’s disease remains the second leading cause of death in 2016 accounting for 8.3% of all deaths. In 2007, Dementia accounted for a lower 5.3% of all deaths, however, in 2016 it replaced heart disease to become the leading cause of death for the female population. Cancers accounted for almost 30 percent of Australian deaths in 2016 with lung cancer accounting for the most cancer deaths.

Inquiry
Recent trends in causes of death
1. Read the snapshot on trends in causes of death and identify the causes of death that have:
   (a) increased
   (b) decreased
2. What was the leading cause of death in 2016 in Australia?
3. Of all the deaths from cancer in 2016, identify the type of cancer that was the most prevalent cause of death.
4. Suggest some possible reasons for the decline in the number of heart attacks causing death.

FIGURE 1.4 Health challenges faced by males and females between childhood and death. The tables show the leading causes of fatal, non-fatal and total burden of disease. The graph shows the number of deaths per 100,000 from 1907 to 2015.

<table>
<thead>
<tr>
<th>Males</th>
<th>Under 5</th>
<th>5–14</th>
<th>15–24</th>
<th>25–44</th>
<th>45–64</th>
<th>65–74</th>
<th>75–84</th>
<th>85+</th>
</tr>
</thead>
<tbody>
<tr>
<td>Leading cause of fatal burden</td>
<td>Pre-term/low birthweight complications</td>
<td>Road traffic injuries/accidents</td>
<td>Suicide</td>
<td>Suicide</td>
<td>Coronary heart disease</td>
<td>Coronary heart disease</td>
<td>Coronary heart disease</td>
<td>Coronary heart disease</td>
</tr>
<tr>
<td>Leading cause of non-fatal burden</td>
<td>Asthma</td>
<td>Asthma</td>
<td>Alcohol use disorders</td>
<td>Back pain</td>
<td>Other musculo-skeletal conditions</td>
<td>Chronic obstructive pulmonary disease</td>
<td>Coronary heart disease</td>
<td>Dementia</td>
</tr>
<tr>
<td>Leading cause of total burden</td>
<td>Pre-term/low birthweight complications</td>
<td>Asthma</td>
<td>Suicide/intentional self-harm</td>
<td>Suicide/intentional self-harm</td>
<td>Coronary heart disease</td>
<td>Coronary heart disease</td>
<td>Coronary heart disease</td>
<td>Coronary heart disease</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Females</th>
<th>Under 5</th>
<th>5–14</th>
<th>15–24</th>
<th>25–44</th>
<th>45–64</th>
<th>65–74</th>
<th>75–84</th>
<th>85+</th>
</tr>
</thead>
<tbody>
<tr>
<td>Leading cause of fatal burden</td>
<td>Birth trauma/asphyxia</td>
<td>Brain/central nervous system cancer</td>
<td>Suicide</td>
<td>Suicide</td>
<td>Breast cancer</td>
<td>Lung cancer</td>
<td>Coronary heart disease</td>
<td>Coronary heart disease</td>
</tr>
<tr>
<td>Leading cause of non-fatal burden</td>
<td>Other mental disorders</td>
<td>Anxiety disorders</td>
<td>Anxiety disorders</td>
<td>Anxiety disorders</td>
<td>Other musculo-skeletal conditions</td>
<td>Other musculo-skeletal conditions</td>
<td>Dementia</td>
<td>Dementia</td>
</tr>
<tr>
<td>Leading cause of total burden</td>
<td>Birth trauma/asphyxia</td>
<td>Anxiety disorders</td>
<td>Anxiety disorders</td>
<td>Anxiety disorders</td>
<td>Other musculo-skeletal conditions</td>
<td>Coronary heart disease</td>
<td>Coronary heart disease</td>
<td>Dementia</td>
</tr>
</tbody>
</table>
In Figure 1.5, we see the age-standardised death rates by sex, Australia, from 1907 to 2015. The graph illustrates the trends in death rates over time, with distinct lines for males and females. The data source is AIHW, Australia’s health 2016, page 10.

In Figure 1.6, the mortality rates due to selected causes for those aged 10-19 according to sex, 2013, are displayed. The figure highlights the mortality rates for males and females for different causes such as injuries and poisoning, cancers, diseases of the nervous system, cardiovascular diseases, and all other causes. The data source is Adapted from AIHW, GRIM (General record of incidence of mortality) Books, 2017.

**Inquiry**

**Death rates for males and females**

1. Examine the graphs in Figure 1.4 and 1.5 and write a paragraph describing the trends you can identify.

2. In small groups, discuss what data such as that in Figure 1.6 can tell us about the health status of Australians.

**SNAPSHOT**

**Heart disease deaths lower, but still leading cause of death**

Coronary heart disease (CHD) occurs more commonly in males than in females, and is also more common in older age groups. Many cases are preventable, as many of its risk factors are modifiable, including tobacco smoking, high blood cholesterol, high blood pressure, physical inactivity, poor nutrition and obesity. Even though death rates have fallen by 75% over the 3 decades from 1983 to 2013 (largely due to reductions in key risk factors such as smoking, and improvements in medical and surgical treatments), CHD is still the leading single cause of death in Australia (accounting for 13% of all deaths in 2013).
Inquiry

Heart disease deaths lower, but still leading cause of death

1. What are some of the contributory factors of heart disease?
2. Suggest reasons for the higher rates of heart disease in the Australian male population.
3. What factors have led to a decline in heart disease deaths between 1983 and 2013?
4. In small groups, suggest gender-based measures to reduce heart disease risk factors amongst the Australian population.

Infant mortality

The **infant mortality** rate is 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)
- post-neonatal (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 1.7). The infant mortality rate was at a record low of 3.1 infant deaths per 1000 live births in 2016.

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

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

The infant mortality rate is higher among Indigenous infants. In the period 2014–2016, in New South Wales, Queensland, South Australia, Western Australia and the Northern Territory combined, the infant mortality rate for Indigenous infants 3.2 per 1000 live births was around twice the rate for non-Indigenous Australians which was 6.2 per 1000 live births (ABS cat. no. 3302.0). Most infant deaths were attributed to complications of pregnancy, labour and delivery.
Inquiry
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 well-being 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 (see figure 1.10) 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.

**FIGURE 1.10** Trends in the incidence of selected cancers, Australia, 1982–2012

![Graph showing trends in cancer incidence from 1982 to 2012](source: AIHW, Australia’s health 2016, p. 389)
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 re-admissions 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 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 incurring 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.

**Life expectancy**

*Life expectancy* is the length of time a person can expect to live. It can be defined as the number of years of life a person of a particular age has remaining. It is based on the current death rate so it does not account for subsequent changes in death rates.

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. For people born in the period 2013–2015, average life expectancy...
at birth was 84.5 years for females and 80.4 years for males. Life expectancy is also often calculated at ages 65 and 85 (see figure 1.12). Life expectancy at 65 years of age is an estimate of how old someone who turns 65 in a particular year will be when they die, as long as current death rates in that year continue unchanged.

Life expectancy is greater now than it was a few decades ago and is increasing. In other words, people are now living longer. Life expectancy has continued to rise steadily since the 1920s, although in the 1960s there was a marked increase in male deaths from cardiovascular disease. In 2015, the world average life expectancy was 71.4 years. In contrast, Australia’s average life expectancy at birth estimate was 11 years higher at 82.4 years. The ABS reports there are only five other countries worldwide where both males and females have a life expectancy over 80 years. These countries are Iceland, Israel, Italy, Sweden and Switzerland. Australia’s life expectancy, for both males and females, is also higher than many similar countries such as Canada, New Zealand, the United Kingdom and the United States of America.

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. This 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. The impact of our ageing population on health services is discussed in topic 2.
1.2 Identifying priority health issues

In order to improve Australia’s health, governments and health authorities prioritise particular health issues, based generally on:

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

These priority issues (discussed in topic 2) include:

- the health inequities experienced by certain groups within our society
- our growing and ageing population
- the high levels of chronic disease (one that is ongoing or characterised by long suffering) and other health problems evident in our society.

**FIGURE 1.14** Factors for identifying priority health issues

- Social justice principles
- Prevalence of condition
- Priority population groups
- Potential for prevention and early intervention
- Costs to the individual and community

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**TOPIC 1** How are priority issues for Australia’s health identified? 15
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:

- **social justice** principles
- priority population groups
- prevalence of the condition
- potential for prevention and early intervention
- costs to the individual and community.

### 1.2.1 Social justice principles

Social justice principles relate to eliminating inequity in health, promoting inclusiveness of diversity and establishing supportive environments for all Australians. Diversity comprises the differences among individuals and among groups of people.

The selected priority issues 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 significant 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.

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**Inquiry**

**Social justice**

Research the aims of the ‘Close the Gap’ campaign. In small groups, discuss how the ‘Close the Gap’ campaign:

(a) aims to address social justice inequities
(b) is focusing on a health priority issue to improve Australia’s health.

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**FIGURE 1.15** Oxfam Australia is working in coalition with over 40 Indigenous and non-Indigenous organisations to close the 12-year life expectancy gap between Aboriginal and Torres Strait Islanders and other Australians. National Close the Gap Day has been held annually since 2007. www.oxfam.org.au/closethegap
1.2.2 Priority population groups

Australia is characterised by its diversity and multiculturalism. Multiculturalism is the coexistence of groups in a society representing different cultural and linguistic backgrounds. 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 issues. 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
- 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
- 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
- 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.

1.2.3 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.
1.2.4 Potential for prevention and early intervention

The majority of diseases and illnesses suffered by Australians 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. Infrastructure is the technical structures that support a society, such as roads, water supply, sewerage and power grids.

For change to occur — that is, for the burden of the major causes of disease and sickness to be reduced — we must address both individual behaviours and environmental determinants. Most of the chronic diseases, injuries and mental health problems have social and individual determinants that can be modified, so prevention and early intervention may lead to improved health status.

SNAPSHOT

More cancer cases diagnosed, but overall rates falling and survival rates improving

The latest cancer report from the Australian Institute of Health and Welfare (AIHW) shows that while cancer is a major cause of ill health in Australia, and more cases are being diagnosed, death rates have continued to fall since the 1980s, and incidence rates have also decreased in recent years. The report, Cancer in Australia 2017, estimates that over 134 000 new cases of cancer will be diagnosed in Australia in 2017 — an average of 367 diagnoses each day and 2.8 times as high as in 1982.

‘The rate of new cancer cases rose from 383 per 100 000 people in 1982 to a peak of 504 per 100 000 in 2008, before falling to an expected rate of 470 per 100 000 people in 2017,’ said AIHW spokesperson Mr Justin Harvey.

This decrease has mostly been seen in males, and is largely due to a decline in the incidence rate of prostate cancer — the most commonly diagnosed cancer in males.

‘Cancer continues to be more common in males than females overall. In 2017, it is expected that more than half (54%) of all diagnosed cases will be for males,’ Mr Harvey said.

However, breast cancer in females is expected to be the most common type of cancer diagnosed in 2017.

It is estimated that around 47 800 people will die from cancer in 2017, an average of 131 deaths each day — though death rates from cancer have fallen over time, and survival is improving.

‘The death rate from all cancers has fallen from 209 deaths per 100 000 people in 1982 to an estimated 161 per 100 000 in 2017,’ Mr Harvey said.

‘And survival rates have improved substantially, with five-year survival increasing from 48% in 1984–1988 to 68% in 2009–2013.’

The report notes that, according to World Health Organization comparisons, people living in Australia generally had better cancer survival than those living in other countries and regions.
Inquiry

**Inquiry**

**Improved cancer survival rates**

Read the snapshot 'More cancer cases diagnosed, but overall rates falling and survival rates improving', then answer the following questions:

2. What specific trends are identified in this article about cancer in Australia?
3. What is the most common form of cancer diagnosed for males? For females?
4. To what extent is the survival rate of cancer improving? Use statistics to support your point of view.

Inquiry

**Prevention and early intervention**

Choose one example of a chronic disease or illness, for example, cancer, cardiovascular disease, diabetes, asthma or depression.

1. For the chronic disease or illness that you selected, is there potential for early intervention and prevention? Explain.
2. Do you think that your selected disease or illness should be a priority for Australia’s health? Explain your answer.
3. How do the trends in the incidence and prevalence of cardiovascular disease support the idea that it is a disease that benefits from early intervention and prevention strategies?

**study on**

Core 1  Question 1  Topic 2  Concept 4

Early Prevention and early intervention Summary screen and practice questions

### 1.2.5 Costs to the individual and community

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. In addition, 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 prioritising health issues and determining health interventions.

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).
SNAPSHOT
Governments chipping in more for health, as individual Australians pay less

Government funding for health has risen, with individuals now funding a smaller proportion of health costs, according to a report released by the Australian Institute of Health and Welfare (AIHW).

The report, *Health expenditure Australia 2015–16*, shows that $170.4 billion was spent on health goods and services in 2015–16, with $114.6 billion (67.3%) of this funded by governments.

This is up from 66.9% the year before and is the first increase in the proportion that governments contributed since 2011–12.

‘In 2015–16, the largest single source of health funding was the Australian Government, contributing $70.2 billion, or 41.2% of overall spending, up from $66.2 billion, or 41.0%, in 2014–15,’ said AIHW spokesperson Vicki Bennett.

State and territory governments contributed 26.1% ($44.4 billion) in 2015–16, up from 25.9% ($41.9 billion) a year earlier.

Over the same period, the share of spending by non-government funders, including individuals and private health insurers fell.

Non-government funders spent $55.8 billion on health in 2015–16, making up 32.7% of total health spending. This is down from 33.1% the previous year and is the first time that the non-government funding proportion has fallen since 2011–12.

‘Individuals contributed 17.3% to overall health spending, down from 17.7% a year earlier, which makes it the smallest contribution by individuals since 2011–12,’ Ms Bennett said.

Over half (52.7%) of non-government spending was by individuals with private health insurers and other non-government sources contributing the remainder.

When looking at how the money was spent, the report reveals two broad categories of expenditure: public hospital services and primary care (such as general practitioners).

The majority of primary care funding was provided by the Australian Government ($25.6 billion or 43.3%), while state and territory governments funded more than half (52.5%) of the $51.1 billion bill for public hospital services.

Primary health care accounted for the largest portion of spending by individuals (68.0%, or about $20 billion), with more than one-quarter of this ($5.7 billion) spent on dental services.

Overall, growth in health spending has slowed in recent years, rising by 3.6% in 2015–16 — well below the 10-year average of 4.7%.

Despite this, health spending makes up a growing proportion of the economy, holding a 10.3% share of the Gross Domestic Product (GDP) in 2015–16, up from 10.0% a year earlier.

Inquiry
Governments chipping in more for health as individual Australians pay less

Read the snapshot ‘Governments chipping in more for health as individual Australians pay less’, then answer the following questions.

1. What percentage of the $170.4 billion spent on health goods and services in 2015–16 was funded by governments?
2. What changes to health spending have occurred in recent years?

Inquiry
Identifying health priority issues for Australia

1. Why is it important to prioritise issues for health?
2. How do we identify health priority issues?
3. Describe the role of social justice in determining health priority issues.
4. How can social justice contribute to improved health for all Australians?
5. Make a copy of the mind map in sub-topic 1.2 (figure 1.14). Expand the mind map to show the main points you have learned about each of the factors used for identifying priority health issues.
1.3 Topic review

1.3.1 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 cancer and cardiovascular disease.
- 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.
- In identifying health priority issues, health authorities need to apply the principles of social justice — equity, diversity and supportive environments.
- In identifying health priority issues, 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 early intervention and prevention in health areas.

1.3.2 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) (4 marks)
2. Explain the main measures of epidemiology. What information do they provide about the current health status of Australians? (H2) (4 marks)
3. Is Australia a healthy nation compared with the rest of the world? Explain your answer. How can Australia’s health be improved? (H2, H15) (5 marks)
4. Distinguish between the terms ‘prevalence’ and ‘incidence’. (H2) (2 marks)
5. Identify reasons for Australia’s declining infant mortality rate. (H2) (3 marks)
6. Does epidemiological information measure everything about health status? Explain your answer. (H2) (4 marks)
7. What are the major causes of morbidity and mortality in Australia? Describe the trends in their prevalence rates. (H2) (4 marks)
8. Why is it important to prioritise health issues? (H1) (3 marks)
9. Explain the factors that governments and health authorities need to consider when identifying health priority issues. (H1) (5 marks)
10. Identify some groups in Australian society that suffer health inequities. (H2, H15) (2 marks)
1.3.3 Key terms

**chronic disease** is a disease that is ongoing or characterised by long suffering. *p. 15*

**diversity** comprises the differences among individuals and among groups of people. *p. 16*

**epidemiology** is the study of disease in groups or populations through the collection of data and information, to identify patterns and causes. *p. 5*

**health priority issues** are those health issues that are of greatest concern to governments and support organisations due to the effect they have on the overall health of Australians and the burden of health on the economy. *p. 4*

**health status** is the pattern of health of the population in general over a period of time. *p. 5*

**impairment** is a loss or abnormality of body structure or of a physiological or psychological function. *p. 6*

**incidence** is the number of new cases of disease occurring in a defined population over a period of time. *p. 5*

**infant mortality** refers to the number of infant deaths in the first year of life, per 1000 live births. *p. 11*

**infrastructure** is the technical structures that support a society, such as roads, water supply, sewerage and power grids. *p. 18*

**inpatient care** is the care of patients whose condition requires hospitalisation. *p. 13*

**instruments** are methods or devices for recording, measuring or controlling. *p. 7*

**life expectancy** is the length of time a person can expect to live. More specifically, it refers to the average number of years of life remaining to a person at a particular age, based on current death rates. *p. 13*

**medicare** is Australia’s public-funded universal health-care system, ensuring all Australians have access to free or low-cost medical, optometric and hospital care. *p. 13*

**morbidity** is the incidence or level of illness, disease or injury in a given population. *p. 12*

**mortality** refers to the number of deaths in a given population from a particular cause and/or over a period of time. *p. 7*

**multiculturalism** is the coexistence of groups in a society representing different cultural and linguistic backgrounds. *p. 17*

**prevalence** is the number of cases of disease that exists in a defined population at a point in time. *p. 5*

**rehabilitation** is the process of restoring a part of the body or a person to near normal function after an injury or disease. *p. 19*

**sanitation** relates to cleanliness and involves action taken to protect people from illness, the transmission of disease or loss of life due to unclean surroundings or practices. *p. 11*

**social justice** is a value that favours the reduction or elimination of inequity, the promotion of inclusiveness of diversity, and the establishment of environments that are supportive of all people. *p. 16*