

VCE Units

1 & 2

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Health & Human Development

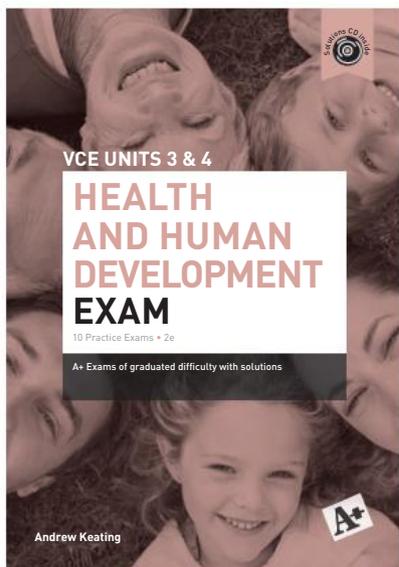
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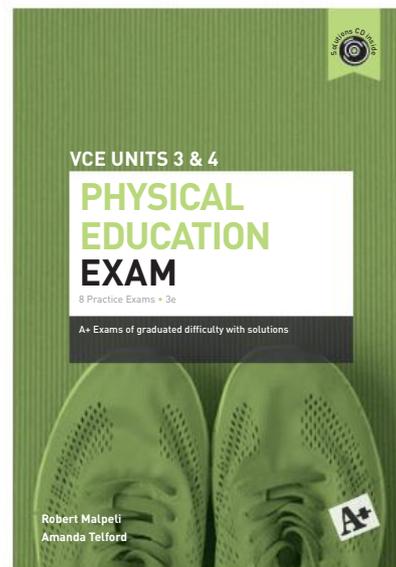
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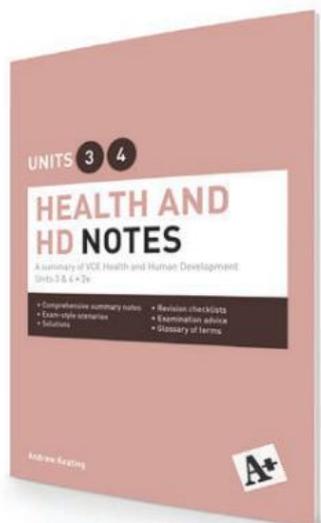
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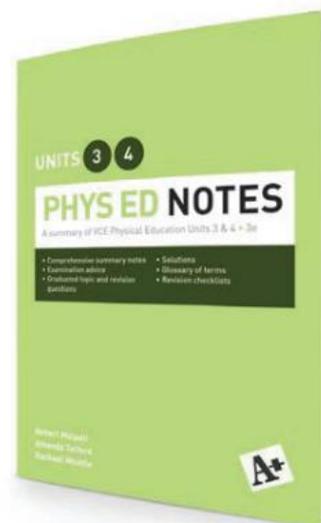
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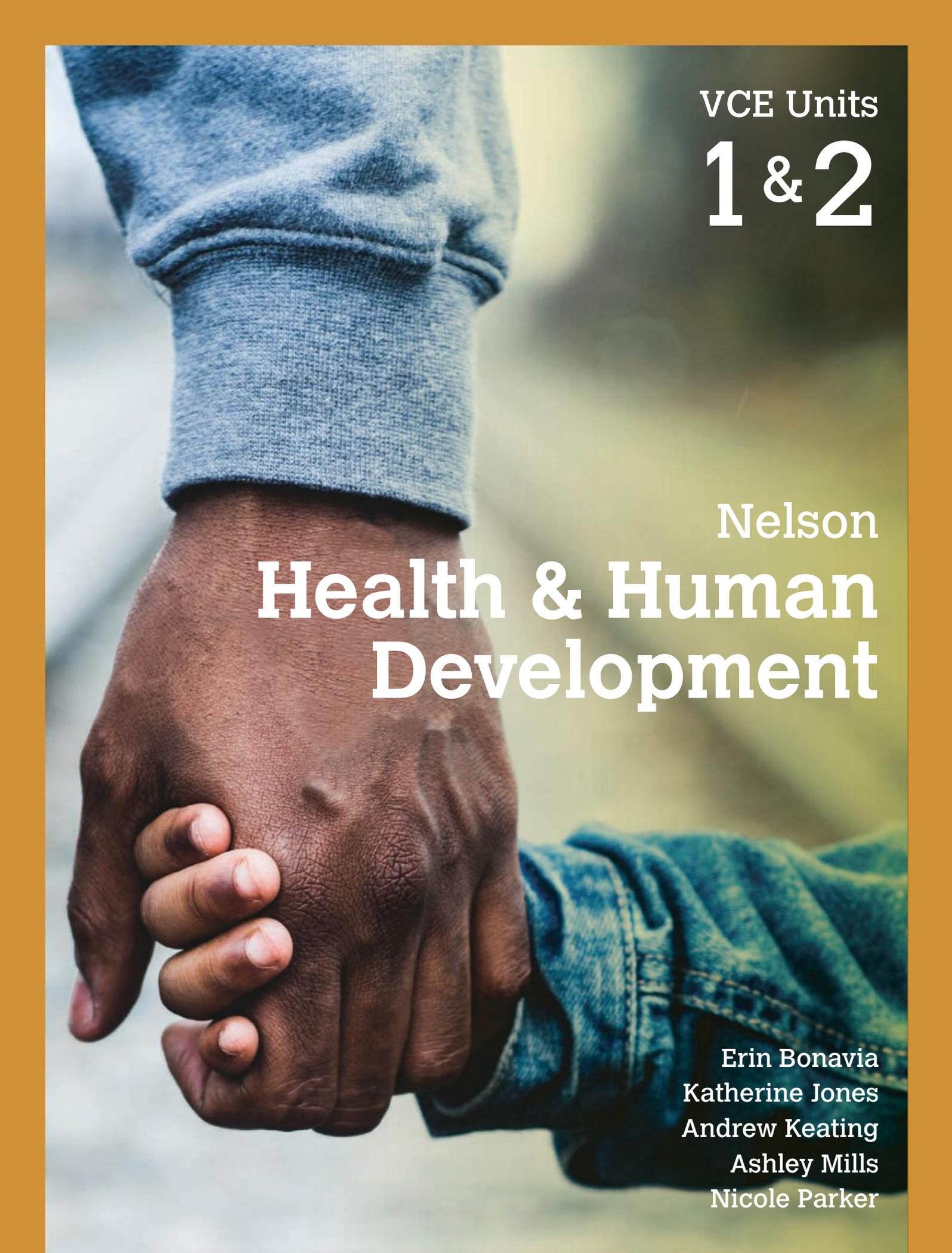
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Erin Bonavia
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Nelson Health and Human Development VCE Units 1 & 2

1st Edition

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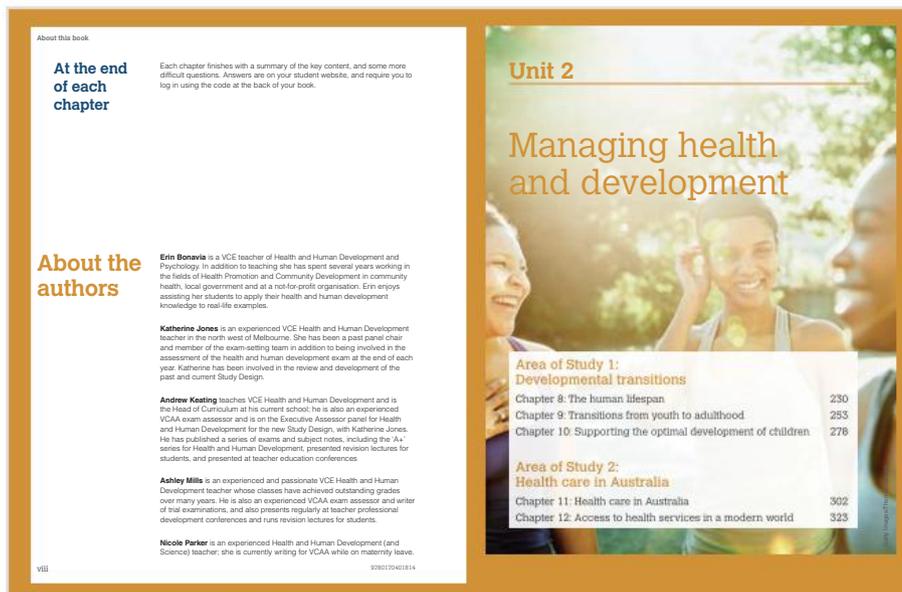
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About this book

This first edition of *Nelson Health and Human Development VCE Units 1 & 2* matches the new Health and Human Development Study Design 2018–2022.



In each chapter

The first page of each chapter lists the relevant parts of the Study Design (Key knowledge and Key skills), and has a list of key terms, and table of contents for the main headings in the chapter.

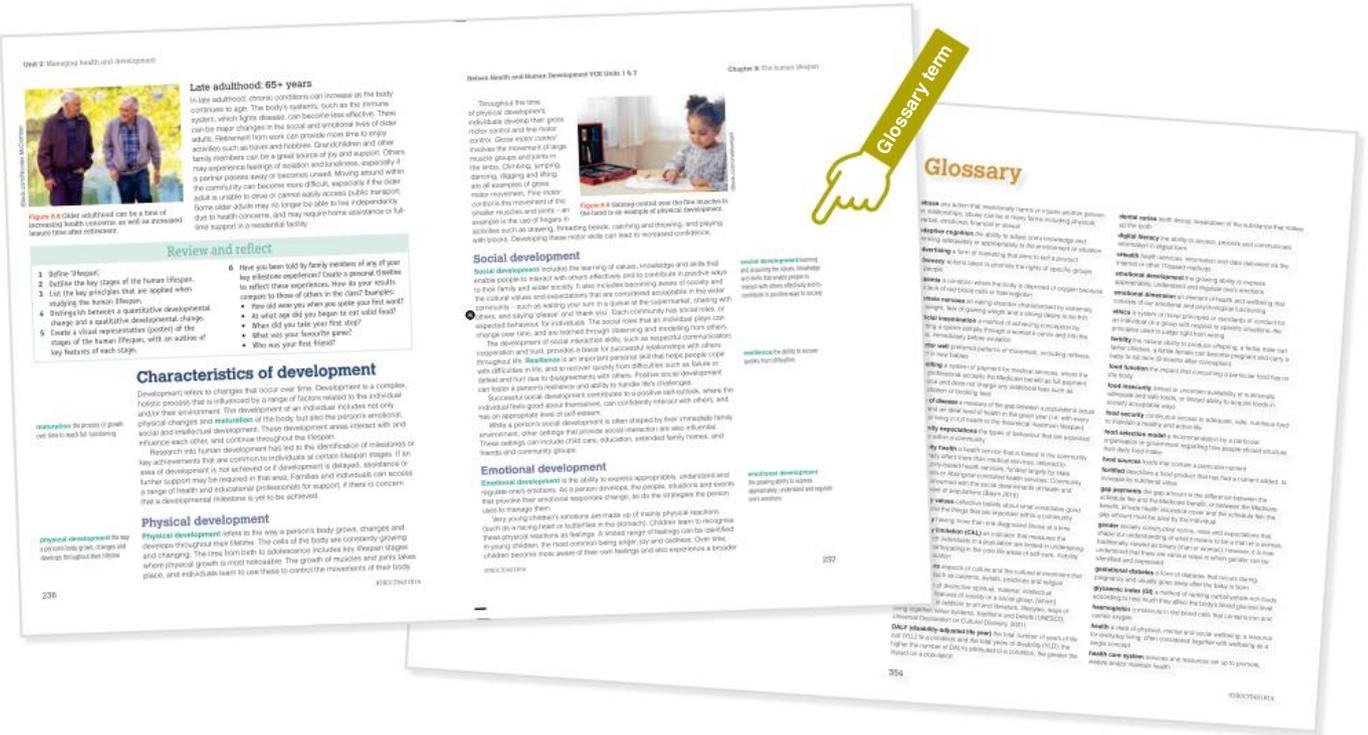
There are many opportunities for you to study and interpret data, using graphs and tables.

Activities

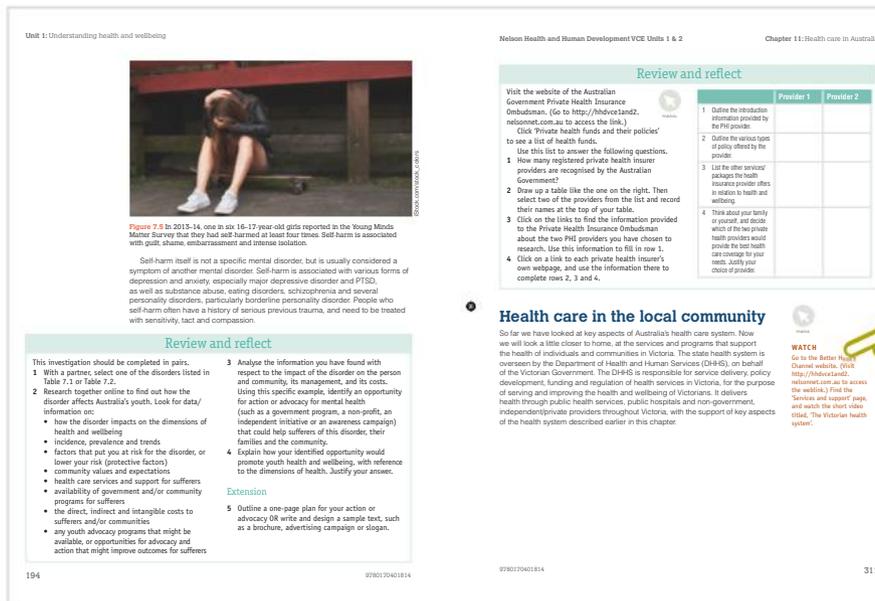
Throughout the chapter, there are interesting activities to build on what has been covered in the text.

At the end of each section, **Review and reflect** questions help you to remember and understand the essential content.

Glossary terms are highlighted in bold blue throughout the text and the definitions are in the margin and at the back of the book. If you are using the NelsonNetBook, then there is a button at the top of each page to see the glossary terms as you read.



The weblink icon flags a helpful website. Most websites can also be accessed directly through <http://hhdvce1and2.nelsonnet.com.au>.



At the end of each chapter

Each chapter finishes with a summary of the key content, and some more difficult questions. Answers are on your student website, and require you to log in using the code at the back of your book.

About the authors

Erin Bonavia is a VCE teacher of Health and Human Development and Psychology. In addition to teaching she has spent several years working in the fields of Health Promotion and Community Development in community health, local government and at a not-for-profit organisation. Erin enjoys assisting her students to apply their health and human development knowledge to real-life examples.

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Unit 1

Understanding health and wellbeing

Area of Study 1: Health perspectives and influences

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Chapter 1: Perspectives on health and wellbeing

Key knowledge

- various definitions of health and wellbeing including physical, social, emotional, mental and spiritual dimensions
- youth perspectives on the meaning and importance of health and wellbeing
- variations in perspectives of and priorities relating to health and wellbeing, according to age, culture, religion, gender and socioeconomic status
- Aboriginal and Torres Strait Islander perspectives on health and wellbeing

Key skills

- describe a range of influences on the perspectives and priorities of health and wellbeing
- collect and analyse data relating to variations in youth attitudes and priorities regarding health and wellbeing
- analyse various meanings of health and wellbeing
- describe different dimensions of health and wellbeing

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Key terms

culture
emotional dimension
gender
illness
mental dimension
physical dimension
religion
sex
social dimension
socioeconomic status
spiritual dimension

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Understanding health and wellbeing

What does it mean to be healthy?

If you asked 20 people what it means to be healthy, you would likely get 20 different answers. People have different ideas about what it means to be healthy or unhealthy, and these views are influenced by when and where we live, as well as our background and our current circumstances.

Consider the following tweets posted with #feelinghealthy.

- **Lizzie McGuire** @liiizzziiee_ · 23 Feb
I've lost over 14 pounds this month due to my workouts #FeelingHealthy
- **Debbie Harris** @debbieharris_x · 26 Jan
First cut and blow dry I've had in years!! Nice couple of inches off #feelinghealthy #mopchop thanks @kellysmith1912
- **Stuart D Walker** @stuardwalker_4 · 21 Jan
3 weeks of sobriety #weightloss #bettermentalhealth #feelinghealthy
- **LynnBishh** @LynnBishh · 13 Jan
13 days smoke free. It's rilly only when you quit that you realize how toxic it is! #proudofmyself #feelinghealthy
- **Preeti Whatkar** @PreetiWhatkar · 18 Dec 2016
You know you are getting better when you don't need a walking stick to walk across a room :) #Diabetic with #Osteomalacia #FeelingHealthy
- **Christine** @nahlik1cr · 21 Jul 2016
Day 4 in a row of working out. #gotthis #feelinghealthy

Extracts from Twitter

These tweets demonstrate the different ways people view health and wellbeing. The meaning differs for each person, because people are heavily influenced by their specific background, age and environment. One hundred years ago, people likely would not have considered a haircut to be 'healthy', or that 'working out' four consecutive days was important for health and wellbeing. The tweets also show that what 'healthy' means is relative to each person's experience. For example, someone who suffers from chronic asthma might consider themselves healthy if their condition is managed, while someone who is elderly might consider themselves healthy if they are able to go out and have coffee with friends. A person with osteomalacia, a condition in which the bones soften, might consider walking without a walking stick to be #feelinghealthy.

While there are individual variations, some commonalities exist in how health and wellbeing is understood. However, as can be seen in the examples, for many people how healthy they are is based on their physical state. We are healthy if we do not suffer from **illness**, and unhealthy if we do. Yet health and wellbeing is a complex concept, and goes far beyond this simple way of thinking. There are many ways to be considered healthy or unhealthy.

illness the experience of being in a state of ill or poor health, usually the result of the presence of a disease or injury



Figure 1.1 How healthy are these people? What is it about them that makes you think they are 'healthy' or 'unhealthy'?

Activity: Your healthiest self

We all want to be healthy, but what does 'healthy' mean? Take a moment to think about what you would be like if you were completely healthy. Consider the following questions.

- 1 What are all the different aspects of yourself that would be healthy (e.g. physical fitness)?
- 2 **a** How would these different characteristics 'look'? For example, how would you look, feel, think and function if you were healthy?
b With these thoughts in mind, draw an annotated picture showing how a 'healthy you' would look. Try to make it as detailed as possible.
- c** If you feel comfortable, share your representations with others. Consider the ways in which your understanding is the same as that of others, and ways in which it is different.
- d** Where do you think these ideas of what health and wellbeing is come from? Write as many different sources as you can think of (e.g. family, media).

Defining health and wellbeing

Health and wellbeing is an abstract, rather than concrete, concept. This means it does not exist as something independently in the world. It is not something that we can touch, taste or smell. Essentially, health and wellbeing is what we say it is. This is why it is important that we develop an agreed definition of health and wellbeing, as it is the only way that we can make judgements about the levels of health and wellbeing experienced by individuals and groups. Without a shared understanding of health and wellbeing, we cannot make comparisons or have a basis for a shared discussion. Perhaps most importantly, this description provides the beginning of a framework that determines how we can go about improving health and wellbeing.

Activity: Complete the sentence

Reflect on the previous activity, 'Your healthiest self', and use it to complete the following sentences.

- 1 To me, good health and wellbeing means ...
- 2 The signs of being healthy are ...
- 3 The signs of being unhealthy are ...
- 4 Actions that can improve health and wellbeing are ...

- 5 Actions that are bad for health and wellbeing include ...

Use your answers to these questions as prompts to create your own brief definition of health and wellbeing. Make your definition 1–2 sentences long.

There are various ways of defining health and wellbeing, and these definitions are always under debate as our understanding of such concepts evolves. Wellbeing is a relatively new concept that has come to be understood as an important part of health, so much so that health and wellbeing are considered almost to be a single concept. This section will look at how we understand and define health and wellbeing, and how this has evolved over time.

Early ideas of health were associated with disease and disability, and were related to the structure and function of the body. Health was defined as the absence of disease or illness, solely in relation to symptoms, signs or problems that are observable or described. When symptoms or disease occurred, doctors and medicine returned you to health. This is the traditional *medical* definition of health. Over time, the weaknesses of this definition were recognised. For example, it is a largely negative view of health, with health defined solely by what it is *not* (that is, health is an absence of illness) with no encouragement to strive for greater levels of health. This definition of health also leads to a very limited understanding of health, with a focus on the health of the body rather than the whole person.

In the 1940s, the World Health Organization (WHO) proposed a more *positive* and *holistic* concept of health:

Health is a state of complete physical, mental and social well-being and not merely the absence of disease or infirmity.

The WHO's definition conceptualises health as more than just the absence of ill health. It is a positive state that incorporates a number of aspects of the individual's state, beyond physical health. It goes beyond the traditional medical view of health by incorporating mental and social elements. In this way, the WHO's definition of health is inclusive and broad.

This definition also includes the concept of wellbeing, which has increasingly become intertwined with health. Health and wellbeing are closely related, yet different concepts. Wellbeing is thought to be a more holistic concept that further differentiates health from a negative or medical model, and can include aspects such as quality of life, life satisfaction, work–life balance, and the extent to which an individual is able to work towards their potential and achieve their goals. It is in some ways the individual's *experience* of health, or how you feel about yourself and your life. Despite being different concepts, 'health and wellbeing' are now often referred to together, sometimes as a single concept.

However, the WHO definition has also been considered overly idealistic – can anyone ever hope to achieve health according to this definition? If one is not healthy, then does it mean the majority of the population is in a state of ill health? Others think it is limiting to specify some aspects of health and not others, such as spiritual health or sexual health.

While this definition in the WHO Constitution has never been officially amended, new definitions have emerged that aim to address its weaknesses and reflect our changing understanding of health and wellbeing.

In 1986, WHO held the first International Conference on Health Promotion in Ottawa, Canada. An important publication that resulted from this conference was a document focusing on health promotion, titled *The Ottawa Charter for Health Promotion*. In this document, a description of health was provided in which health is understood as a *resource*, rather than a state.

To reach a state of complete physical, mental and social well-being, an individual or group must be able to identify and realize aspirations, to satisfy needs, and to change or cope with the environment. Health is, therefore, seen as a resource for everyday life, not the objective of living. Health is a positive concept emphasizing social and personal resources, as well as physical capacities.

Extract from WHO 1986, *Ottawa Charter for Health Promotion*, WHO: Geneva

This is a more *functional* description of health, and emphasises the close relationship between health and the environment. How healthy an individual is depends on how well they are able to function and adapt to their environment. This means that what constitutes health varies for every individual, depending on their circumstances, as health is defined by the person, according to his or her functional needs. Health is about being able to cope, and achieve personal potential. Someone may be suffering from a chronic condition, or a disability, yet still be considered healthy if they are able to manage their condition.

Problems with this description of health include the fact that individuals might have adaptations that are not 'healthy' even though they may meet the definition for health, which can have negative outcomes for the individual. Individuals may be 'sick' or suffer from a disease, yet be considered healthy if they can function.

Modern understandings of health highlight the importance of considering wellbeing as well as health. In Health and Human Development, **wellbeing** is considered an implicit part of health, meaning that they cannot be viewed as separate concepts, but as a single idea. In this way, health and wellbeing has come to replace the concept of health.

FYI

Who are the WHO?

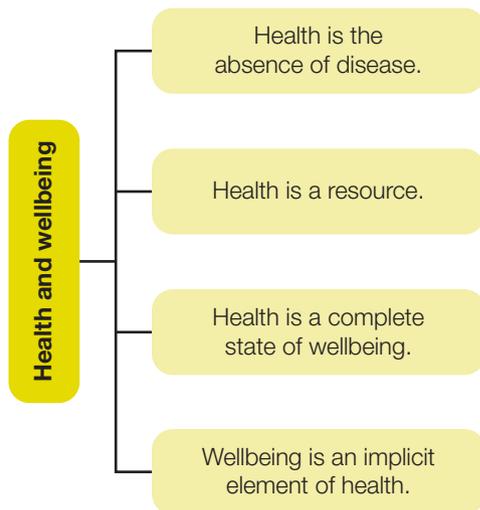
When diplomats met to form the United Nations in 1945, one of the things they discussed was setting up a global health organisation that could take leadership in matters of health. This resulted in the creation of the World Health Organization (WHO). The WHO's Constitution came into force on 7 April 1948 – a date now celebrated every year as World Health Day.

More than 7000 people from more than 150 countries work for WHO in over 150 country offices and 6 regional offices, at the Global Service Centre in Malaysia and at WHO headquarters in Geneva, Switzerland.

wellbeing a complex combination of all dimensions of health, characterised by an equilibrium in which the individual feels healthy, capable and engaged

Extract from VCAA study design 2018–2022, p. 5

These definitions of health and wellbeing are not exhaustive, but they do demonstrate a range of ways in which health can be understood, and why it is so hard to create an agreed definition. The concept of health and wellbeing is in many ways a cluster of ideas that combine in individual ways to create our own understanding of health.



Review and reflect

1 Copy and complete the following table of definitions of health and wellbeing.

Author	Definition	Strength(s)	Weakness(es)
Early 'traditional' definitions			
WHO			
Ottawa Charter			
My definition			

- Why is it so difficult to create a shared understanding of health and wellbeing?
- In what ways is debate over the meaning of health and wellbeing positive? That is, what benefits does ongoing debate provide?
- Do you think that an aspirational definition of health is beneficial, such as the WHO's definition of 'complete health'? What issues are associated with providing such an aspirational definition?
- How does defining health as a resource differ from previous definitions of health?
- Look back at your own definition of health. What similarities does your definition share with the other definitions of health provided in this section?
- How does the shift from 'health' to 'health and wellbeing' add to our previous understandings of health?

Dimensions of health and wellbeing

Modern definitions of health acknowledge that health and wellbeing is not composed of a single element, but has many parts, known as 'dimensions'. The dimensions that make up health and wellbeing are physical, social, emotional, mental and spiritual. While the physical dimension often receives the most attention,

all five dimensions of health and wellbeing are important, and contribute equally to health and wellbeing.

While each of these dimensions can increase or decrease separately, it is important to understand that they are also *interrelated* – increases or decreases in one dimension affect the other dimensions. This can be a good or bad thing, as benefits in one dimension of health and wellbeing can lead to positive flow-on effects in other dimensions, and the reverse is also true. Each dimension is distinct.

physical dimension an element of health and wellbeing that consists of the functioning of the body and its systems

Physical dimension

The **physical dimension** of health and wellbeing relates to the functioning of the body and its systems. Included within this dimension is the physical capacity to perform daily activities or tasks. Physical health is often the most visible dimension of health, and receives the most attention. For example, the pain associated with a fractured bone is a sign of poor physical health and is identified and treated promptly. A broad range of factors make up this dimension, such as strength and flexibility, nutrition, digestion, immune functioning, and energy levels.

social dimension an element of health and wellbeing that consists of how we interact with and relate to others

Social dimension

The **social dimension** of health and wellbeing relates to how well we are able to interact with and relate to others, and participate in the community in an independent and cooperative way. In order to participate in their community, a person must be able to understand the social norms and apply these, to demonstrate ‘appropriate’ behaviour in different situations. Vital to this dimension is the ability to form and maintain a variety of satisfying relationships, such as with friends, intimate partners, family, and work colleagues. The *quality* rather than *quantity* of relationships is important. A person provides and receives support through quality relationships, and this social support ensures that each person has an opportunity to function as a contributing member of society.

emotional dimension an element of health and wellbeing that consists of our emotional and psychological functioning

Emotional dimension

The **emotional dimension** of health and wellbeing relates to our emotional and psychological functioning. This includes our feelings, and the way we react to the things that happen in our lives, whether positive or negative. Emotional health does not mean feeling happy all the time. Rather, it means being able to experience and express a range of emotions at appropriate times. For example, when someone close to us is sick we might feel sad, frustrated, worried or angry. When we win an award we might feel proud or happy. It is important that we are able to manage and control our emotions, face challenges and overcome them. This is known as resilience. Another important aspect of emotional health is the degree to which a person feels secure and happy in their everyday life.

mental dimension an element of health and wellbeing that consists of our mind's cognitive functioning (i.e. thinking, learning, processing information, using memory and logic, and decision-making)

Mental dimension

The **mental dimension** of health and wellbeing relates to the health of our mind or brain – our *cognitive* functioning. This includes our ability to think, learn, process information, make and recall memories, use logic, and make decisions. Cognitive functioning is closely related to the health of our brain, and problems in the structure or function of the brain can significantly affect this dimension. For example, changes in the brain as we age can lead to a decline in mental (cognitive) health, through memory loss.

Spiritual dimension

The **spiritual dimension** of health and wellbeing relates to our sense of meaning and purpose in our lives. While it is an important element of health and wellbeing in many cultures around the world, for many years it was neglected in Western definitions. Spiritual health is the sense of who you are, where you came from, where you are going, and why. It is the harmony that exists between individuals and the world around them. It includes moral and ethical values, and how we treat those around us. While many people consider religion and spirituality to be closely associated, spirituality can exist without religion, and so a person can be spiritually healthy without religion.

spiritual dimension an element of health and wellbeing that consists of our sense of meaning and purpose in life

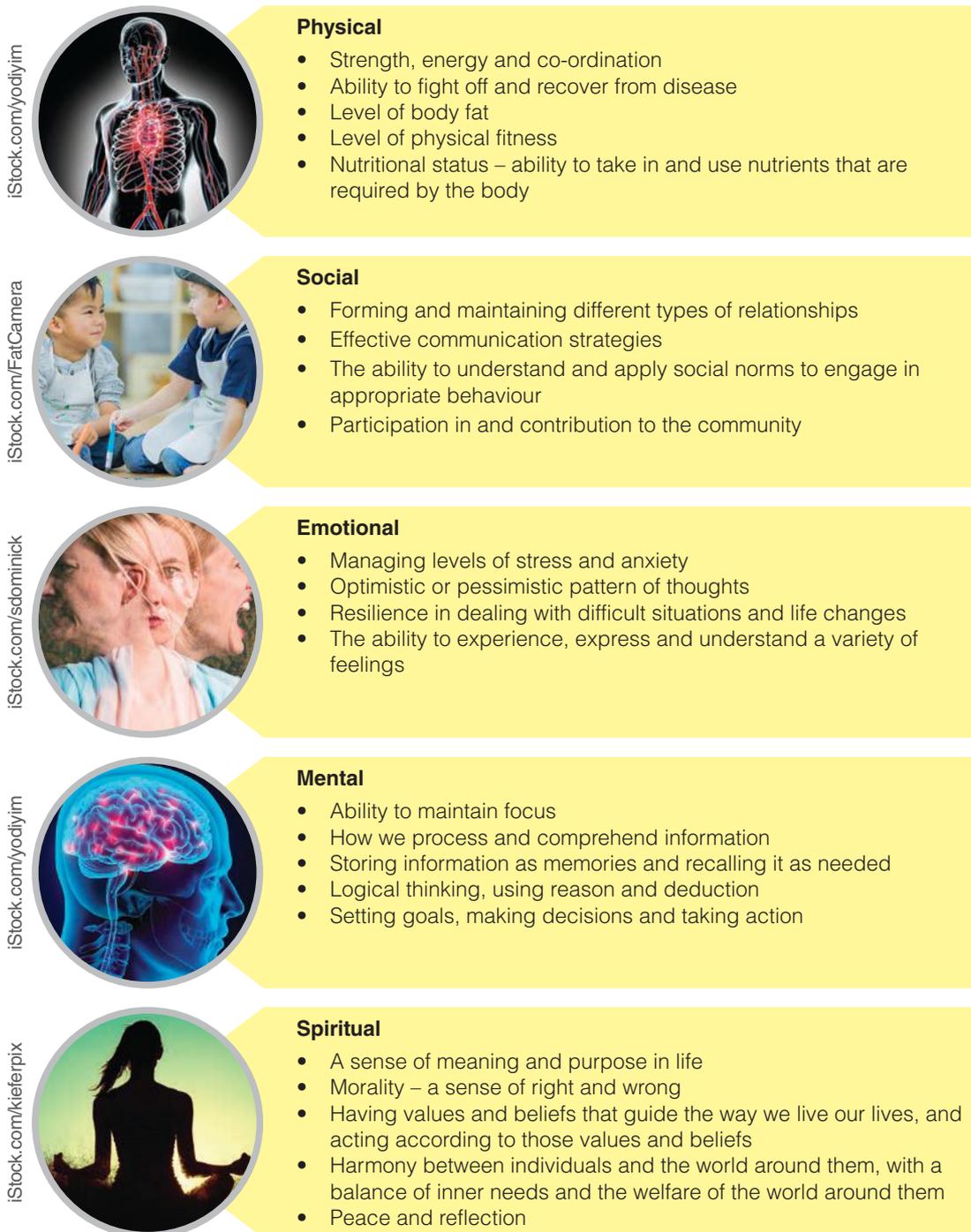


Figure 1.2 Key features of each of the dimensions of health and wellbeing.

FYI

Mental and emotional dimensions

Mental and emotional health and wellbeing were for a long time considered part of the same dimension. It is only recently that they have come to be recognised as separate dimensions. An important distinction is made between ‘thinking’ (mental) and ‘feeling’ (emotional). These are very closely related, and often interact.

It is important to distinguish between the mental dimension of health and wellbeing and how mental health and mental illness are understood in the community. ‘Mental health’ is often used to refer to the presence or absence of a mental illness such as depression or anxiety. It is important to understand the difference between the mental *dimension* of health and wellbeing, and mental health.

Activities to support the dimensions of health and wellbeing

The activities we do as part of our day-to-day lives can increase or decrease our health and wellbeing in these dimensions. Individuals can take part in activities specifically to try to increase their level of health and wellbeing in different dimensions, depending on their needs. Some activities can tend to lower our level of health and wellbeing, and so it is important to monitor our lives and include activities that enable us to experience the highest levels of health and wellbeing possible.

Table 1.1 Activities to improve your health and wellbeing, in each dimension

Physical	Mental	Emotional	Social	Spiritual
<ul style="list-style-type: none"> • Eat nutritious food • Exercise regularly • Get enough sleep • Get a massage • Brush teeth • Limit alcohol intake • Wear helmet while riding a bike 	<ul style="list-style-type: none"> • Read books • Complete mental exercises, e.g. crosswords, puzzles • Play board and card games • Take up a new hobby • Visit museums and galleries 	<ul style="list-style-type: none"> • Keep a journal • Develop coping skills • Do activities that bring you joy • Listen to music • Express your emotions 	<ul style="list-style-type: none"> • End negative relationships • Surround yourself with positive influences • Initiate conversations • Observe others 	<ul style="list-style-type: none"> • Volunteer • Meditate • Pray • Visit natural or spiritual places • Engage in meaningful discussions with others • Maintain practices such as yoga • Reflect, e.g. in journal writing

Separate, but connected

The five dimensions of health and wellbeing are separate, yet connected. While each dimension is considered a separate element of our total health and wellbeing, it also needs to be considered in the context of the other dimensions. The level experienced in one dimension affects the level of all the others – if one dimension changes (for better or worse), so do the others. This is why the dimensions of health and wellbeing are said to be ‘interrelated’.

This means that if one dimension is suffering, then the impact on other dimensions also needs to be addressed. It also means that when we work to improve one dimension of health and wellbeing, other dimensions can be improved as well.

The following examples show how the dimensions of health and wellbeing are interrelated.

- Someone who contributes to the welfare of their community through volunteering (spiritual) is likely to make new friends and increase their social circle (social). This can lead to feelings of happiness, increase self-esteem, and increase confidence (emotional).

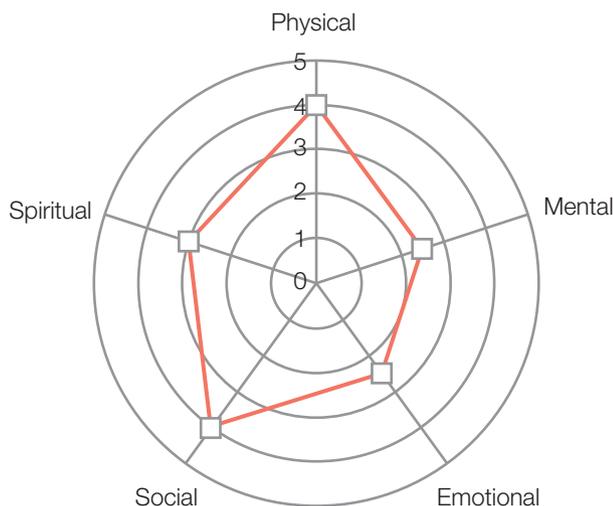
- Strategies for people who suffer from anxiety and depression are often related to the body – for example, exercise and yoga. The state of the body is known to affect the state of the mind, through both emotions and cognition. This relationship also works in reverse. For example, thoughts and feelings (emotional and mental dimensions) are known to affect our body’s production of hormones, which can affect the physical state of the body and thus the physical dimension of health and wellbeing.
- To achieve high levels of cognitive (mental) health and wellbeing, it is important that an individual does not neglect the other dimensions. While there may be a tendency to focus exclusively on study during VCE, it has been shown that, to achieve the greatest benefit, you need to also pay attention to other elements of health. For example, getting enough sleep, eating nutritious food and exercising (physical) can all contribute to increases in the mental dimension.

Activity

- 1 Rank the five dimensions of health and wellbeing from what you believe to be most important to least important. Justify the order in which you have ranked the dimensions.
- 2 Copy the table below into your book. Then fill in the table to describe positive examples of how you are functioning in each dimension, as well as any examples of that dimension that need work. Score yourself out of 5 for each dimension to reflect your level of functioning in that dimension. Add your scores together to obtain an overall rating out of 25.

Dimension	Mental	Emotional	Physical	Spiritual	Social
Positive examples					
Areas that need work					
My grade	/5	/5	/5	/5	/5

My overall health rating /25



- 3 The diagram above is an example of a spider web plot. Copy the diagram and plot your own health and wellbeing. Looking at the result, would you say that your health and wellbeing is balanced? What impact might this have?
- 4 Do you think you have spent equal time focusing on each dimension of health and wellbeing in your life, or has one area been of particular concern? Explain why you think this might be.
- 5 Identifying the areas of health and wellbeing that need the most attention in your own life, list the activities you could undertake to increase each dimension of health and wellbeing.

Review and reflect

- 1 List the five dimensions of health and wellbeing.
- 2 For each dimension you listed for Question 1, provide a short outline containing two key points.
- 3 Create two case studies for each dimension, one describing someone who is healthy in that dimension, and the other describing someone who is unhealthy in that dimension. For example, write a description of how someone who is emotionally healthy may act, appear or think. Then write a similar description for someone who is emotionally unhealthy.
- 4 Provide one original activity that can improve health and wellbeing in each dimension, and one activity that will decrease health and wellbeing in each dimension.
- 5 What does it mean to say that the dimensions of health and wellbeing are interrelated?
- 6 Give three original examples of how different dimensions of health and wellbeing interact.
- 7
 - a Which dimension do you think generally receives:
 - i the most attention?
 - ii the least attention?
 - b Explain why you think these dimensions receive the most/least attention.

Variations in health perspectives and priorities

As you have already seen, each individual has their own understanding of health and wellbeing, which is dependent upon factors such as their age, circumstances, background and experiences. Different individuals also have different priorities when it comes to health and wellbeing. For example, some might place a high value on preventing illness and managing their health and wellbeing, while others may appear to give it little thought or care. These differences in perspective and priorities are the result of a number of factors, including the experiences an individual has, and their circumstances, both past and present. A person's understanding of health and wellbeing, and the priority it is given, are often reflected in individual behaviour.

Research has identified a number of important factors that affect the way individuals understand health and wellbeing, and the priority given to each, in relatively predictable ways. These factors are:

- age
- gender
- culture
- religion
- socioeconomic status.

Each of these five factors is discussed below.

Age

Our understanding of health and wellbeing changes throughout our lifespan, as our circumstances and experiences change. Table 1.2 summarises how the meaning of health and wellbeing changes throughout the lifespan, how this can affect the priority individuals give to health and wellbeing at different stages of their life, and how this might affect their behaviour in relation to their health and wellbeing.

Table 1.2 Health and wellbeing perspectives and priorities throughout the lifespan

Period	Concepts of health and wellbeing
Childhood (0–11 years)	<ul style="list-style-type: none"> • Younger children are likely to believe health and wellbeing is a matter of 'luck'. • Health and wellbeing is generally taken for granted. • Younger children tend towards a more traditional biological definition of health and wellbeing, with definitions referring to specific symptoms of illness that they have experienced. • In older childhood, descriptions of health and wellbeing often include references to health behaviours such as diet, exercise and rest, hygiene and dental hygiene, being happy, lack of pain.
Youth (12–24 years)	<ul style="list-style-type: none"> • Health and wellbeing definition becomes more complex and holistic, and is linked to looking good, being happy and feeling confident. • Descriptions of health and wellbeing often include references to smoking and drinking, having a healthy mind, feeling happy and confident, and self-acceptance. • Majority in this age bracket enjoy good health and wellbeing, and understand the benefits of health-promoting behaviour. • The social dimension of health and wellbeing is often given priority over other dimensions.
Adulthood (25–59 years)	<ul style="list-style-type: none"> • Health and wellbeing is increasingly seen as an important resource. • Health and wellbeing becomes a priority as more health problems emerge. • Preventative health behaviour and screening procedures are used more frequently as age increases. • Health and wellbeing is seen as the ability to function effectively and fulfil responsibilities, rather than 'a state of complete health'.
Senior years (60+ years)	<ul style="list-style-type: none"> • Health and wellbeing is assessed based on autonomy, self-determination, independence, and being able to manage disease and physical restrictions. • Good health is seen as a precious resource. • Health is not necessarily the absence of illness, as chronic illness is very likely in the later stages of life. The extent to which symptoms are managed and interfere with life is important in understanding someone's level of health. Health is linked to the ability to perform everyday tasks and having a feeling of wellbeing, rather than the absence of symptoms.

Interviews

Interview at least one person in each of the periods of the lifespan listed in Table 1.2. Ask the following questions and record the answers.

- 1 What does the term 'health and wellbeing' mean to you?
- 2 Is health and wellbeing important to you? Why/why not?
- 3 What behaviours do you consider to be healthy? Do you do these activities? Why/why not?
- 4 What behaviours do you consider to be unhealthy? Do you do these activities? Why/why not?
- 5 Compare and contrast your answers to questions 1 to 4 with the information in Table 1.2. How are your answers similar or different to the points listed in the table?

Culture

It has been argued that **culture** is such an important part of how individuals understand health and wellbeing that there may not be a universal definition of health and wellbeing, because it must always be situated within a culture.

culture the set of distinctive spiritual, material, intellectual and emotional features of society or a social group, [which] encompasses, in addition to art and literature, lifestyles, ways of living together, value systems, traditions and beliefs

Extract from UNESCO, Universal Declaration on Cultural Diversity, 2001

There are, however, some similarities across cultures: all cultures have systems of health beliefs to explain what causes illness, how it can be cured or treated, and who should be involved in the process. These specific attitudes, beliefs and behaviours are largely a product of individual cultures.

Figure 1.3 shows two popular optical illusions that highlight an important point about how people from different cultures understand health and wellbeing. Each of these images can be seen in two ways. Figure 1.3a can be seen as either two black faces on either side of the image, or one white vase in the centre. Figure 1.3b can be seen as either an older woman or a younger woman.

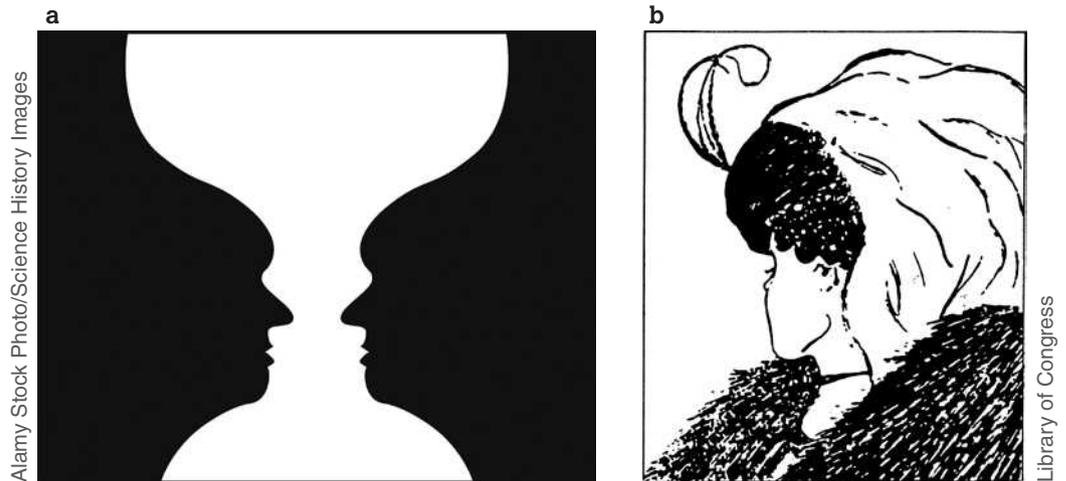


Figure 1.3 Famous optical illusions: **a** Edgar Rubin vase or faces? **b** Older woman or younger woman?

In much the same way, different cultures can look at the same situation and describe it in different ways. What one culture might see as healthy, another might see as unhealthy. What is considered thin and lean in one culture might be considered sickly in another. What is considered overweight and unhealthy in one culture might be considered healthy in another. Just as many people find it easier to see one interpretation of an image, people tend to privilege their own cultural understanding of health and wellbeing, and view it as 'correct'.

The predominant view of health and wellbeing in Australia comes from the majority middle-class, Anglo-Saxon urban population. In this cultural perspective, some dimensions of health and wellbeing are prioritised over others. For example, the physical dimension is prioritised and it is believed that health problems have physical causes, such as bacteria, viruses or genes. The emphasis of treatment is on modern, scientific health care and mainstream medicine, which relies on drug treatment or surgery, and is largely administered by doctors or other health practitioners. In recent years with increased awareness of mental illness, other dimensions have received more attention, so the focus has shifted to include social, mental and emotional dimensions. As a result, in this cultural perspective of health and wellbeing, the spiritual dimension may not have received a great deal of attention. In contrast, some other cultures



Figure 1.4 Acupuncture is a traditional Chinese health therapy that is gaining acceptance in Australia despite the differences between Eastern and Western health philosophies.

may believe that illness is the result of supernatural factors, and may use prayer or other spiritual interventions to counter illness. Traditional Chinese medicine focuses on promoting harmonious interaction and balance, and uses therapies such as acupuncture to achieve this.

The dominant cultural view in a society can be pervasive, and can lead to limited health perspectives, priorities and behaviours. Cultural beliefs are reflected in a society's health care system, and the way health and wellbeing is promoted. People from different cultural backgrounds may struggle when faced with a way of understanding health and wellbeing that is different than their own. For example, a dominant theme in Western medicine is that of 'fighting' or 'vanquishing' disease, while in traditional medical systems of the East, the prevailing theme in health care is that of balance. Alternative therapies – those from a different cultural perspective – are becoming more available in Australia and are increasingly being used, with some methods even being incorporated into the mainstream. In this way, cultural perspectives of health and wellbeing can change and be adjusted as they are challenged.

Religion

Religion is very closely connected to culture – so closely that they can be difficult to separate. Given the diversity of religions, a concise definition of 'religion' is difficult, but in general it is understood as a specific system of shared spiritual beliefs and practices. These belief systems are usually about, for example, the origin of life, the existence of a higher being, and the meaning of life. Religious beliefs can influence many aspects of a person's life, including their perspectives on health and wellbeing.

religion a set of shared spiritual beliefs and practices

Australia is a country of many faiths, as shown in Figure 1.5.

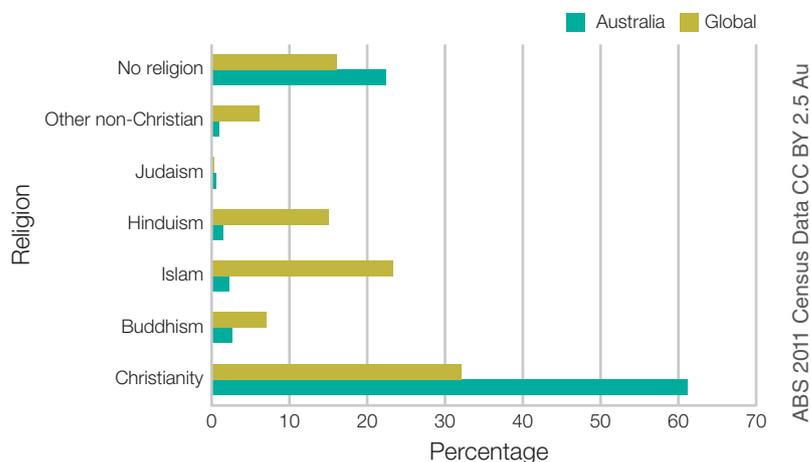


Figure 1.5 Australian vs worldwide data on percentage of population who practise (or do not practise) religion.

At times throughout history, religion has entirely determined perspectives on health and wellbeing, including what constitutes health or ill health, the causes of ill health, and how ill health is treated. This is no longer the case for many people because of the dominance of science and medicine. However, religious beliefs still influence perspectives on health and wellbeing and health priorities to varying degrees. Religion is both shared and personal. Religions are shared systems of belief and practice, but the role that these beliefs and practices play in the life of each individual is unique.

In some religions, health and wellbeing is viewed as something that can be achieved through adhering to religious beliefs and practices. Using prayer and strictly religious doctrine is seen as the way to obtain a state of health and wellbeing.

A *Hindu* belief is that all illnesses have a spiritual element. Therefore, any treatment needs to address this spiritual element if it is to be effective. Illness may be viewed as a result of karma in this life or previous lives. The acceptance of pain and suffering is encouraged as part of the consequence of karma, and is viewed as a chance to progress spiritually.

In *Islam*, illness is often seen as predestined. It may be a trial from God through which a sin can be removed, a sign of failure to follow Islam's tenets, or an opportunity for spiritual rewards. In this way, a holistic view of healing is taken, using a combination of spiritual and medical elements. An imam may be an essential part of the healing process.

Religion can add meaning to the experience of health and wellbeing, and life and death.

Gender

Over time, the different roles of men and women have been defined by culture, religion and many other aspects of our lives. The two **sexes** are distinguished by biological differences. **Gender**, on the other hand, is determined by messages a person receives from their family and community about what it means to be a man or a woman in their society. Part of the gender role is how we understand health and wellbeing, our priorities and the actions that are taken in response. There appear to be clear gender differences in how men and women view health and wellbeing, and their health priorities and actions.

In Australian culture, the traditional feminine role was for women to be emotional, dependent, nurturing and gentle, while the traditional masculine role was for men to be strong, competitive, assertive and independent. While these gender roles have undergone substantial change in recent years, in many ways they still persist. These roles can influence how health and wellbeing is perceived by each gender. Some believe that health and wellbeing is so closely related to gender that our health attitudes, beliefs and behaviours are actually a part of our understanding of gender. For example, a man may show his 'masculinity' when he refuses to admit that he is sick. In this way, attitudes towards health and wellbeing are part of the way that we understand gender.

Table 1.3 Common male and female perceptions of health

Males	Females
<ul style="list-style-type: none"> • Have a sense of invulnerability • More passive regarding health and wellbeing, less likely to take action • More pessimistic about health and wellbeing • Health and wellbeing more likely to be defined positively, as experiencing higher levels of strength and fitness 	<ul style="list-style-type: none"> • Have a higher self-efficacy towards health and wellbeing; i.e. feel more in control and more likely to take action • Have a stronger 'consciousness' of health and wellbeing • Health and wellbeing more likely to be defined in negative terms, as not being ill, or in terms of energy, or being able to carry out everyday tasks

sex biological differences, such as chromosomes, hormones, internal and external sex organs, that determine whether someone is biologically male or female

gender socially constructed norms, roles and expectations that shape our understanding of what it means to be a man or a woman; often viewed as a binary (man or woman); however, it is now understood that there are various ways in which gender can be identified and expressed

Case study

Media review: Merv Hughes stumped by male health views



Getty Images/ISHARA S.KODIKARA/AFP

Figure 1.6 Merv Hughes presents the Baggy Green Cap to debutant Jon Holland (2nd L) of Australia, ahead of play on the first day of their second Test cricket match between Sri Lanka and Australia at the Galle International Cricket Stadium in Galle on 4 August 2016.

Blokes might think they're '10 feet tall and bulletproof', but they need to take responsibility for their health, sporting great Merv Hughes has told the men of the *Illawarra*.

The former Australian cricketer became an advocate for men's health in the hope that in a country as sports-mad as Australia,

his own sporting background would help people pay attention and listen to his message about the importance of health.

'Men notoriously won't worry about their health,' Mr Hughes said. 'They'll ignore symptoms, refuse to talk about health issues, and only see a doctor when they're half-dead.'

'But for men over 40 particularly, it's important to have regular check-ups. They may think they're fine, but often there's something there that just doesn't show obvious symptoms,' he said.

Statistics from Illawarra Shoalhaven Medicare Local show that of males in the Illawarra-Shoalhaven region, 59.7 per cent are either obese or overweight; and 56.4 per cent of males engage in high risk alcohol drinking in comparison to 22.6 per cent of females. The organisation also found that fewer than 9 per cent of men in the local area ate enough vegetables.

Extract from Sparks J, 'Merv Hughes stumped by male health views', *Illawarra Mercury*, 25 October 2012

Case study questions

- 1 What male perceptions of health and wellbeing are provided in the article?
- 2 How do you think these perceptions are different from female perceptions of health and wellbeing?
- 3 Why is it important to challenge these perceptions of health and wellbeing? What impact are these perceptions having on the health and wellbeing of males?
- 4 Why would Merv Hughes be chosen as a spokesperson who is acting to change these beliefs?

Socioeconomic status

Socioeconomic status (SES) is a difficult concept to understand and in general is poorly understood, yet it is vital in the study of health and human development. SES can be understood as an individual's or group's economic and social standing in relation to others, based on income, education and occupation. SES unites these individual factors because they work together to determine our access to resources, including material items, health care, power and opportunities. Those with higher SES have better access to these resources, while those with lower SES have reduced access to resources, which can result in a lower level of control over their life. These differences are important in influencing the health perspectives and priorities of high and low SES groups in relation to health and wellbeing.

Low SES

People with lower SES are more likely to have higher stress levels, low self-esteem and a sense of loss of power/control. This means their perception of health is different than someone with a higher SES. For example:

- When someone feels a lack of control or power over their own destiny, they are more likely to feel that health and wellbeing is also beyond their control, and therefore not take action in relation to promoting health and wellbeing.

socioeconomic status a person's or group's economic and social standing relative to others, based on income, education and occupation

- Lacking access to a range of health services and relying on hospital or GP clinics might encourage a negative definition of health and wellbeing that is merely the absence of disease, rather than a more holistic view. Health and wellbeing can also be seen as the ability to do what one needs to do – a functional view of health and wellbeing.
- Stress in a person's current life can prevent them thinking about future health issues, and therefore reduce their focus or prioritising of long-term health and preventative health. Preventive health may also be seen as an indulgence rather than a necessity.
- Lower levels of health and wellbeing experienced generally in lower SES groups may result in different expectations of health and wellbeing.

High SES

In comparison, those with higher SES have the resources to access a range of health services, feel they are in control of their life and participate in activities that promote health and wellbeing.

They are more likely to emphasise a holistic sense of health and wellbeing, incorporating different psychosocial aspects and value and engage in preventive behaviour.

Case study

Wealthy school girls chase tan despite cancer risk

WEALTHY high school girls are placing themselves in danger of skin cancer despite being aware of the risks of tanning.

New figures showing seven out of 10 secondary students are aware of the dangers of tanning, however almost two-thirds still take the risk.

A SunSmart analysis of data from the Australian Secondary Students' Alcohol and Drug survey shows female students from Victoria's more affluent areas are those most likely to pursue a tan.

SunSmart manager Heather Walker said students who could recall more than one lesson about skin cancer or sun protection at their school are less likely to prefer a tan.

While a person's suntan may fade, Ms Walker said, the UV damage cannot be undone and will increase the student's risk of skin cancer in later life.

'It's worrying that many Victorian students are still willing to take this risk,' Ms Walker said.

Findings from the ASSAD survey reveal 64 per cent of Victorian students still like to get a suntan, while 42 per cent attempted a tan last summer – despite 72 per cent admitting they know the risks.

Extract from McArthur G, 'Wealthy school girls chase tan despite cancer risk', *Herald Sun*, 28 February 2017

Case study questions

- 1 In three dot points, describe the major findings of the study.
- 2 What does tanning behaviour tell us about the health priorities of the school girls studied?
- 3 Given that these girls are getting a tan despite knowing the risks, how might the following factors explain their behaviour and underlying health perspectives?
 - a gender
 - b SES
 - c culture
 - d age
 - e religion

Review and reflect

- | | |
|--|---|
| <p>1 a Describe one different view of health and wellbeing that is held at each of the four stages of the lifespan.</p> <p>b Why do perspectives change across the lifespan?</p> <p>c Why do priorities change over the lifespan?</p> <p>2 a Outline the difference between sex and gender.</p> <p>b What are gender roles, and how might they explain differences in health perspectives and priorities?</p> <p>c Describe two differences in how men and women perceive health and wellbeing.</p> <p>d Describe how these differences influence health priorities and behaviour between the genders.</p> <p>3 a Explain what 'culture' means.</p> <p>b Do you believe health and wellbeing is universal or cultural? Justify your answer.</p> <p>c Provide one example of how culture can influence perceptions of health and wellbeing.</p> | <p>4 a Describe what 'religion' means.</p> <p>b Provide one example of a religious belief that can influence health beliefs and priorities.</p> <p>c Compare and contrast how culture and religion influence perspectives and priorities for health and wellbeing.</p> <p>5 a Explain what 'socioeconomic status' means.</p> <p>b Provide two ways in which high-SES and low-SES individuals might view health and wellbeing differently.</p> <p>c For each of the ways you provided in part b, describe how this might influence the different priorities held by each group.</p> |
|--|---|

Youth perspectives on the meaning and importance of health and wellbeing

Health and wellbeing have different meanings and a different level of importance to individuals throughout the lifespan. The youth stage is a time of dramatic change. It is important to understand how young people perceive health and wellbeing, as well as the means by which they believe it can be achieved and maintained, and the priority they accord to behaving in a healthy manner in their daily lives, as youth is a time when independence is being developed. As young people begin to take more control over their own health and wellbeing, their behaviour and beliefs can play an important role in determining the level of health and wellbeing they experience throughout their lives.

Related to behaviour

Research has shown that by the time people reach this stage of their life, they have usually developed a complex understanding of health and wellbeing. Health and wellbeing is often seen as *closely related to behaviour*, such as eating healthily and avoiding illegal drugs, binge drinking and smoking; however, it is also understood as an *abstract concept* separate from specific symptoms. While health and wellbeing is still understood to be strongly connected to physical health and wellbeing, the emotional and mental dimensions are also considered important – for example, feeling happy, confident and self-accepting, and being kind.

A personal responsibility, but not a priority

Health and wellbeing is generally seen as a *personal responsibility*, within the power and control of the individual. People at this stage believe that their actions have the power to increase or decrease their own level of health and wellbeing. Good health and wellbeing can be achieved by eating the right foods, exercising, and avoiding bad habits such as smoking, taking drugs or binge drinking.

This placement of health and wellbeing firmly in the control of the individual may be due to the *great health knowledge* that many in this phase of the lifespan possess. With frequent health education messages being directed at young people, they have generally collected a large amount of knowledge about behaviour that can affect their health and wellbeing. However, studies reveal that although young people can have great awareness and knowledge, they might not be not overly concerned about health-compromising behaviour. This paradox is unique to this stage – health-related behaviour is not determined primarily by the person's knowledge, but with consideration of other factors. Research has revealed that this could be due to a number of factors, which are described below.

Easily fixed

Many youths believe that while some of their behaviours are unhealthy, there are ways of compensating to prevent health risks. For example, the effects of poor nutrition might be known, but by eating some healthy food to compensate they can *negate* health risks. Given that many behaviours have long-term rather than short-term health outcomes, and that many youths experience high levels of health and wellbeing, this can reinforce their sense that they will be able to successfully reduce their risk of illness through other actions.

Wellbeing trumps health

In addition, recent research has shown that people at this stage of life may view wellbeing and health as separate, despite the two concepts being viewed as interchangeable and closely connected. While health is seen as being determined by behaviours such as healthy eating, exercising, not smoking, not taking drugs and not drinking alcohol, wellbeing is considered to be connected to their social and emotional lives, particularly having a close circle of friends and supportive family – that is, wellbeing means 'feeling good'. As many youths experience relatively high levels of health, wellbeing may be seen as more important than health. This could explain why individuals may behave in ways that they understand are risky to their health – maintaining these relationships, which provide a sense of wellbeing, is valued more highly than long-term health. In this way, *wellbeing trumps health*. Studies have reinforced this finding, showing that for youth, while health is a frequent topic of thought, it is not often a high priority.

A future worry

With the understanding that they have ultimate responsibility for their health comes the pressure to make good decisions. Being able to experience health and wellbeing requires young people to be able to balance this 'burden of the future' with their present needs – for example, for recreation and leisure. This feeling of responsibility can be overwhelming and can detract from the young person's feeling of health and wellbeing in the present.

Activity: Data analysis

Younger Australians generally view themselves as being in good health, with 91% of young people aged 15–24 rating their health as good, very good or excellent (National Health Survey 2014–15).

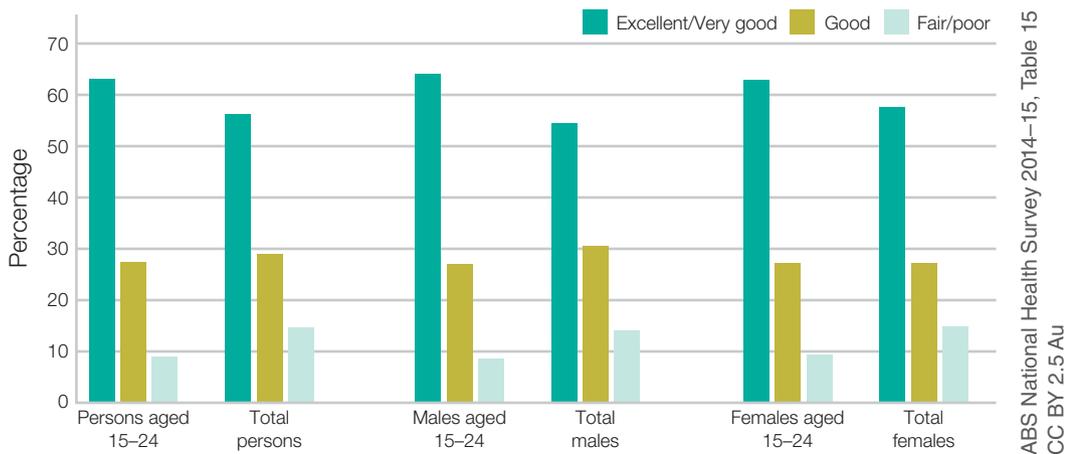


Figure 1.7 Self-assessed health status of youth aged 15–24 compared to the total population, 2014–15.

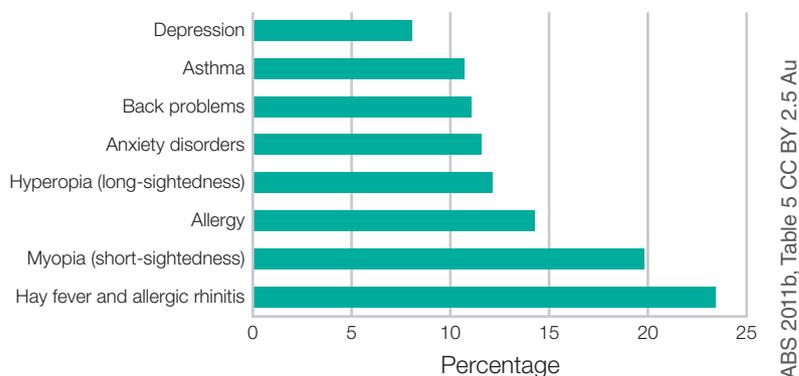


Figure 1.8 Most frequently reported long-term health conditions in youth aged 15–24 in 2014–15.

- 1 What does the information in Figures 1.7 and 1.8 reveal about how young people perceive health and wellbeing?
- 2 When asked to rate how healthy they are, what different parts of their health and wellbeing might they include or exclude?
- 3 Do you think asking youth to self-assess their health and wellbeing is a valid way of measuring health and wellbeing for this stage of the lifespan? Why or why not?
- 4 Do you view the following as health issues? Justify your answers.
 - a Hayfever
 - b Short-sightedness
 - c Asthma

Activity: Data collection

You are going to conduct your own quick survey of youth attitudes and priorities for health and wellbeing.

- 1 Write three questions that reveal the health attitudes and priorities of those aged 15–24. You might want to find out:
 - a how they define health and wellbeing
 - b how important their health and wellbeing is to them
 - c actions they currently take that they think increase or decrease their health and wellbeing, and their reasons for these actions.Think about the form each answer will take. (You might use a scale of 1–5, questions that require open-ended answers, or multiple-choice questions.)
- 2 Complete the survey with *at least* five people aged 15–24. Record the answers for each person. Think about what demographic information you might also need to collect about the participants (e.g. age, gender).

- 3 Briefly analyse your data (answers to each question) by:
 - identifying common themes – e.g. most people mentioned specific behaviours when describing health and wellbeing, or gave a positive definition of health and wellbeing
 - creating a graph or a table – if people are asked to rate how important health and wellbeing is to them on a scale of 1–5, you could use a bar graph or table to show their answers.
- 4 Present a written summary of your key findings, in 2–3 sentences that provide a quick overview.
- 5 How does what you discovered compare to the information presented in this section? Did your answers agree with the information, or did you find different attitudes and priorities? Explain why this might be.

Review and reflect

- 1 How is health and wellbeing understood at the 'youth' stage of the lifespan?
- 2 Describe the relationship between health and wellbeing at this stage of the lifespan.
- 3 What behaviours are particularly associated with health and wellbeing, at this stage?
- 4 Choose one other stage of the lifespan, and compare and contrast the views at the youth stage with those of your chosen stage.
- 5 Describe the health priorities of those in the youth stage of the lifespan, and explain why these priorities might occur.

Aboriginal and Torres Strait Islander perspectives on health and wellbeing

We represent the oldest continuous culture in the world, we are also diverse and have managed to persevere despite the odds because of our adaptability, our survival skills and because we represent an evolving cultural spectrum inclusive of traditional and contemporary practices. At our best, we bring our traditional principles and practices – respect, generosity, collective benefit, collective ownership – to our daily expression of our identity and culture in a contemporary context. When we are empowered to do this, and where systems facilitate this reclamation, protection and promotion, we are healthy, well and successful and our communities thrive.

– Professor Ngiare Brown

Extract from Brown N, 2012, Pacific Caucus Intervention to the 12th Session of the United Nations Permanent Forum on Indigenous Issues, New York, 20–31 May 2012

Aboriginal and Torres Strait Islander people are the indigenous people of Australia; the first recorded inhabitants. Their continuity, history and cultural traditions are unrivalled, and are thought to be the oldest surviving culture in the world. It is estimated that Aboriginal and Torres Strait Islander people have an unbroken cultural heritage spanning 50 000–65 000 years. For comparison, this is 10 times older than ancient Egyptian culture. Aboriginal and Torres Strait Islander people are not a homogeneous group, but are made up of many smaller nations. It is estimated that at one time there were more than 500 separate clan groups or nations. Every nation is unique, often with separate cultures, beliefs and languages.

This map attempts to represent the language, social or nation groups of Aboriginal Australia. It shows only the general locations of larger groupings of people which may include clans, dialects or individual languages in a group. It used published resources from 1988–1994 and is not intended to be exact, nor the boundaries fixed. It is not suitable for native title or other land claims. David R Horton (creator), © AIATSIS, 1996. No reproduction without permission. To purchase a print version visit: www.aiatsis.ashop.com.au/



Aboriginal Australians



Land-based



Torres Strait Islanders



Sea-based

Two diverse cultures

Figure 1.9 Aboriginal Australians (land-based) and Torres Strait Islanders (sea-based): two diverse cultures each composed of many separate nations.

Indigenous culture and the Dreaming

'Dreaming stories pass on important knowledge, cultural values and belief systems to later generations. Through song, dance, painting and storytelling which express the dreaming stories, Aborigines have maintained a link with the Dreaming from ancient times to today, creating a rich cultural heritage.

In most stories of the Dreaming, the Ancestor Spirits came to the earth in human form and as they moved through the land, they created the animals, plants, rocks and other forms of the land that we know today. They also created the relationships between groups and individuals to the land, the animals and other people.

Once the ancestor spirits had created the world, they changed into trees, the stars, rocks, watering holes or other objects. These are the sacred places

of Aboriginal culture and have special properties. Because the ancestors did not disappear at the end of the Dreaming, but remained in these sacred sites, the Dreaming is never-ending, linking the past and the present, the people and the land.

The Creation or Dreaming stories, which describe the travels of the spiritual ancestors, are integral to Aboriginal spirituality. In many areas there are separate spheres of men's and women's stories. Knowledge of the law and of the Dreaming stories is acquired progressively as people proceed through life. Ceremonies, such as initiation ceremonies, are avenues for the passing on of knowledge.

Traditional knowledge, law and religion relies heavily on the Dreaming stories with its rich explanations of land formations, animal behaviour and plant remedies.'

Extract from Australian Government website, About Australia, 'The Dreaming'; <http://www.australia.gov.au/about-australia/australian-story/dreaming> CC BY 3.0 Au

Review and reflect

Use the resources below to investigate Indigenous culture.

- 1 The AIATSIS map of Indigenous Australia (see Figure 1.9) provides information about traditional Indigenous nations throughout Australia. Use it to find Indigenous nations local to your area.
- 2 Bob Randall, a Yankunytjatjara elder and traditional owner of Uluru, explains in a video, 'The land owns us', for the Global Oneness Project

how the connectedness of every living thing to every other living thing is not just an idea but a way of living, in Australian Indigenous culture. Find and watch the 5-minute video (published 23 March 2013).

- 3 The Australian government website 'About Australia' provides a more in-depth overview of Indigenous culture. Search for 'Indigenous arts culture and heritage'.



How are health and wellbeing defined by Aboriginal and Torres Strait Islander peoples?

Indigenous culture is diverse and each nation is unique. However, common themes can be identified regarding perspectives on health and wellbeing. Part of Indigenous cultural heritage is a deep and complex understanding of health and wellbeing, which differs in many ways from a Western understanding.

The best known definition of health from an Aboriginal and Torres Strait Islander perspective is the one adopted by the National Aboriginal Community Controlled Health Organisation (NACCHO) in its constitution. It reads:

'Aboriginal health' means not just the physical well-being of an individual but refers to the social, emotional and cultural well-being of the whole Community in which each individual is able to achieve their full potential as a human being, thereby bringing about the total well-being of their Community. It is a whole-of-life view and includes the cyclical concept of life-death-life.

Extract from NACCHO, Constitution, 'Aboriginal Health – Definitions'

Another definition of health from an Indigenous perspective:

[The] Aboriginal concept of health is holistic, encompassing mental health and physical, cultural and spiritual health. Land is central to wellbeing. The holistic concept does not merely refer to the 'whole body' but in fact is steeped in the harmonised inter-relations, which constitute cultural wellbeing

Extract from Swan P & Raphael B 1995, 'Ways forward: Aboriginal and Torres Strait Islander mental health policy: national consultancy report'. Canberra: AGPS, p. 14

These definitions show that the Aboriginal and Torres Strait Islander concept of health is *positive* and *holistic*. It makes no mention of illness, and does not focus only on the individual, but on the health and wellbeing of the community. The connection to land, culture, spirituality, ancestry, family and community are vital for health and wellbeing.

Connection to country

Connection to country is central to health and wellbeing. Land is fundamental to the health and wellbeing of Indigenous people and is not just soil, rocks or minerals but a whole environment that sustains and is sustained by Indigenous people and culture. For Indigenous Australians, the land is the core of all spirituality, through the relationship to the Dreaming, and this relationship and the

spirit of 'country' is central to Indigenous health and wellbeing. The health and wellbeing of the people often reflects the health and wellbeing of the country, and if the country is sick then so are its people. In this way, the maintenance of country, and with it the maintenance of the Dreaming and traditional culture, is important to maintaining health and wellbeing.

Our identity as human beings remains tied to our land, to our cultural practices, our systems of authority and social control, our intellectual traditions, our concepts of spirituality, and to our systems of resource ownership and exchange. Destroy this relationship and you damage – sometimes irrevocably – individual human beings and their health.

– Pat Anderson

Extract from Anderson P 1996, 'Priorities in Aboriginal health'. In: Robinson G, ed, 'Aboriginal health: social and cultural transitions: proceedings of a conference at the Northern Territory University, Darwin, 29–31 September 1995'. Darwin: NTUP, pp. 15–18

These perspectives of health and wellbeing influence how illness is viewed and how it is treated. Compared to Western medicine, Indigenous approaches to treating illness are more holistic and recognise the importance of the physical, social and spiritual dimensions in influencing health and wellbeing. The recognition of the importance of Indigenous cultural beliefs has led to Indigenous health centres where traditional and Western medicine can be offered in concert.

Review and reflect

- 1 Describe the key elements of the Aboriginal and Torres Strait Islander perspective on health and wellbeing.
- 2 In what ways is this perspective different from the non-Indigenous perspective in Australia?
- 3 What are seen as the primary causes of ill health from an Indigenous perspective?
- 4 Why is it important that health care reflects the cultural beliefs of those seeking treatment?

Chapter summary

- Health and wellbeing is a complex and abstract concept that means different things to different people.
- The WHO's definition of health is: 'Health is a state of complete physical, mental and social well-being and not merely the absence of disease or infirmity', which is a holistic, positive definition of health.
- Concepts of health might be negative (health is the absence of illness), or health might be seen as a resource to be used to achieve potential or to complete everyday tasks.
- Health now incorporates the idea of 'wellbeing'. Wellbeing is an implicit part of health.
- All definitions of health and wellbeing have strengths and weaknesses.
- Health and wellbeing has five dimensions: physical, mental, social, spiritual and emotional. All are equally important and interrelated.
- The physical dimension is related to the health of the body. It involves efficient functioning of the body and its systems, including physical fitness, and the capacity to perform tasks.
- The mental dimension is our cognitive or intellectual health and wellbeing, including our ability to think, make decisions and use logic.
- The emotional dimension relates to emotional and psychological functioning, including how we feel and react to stimuli in our lives, either positive or negative. It is the ability to feel, understand and manage a range of emotions.
- The spiritual dimension refers to your sense of meaning and purpose in life, and your sense of place within the world around you.
- People have different perspectives on health and wellbeing, and these perspectives are influenced by factors such as age, culture, religion, gender and socioeconomic status (SES).
- Understanding different perspectives on health and wellbeing can allow us to understand how people experience health and wellbeing, the actions taken in response to these experiences, and the priorities different people may have.
- Perspectives and priorities for health and wellbeing change at different ages. Children are more likely to take health and wellbeing for granted and describe health and wellbeing related to their own experiences. Young people are likely to have a good health knowledge, but health and wellbeing may not be a priority. As we age, health and wellbeing becomes more of a priority, and health and wellbeing is viewed more as the ability to complete everyday tasks or manage health problems than a complete state of wellbeing.
- Male and female gender roles are socially constructed. Health perspectives are part of these gender roles, and each gender is likely to have a different understanding of health and wellbeing and different health priorities. Females are more likely than males to be conscious of their health and wellbeing and to prioritise their short-term and long-term health and wellbeing.
- Socioeconomic status (SES) is a combination of occupation, education and income, and is a way of measuring social standing in comparison with others. Those who have lower SES have a lower sense of control over their health and wellbeing and lower self-efficacy, show less concern over long-term health issues, and engage less in preventive health behaviours. They are also more likely to have a functional or biological definition of health and wellbeing than those who have higher SES, who are more likely to have a holistic definition.
- Religious beliefs and practices often influence people's understanding of health and wellbeing. Following religious values and practices may be seen as a way of ensuring health and wellbeing, and of overcoming illness.
- People's understanding of health and wellbeing often forms an important part of culture.
- In youth, greater independence means individuals take greater control over their health and wellbeing.
- Aboriginal and Torres Strait Islander culture values a holistic view of health and wellbeing, in which spirituality, culture and relationships to land and people are central.

Exam-style questions

- 1 a** List two reasons why it is important to have an agreed definition of health and wellbeing.
 - b** List two reasons why it is so difficult to have an agreed definition of health and wellbeing.
- 2** How do the following define health?
- a** Early 'traditional' definitions
 - b** The WHO
 - c** The Ottawa Charter
- 3** Describe the relationship between 'health' and 'wellbeing'.
- 4 a** What are the 'dimensions of health and wellbeing'?
- b** List each of the dimensions, and provide a short description (containing two key points) for each dimension.
 - c** For each dimension, provide one activity that can increase health and wellbeing, and one activity that might decrease health and wellbeing.
 - d** What does it mean when we say that the dimensions of health and wellbeing are interrelated? Provide one example in your explanation.
- 5** List five factors that are known to influence health perspectives and priorities.
- 6 a** Briefly describe the perspectives and priorities for health and wellbeing at each of the four stages of the lifespan.
- b** Contrast the perspective and priority for health and wellbeing in the childhood versus adulthood stage of the lifespan.
 - c** Provide reasons why perspectives and priorities of health and wellbeing might differ between the childhood and adult stages of the lifespan.
 - d** Describe the main features of youth perspectives and priorities for health and wellbeing.
 - e** When it is said that there is a paradox between health beliefs and knowledge, and actions in the youth stage of the lifespan, what does this mean?
- 7 a** Describe what 'culture' means.
- b** Provide one example of a cultural belief or practice that might influence a person's perspective on health and wellbeing.
 - c** How might an understanding of cultural influences on health perspectives and priorities be important to providing health care in a multicultural society such as Australia?
- 8 a** Describe what 'religion' means.
- b** List two major religions and describe how each influences beliefs and priorities regarding health and wellbeing.
- 9 a** Explain what 'socioeconomic status (SES)' means.
- b** Compare and contrast the perspectives and priorities of those experiencing low SES versus high SES.

- 10 a** What is the difference between sex and gender?
- b** Compare and contrast the perspectives and priorities of males and females. How are they similar? How are they different?
- c** How might these perspectives and priorities lead to differences in the level of health and wellbeing experienced by males and females?
- 11 a** Provide the definition of health adopted by NACCHO.
- b** Given the diversity of Aboriginal and Torres Strait Islander nations, do you believe it is possible to identify shared features of a definition of health and wellbeing?
- c** What are some key elements that are common components of the Aboriginal and Torres Strait Islander perspective on health and wellbeing?
- d** What are the similarities and differences between the traditional 'Western' view of health and wellbeing, and the Aboriginal and Torres Strait Islander perspective?

Chapter 2: Measuring health status

Key knowledge

- indicators used to measure the health status of Australians, including incidence and prevalence of health conditions, morbidity, rates of hospitalisation, burden of disease, mortality, life expectancy, core activity limitation, psychological distress and self-assessed health status
- the health status of Australia's youth
- sociocultural factors that contribute to variations in health behaviours and health status for youth such as peer group, family, housing, education, employment, income, and access to health information and support services (including through digital technologies).

Key skills

- analyse the extent to which health status data reflect concepts of health and wellbeing
- draw conclusions from health data about the health status of youth in Australia
- explain a range of sociocultural factors that contribute to variations in the health status and health behaviours of Australia's youth.

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Key terms

burden of disease
core activity limitation (CAL)
DALY (disability-adjusted life year)
health status
housing
incidence

indicator
life expectancy
mortality rate
prevalence
psychological distress
rates of hospitalisation

self-assessed health status
unemployment
YLD (years lost to disability)
YLL (years of life lost)
morbidity

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Understanding and measuring health status

health status the level of health experienced by an individual or a population at a particular time

Previously we have explored different ways to define ‘health and wellbeing’, and the difficulty in creating a shared definition. One of the reasons this definition is so important is that it provides the basis for us to begin to judge how healthy individuals and groups are. This is called **health status**. Health status is more than just the presence or absence of a disease, as it captures many aspects of health and wellbeing.

When you visit your doctor, they assess your health status – by, for example, conducting tests (blood tests, X-rays and so on), measuring your height and weight, and asking questions – in order to see how well you are functioning in the different dimensions of health and wellbeing. For populations it is more complicated. A population is a group of people who share a particular characteristic of interest. Examples are youth (aged 15–24), males, and people who suffer from a chronic illness. Information about the health status of people within a population needs to be collected and combined to provide an indication of the average level of health experienced by that group. To make this process easier, a number of measures, known as **indicators**, are used. These indicators are chosen because they provide different types of information about different aspects of health status, and they can be collected for large groups of people.

indicator a statistical measure used to provide information about a particular aspect of the health status of a population

Three broad categories of indicators are covered in this chapter:

- indicators relating to the level of death in a population
- indicators relating to the level of ill health in a population
- combined indicators.



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Figure 2.1 When you visit your doctor, they collect information about your health.

Review and reflect

- 1 Explain what is meant by the term 'health status'.
- 2 Why do *you* think it is important to collect information about health status?
- 3 What types of organisations are interested in collecting information about health status, and how is the information about health status used?
- 4 Explain what a health status 'indicator' is.
- 5 Briefly outline the three categories of health status indicators.

Indicators related to the level of death in a population

The first category of health status indicators relates to the level of death in a population. It includes mortality rate and life expectancy.

Mortality rate

The first measure we will look at in detail is mortality rate. Mortality refers to 'death', and therefore **mortality rate** is often referred to as 'death rate'. The reason for starting here is that it is often the most frequently used statistic regarding health status, as information about deaths in a population is routinely collected by many governments around the world.

It is important to understand the difference between the total *number* of deaths and the mortality *rate*. To convert the total number of deaths to mortality rate, we need to look at the population size. The mortality rate is the number of deaths per population size, e.g. per 1000 people.

Take the following hypothetical example.

Population Red had 10 deaths in the previous 12 months. Population Green had 20 deaths. On the surface, it seems that Population Green had the worse year. However, we cannot directly compare populations until we convert the number of deaths to a mortality rate, by taking into account population size.

Population Red started the year with a population of 100. This means there were 10 deaths for every 100 people in the previous year. Population Green started with a population of 400, so there were 20 deaths per 400 people, or 5 deaths per 100 people in the previous year. Looking at mortality rate shows that while Population Red had a lower total number of deaths, it experienced a higher rate of mortality overall (Figure 2.2).

Mortality rate data can help us understand the relative number of deaths that occur due to various conditions – for example, how many people die from accidents. We can then compare this data between different years, or between population groups.

Life expectancy

Life expectancy is another common measure of health status that is related to the level of death in a population. It is frequently presented in the media as a way of representing a country's overall health status, as it can allow people with no background knowledge to understand at a glance the relative health status of different groups.

mortality rate the number of deaths in a population in a given period

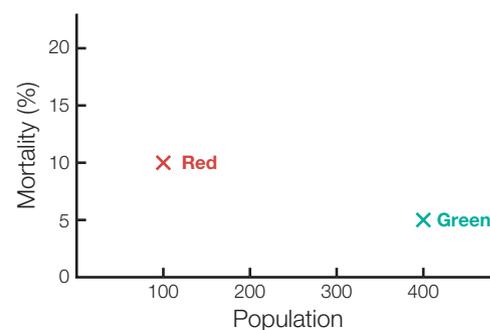


Figure 2.2 Mortality rates for populations Red and Green.

life expectancy how long a person can expect to live; the number of years of life remaining to a person at a particular age if death rates do not change

A higher life expectancy is thought to mean that a population has a higher health status. The graph in Figure 2.3 shows examples of life expectancies for different regions in the world.

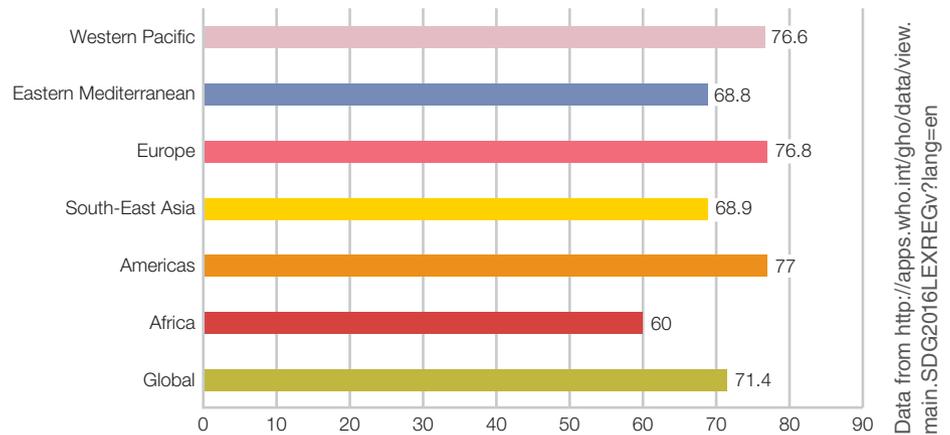


Figure 2.3 Life expectancy by region, 2015.

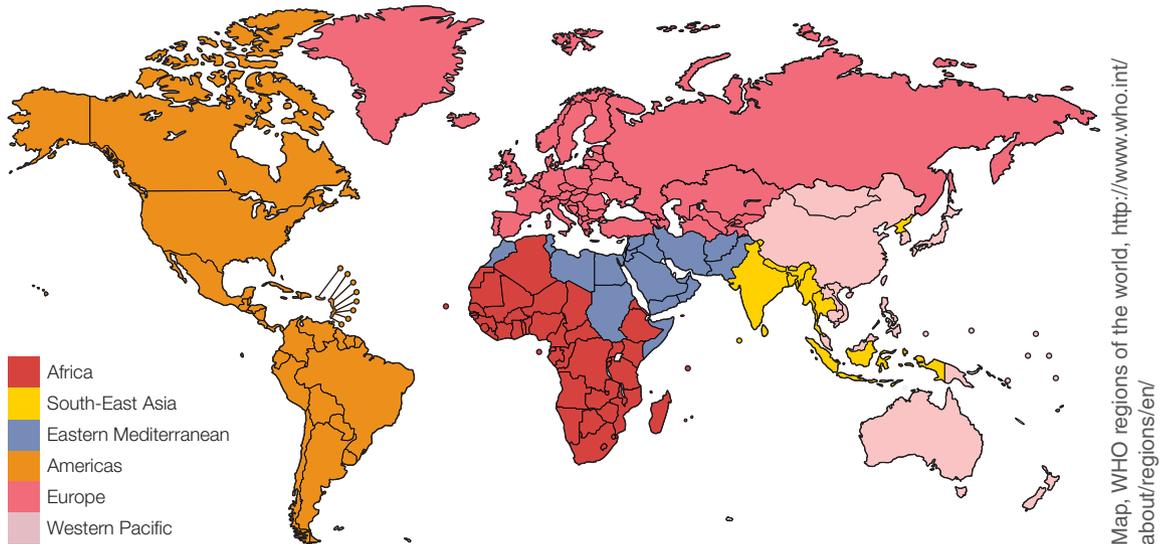


Figure 2.4 WHO regions.

Review and reflect

- Explain what is meant by the terms:
 - mortality
 - mortality rate
 - life expectancy.
- Identify one similarity and one difference between mortality rate and life expectancy as a measure of health status.
- If mortality rates increased within a population, what would you expect to happen to that population's life expectancy? Justify your answer.
- Using the information in Figure 2.3, compare the health status of the regions shown. Which have a higher and which have a lower health status?
- Life expectancy is often used to compare health status between countries. Provide one reason for using life expectancy to compare countries, and one limitation of using it. (*Hint: What information is not covered by this measure?*)
- Which of the five dimensions of health and wellbeing do you believe are addressed by the indicators mortality rate and life expectancy?

Indicators related to ill health

The level of death in a population is a vital measure of health status. However, when used alone it doesn't account for factors that may affect our health and wellbeing without resulting in death. It is important that health status indicators are also able to capture information about the **morbidity**, or level of ill health, experienced by a population. Indicators related to ill health include: incidence and prevalence, rates of hospitalisation, self-assessed health status, and core activity limitation. These are discussed below.

morbidity the level of ill health in a population

Incidence and prevalence

How often particular conditions occur can be measured by looking at the total number of cases (**prevalence**) of a condition in a population in a given time period, or the total number of *new* cases (**incidence**) of a condition in a population in a given time period. Both are reported as the *number of cases, per population size, in a specific time period*. For example, chlamydia was the most frequently reported sexually transmitted infection in Australia in 2012, with an incidence of 355 cases per 100 000 (DoH 2014). This means that, in 2012, for every 100 000 people in Australia, 355 new cases of chlamydia were reported. Prevalence is sometimes also presented as a percentage. For example, nearly 11% of youth aged 15–24 in Australia have been diagnosed with asthma.

prevalence the number of cases of a condition that occur within a population in a given time period

incidence the number of new cases of a condition that occur in a population in a given time period

Learning tip: Incidence and prevalence

To help you picture *incidence* and *prevalence*, see the diagram in Figure 2.5, which shows a water dispenser. Prevalence can be thought of as the amount of water already in the dispenser. This is the total number of cases that currently exist within the population (the dispenser). Incidence, the number of new cases, is the new water that can be added to the dispenser.

The amount of water in the dispenser is affected by a number of factors.

- If new water is added, the level in the dispenser rises. This is similar to a rise in incidence leading to a rise in prevalence (more new cases = more total cases in the population).
- The level of water (prevalence) falls if cases are cured, or if people die from the condition (mortality). Conditions that can be cured quickly, or conditions that have a high mortality rate, can lead to a decrease in prevalence.

The information provided by incidence and prevalence is useful in different situations. Incidence is useful in helping understand the rate at which new cases are emerging – whether the number of new cases is increasing or decreasing. For example,

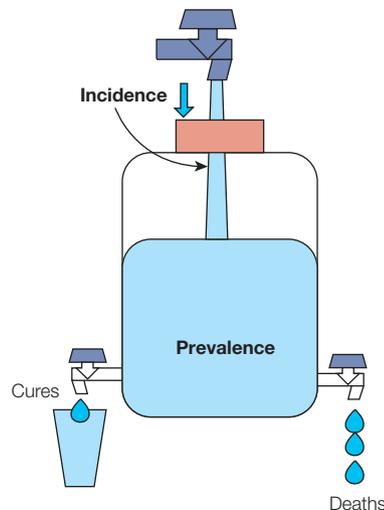


Figure 2.5 Incidence and prevalence.

if the number of new cases of type 2 diabetes being diagnosed is decreasing, this might indicate an increase in health status. Prevalence is important as it gives us an understanding of how widespread a condition is, or the proportion of the population that is affected. A condition that has a high prevalence is generally of more concern than one affecting a smaller proportion of the population.

rates of hospitalisation

an indicator that provides a measure of the occurrence in a population of serious conditions requiring inpatient treatment

Rates of hospitalisation

Rates of hospitalisation relates to the number and cause of admissions to hospitals in a population in a given time period. This statistic provides a measure of the rates of serious conditions and accidents in the population, and the pattern of serious diseases, such as cancer and stroke, that require hospital treatment.

It is important that a number of points are understood about this measure of health status. As only serious cases result in hospitalisation, this measure does not capture information about less serious illness. In addition, each admission to hospital is considered a separate case, and so someone who is admitted multiple times is counted as multiple cases. Rate of hospitalisation can be presented as a total number – for example, in 2013–14 in Australia, there were around 936 000 cancer-related hospitalisations. Or, more correctly, it can be presented as a rate – for example, in 2016 the age-standardised cancer-related hospitalisation rate was 367 per 10 000.



Figure 2.6 Hospitalisation rate is based on the causes and number of admissions to hospital.

self-assessed health status

provides an overall measure of a population's health status based on individuals' perceptions of their own health and wellbeing

Self-assessed health status and psychological distress

How people assess their own level of health and wellbeing is known as **self-assessed health status**. This indicator captures information about the broader aspects of health and wellbeing that might otherwise be missed by objective measures such as morbidity and mortality. For example, self-assessed health status might have the potential to capture information about the spiritual dimension of health and wellbeing, which is not included in other indicators. The information might be gathered via a single question in a health survey, such as, 'In general would you say your health is excellent, very good, good, fair or poor?'

It can also be in the form of a more in-depth measure that aims to capture more detailed information about a particular dimension of health and wellbeing,

such as the level of **psychological distress** experienced, which can relate to the emotional dimension of health and wellbeing. This may be measured using a scale such as the Kessler Psychological Distress Scale (K10), which asks individuals to respond to 10 questions about how often they have experienced symptoms of anxiety or depression in the past month, to give a global score representing level of distress.

As self-assessments are influenced by our own perception of what health means, answers are guided by our own personal understanding. However, results for self-assessed health status show high levels of consistency with other measures of health status.

psychological distress an indicator that measures the mental health and wellbeing of a population (e.g. the levels of nervousness and agitation)

Core activity limitation

Core activity limitation (CAL) refers to the severity of disability experienced by individuals and populations. A condition can be classified as a disability if it interferes with functioning in a number of areas over an extended period of time. CAL is one measure of disability. It measures the extent to which a disability causes limitation in the core activities of:

- *self-care* – e.g. bathing, dressing, showering, eating, using the toilet, bladder or bowel control
- *mobility* – getting into or out of a bed or chair, moving around at home, and going to or getting around a place away from home
- *communication* – understanding and being understood by others (strangers, family, friends).

CAL is measured in four levels of severity, from profound to mild, based on whether a person needs assistance with, has difficulty with, or uses aids or equipment for any of the core tasks. Information about CAL may be reported in a variety of ways. For example, according to the Survey of Disability, Ageing and Carers conducted by the Australian Bureau of Statistics, in 2015 almost 3.4 million Australians (14.5%) experience CAL, with 3.1% of the population experiencing profound CAL.

core activity limitation (CAL) an indicator that measures the extent to which individuals in a population are limited in undertaking activities or participating in the core life areas of self-care, mobility and communication

Review and reflect

- 1 What term is used to describe the level of ill health in a population?
- 2 **a** Compare and contrast *incidence* and *prevalence*.
b Why is it important to collect information about both incidence and prevalence?
- 3 **a** Describe 'self-assessed health status'.
b Do you think self-assessed health status provides a good measure of health and wellbeing? Why/why not?
c Provide one advantage and one disadvantage of using self-assessed health status as a health status indicator.
- 4 **a** Describe 'core activity limitation'.
b What are the four areas of core limitation?
c Describe the four levels of CAL.
d When is CAL useful as a measure of health status?
- 5 **a** Describe the information provided when using psychological distress as a measure of health status.
b Describe how psychological distress may be measured.
- 6 Provide one similarity and one difference between self-assessed health status and psychological distress.
- 7 **a** Describe 'rate of hospitalisation'.
b How is rate of hospitalisation data presented?

Combined measures of health

Combined measures of health status present information about ill health and death in one statistic, allowing us to understand the total impact of a disease or injury on a population. Burden of disease is a combined measure of health status. It was developed in the 1990s, primarily as a way of comparing the overall health status of populations.

Burden of disease

burden of disease a measure of the gap between a population's actual health, and an ideal level of health in the given year (i.e. with every individual living in full health to the theoretical maximum lifespan)

DALY (disability-adjusted life year) the total number of years of life lost (YLL) to a condition and the total years of disability (YLD); the higher the number of DALYs attributed to a condition, the greater the impact on a population

YLD (years lived with a disability) the number of years spent with disability or ill health; the non-fatal measure of burden of disease

YLL (years of life lost) the number of years of life that are lost due to premature mortality; measures the fatal burden of disease

Burden of disease provides an indication of the burden that a particular disease places on populations, both in terms of how much time it causes populations to spend in ill health, and how many years are lost to the condition due to premature death. To measure burden of disease, a unit called **disability-adjusted life year (DALY)** is used. DALY is calculated using the following formula:

$$\text{DALY} = \text{YLL} + \text{YLD}$$

Years lived with a disability (YLD) is the non-fatal (morbidity) impact of a condition on a population. The total YLD for a condition is the total number of years of healthy life that are lost for the population due to living with the condition in a given year.

Years of life lost (YLL) is the fatal (mortality) impact of a condition on a population. It is calculated by measuring the age at which death has occurred from a particular condition, and measuring the number of additional years the individual was expected to live based on their life expectancy. For example, if an individual died at age 53 from a heart attack, and their life expectancy was 80, the number of years of life lost is $80 - 53 = 27$ years. Total YLL is calculated by adding the estimated years of life lost for a population.

DALY = **YLD** + **YLL**
 Disability-adjusted life year is a measure of overall disease burden, expressed as the cumulative number of years lost due to ill health, disability or early death



Figure 2.7 DALY is represented by the yellow (YLD) and dotted (YLL) portions of the bar.

One DALY is one year of healthy life lost due to illness/disability and/or death. The more DALYs associated with a condition, the greater the burden of the condition on that population. By adding together the DALYs for different conditions, it is possible to estimate the total disease burden on a population.

Review and reflect

- 1 What is 'burden of disease'?
- 2 Burden of disease is measured using the unit DALY.
 - a Describe how DALY is calculated.
 - b Explain what one DALY represents.
- 3 Describe what is meant by the terms:
 - a YLD
 - b YLL.
- 4 Burden of disease is currently one of the best measures of health status available, but it has limitations. Describe one limitation that can hinder the use of this indicator.

Health status of Australia’s youth

Understanding the health status of young people is important, as health and wellbeing at this stage can predict their levels of health and wellbeing throughout the rest of their lives. Youth in Australia generally experience a high level of health and wellbeing, according to most measures of health status. However, there are some areas that are cause for concern.

Young Australians generally have a high self-assessed health status, with 63.4% of 15–24 year olds rating their health as excellent or very good in the 2014–15 National Health Survey. This is higher than at any other stage of the lifespan measured. Only 6.7% reported that they experienced fair or poor levels of health. The graph in Figure 2.8 shows that youth are more likely to rate their health highly than the general population.

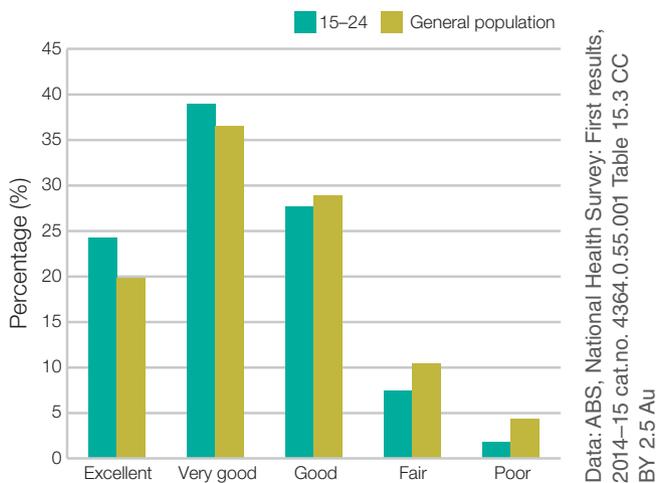


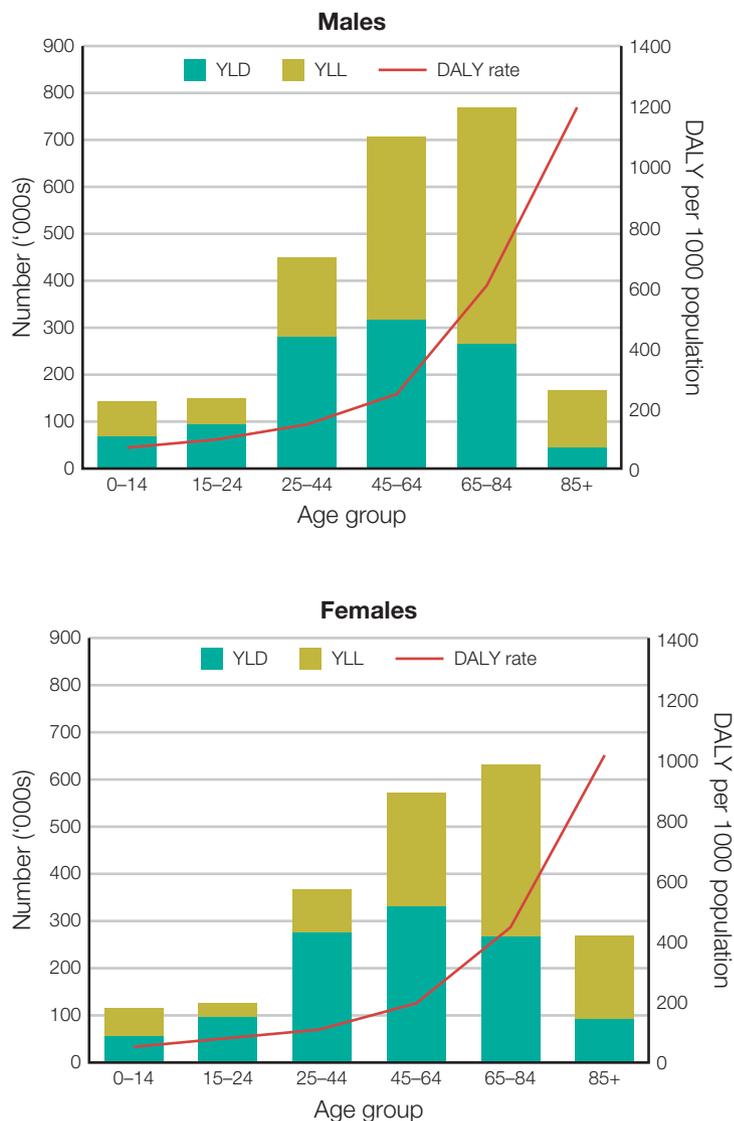
Figure 2.8 Self-assessed health status of people aged 15–24 compared with the general population, 2014–15.

In 2015 the mortality rate for young people in Australia aged 15–24 was less than 1 per 1000 (32 per 100000), far lower than the mortality rate for the general population, of 6.7 per 1000. The mortality rate for males in this age bracket was more than double (2.2 times) the rate for females. As can be seen in Figure 2.9, young people in Australia experience a relatively low mortality rate compared with other stages of the lifespan.



Figure 2.9 Age-specific death rates in Australia, 2011.

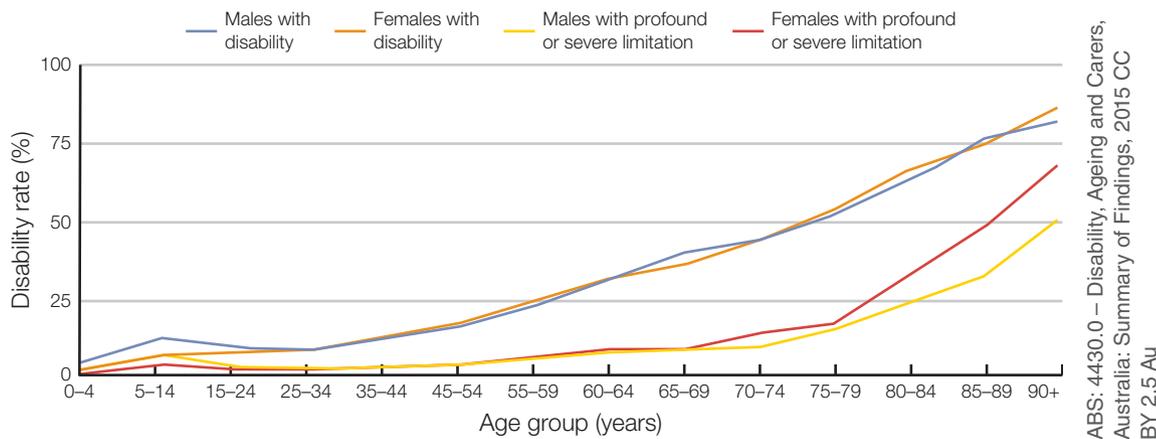
Compared to other stages of the lifespan, youth experience a low burden of disease. The Australian Burden of Disease Study showed that the total DALY rate experienced by young people aged 15–24 was low, with only 0–14 year olds experiencing a lower total burden of disease. The majority of the burden of disease was experienced as a non-fatal burden – years lost to ill health and disability (YLD) rather than years of life lost (YLL) (Figure 2.10).



AIHW: Australian Burden of Disease Study 2011, Table S3.1.1, CC BY 3.0 Au

Figure 2.10 Composition of total burden of disease and DALY rate, 2011.

The prevalence of disability among young Australians aged 15–24 is low compared with other stages of the lifespan (Figure 2.11), with 7.7% of females and 8.8% of males experiencing some level of CAL, and 2.1% of females and 3% of males experiencing a severe or profound disability. These levels are among the lowest rates experienced across the lifespan.



ABS: 4430.0 – Disability, Ageing and Carers, Australia: Summary of Findings, 2015 CC BY 2.5 Au

Figure 2.11 Percentage of the population with a disability, by age and sex, 2015.

While these measures present a positive view of health and wellbeing in the youth stage, there are some areas of concern. Table 2.1 shows the top five conditions for males and females that cause total burden of disease in young Australians. It highlights the fact that the two types of conditions responsible for the majority of burden of disease are mental illness and injuries.

Table 2.1 Top five causes of disease burden in Australians aged 15–24

Rank	Males	Females
1	Suicide/self-inflicted injuries	Anxiety disorders
2	Alcohol use disorders	Depressive disorders
3	Road traffic injuries	Asthma
4	Depressive disorders	Suicide/self-inflicted injuries
5	Asthma	Bipolar affective disorder

(source: AIHW 2011, Australian Burden of Disease Study. Impact and causes of illness and death in Australia 2011 CC BY 2.4 Au)

Mental health disorders

While the majority of young Australians experience good mental health and wellbeing, there is no doubt that mental health disorders are a major concern for this age group, as conditions associated with mental health account for approximately half of the total burden of disease.

A higher proportion of Australians aged 18–24 years experienced high or very high levels of psychological distress than any other measured stage in 2014–15, with twice as many females affected as males.

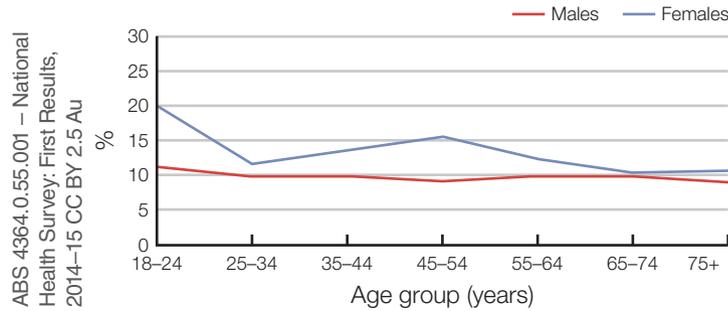


Figure 2.12 Proportion of Australian adults with high or very high levels of psychological distress, 2014–15.



If you or anyone you know is struggling and needs help, there are a range of resources available, including:

Lifeline 13 11 14

Kids Helpline 1800 55 1800

Suicide Call Back Service 1300 659 467

Emergency (in immediate danger) 000

The prevalence of mental health disorders in young Australians is high by any standard. The last National Survey of Mental Health and Wellbeing conducted by the Australian Bureau of Statistics (ABS) reported that more than 1 in 4 (26%) of the total youth population aged 16–24 experienced at least one mental health disorder in the 12 months preceding the survey. Again, females were more likely than males (30% to 23%) to experience a mental health disorder. Table 2.2 shows the rate at which different mental disorders affect this population group.

Table 2.2 Prevalence of mental disorders¹ among young people aged 16–24 years, 2007

Cause	Male (%)	Female (%)	Total (%)
Anxiety disorders			
Panic disorder	1.7	2.7	2.2
Agoraphobia	1.8	3.8	2.8
Social phobia	3.7	7.3	5.4
Generalised anxiety disorder	0.4	2.4	1.3
Obsessive compulsive disorder	1.2	3.2	2.2
Post-traumatic stress disorder	3.8	11.7	7.7
<i>Subtotal anxiety disorders¹</i>	<i>9.3</i>	<i>21.7</i>	<i>15.4</i>
Affective disorders			
Depressive episode	1.1	4.6	2.8
Dysthymia	–	0.7	0.3
Bipolar affective disorder	3.2	3.6	3.4
<i>Subtotal affective disorders</i>	<i>4.3</i>	<i>8.4</i>	<i>6.3</i>
Substance use disorders			
Alcohol harmful use	9.9	7.1	8.6
Alcohol dependence	3.9	1.9	2.9
Drug-use disorders	4.4	2.4	3.4
<i>Subtotal substance use disorders²</i>	<i>15.5</i>	<i>9.8</i>	<i>12.7</i>

¹ A person may have had more than one 12-month mental disorder. The components when added may therefore not add to the total shown.

² Includes harmful use and dependence.

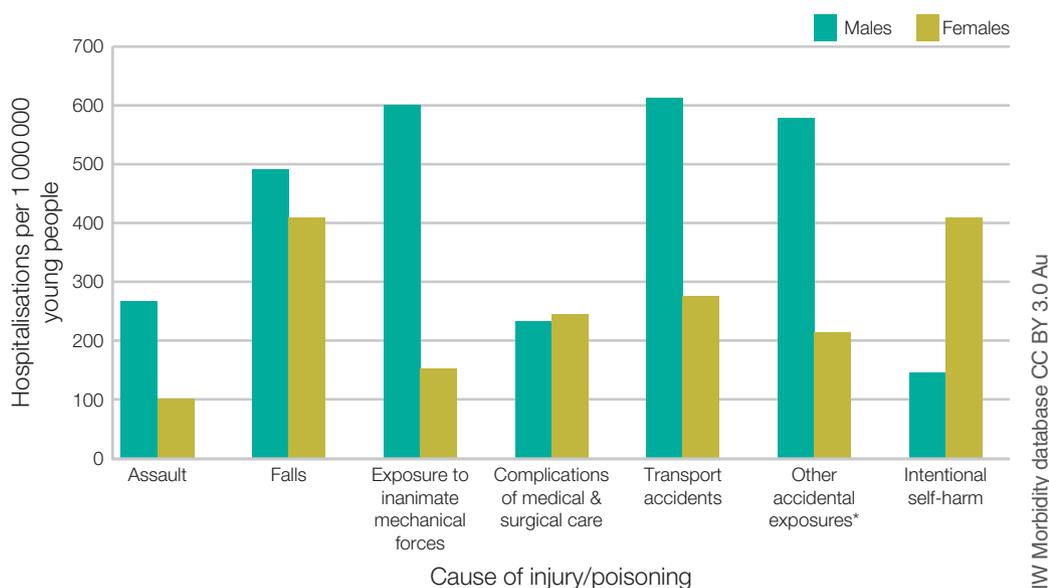
(source: adapted from AIHW 2011, 'Young Australians: their health and wellbeing 2011', Table 7.1, p. 26, CC BY 3.0 Au)

Experiencing a mental health disorder is a risk factor for self-harm and suicide, both of which are covered in the following pages.

Injuries and poisoning

Injuries as a category contribute significantly to the burden of disease for young Australians, and three-quarters of this burden was fatal. Injury-related deaths occurred at a rate of 25 per 100 000 young people, and accounted for 66% of all deaths of young people. Over three-quarters of these deaths were young men. While a cause for concern, this number has been in steady decline for decades (AIHW 2011). Of these deaths, the majority were caused by road traffic accidents (9 per 100 000) and suicide (11 per 100 000) (AIHW 2016).

While most of the burden was experienced as deaths, these categories also contributed significantly to rates of hospitalisation in this age group. Once again, males were almost twice as likely (1.9) as females to be hospitalised for injury or poisoning.



*'Other accidental exposures' includes: accidental drowning, accidental threats to breathing, overexertion, travel and privation.

AIHW Morbidity database CC BY 3.0 Au

Figure 2.13 Hospitalisations for the most common principal diagnoses of injury and poisoning, by cause and sex, in young people aged 15–24, 2013–14.

Road traffic accidents

Road traffic accidents occur when a moving vehicle collides with another vehicle, a person or an object. They can cause fatal or non-fatal injuries. Young people in Australia experience a relatively high rate of injury due to road traffic accidents compared to other age groups.

Young males are particularly at risk of injury due to road traffic accidents. Males were more likely than females to die in road traffic accidents (11.4 and 3.9 per 100 000 respectively; BITRE 2016). In addition, as shown in Figure 2.13, road traffic accidents were the leading cause of hospitalisation for males in this age group in 2013–14.

The good news is that the number of road deaths for youth has decreased dramatically over the past decade, from 26.2 per 100 000 for males and 7.4 per 100 000 for females in 2006 (BITRE 2016), a trend that looks set to continue. This decrease is faster than for any other age group. The rate of hospitalisations in youth due to non-fatal road traffic injuries has also been decreasing steadily.



iStock.com/graytin

Figure 2.14 Australia's youth are involved in a high rate of road traffic accidents compared to the rest of the population.

FYI

If you or anyone you know is struggling and needs help, there are a range of resources available. See page 40 for details.

Suicide and self-harm

Suicide and self-harm are often grouped together in health status statistics, but they are very different. Suicide is the deliberate taking of one's own life, while self-harm is when an individual intentionally and deliberately hurts their body. Both occur for a range of reasons, and are generally associated with high levels of psychological distress. In the most recent major study of mental health in Australian youth, it was found that suicide deaths accounted for 22% of deaths among young people (AIHW 2011). Males were three times more likely to die from suicide than females (15 and 4 per 100 000 respectively). As shown in Figure 2.13, intentional self-harm was the leading cause of hospitalisation for females in this age group. Given that rate of hospitalisations only captures data on serious or critical incidents, it is thought that the true rate of self-harm in this population may be far higher than indicated by this statistic.

Other health issues affecting youth

Sexual health and sexually transmitted infections

The rate of some sexually transmitted infections (STIs) has been increasing in young people in recent years, and has become a significant health concern. In particular, gonorrhoea and chlamydia are showing an increased incidence in young people aged 15–24. These STIs are easily treated, but if not detected they can become long-term health conditions with significant morbidity. Chlamydia and gonorrhoea can lead to pelvic inflammatory disease in females and infertility in both sexes. Figure 2.15 shows the trends in incidence of these two STIs. Both chlamydia and gonorrhoea are nationally notifiable diseases, which means they are communicable diseases that the Australian Government considers to be a risk to population health. This means any new cases are reported to the Australian Government Department of Health. This 'rate of notification' therefore provides a good indication of the incidence of new cases of these conditions.

From these graphs it can be seen that the incidence rates for these STIs are more common in young people than other age groups. It can also be seen that the incidence of these infections increased in Australia over the previous decade, although in recent years the incidence rate for those aged 15–24 has decreased. It is thought that the majority of infections in young people are asymptomatic and go undetected, and therefore these statistics may dramatically under-represent the true incidence rate of STIs.

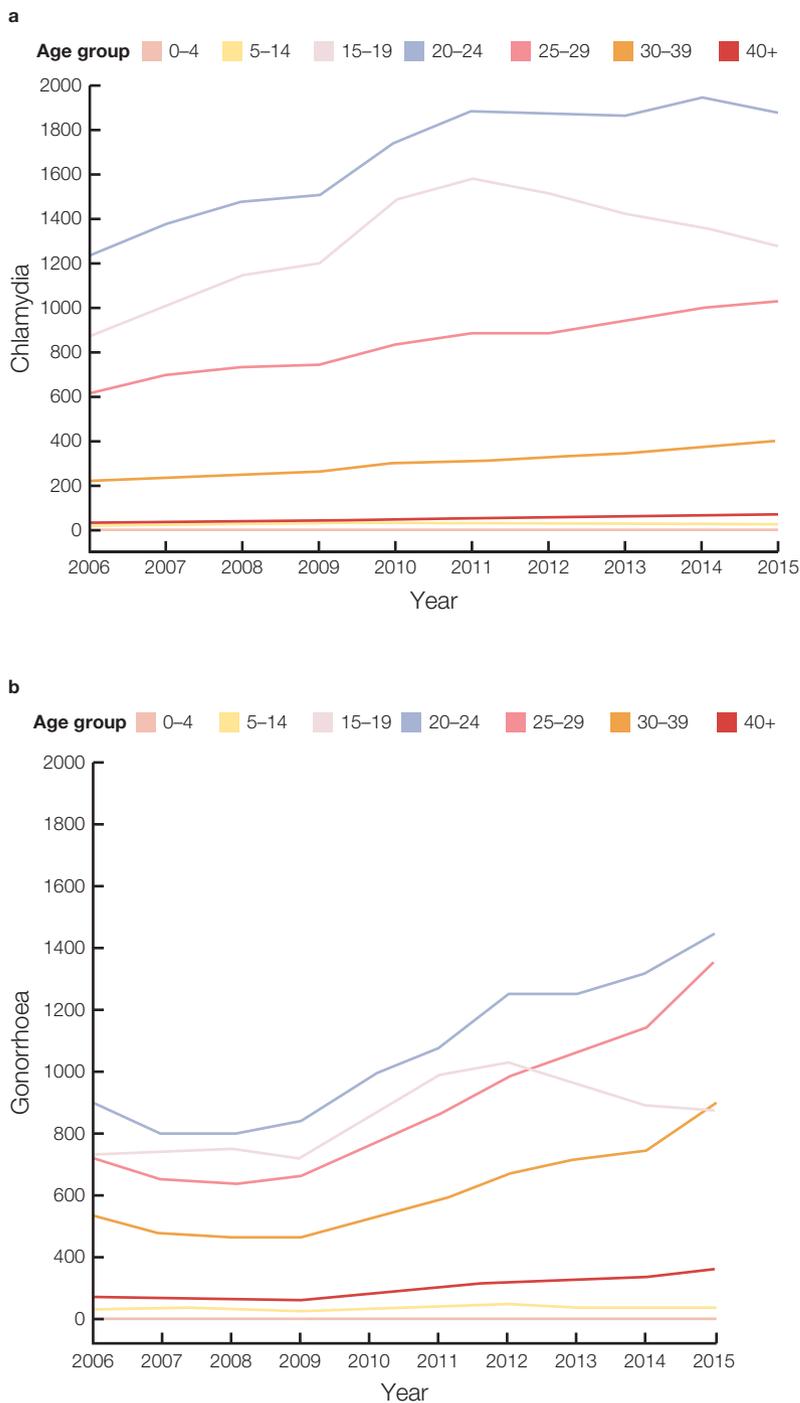


Figure 2.15 Notification rate per 100000 people, 2006–15, by age, for a) chlamydia and b) gonorrhoea (Aust. Notifiable Disease Surveillance System).



Figure 2.16 The increase in incidence of a number of sexually transmitted infections over the previous decade has seen the return of mass awareness campaigns in an attempt to reduce the incidence, especially among young people.

Asthma

Asthma is a long-term lung condition in which a trigger can cause muscles around the airway to squeeze tight, the airway to swell, and more mucus to be produced, resulting in difficulty breathing. In 2014–15, nearly 11% of youth aged 15–29 self-reported that they had been diagnosed with asthma. Females were more likely to suffer from asthma than males (12.9% females, 8.8% males)(AIHW 2017). This is approximately the same rate as occurs in the general population.

Vision problems

Short-sightedness (myopia) is a condition affecting the eye in which light entering the eye is directed in front of the retina rather than directly onto it. This means distant objects are out of focus, while close objects are in focus. Glasses or contact lenses are used to correct this common vision problem. Approximately 1 in 5 young people aged 15–24 experienced short-sightedness (20%), which is less than rates for the general population but still a significant number (AIHW 2016).

Oral health

Oral health relates to the health of the teeth and mouth. Oral health problems affect individuals from early childhood and older, and are closely related to diet, oral hygiene (e.g. brushing teeth) and visits to dentists. The last National Survey of Oral Health found that, on average, youth aged 15–24 have 3.17 permanent 'adult' teeth that are decayed, missing or filled, a finding which indicates that oral health is a concern for youth in Australia (AIHW/UoA 2016).

Youth groups experiencing poorer health status

Among the general youth population, there are groups who experience lower health status, including:

- rural and remote
- low SES
- Aboriginal and Torres Strait Islanders
- those marginalised for other reasons (e.g. discrimination due to sexuality or gender).

For a range of reasons, the health status of these young people is in many ways much worse than that of the general youth population. The factors that influence health status are discussed in the next section.

Review and reflect

- 1** Copy and complete the table below. In the table, include information about what you consider to be major health concerns affecting youth in Australia.

Health issue	Description	Summary statistics
e.g. Road traffic accidents		

- 2** Identify one statistic from the discussion in this section that is an example of:
- a prevalence
 - b incidence
 - c CAL
 - d psychological distress
 - e rates of hospitalisation
 - f mortality
 - g self-assessed health.
- 3** Based on the information provided in this section, which one health issue affecting youth do you think is the most important? Use statistics to justify your answer.
- 4** Using the information presented in the section above, describe the overall health status experienced by youth in Australia.
- 5** Based on the information in this section, do you believe youth in Australia experience a high level of health and wellbeing? Use statistics from this section to justify your answer.

Sociocultural factors that influence the health status of young Australians

sociocultural factors broader factors relating to society and culture that can affect the health of individuals and populations

The social conditions in which young people spend their lives is the single most important influence on health status, and these are often referred to as **sociocultural factors**. These sociocultural factors can be thought of as 'the causes of the causes', as to a large extent they determine the risk of illness, the behaviours that can increase or decrease health, and how ill health is treated when it arises. While youth has typically been considered 'healthy years', there is increasingly strong evidence that health behaviours in youth are a key determinant of future health and the development of many chronic, preventable conditions in adulthood. Understanding influences on youth health status and youth health behaviours is an important step in understanding health and wellbeing throughout the lifespan.

While the sociocultural factors that can influence youth health and wellbeing and health behaviours are extensive and impossible to cover fully here, in this section we discuss a range of sociocultural factors and how they influence the health and wellbeing of young Australians.

Family

Of all the sociocultural influences, family can perhaps be said to have the greatest influence on the health status and health behaviours of young Australians. In the Mission Australia 2016 annual youth survey, it was found that young people value family highly, with 80.6% of young people aged 15–19 years stating that family was extremely or very important to them, almost equal in importance with friendships (Mission Australia 2016). Given the importance of family to the lives of young Australians, it is no surprise that family influences the health status and health behaviours of young Australians in a number of ways.

Learning fields

What is a family?

Many definitions of 'family' exist, and over the years many new types of families have emerged. The traditional family structures are 'nuclear family', with two parents and their children, and 'extended family', which includes relatives such as grandparents, aunts, uncles and cousins. While these still exist, now there are also families with same-sex parents, stepfamilies, couples with no children, single-parent families, children who live with grandparents, foster families, separated families where children divide their time between mum and dad, and many more. Families might be related in many ways, including by blood, adoption, marriage or fostering.



iStock.com/JulianneBirch

Figure 2.17 Over the past 50 years, the make-up of families has changed from the 'nuclear' family made up of mum, dad and children.

Family play a key role in the development of many health behaviours. The behaviours that young Australians are exposed to as children and adolescents are likely continue into adulthood as they develop independence. For example, if you grew up in a home where it is considered normal to consume many sugary sweets, you are likely to continue this into young adulthood. This behaviour could influence health status in many ways – for example, by increasing the long-term risk of conditions such as type 2 diabetes and cardiovascular disease, and by reducing oral health. Other health behaviours that could be influenced include physical activity, watching TV, participating in social activities and volunteering.

Family will often determine your culture and religion, both of which have pervasive effects on health attitudes and behaviours. While some young people may choose a different religion as they gain independence, many retain the culture and religion of their family. Culture and religion establish many health beliefs, including beliefs about ill health (e.g. whether mental health is recognised as an illness or has stigma attached), the cause of ill health, and the treatments that are sought (e.g. refusing treatment such as blood transfusions). Therefore, through culture and religion, the health and wellbeing of young people can be affected by their family.

Family relationships can also have a direct effect on the health and wellbeing of young people. For example, a family that functions well, is cohesive and flexible, and demonstrates good communication, will provide an ideal environment for young people to be strong, resilient, emotionally healthy and able to cope well with adverse conditions. Young people who live in strong, stable families with a healthy emotional connection have positive role models for developing healthy relationships, self-esteem, sociability and academic achievement, and reduced incidence of substance misuse and risk behaviour. Young Australians who come from families that do not function well are at increased risk of issues such as:

- youth suicide
- substance abuse
- mental illness
- low academic achievement
- social isolation.

Review and reflect

- | | |
|---|---|
| <p>1 Families can influence the health and wellbeing of young people by influencing their health behaviours.</p> <p>a Describe how families can influence the health behaviours of youth.</p> <p>b Provide one example each of health behaviours that can have a positive or negative impact on health status.</p> | <p>2 List one way in which your family has influenced <i>your</i> health behaviours in a way that increases your health and wellbeing.</p> <p>3 Describe how culture and religion can be a way through which family influence the health and wellbeing of youth.</p> <p>4 Describe how family functioning and cohesion can affect the health and wellbeing of young Australians.</p> |
|---|---|

Peer group

Peer groups play an important role in influencing the health attitudes and behaviours of people of all ages; however, they are particularly influential in our youth. Often many health attitudes and behaviours are similar between peer group members,

and research has shown that this might happen through either social influence or social selection, or a combination of the two.

- *Social influence* – occurs when individuals observe the attitudes and behaviours of those around them, and get a sense of what is normal, acceptable and valued. Often without being aware that they are doing so, people change their perceptions, attitudes and behaviours so they are consistent with their group. While peer pressure may play a role in people adopting particular behaviours, it is often a subtler peer influence that is acting.
- *Social selection* – people naturally form groups with those who share characteristics with them, including health attitudes and behaviours. For example, someone who smokes may be more likely to be friends with others who smoke. It is through the selection of peer groups that health attitudes and behaviours are shared.



iStock.com/oneinchpunch

Figure 2.18 Do we change to be more like our friends, or do we choose friends who are like us?

Substantial research has shown that both processes are remarkably powerful in adolescence, and tend to act together to influence health and wellbeing, for better or worse. For example, the peer group has been shown to have an effect on youth health and wellbeing relating to car accidents and other risk behaviours.

- Driving with passengers similar in age to a young driver increases the risk of a car crash. Researchers have explained this by suggesting that the driver believes that the peer group values risky driving, which subtly encourages this behaviour. Research shows that the presence of male passengers increases the risk of crashing more than the presence of females, as risky driving is considered to be more socially acceptable to males, encouraging the behaviour. This theory could explain the high number of road traffic accidents for youth, and males in particular.
- Risky behaviours such as substance use and risky sexual behaviour by a close friend (or the adolescent's perception of their friend's risky behaviour) is a strong predictor of their own engagement in risk behaviours. This may be

due to people being more likely to form friendships with those who have similar patterns of behaviour, or due to social influence. Risky behaviour can explain the increased prevalence of substance use disorders and sexually transmitted infections.

Case study

Jump in young fatalities on roads in past six months

By Alana Schetzer, *The Age*, 2 July 2015



Fairfax Media/The Age/Justin McManus

Figure 2.19 Friends grieve for the three teenagers who died in a car crash in Avonsleigh. Photo: Justin McManus

... Just two days after three Victorian teenagers died in a crash in the state's outer east, figures from the Transport Accident Commission show that 15 people aged 16 to 17 have been killed so far this year, compared with two in 2014.

The five-year average of deaths in this age group is five.

TAC senior manager, road safety, Samantha Cockfield said the jump in young fatalities occurred in the past six months and, so far, there was no explanation for the rise.

'Young drivers are still developing and this is not that they don't understand the risk – they're well educated – but when faced with social situations, with peers, making good choices is hard,' she said.

'I don't think we can explain the numbers but what we do know is the underlying issues. We need to encourage good decision making and help young drivers understand the sort of issues they'll face.'...

TAC figures show first-year drivers are almost four times more likely to suffer serious injuries or die in a crash than older drivers. VicRoads introduced a graduated P-plate system in 2007, with additional restrictions imposed for the first 12 months. Probationary P1 drivers are not allowed to carry more than one passenger aged between 16 and 22.

Victoria Police did not respond to questions about how often this rule was breached.

Associate Professor Stuart Newstead, from Monash University's Accident Research Centre, said the passenger rule had been very effective.

'You don't get that peer pressure to do anything stupid; it's an effective component to cut fatalities and injuries,' he said.

However, young drivers still struggled against their natural immaturity and inexperience, which affected their ability to judge situations and how to avoid risks, he said.

In 2014, 20 per cent of drivers killed were aged between 18 and 25. This is despite this age group representing just 14 per cent of all licence holders.

Of the 24 young drivers killed last year, 71 per cent were killed on country roads.

A recent Australian Transport Safety Bureau report has found that lack of experience, limited ability and judgment, underestimating risks, deliberate risk-taking behaviours and use of alcohol and drugs are the main reasons for increased risks for young drivers.

Extract from Schetzer A, 'Jump in young fatalities on roads in past six months', *The Age*, 2 July 2015

Case study questions

- 1 What statistics are presented in the article that describe the frequency of road traffic accidents, and how they affect the health status of young Australians?
- 2 Outline the information provided in the article about the restriction imposed in the VicRoads graduated P-plate system introduced in 2007.
- 3 Using the information presented in this section, explain how the restriction might reduce the youth road toll.
- 4 What other factors are mentioned in the article that may explain the risk of road traffic accidents in young Australians?
- 5 In your experience, which of the factors discussed in the article do you think contribute most to risky driving behaviour? Explain, using examples.

housing the building, shelter or accommodation in which people live, which can influence the health and wellbeing of individuals and populations

FYI

What is a census?

The Census of Population and Housing ('Census') is Australia's largest statistical collection undertaken by the Australian Bureau of Statistics (ABS) ... The aim of the Census is to accurately collect data [every five years] on the key characteristics of people in Australia on Census night and the dwellings in which they live ... The information [provided] in the Census helps estimate Australia's population, which is used to distribute government funds and plan services for your community – housing, transport, education, industry, hospitals and the environment. Census data is also used by individuals and organisations in the public and private sectors to make informed decisions on policy and planning issues that impact the lives of all Australians.

Extract adapted from ABS 2016 Census, cat. 2008.0 CC BY 2.5 Au

Housing

Housing can influence youth health and wellbeing in a number of ways. One of the major ways in which housing can influence youth health and wellbeing is through homelessness. The Australian Bureau of Statistics (ABS) definition of 'homeless' extends homelessness beyond 'rooflessness', to include those living on other people's couches ('couch surfing') or in boarding houses, and those who have no long-term security or are severely overcrowded.

Census data can be used to calculate the rate of homelessness. The homeless rate for the overall population in 2011 was 49 per 10000 people, or 0.5% of the population. Homeless estimates for youth are more than double this, at 110 per 10000 for those aged 12–24; and the rate of youth homelessness has been increasing (Homelessness Australia 2012).

According to the 2011 Census, homeless youth aged 12–18 were living in the following conditions:

- 56% in 'severely crowded dwellings'
- 28% in supported accommodation
- 8% staying temporarily with other households; this number increased to 14% for those aged 19–24 years.

Many people think of homeless youth as 'street kids' and 'runaways', but the reality is very different. Many homeless youths are not homeless by choice, but as a result of a number of factors including domestic violence, a shortage of affordable housing, unemployment, mental illness, family breakdown and substance abuse. Young people are more likely than the general population to experience homelessness, for a number of reasons. For example, they have had less opportunity to gain further education and work experience, so they are less likely to gain employment, or earn an income that will allow them to access housing. They are less likely to have been able to accumulate savings to use in case of an emergency. When a young person is unable to use social support systems such as family to provide assistance in an emergency, they are more likely to face homelessness.



Figure 2.20 Organisations such as Twenty10 inc GLCS NSW provide supported accommodation for youth experiencing homelessness. Located in Sydney, Twenty10 inc GLCS NSW is one of only a small number of providers nationally offering support specifically for LGBTIQA+ youth

Homeless status, including living in overcrowded conditions, can influence health and wellbeing in a number of ways. Examples of the health effects of homelessness include:

- higher prevalence of *mental health issues* including anxiety, depression, behavioural disorders, self-harm, and alcohol and drug misuse. While the mechanisms are not known, people with mental health issues are more likely to become homeless, and homelessness can trigger or aggravate any existing mental health issues, due to the stressful situations faced
- increased likelihood of *poor nutrition* due to either lacking food or lacking nutritious food, which can lead to malnutrition and undernutrition, with a range of negative outcomes (e.g. reduced immune function, leading to increase in infections)
- increased risk of *respiratory issues*, such as asthma and upper respiratory infections
- increased risk of *sexually transmitted diseases* and increased risky sexual behaviours, such as decreased use of condoms, multiple sexual partners, earlier onset of sexual behaviour, sexual assault, and decreased access to health services
- increased risk of *physical and sexual assault* due to a lack of security, leading to higher rates of injuries
- higher levels of *social isolation*
- increased risk of experiencing *poor oral health* due to poor dental hygiene and diet.

Affordable housing is a major issue for all young people today, with affordable accommodation in short supply. House prices are rising faster than incomes, making home ownership less likely, and there is more competition to find rental properties, and rental prices are higher. This means it is more likely that young people, in circumstances where they are able to do so, will be living with their parents longer. This can delay psychological and financial independence, which is important for self-esteem. It also increases the number of young people who experience housing stress.

Indirectly, homelessness makes it difficult to access education, employment and health care services, which has a negative influence on the health status of young Australians. This is discussed in the following sections.

Employment

Employment is your job – whether you have one, how often you work, and what type of job it is. Most people enter the workforce for the first time at 15–24 years of age, and therefore it is an important milestone for this group, and a factor that begins to influence health and wellbeing for the first time. Working allows young people to gain psychological and financial independence. Those who are employed are likely to report higher life satisfaction, a key measure of wellbeing. In many ways, employment is generally associated with better health and wellbeing outcomes.

Employment for young people has become increasingly uncertain, and vastly different from the employment situation their parents experienced. Studies such as the University of Melbourne's 'Life Patterns' highlight the fact that, although young people value full-time work and job security, it is becoming increasingly hard to obtain.

Since the Global Financial Crisis (GFC) in 2008, youth **unemployment** has risen, with rates currently at relatively high levels compared to the past 10 years. Prior to the GFC, fewer than 8% of youth aged 15–24 were unemployed, whereas in 2016, over 12% were unemployed (Gilfillan 2016).

unemployment being out of work, actively looking for work, and available to start work, but unable to find a position

Even for those who are employed, things can be difficult. Work patterns have changed, with a rise in the number of young people working on short-term contracts and in part-time work, higher turnover, more irregular hours (changing from week to week), increasing evening and weekend work, and reduced opportunities for promotion. Many young people are undertaking post-secondary education well into their twenties, and as a result are not entering full-time, secure employment related to their future career for many years after leaving secondary school. Evidence shows that the majority have numerous jobs in this time, and many change jobs frequently.

These employment patterns influence the health and wellbeing of young people, now and in the future. For example:

- Unemployment is associated with increased risk of social exclusion.
- Unemployment is associated with lower levels of physical health and wellbeing, higher rates of anxiety and depression, higher rates of risky health behaviours such as smoking, and higher suicide rates in young people.
- Working long and irregular hours can limit the social lives of young Australians. Combining study, and working long hours in the evening and on weekends, can make it harder to maintain friendships, and make it harder for new friendships to develop into deeper friendships. This is especially true as many family, social and sporting events are held on the weekend, when many young people are working.
- Combining work and study, which is the norm in Australia, means young people are frequently physically and mentally exhausted.
- Irregular work can interfere with a person's ability to maintain a healthy diet and exercise routine, due to a lack of time or energy.

In addition to employment patterns, the type of industry in which an individual works also influences health and wellbeing. While young people aged 15–24 work in all industries, those industries with the largest number of youth workers are:

- Retail trade (more than 410 000)
- Accommodation and food services (more than 360 000)
- Construction (more than 170 000).

Extract from Dept of Employment, 'Australian jobs 2016. Industry overview'.
In which industries do young people work?'



Figure 2.21 Many young people work in the retail environment, which can influence health both positively and negatively.

These industries affect youth health and wellbeing in different ways.

Despite being considered relatively safe industries, research has shown that retail and hospitality jobs also have hazards, such as slips and falls, moving vehicles in delivery areas, falling objects, strain on the body from lifting or repetitive movements. There is also the risk of verbal or physical assault from the public.

Those working in construction are more likely to suffer from physical injury due to the physical nature of the job, as well as higher exposure to UV radiation, which can increase the risk of skin cancer in the future. However, the high level of physical activity may mean individuals in this industry are less likely to suffer from overweight and obesity, and therefore have a lower risk of associated conditions such as type 2 diabetes and cardiovascular disease.

Case study

Meet the ‘NEETs’

Since the Global Financial Crisis of 2008, young NEETs have become a hot-button issue – NEETs are young people Not in Education, Employment or Training. The image that has come to be associated with these young people is that of ‘dole-bludgers’, lazy people who refuse to work and instead use welfare to support themselves.

According to ABS Labour Force Statistics, in Australia in February 2017 there were 402 900 young Australians aged 15–24 who were not in full-time education or employment (ABS 2017). At the time, the youth population aged 15–24 was 3 178 100, so the overall NEET rate was 12.6%.



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Figure 2.22 Young NEETs: are they lazy ‘dole bludgers’ or victims of circumstances beyond their control?

This figure includes those who are looking for a job (*unemployed NEETs*) and young Australians who are not participating in the workforce at all (*inactive NEETs*). Of the more than 400 000 NEETs:

- 3 in 5 (242 000) were inactive NEETs, not taking part in full-time education or employment and not actively seeking work
- 2 in 5 (160 100) were unemployed NEETs, not taking part in education, actively seeking work but unable to find full- or part-time employment.

The majority of NEETs are likely to be aged 20–24, with the OECD reporting that 7% of 15–19 year olds are NEETs, compared with 13% of 20–24 year olds (OECD 2016).

Table 2.3 Percentage of men and women aged 15–19 and 20–24 who are NEETs, Australia 2015

	Aged 15–19	Aged 20–24
Young men	6.6%	11.8%
Young women	5.3%	14.5%

(Source: OECD n/d, ‘Transition from school to work’, data table)

A recent OECD report (OECD 2016) highlighted the fact that the situation differs between young men and women. Young women are more likely to be a NEET, due to the responsibility of caring for young children. Many young men are finding it hard to enter the workforce due to a lack of jobs, too many applicants, or a lack of qualifications. For both men and women, only a minority of NEETs state that they are unavailable without giving a reason.

Importantly, the research on NEET status has shown an association between:

- disability and NEET status – those who suffer more severe core activity limitations are significantly more likely to be NEETs
- NEET status and higher levels of psychological distress, although it is unclear whether higher levels of psychological distress are caused by or are the cause of NEET status.
- NEET status and life satisfaction, with those who are NEETs more likely to report low life satisfaction than non-NEETs.

While the rate of NEETs has been a major issue in the press, the OECD report also highlighted the fact that Australia has one of the highest rates in the OECD for young people combining work and full-time study.

Case study questions

- 1 What is a NEET?
- 2 What is the difference between inactive and unemployed NEETs?
- 3 What were the rates of NEETs, inactive NEETs and unemployed NEETs in Australia in February 2017?
- 4 Describe how the proportion of NEETs differs between the genders for those aged 15–19 compared with those aged 20–24.
- 5 According to the OECD, what are the main reasons for young men and women becoming NEETs?
- 6 Based on your experience, do you agree with the OECD's suggestions?
- 7 Do you agree with NEETs being tagged 'dole-bludgers'? Justify your position.
- 8 Suggest possible ways in which NEET status might affect the current and future health of young Australians.
- 9 Suggest possible ways in which combining work and study might impact on current and future health status for youth.
- 10 Do you think combining work and full-time study or being a NEET is likely to have better health outcomes
 - a in the short-term?
 - b in the long-term?Justify your answer for both **a** and **b**.

Education

The education and training of a young person is vital to their current and long-term health and wellbeing. Today, rates of retention to Year 12 and participation in tertiary education and training programs are all increasing. Many young people are completing higher levels of education than in previous generations, which would be predicted to lead to increases in youth health and wellbeing. While the association between higher levels of education and better health and wellbeing is well established, the mechanisms by which it occurs are not as well understood.

Individuals with higher levels of education are:

- less likely to report activity limitation as a result of a health condition
- more likely to assess their health as good or excellent, and less likely to report experiencing fair or poor health
- likely to experience higher life expectancy, lower morbidity and lower mortality.

Higher levels of education are associated with greater 'health literacy'. Health literacy is the ability of individuals to access and understand health information (about diseases, and risk and protective behaviours, for example) and make appropriate health decisions that lead to better health. For example, knowledge about contraception and STIs can help reduce the risk of accidental pregnancy or contracting an STI. Health literacy includes knowing where to get information and how to judge the reliability of that information. Increased health literacy leads to better health outcomes for those with higher levels of education. However, while health literacy is important, it is also important that individuals have the motivation to act on this knowledge, and feel that they are able to exert control over their behaviour.

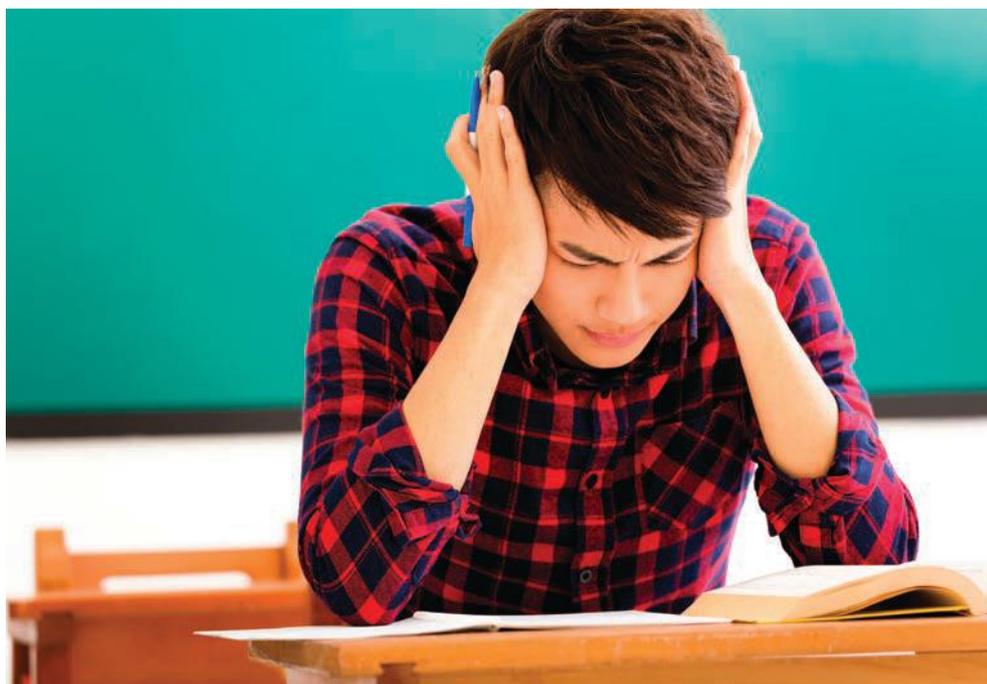
General educational experiences not specifically related to health are known to influence health behaviours. For example, individuals with higher levels of education are:

- less likely to smoke
- less likely to be physically inactive
- less likely to be overweight and obese
- more likely to eat a nutritionally balanced diet
- more likely to undergo preventive health checks
- more likely to volunteer.

Long-term education and training is essential to becoming employed and earning an income that will enable youth to meet their needs, both health-related and other needs. Access to school and higher education and training programs can help young Australians to acquire self-efficacy, an important element of mental and emotional health and wellbeing. The increased employment opportunities and higher income associated with higher education levels mean youth are more likely to be able to access the resources that can help them achieve higher levels of health and wellbeing. Exclusion from education can reduce their opportunity to access these resources – the effects of this are discussed in the next section (see 'Income').

Education is associated with the development of a range of social and psychological skills that can be associated with health and wellbeing, such as a sense of personal control, negotiation, forming relationships, resilience, perseverance and independence. Through these skills, an individual might be more likely to develop social support networks, which are associated with increased health and wellbeing.

While education has many benefits, it can also be a source of stress for young people. For example, tertiary students are four times more likely to be classified as psychologically distressed, and to report lower quality of life and poorer general health than their peers (AIHW 2011). With many university students needing to work to support themselves during their study, this combination can lead to an increase in the prevalence of mental health issues such as depression and anxiety, as well as social isolation, with many unable to find time for socialising outside university, school or work.



iStock.com/Tomwang112

Figure 2.23 While education can have a positive influence on the health of young people, it also has the potential to reduce health, through stress.

Income

Income is how much money you have ‘coming in’. It is the money you receive from a variety of sources, such as wages or salary from a job, dividends or trust payments, pocket money, and government benefits such as parenting payments or youth allowance.

Earning an income is an important requirement for young people to be able to live independently. It provides opportunities such as access to safe and adequate housing, medical and other health care services, goods and services, nutritious food, and mobility. Those who are able to earn an income to support themselves are likely to experience benefits in health and wellbeing. In comparison, young people who are unable to earn an income sufficient to support their lifestyle are likely to experience a decline in health and wellbeing.

Many youth are able to rely upon their family to meet many of these needs, particularly housing. Many young people aged 15–24 are choosing to live at home much longer than previous generations. While this can provide many benefits, financial dependence upon parents can limit opportunities for education, employment and socialisation, all of which can have a negative impact on health and wellbeing.

For youth relying on an individual income and with limited or no financial support from their family, the situation can be difficult. While Australia has a high minimum wage compared to other countries, it is one of few countries to have a youth (under age 21) minimum wage that is lower than the legal minimum wage. Juniors generally get paid a percentage of the relevant adult pay rate, unless certain circumstances, such as an award, apply. Table 2.4 shows the minimum hourly rate set by Fair Work Australia (1 July 2016). Wages are complex – for example, there is also ‘loading’ for casual employees as they don’t receive benefits such as holiday leave – and penalty rates for weekend work. However, many young people are paid less for doing the same work as people who are older. As many youths work in jobs in which the minimum wage or a similar award applies, earning an adequate income can be a struggle. The graph in Figure 2.24 shows that the majority of youth receive wages well below levels that would enable them to support themselves financially.

Table 2.4 Minimum hourly rate set by Fair Work Australia (1 July 2016)

Age	No award (% of national minimum wage)	Minimum hourly rate (\$)	Retail award, 2015 (% of national minimum wage)
Under 16	36.8	6.51	45
16	47.3	8.37	50
17	57.8	10.23	60
18	68.3	12.08	70
19	82.5	14.60	80
20	97.7	17.29	90 (100% if employed longer than 6 months)
21	100	17.70	100



AIHW, Australia's welfare 2015, figure 4.6.3 CC BY 3.0 Au

Figure 2.24 Average income of young people aged 15–24, by educational attendance and labour force status, 2011 (\$ per week). Note that the data excludes those for whom education attendance, labour force status and income were not stated.

Research indicates that more than two-thirds of university students experience financial stress, and this number is on the rise (Universities Australia 2013). According to a Universities Australia Study, one in five university students who took part in the study had an annual income of less than \$10 000, and 40.3% earned between \$10 000 and \$19 000. One in five students occasionally went without food due to lack of money, and many needed to borrow money from friends and family regularly.

For those experiencing financial hardship due to study or unemployment, income assistance is available, as it is recognised that youth are increasingly needing to stay longer in study or training and many require assistance to do so. Approximately 12% of young people aged 16–24 were receiving Youth Allowance, and 7% of young people were receiving Newstart Allowance. Government income assistance is important in maintaining the number of people continuing in study or training, and supports the transition of unemployed youth to work. However, those receiving these payments are still experiencing very low incomes and continuing financial hardship.

Those who are experiencing hardship as a result of inadequate income are likely to experience negative effects on health and wellbeing, such as those listed below.

- Stress and anxiety are increased.
- Low wages means working more hours, and possibly more irregular hours, to earn an adequate income. When combined with study, this is a key factor contributing to increased risk of mental illness.
- Inability to afford medical care due to inadequate income can mean preventative health care services are not accessed, and treatment may not be sought in case of illness. This can lead to reduced health and wellbeing.

- Inadequate income may reduce the person’s ability to socialise with others (e.g. go out for dinner), due to financial hardship, which can increase the rate of social exclusion.
- Inadequate income can also affect health and wellbeing indirectly, by limiting access to education.
- Going without good food can result in a poor diet, which affects physical health and wellbeing.
- Lack of income can mean some young Australians have to give up healthy activities such as gym or sports, due to the time and financial commitments required for such activities. This can lead to reduced fitness, as well as associated decreases in other areas of health and wellbeing, including mental health.

Activity: Youth wages

There are many arguments for and against youth wages.

- 1 Copy the following table and complete it, to show the pros and cons of having a junior minimum wage. Try to add at least three pros and cons.

Pros	Cons
e.g. encourages employees to hire younger people	e.g. young people get paid less for doing the same work

- 2 Do you think that 21 years is still an appropriate age for youth wages? Justify why/why not.
- 3 Provide an argument for abolishing the youth minimum wage.
- 4 Provide an argument for maintaining the youth minimum wage.

Access to health information and support services

Access to health information and support services (including digital technologies) plays an important role in influencing the health status and health behaviours of young Australians. Having access to health information and support enables youth to make important health decisions that are based on up-to-date and accurate information. Youth are increasingly taking control of their health and wellbeing, have more access to health and support services, and regularly access health information that informs their actions and behaviours. A wide range of information and support services are available, with the most widely used today being the Internet.

In accessing health information, young people seek different information than do people at other stages of the lifespan. While many youth are healthy, they are also undergoing a time of great change. The most requested health and wellbeing websites for youth relate to sex and sexuality, interpersonal relations, body, diet and nutrition, exercise and fitness, substance abuse and violence, which highlight the issues that are important at this age. The online information available to this generation is greater than for any previous generation, and this has both positive and negative effects. Increasing use of the Internet has led to health information being more widely available than ever before. It is now almost a case of too much information being available, rather than not enough, and it is important that young people are able to source reliable health information and judge its credibility in

order to benefit from it. Research has also shown that while many young people are interested in accessing health information, they often feel overwhelmed or find that the information is directed at adults and is hard to understand.

In addition to information on the Internet, for youth in crisis there are also a range of support services available. These can provide a range of services, including assisting young Australians to access forms of support such as assisted housing or intervention for mental illness, as well as guidance in making decisions. Examples of services include:

- Orygen, The National Centre of Excellence in Youth Mental Health, a program that focuses on the mental health of people aged 15–24, particularly early intervention and youth-specific approaches. This service provides both support and information aimed at young people.
- Kids Helpline, a free, private and confidential phone counselling service for young people aged 5–25.

Health information and health services can influence the health of young people in a number of ways. Improving access to reliable health information and empowering people to use it effectively enables young people to make decisions that will improve their health and wellbeing, and can increase their self-efficacy in controlling their health and wellbeing.

For services to be of benefit, young people need to be able to access them, and be motivated to do so. The degree to which young people use these services is likely to be influenced by a number of factors, which are discussed below.

Cost

Support services can be expensive, but if young people cannot access these services, their health and wellbeing can suffer. Medicare benefits may be available to offset this cost, but often there is an additional out-of-pocket fee, which may limit access to these services, and Medicare benefits are not available for all services that may be required.

Knowledge

It is important for young people to be aware of the types of services available, what type of information and services are needed, and how to access them. To access information online, they need to be able to correctly search for information, which might require correct spelling and terminology and the ability to describe their symptoms.

Location

In many cases, services and information provided via the Internet or phone give young people access to health services, but sometimes in-person support is needed, for a benefit to be obtained. If the young person doesn't live in an area where local in-person support is provided, they will not have access to the information and services they need.

Culture

The values and behaviours that are part of an individual's culture can influence their exposure to and acceptance of health information and services. For example, some people might have limited access to knowledge about sexual health, because of their culture's attitudes and beliefs about what knowledge is appropriate.

BETTER HEALTH CHANNEL



FYI

Examples of reputable sources of information are the Victorian government websites Youth Central and Better Health Channel.



Weblinks

Trust and confidentiality

For many youth, trust and confidentiality are a major concern in accessing services that are not anonymous. Concerns about information being disclosed to parents or guardians can be a major hurdle in accessing health services.

While a great deal of information and many services are targeted at youth, gaps have been identified. For example, VCOSS (Victorian Council of Social Services) identified one of the most significant gaps as the *availability of counselling and early intervention services* to reduce the onset of serious mental illness. Many youth face difficulties in accessing counselling and intervention, for a reasonable cost and in a reasonable time frame, which would help prevent the onset or development of mental health issues. Youth who are not in major cities might also face difficulties in accessing these services in person, which limits the benefit they could gain from accessing them.

Activity: Finding information and support services

Consider the following conditions and issues that affect the health and wellbeing of youth:

- road traffic accidents
- suicide and self-harm
- depression
- anxiety
- asthma
- vision problems, particularly short-sightedness
- sexual health, particularly prevention, diagnosis and treatment of STIs.

1 Choose one health condition or issue from the list above. Focusing on your local area, find at least one support service that could provide support for youth who are affected by this condition/issue. Provide details of the type of service provided, any costs associated, and how to access it.

- 2** Find at least one webpage that provides information related to this health condition/issue. Provide details on the author of the site.
- 3** Was it easy to find support services that could be accessed by youth when needed?
- 4** Do you believe the extent of the information provided on the website allows youth to make informed decisions about behaviour related to this condition/issue?
- 5** Which would be easier for youth to access – Internet information or support services? Justify your answer.
- 6** Which do you think would be of more benefit to youth – Internet information or support services? Justify your answer.

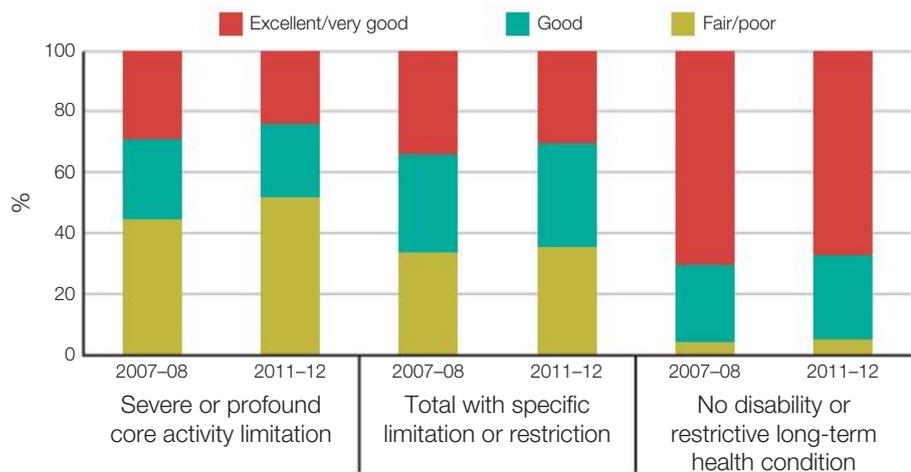
Chapter summary



- Health status is the level of health experienced by individuals and groups.
- Measures of health status are known as 'indicators', and each indicator provides information about a different aspect of health status. Indicators are generally used in combination.
- Mortality rate is the number of deaths in a population in a given period. It is presented as the number of deaths per number of people in a time period, e.g. 23 per 1000 in 2017.
- Life expectancy is related to the level of death in a population, and is an indication of how long a person can expect to live, or the number of years of life remaining to a person at a particular age.
- Morbidity is the level of ill health in a population. Indicators that measure morbidity include core activity limitation (disability), rates of hospitalisation, self-assessed health status, psychological distress, incidence and prevalence.
- Combined measures of health status, such as burden of disease, present information about ill health and mortality in one measure. Burden of disease is a measure of the gap between a population's actual health, and an ideal level of health in a given year – i.e. assuming every individual lives in full health to the theoretical maximum lifespan. It is measured in disability-adjusted life years (DALYs).
- Youth (15–24) experience a high level of health and wellbeing, with high self-assessed health status, low levels of disability, low mortality rates and low burden of disease. A number of conditions are a concern for this age group, including mental health disorders (mental illness) and injury.
- A range of sociocultural factors influence the health status of young people, largely through their influence on health behaviours. These factors can be thought of as the 'causes of the causes' of health issues that arise in this age group.
- Family can influence the health status of youth, as they play a key role in the development of many health behaviours, e.g. those who are given a diet high in processed foods, witness high levels of alcohol consumption or participate in physical activity regularly are more likely to demonstrate these behaviours themselves. Family also influence our culture or religion, which in turn influences our health attitudes and behaviours. Family relationships have a direct impact on the health and wellbeing of young people. For example, youth from families with low levels of functioning are at greater risk of substance abuse and mental illness.
- Young people's peers affect their health behaviours, through selection or influence, or both. Peers can influence a range of health behaviours (e.g. substance use, sexual behaviour, driving behaviour), which then affect health status.
- The rate of homelessness among youth is double that of the general population. Homelessness can influence many aspects of health and wellbeing, including development of mental illness, social exclusion, poor diet and malnutrition, and risky behaviours such as sexual behaviour and substance use.
- Employment is an important way for young people to develop independence and self-efficacy. However, increasing youth unemployment, changing work patterns, combining work and study, and job insecurity can have a negative influence on youth health and wellbeing.
- Higher levels of education and income are associated with greater health status and better health behaviours. Lower levels of education and income are directly and indirectly associated with poorer health status.
- Access to health information and support services provide youth with the knowledge and guidance required to make health decisions. The Internet is a source of health information, but there are concerns about the credibility of the information available, and whether youth are able to understand and decipher the information to make informed decisions. Many support services are available to youth, although access to these services depends on a range of factors, such as cost, location, knowledge and awareness, and culture.

Exam-style questions

- 1 Describe what is meant by the term 'health status'.
- 2 Identify the health status indicator described in each of the statements below.
 - a Provides a combined measure of the fatal and non-fatal impact of conditions.
 - b The number of new cases of a condition in a population in a given time period.
 - c The rate at which deaths occur in a given population size in a given time period.
 - d An indicator that measures the mental health and wellbeing of a population – for example, levels of nervousness and agitation.
 - e How long an individual is expected to live, based on current mortality rates.
- 3 Provide one similarity and one difference for each of the following pairs.
 - a Morbidity and rates of hospitalisation
 - b Incidence and prevalence
 - c Life expectancy and mortality rate
 - d Self-assessed health status and psychological distress
- 4 Health status data is used to draw conclusions about the health status of populations. The following graph shows the relationship between self-assessed health status and disability status.



Sources: AIHW analysis of ABS 2007-08 and 2011-12 National Health Survey confidentialised unit record files.

Self-assessed health status, people aged 15-64, by disability status, 2007-08 and 2011-12

- a Describe each of the two health status indicators in the graph.
- b Using the data in the graph, describe the relationship between self-assessed health status and disability status.
- c If you were asked to collect information about one further aspect of health status for this population group to provide more information to allow you to draw conclusions about health status, which would you choose? Justify your answer.

- 5 Why is it important to understand the health status of youth (aged 15–24) in Australia?
- 6 Using at least three indicators of health status and the information presented in this chapter, describe the overall health status of youth in Australia.
- 7 Name and describe three health concerns of youth in Australia.
- 8 Using the information presented in this chapter, do you think male or female youth in Australia experience a higher health status? Present data to justify your answer.
- 9 Do you believe it is possible to use one indicator to draw conclusions about health status? Why/why not?
- 10 What is meant by the term 'sociocultural factors'?
- 11 Copy and complete the following table to summarise a range of sociocultural factors that can influence health and wellbeing.

Factor	Brief description	Example of a positive influence on youth health and wellbeing	Example of a negative influence on youth health and wellbeing
<i>e.g. family</i>			

- 12 Using your own experiences, rank the factors in the table in order of their influence on the health and wellbeing of youth in Australia, with 1 having the greatest influence. Justify:
 - a why you believe the factor in the first position has the greatest influence on health and wellbeing
 - b why you believe the factor in the last position has the least influence on health and wellbeing.

Chapter 3: Food choices and their consequences

Key knowledge

- the function and food sources of major nutrients important for health and wellbeing
- the use of food selection models and other tools to promote healthy eating among youth, such as the Australian Guide to Healthy Eating, the Healthy Eating Pyramid and the Health Star Rating System
- the consequences of nutritional imbalance in youths' diet on short- and long-term health and wellbeing

Key skills

- explain the functions of major nutrients for general health and wellbeing
- describe the possible consequences of nutritional imbalance in youths' diet on short- and long-term health and wellbeing
- evaluate the effectiveness of food selection models and other tools in the promotion of healthy eating among youth

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Key terms

anaemia	kilojoule
anorexia nervosa	macronutrients
dental caries	malnutrition
food function	micronutrients
food selection model	nutrient
food sources	nutritional (dietary) imbalance
fortified	ossification
glycaemic index (GI)	peak bone mass
haemoglobin	

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Function and food sources of major nutrients

Food consumption and living go hand in hand. Our bodies require food to fuel them for day-to-day activities, and nutrition is also a key factor that influences our health and wellbeing. The food we eat is composed of **nutrients**. Some foods contain more nutrients than others and are described as 'nutrient dense'; foods with few nutrients are known as 'nutrient poor'. Our body's digestive system breaks down the food we eat and absorbs the nutrients, and this contributes to our health and wellbeing. A person's nutritional requirements are based on what is required to ensure that their body functions effectively and stays healthy. Generally, age, gender, height and weight, physical activity level and disease status affect nutritional requirements.

nutrient a substance that provides nourishment to the body, enabling it to live and grow



iStock.com/carlosgaw

Figure 3.1 Fruit and vegetables are key components of a healthy diet.

Many foods can act as risk or protective factors for health conditions. A *risk factor* is any attribute, characteristic or exposure that increases the likelihood of an individual developing a disease or injury. A *protective factor* is anything that prevents or reduces vulnerability to the development of a disease or injury. The energy value of food and the amount of energy our bodies burn is measured in **kilojoules** (kJ). A kilojoule is a metric unit of energy. The unit was previously 'calorie' (Cal); there are 4.184 kilojoules in 1 calorie.

Nutrients are generally grouped into two categories: macronutrients and micronutrients. **Macronutrients** are generally fuel sources for energy production, and are required in relatively large amounts by the body. The main macronutrients are carbohydrates, protein and fats. **Micronutrients** are generally not a fuel source for energy production and are needed in only minute amounts by the body. They generally fall into two categories – minerals (such as calcium and iron) or vitamins (such as vitamin D and vitamin C). The following section of this chapter explores macronutrients and micronutrients, as well as water, and outlines the **function** and **food sources** of nutrients that are significant to health and wellbeing.

kilojoule the unit used to measure energy expenditure or intake; abbreviation is kJ

macronutrients nutrients that are required in large amounts in the diet, e.g. carbohydrates, protein, fat

micronutrients nutrients that are required in small amounts in the diet – vitamins and minerals

food function the impact that consuming a particular food has on the body

food sources foods that contain a particular nutrient

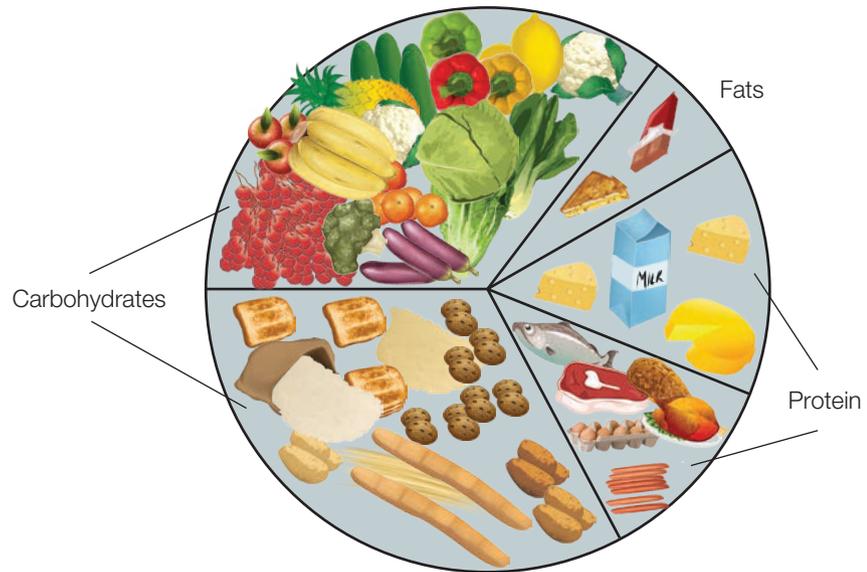


Figure 3.2 The main macronutrients are carbohydrates, fats and protein.

Protein

Proteins play a diverse role in contributing to health and wellbeing. Proteins are used by the body to build, maintain and repair cells and tissues within the body. They are required in the production of molecules such as hormones, antibodies and enzymes, and can also be used as a source of energy for the body. If used for energy, proteins produce slightly more kilojoules per gram than carbohydrates, at 17 and 16 kilojoules respectively.

Protein is made up of sub-units, referred to as amino acids. Many amino acids joined in a chain form a protein molecule. There are two types of amino acids: essential amino acids, which are not made by the body and must be consumed in the diet; and non-essential amino acids, which the body can make itself. Of the 20 amino acids the body requires, nine are essential and eleven are non-essential.

One of the richest food sources of protein is meat, but it is also found in seafood, milk, cheese, eggs, nuts (such as almonds and cashews), seeds, lentils, tofu and beans. Vegetarians need to ensure that they consume sufficient quantities of foods high in protein to meet their body's need for essential amino acids.

Carbohydrates

In order to perform everyday functions such as breathing and digesting food, the body requires energy. The body's preferred fuel source for energy is carbohydrates, particularly the molecule glucose. Foods rich in carbohydrates are broken down by the body's digestive system into molecules of glucose, which are then absorbed into the bloodstream and transported to cells, where they are used as a source of energy.

One gram of carbohydrate can contribute approximately 16 kilojoules of energy, and it is recommended that 45–65% of a person's daily energy intake be derived from carbohydrates. There are many types of carbohydrates, including lactose, sucrose, maltose and fructose. If a person consumes excessive carbohydrates – that is, beyond what their body needs for energy production –



Figure 3.3 Protein is required for muscle growth and repair.

then this energy is converted to fat and stored by the body. If a person is not consuming enough food to meet their energy needs, this fat can then be broken down to contribute to energy production.

Many foods contain carbohydrates. Carbohydrates occur naturally in plants, but sometimes they are added to food artificially as sugar. Plant-based sources of carbohydrates include vegetables (such as potatoes), rice, fruit and wheat-containing products (such as bread, pasta and breakfast cereals). 'Artificial' sources of carbohydrates include lollies and soft drinks.



iStock.com/EvgeniaSh

Figure 3.4 Foods of plant origin contain carbohydrates.

Fibre

Fibre is a particular form of carbohydrate that is found in foods of plant-based origin. This nutrient is not absorbed by the body but plays a vital role in promoting the health and wellbeing of those who consume it. When eaten, fibre contributes to satiation – that is, the feeling of fullness after eating. In this way, people who eat a diet with fibre-containing foods are less likely to overeat and gain weight. Fibre also assists in digestion – in the digestive system, it absorbs water. This adds bulk to faeces and helps to move them through the digestive system. Scientists believe that fibre helps reduce the risk of developing colorectal cancer or constipation. Finally, fibre can assist in reducing the body's absorption of cholesterol. If a person's cholesterol levels are too high, this can contribute to conditions such as cardiovascular disease; a diet containing high-fibre foods helps to reduce this risk.

Foods that are high in fibre include vegetables (such as carrots), fruits (such as bananas), legumes, beans, wholegrain bread, brown rice and bran cereal.

Fats

All people require a certain amount of fat in their diet to promote good health and wellbeing. Fats perform various roles in the body, including:

- fuelling energy production
- protecting the organs and regulating the body's temperature, as well as providing warmth
- forming part of the cell membrane structure
- transporting fat-soluble vitamins.



iStock.com/yodiyim

Figure 3.5 A diet containing fibre promotes healthy digestion.

CRITICAL FRIEND

Ask the person next to you to explain how carbohydrates and fibre contribute to health and wellbeing.

The recommended intake range for fats is 20–35% of total daily energy. Fats are often referred to as a secondary energy source, behind carbohydrates. There are several types of fats, some of which are better for our health and wellbeing than others. The ‘good fats’ are monounsaturated and polyunsaturated; ‘bad fats’ are trans and saturated.

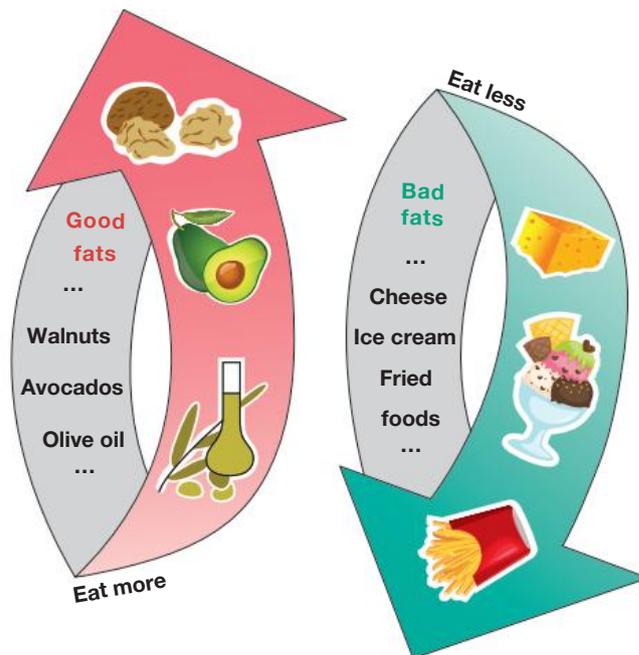


Figure 3.6 There are ‘good’ and ‘bad’ fats.

Monounsaturated and polyunsaturated fats

When consumed at appropriate levels, the ‘good fats’ – monounsaturated and polyunsaturated fats – help to improve blood cholesterol levels, and therefore help reduce the risk of cardiovascular conditions such as heart attack and stroke. Each gram of fat, no matter what type, contributes approximately 37 kilojoules of energy to the body, and therefore overconsumption of any fat, good or bad, can contribute to weight gain. If an individual is consuming the recommended proportion of fat in their diet but the fats they are eating are ‘bad fats’, one recommendation would be to replace these with ‘good fats’.



Figure 3.7 Avocados are a rich source of monounsaturated fat.

Monounsaturated and polyunsaturated fats have different food sources. Monounsaturated fats are found in foods such as avocados, nuts (such as almonds and cashews) and oils (such as olive oil and canola oil).

Polyunsaturated fats can be further broken into two categories: omega-3 and omega-6. Omega-3-containing foods include fish (such as salmon and tuna), walnuts, flax seeds and chia seeds, spinach and canola oil. Omega-6-containing foods include walnuts, pine nuts, pumpkin seeds and safflower oil.

Saturated and trans fats

The 'bad fats', saturated and trans fat, should be avoided in the diet, as the body can meet all its fat needs with monounsaturated and polyunsaturated fats. When consumed in the diet, saturated and trans fats can increase blood cholesterol levels and therefore contribute to an increased risk of cardiovascular conditions such as heart attack and stroke. And, like all fats, when consumed in excessive amounts, both trans and saturated fats can contribute to weight gain and conditions such as obesity.

Once again, the food sources of saturated and trans fats are not the same. Saturated fats are generally found in foods of animal origin, such as fatty cuts of meat, full cream milk and associated products such as cream, cheese, ice cream, chocolate, fried foods such as chips, and biscuits and pastries.

Trans fats are most commonly found in processed foods, as this type of fat is typically created artificially in a process called hydrogenation, in which liquid fat is converted into solid fat. Foods containing trans fats include processed foods such as cakes, pies, cookies, doughnuts and biscuits.

CRITICAL FRIEND

Ask a friend in your class to name the four different types of fat and list two food sources of each.

Case study

Trans fats: how does Australia shape up?

By Kate Aubusson, SMH 17 June 2015

The US is playing catch up to Australia when it comes to regulating trans fatty acid, but that doesn't mean our food is trans-fat free, some of the country's peak nutritional experts say.

The Obama Administration [recently] ordered food companies to phase out artificial trans fats over the next three years, calling them a threat to public health.

Trans fats are a particularly nasty fat that increases LDL, or 'bad' cholesterol levels and decreases 'good' HDL cholesterol levels, increasing the risk of cardiovascular disease (CVD) and diabetes.

Trans-fatty acids are created by treating vegetable oils with hydrogen, which causes the liquid oil to hold its solid form at room temperature, which helps food products like doughnuts, biscuits and cakes hold their shape and extends their shelf life.

Australia's food industry is well ahead of the global curve after taking drastic steps to lower the trans-fatty acid content in processed food since the 1990s, largely by eliminating trans fat from margarine.

'We acted very quickly when the concerns over trans fats were first realised,' said Australian Heart Foundation nutritionist Shane Landon.

'We saw it as an opportunity to reformulate our products and update our processing techniques to significantly reduce trans fats,' he said.

Large fast food chains like McDonald's Australia also recently switched the fat used to deep fry products from oils high in trans fats to predominantly canola oil.

But despite the most recent ABS data indicating that the average Australian derives 0.6 per cent of their total energy from trans fats – below the World Health Organisation's recommendation of 1 per cent – hidden trans fats are still too prevalent among some groups.

People in lower socioeconomic groups are likely consuming more than the recommended amounts of trans fats, said Dr Rosemary Stanton a nutritionist with the Public Health Association of Australia.

'Significant levels of trans fats are more likely to be found in food at the cheaper end of the market; products like doughnuts, pastries and cakes,' she said.



- 'So foods still containing trans fats are likely to be bought by people who have less money to spend on food,' she said.



iStock.com/Rena-Marie

Figure 3.8 Trans fats are often found in deep fried foods.

Some smaller fast food operators and takeaway shops still use solid fats in their deep fryers, which contain trans fats, and public health researchers recently found one brand of margarine containing 5% trans fats was being consumed in Aboriginal and lower socioeconomic communities.

'The problem is they don't know which foods they eat contain trans fats and no way of knowing how to eliminate it from their diet,' she said.

PHAA deputy chief executive office Melanie Walker warned against Australia adopting the US approach by instigating an outright ban of trans fats, saying it would open the door for manufacturers to replace it with other forms of harmful fats or huge amounts of sugar.

'The concern would be that we would see ingredients added to our foods that would be just as bad or worse,' she said.

And an outright ban would be almost impossible to regulate, she said.

Australia's peak health organisations including the PHAA, the Heart Foundation, the Australian Medical Association and Choice have consistently called for mandatory labelling of products containing trans fats.

Currently there is no requirement for food products to signal that they contain trans fats, unless the product makes a nutritional claim about other fats, for instance omega-3 or cholesterol content.

'It's about allowing people to make an informed choice,' Dr Stanton said.

Mr Landon agreed, saying if food manufacturers were required to slap a trans fat label on their products they would be motivated to remove the fat altogether.

'It would hopefully trigger manufacturers to innovate so that they discover they don't need to use these sorts of fats at all,' he said.

Extract from Aubusson K, 'Trans fats: how does Australia shape up?', *Sydney Morning Herald*, 17 June 2015

Case study questions

- 1 What are trans fats?
- 2 List examples of foods that often contain trans fats.
- 3 Describe how trans fats may contribute to disease.
- 4 Which groups in Australian society are most likely to consume trans fats? Explain why this is so.
- 5 What could be done to alert more people to the types of foods that contain trans fats?

haemoglobin a molecule in red blood cells that contains iron and carries oxygen

anaemia a condition where the body is deprived of oxygen because of a lack of red blood cells or haemoglobin

Iron

Iron is a mineral and an important micronutrient that contributes to health and wellbeing. It makes a vital contribution to the body's ability to transport oxygen to the cells and tissues of the body. Each red blood cell contains a molecule called **haemoglobin**. Haemoglobin carries the oxygen in red blood cells, and haemoglobin is formed from iron.

A person who is not getting adequate amounts of iron in their diet might start to feel tired and weak. This can be due to the lack of iron preventing their body from accessing the oxygen it needs to generate energy. This condition is referred to as **anaemia**.

Foods that contain iron include lean red meat, nuts, tofu, eggs and leafy green vegetables such as spinach.



iStock.com/BlackJack3D

Figure 3.9 Red blood cells require iron to function.

Calcium

The mineral calcium is a micronutrient that is essential for the development of strong bones and teeth. During periods of rapid growth, such as childhood and youth, it is vitally important that individuals get enough calcium in their diet, as this mineral is responsible for building bone (**ossification**) and maintenance of bones. Individuals reach their **peak bone mass** at approximately 30 years of age, and a diet rich in calcium can improve bone density and therefore help protect against osteoporosis in old age. Calcium is also important for other bodily functions, including muscular contractions and nervous system function.

Foods that are a rich source of calcium include dairy products such as full-cream milk and associated products such as cheese, yoghurt and ice cream. Other sources of calcium include spinach, broccoli, sardines, salmon with bones, and calcium-**fortified** soy drinks.

ossification bone formation, or hardening of other body tissues (e.g. muscle)

peak bone mass the maximum mass and strength of bone in a person's body

fortified describes a food product that has had a nutrient added, to increase its nutritional value

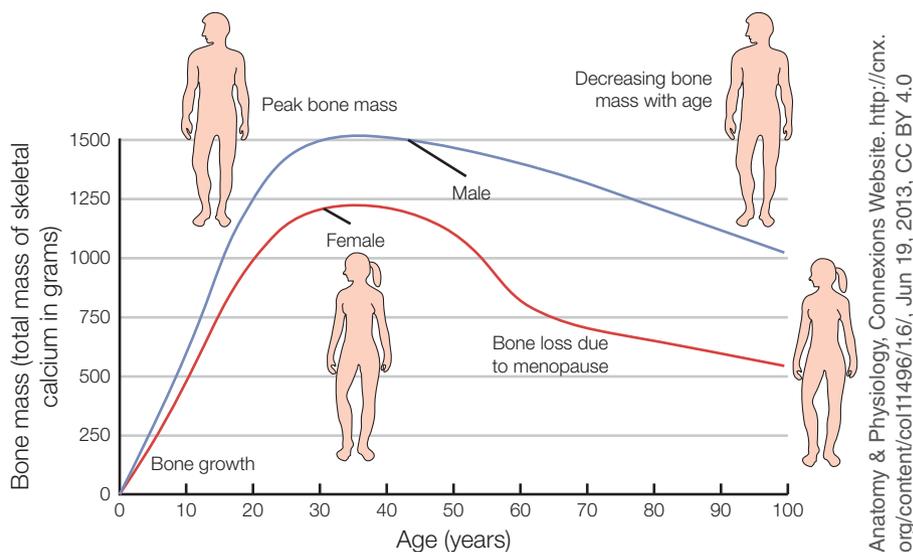


Figure 3.10 What happens to bone mass as we age



Figure 3.11 Calcium-rich foods

Vitamin D

Vitamin D is one of a range of vitamins that promote health and wellbeing. Most people would be aware that adequate exposure to sunlight allows the body to form enough vitamin D to meet its needs. However, people who spend large amounts of time indoors, or who cover up when they are outdoors, may be deficient in vitamin D. When an individual is deficient in vitamin D they are at greater risk of developing osteoporosis, as the main role of this vitamin is to assist in the absorption of calcium from the digestive system into the bloodstream and therefore the development and maintenance of bone.



Getty Images/Hamish Blair

Figure 3.12 Children who regularly play outdoors in the sun will receive the vitamin D they require.

Food sources of vitamin D include fish (such as salmon and tuna), cheese and eggs. You can also find vitamin D fortified products – these are products that have had this vitamin included during processing. They include milks, juices and cereals.

Vitamin C

Vitamin C plays several key roles in the body. One of these is to assist in the absorption of iron, which helps prevent iron deficiency or anaemia. Another key role of vitamin C is in the formation of collagen, a protein that the body uses to form a range of tissues including connective tissue, scar tissue, bones and skin. The body cannot produce its own vitamin C or store it, and therefore people need to regularly consume foods that contain vitamin C.

Food sources of vitamin C include oranges, strawberries, kale, broccoli, capsicums and kiwi fruit.

Water

Water makes up approximately 60–70% of our body's mass and is the most important nutrient required for the body to function. Water is required for the efficient functioning of all body cells and body systems, as it acts as a medium in which chemical reactions in the body can occur. Water also transports substances around the body, and it plays a key role in regulating body temperature. Drinking

CRITICAL FRIEND

Ask the person next to you to name two nutrients in food that reduce the risk of developing osteoporosis. Ask them to explain how each nutrient does this.

water helps to keep a person hydrated and therefore enables people to go about their daily activities, including playing sport and exercising. As water contains no kilojoules it is a good beverage for people who are trying to maintain a healthy weight. Water can also contribute to a feeling of fullness and therefore helps to prevent overeating.

Most foods contain water, some more than others. Foods high in water include cauliflower, carrots, grapes, oranges, spinach and pineapple. People can also consume tap water and other beverages high in water, such as tea and juices.



iStock.com/SolStock

Figure 3.13 Drink water daily as your beverage of choice.

Learning fields

Is there a difference between a dietitian and a nutritionist?

In Australia a distinction is made between dietitians and other occupations in the nutrition and food science field, including nutritionists.

... A nutritionist is a tertiary qualified nutrition professional that has the expertise to provide a range of evidence based nutrition services related to nutrition, public health nutrition, policy and research, and community health. There is no industry specific assessing authority that assesses the qualifications of nutritionists who are not dietitians.

Dietitians are also qualified to provide this range of evidence based nutrition services, but in addition, dietitians have the expertise to provide individual dietary counselling, medical nutrition therapy, group dietary therapy and food service management. A dietitian has undertaken a course of study

that included substantial theory and supervised and assessed professional practice in clinical nutrition, medical nutrition therapy and food service management...

Extract from Dietitians Association of Australia 2017, 'Dietitian or nutritionist?'

Dietitians work in a diverse range of settings, including:

- **Patient care:** Dietitians are responsible for assessing the nutritional needs of patients, planning appropriate diets and educating patients and their families.
- **Community nutrition and public health:** Dietitians are involved in nutrition and health education programs. This can be at the local community level or for the population at a national level. Dietitians working in public health also assist with health planning, setting nutritional standards, and developing and implementing nutrition policies.

- **Food service and management:** Dietitians combine management skills and nutrition expertise when delivering food services in hospitals, nursing homes, meals on wheels, hospitality and catering. Dietitians also manage nutrition services and health programs.
- **Consultancy/private practice:** Dietitians provide consultancy services to individuals, groups and organisations which include individual counselling, group programs, preventive health programs and nutrition education. Dietitians also prepare nutritional information for publication, work with the media and in public relations.
- **Sports:** Dietitians provide nutrition services to individual athletes and teams to support and enhance their athletic performance. Dietitians work with novice athletes and everyday active Australians through to elite sportspeople in order to help them achieve their goals and reach their full potential.
- **Food industry:** Dietitians working in the food industry are involved in food regulatory issues (food law), food safety and quality systems, consumer and health professional education, nutrition research, product development, nutrition-related marketing and public relations.
- **Research and teaching:** Dietitians work as part of research teams investigating nutrition and health issues and developing practical nutrition recommendations. Dietitians are also involved in training student dietitians, doctors and other health professionals.
- **Other fields:** Dietitians are able to transfer their skills to other fields such as management, public relations, marketing, program management, communications, media, health promotion, policy development and information technology.

Extract from Dietitians Association of Australia, 2017, 'Where do Dietitians work?'

Review and reflect

- 1 Explain the difference between macronutrients and micronutrients.
- 2 Describe how a diet with sufficient protein promotes health and wellbeing.
- 3 Outline the difference between monounsaturated fats and trans fats in terms of their contribution to health and wellbeing.
- 4 Identify two animal-based and two plant-based food sources of iron.
- 5 Explain why vegetarians may be advised to monitor their dietary intake more closely than non-vegetarians.

Table 3.1 Summary of major nutrients required for health and wellbeing

Nutrient	Health function / effects on the body	Food sources
Carbohydrates	<ul style="list-style-type: none"> • A fuel source for energy production • Recommended intake range is 45–65% of total daily energy • Excess is stored as fat and can contribute to obesity 	Breads, cereals (wheat, oats, rice), pasta, oranges
Fibre	<ul style="list-style-type: none"> • Needed for healthy digestive function • Absorbs moisture and provides bulk to faeces (preventing constipation) • Assists people to feel full and can help in managing weight • Binds with cholesterol to prevent it being absorbed into the bloodstream • Lowers glucose absorption into the bloodstream, helping to reduce the risk of diabetes 	Wholegrain breads and cereals, fruit such as apples and pears (with skin on), bran, legumes, seeds
Fats	<p><i>All fats</i></p> <ul style="list-style-type: none"> • Act as fuel for energy production • Protect body organs, regulate body temperature and provide warmth • Are a key component of cell membrane structure • Transport fat-soluble vitamins • Recommended intake range is 20–35% of total daily energy. 	
	<p><i>Saturated fats</i></p> <ul style="list-style-type: none"> • Have negative effects on the body, such as increasing blood cholesterol levels, which can adversely affect cardiovascular health 	Milk, meat products, cheese, butter, cream, fried foods

Nutrient	Health function / effects on the body	Food sources
	<p><i>Trans fats</i></p> <ul style="list-style-type: none"> Can increase blood cholesterol levels, which can adversely affect cardiovascular health 	Processed foods including cakes, biscuits, pastries, fried foods
	<p><i>Polyunsaturated fats</i></p> <ul style="list-style-type: none"> Help maintain a healthy immune system Assist in cell growth and structure Help to reduce blood cholesterol levels, which can improve cardiovascular health 	Fish, vegetable oils (e.g. safflower, cottonseed), polyunsaturated margarine, nuts, seeds
	<p><i>Monounsaturated fats</i></p> <ul style="list-style-type: none"> Help to reduce blood cholesterol levels, which can improve cardiovascular health 	Canola and olive oil, almonds, avocado, tuna, nuts
Protein	<ul style="list-style-type: none"> Needed for growth, repair and maintenance of body cells and tissues Secondary source of fuel for energy production Essential for collagen and elastin (the connective tissue needed to hold cells together) formation and for production of enzymes, hormones and antibodies Recommended intake range is 15–25% of total daily energy 	Red meat, eggs, chicken, milk, cheese, legumes, seafood, nuts, brown rice
Water	<ul style="list-style-type: none"> Required for efficient functioning of all body cells and body systems Acts as a medium in which chemical reactions in the body can occur Transports substances around the body Can act as a lubricant, especially in the digestive system Helps to regulate body temperature 	Tap water, tea, juice, all fruits and vegetables
Vitamin D	<ul style="list-style-type: none"> Needed to develop and maintain bone Helps the body absorb calcium in the digestive system and ensures proper renewal and mineralisation of bone tissue 	Butter, cream, salmon, tuna, liver, kidney, cheese, egg yolk
Calcium	<ul style="list-style-type: none"> Helps development and strength of bones (to prevent osteoporosis) and teeth Needed for muscle contraction Required for nervous system function 	Yogurt, cheese, milk, dark green leafy vegetables, almonds, sardines
Vitamin C	<ul style="list-style-type: none"> Helps absorption of iron from the digestive system Assists the body to form collagen in skin and cartilage 	Oranges, strawberries, kale, broccoli, capsicum, kiwi fruit
Iron	<ul style="list-style-type: none"> Assists in production of red blood cells, particularly formation of haemoglobin, required for oxygen transportation around the body 	Lean red meat, nuts, tofu, eggs, leafy green vegetables

Food selection models and other tools to promote healthy eating among youth

Over one-third of the total daily energy intake of contemporary Australians is made up of energy-dense but nutrient-poor foods. In addition to this, only one in 10 adults eat the recommended minimum daily intake of vegetables. Therefore, promoting healthy eating from a young age, especially during youth, is an important part of reducing Australia's rising trend in diet-related health conditions, such as obesity and type 2 diabetes.

The Internet provides easy access to information about what foods should be consumed and when. However, as with most things, more is not always better – the huge amount of information available is not all reliable. The following **food selection models** and tools are evidence based and provide information that young people can rely on to help them to eat well.

food selection model

a recommendation by a particular organisation or government regarding how people should structure their daily food intake

The Australian Guide to Healthy Eating

The Australian Government is involved in the promotion of healthy eating. One of the most significant nutrition-related documents that it updates and releases to the Australian public is the Australian Dietary Guidelines. The current Australian Dietary Guidelines were released in 2013 and are based on the best available scientific evidence. The Guidelines provide recommendations for healthy eating that are realistic and practical. They aim to:

- promote health and wellbeing
- reduce the risk of diet-related conditions
- reduce the risk of chronic disease.

Below are the Australian Dietary Guidelines in full.

Guideline 1

To achieve and maintain a healthy weight, be physically active and choose amounts of nutritious food and drinks to meet your energy needs.

- Children and adolescents should eat sufficient nutritious food to grow and develop normally. They should be physically active every day and their growth should be checked regularly.
- Older people should eat nutritious foods and keep physically active to help maintain muscle strength and a healthy weight.

Guideline 2

Enjoy a wide variety of nutritious foods from these five groups every day:

- Plenty of vegetables of different types and colours and legumes/beans
- Fruit
- Grain (cereal) foods, mostly wholegrain and/or high cereal fibre varieties, such as breads, cereals, rice, pasta, noodles, polenta, couscous, oats, quinoa and barley
- Lean meats and poultry, fish, eggs, tofu, nuts and seeds, and legumes/beans
- Milk, yoghurt, cheese and/or their alternatives, mostly reduced fat (reduced fat milks are not suitable for children under the age of two years)

And drink plenty of water.

Guideline 3

Limit intake of foods containing saturated fat, added salt, added sugars and alcohol.

- a Limit intake of foods high in saturated fat such as many biscuits, cakes, pastries, pies, processed meats, commercial burgers, pizza, fried foods, potato chips, crisps and other savoury snacks.
 - Replace high fat foods that contain predominantly saturated fats such as butter, cream, cooking margarine, coconut and palm oil with foods that contain predominantly polyunsaturated and monounsaturated fats such as oils, spreads, nut butters/pastes and avocado.
 - Low fat diets are not suitable for children under the age of two years.

- b** Limit intake of foods and drinks containing added salt.
 - Read labels to choose lower sodium options among similar foods.
 - Do not add salt to foods in cooking or at the table.
- c** Limit intake of foods and drinks containing added sugars such as confectionary, sugar-sweetened soft drinks and cordials, fruit drinks, vitamin waters, energy and sports drinks.
- d** If you choose to drink alcohol, limit intake. For women who are pregnant, planning a pregnancy or breastfeeding, not drinking alcohol is the safest option.

Guideline 4

Encourage, support and promote breastfeeding.

Guideline 5

Care for your food; prepare and store it safely.

Extract from Australian Government Department of Health, Australian Dietary Guidelines 1–5 CC BY 4.0

The *Australian Guide to Healthy Eating* (AGHE) is a food selection guide that visually represents the proportion of each of the five food groups recommended for consumption each day (Figure 3.14), and is an essential part of the Australian Dietary Guidelines. The AGHE was developed as an educational tool that converts scientific knowledge about food consumption and nutritional requirements for health into a practical guide for food selection. The guide was developed in support of Australia's National Food and Nutrition Policy.

The AGHE recommends that people consume a variety of foods across and within the five food groups, and avoid foods that contain too much added fat, salt and sugar. The AGHE aims to promote healthy eating habits throughout life, as this will assist in reducing the risk of health problems such as heart disease, obesity and type 2 diabetes.

The AGHE aims to encourage the daily consumption of a variety of foods from each of the five food groups in proportions that are consistent with the Australian Dietary Guidelines. The five food groups are:

- grain (cereal) foods, mostly wholegrain and/or high cereal fibre varieties
- vegetables and legumes/beans
- fruit
- lean meats and poultry, fish, eggs, tofu, nuts and seeds, and legumes/beans
- milk, yoghurt, cheese and/or alternatives, mostly reduced fat.

The AGHE states that fats and foods such as cakes, biscuits, hot chips and sugary drinks should be consumed only occasionally, as these are considered 'extra foods'. The recommended number of daily serves from each food group to achieve a healthy diet are shown in Table 3.2. Given that youth is a time when rapid growth occurs and is also often a time of intense physical activity, it is not surprising that the recommended serving of grain foods is among the highest across the lifespan. Notice also that the recommended number of serves of dairy (or alternatives) is high during youth, as calcium consumed during this time contributes to peak bone mass formation.

Learning tip

The *Australian Guide to Healthy Eating* should be learnt in detail. You may be asked in a SAC or exam to explain how this food selection model could help a young person to maintain a healthy weight. Knowing the size of each wedge and the corresponding food group is essential to answering this type of question.



Weblink

INVESTIGATE

Find more information about the *Australian Guide to Healthy Eating* at its website. Visit <http://hhdvce1and2.nelsonnet.com.au> to access the weblink.

CRITICAL FRIEND

Ask a friend in your class to describe the three visual recommendations in the *Australian Guide to Healthy Eating* that are outside the circle on page 78.

Australian Guide to Healthy Eating

Enjoy a wide variety of nutritious foods from these five food groups every day.
Drink plenty of water.



Use small amounts



Only sometimes and in small amounts



Figure 3.14 The Australian Guide to Healthy Eating is in the form of a pie chart showing relative amounts of the five food groups that should be consumed each day.

Table 3.2 Minimum recommended number of daily serves

	Age (years)	Grain (cereal) foods, mostly wholegrain or and/or high fibre cereal varieties	Vegetables and legumes/beans	Fruit	Lean meats and poultry, fish, eggs, tofu, nuts and seeds and legumes/beans	Milk, yoghurt, cheese and/or alternatives, mostly reduced fat	Unsaturated spreads and oils
Boys	2–3	4	2.5	1	1	1.5	0.5
	4–8	4	4.5	1.5	1.5	2	1
	9–11	5	5	2	2.5	2.5	1
	12–13	6	5.5	2	2.5	3.5	1.5
	14–18	7	5.5	2	2.5	3.5	2
Men	19–50	6	6	2	3	2.5	4
	51–70	6	5.5	2	2.5	2.5	4
	70+	4.5	5	2	2.5	3.5	2
Girls	2–3	4	2.5	1	1	1.5	0.5
	4–8	4	4.5	1.5	1.5	1.5	1
	9–11	4	5	2	2.5	3	1
	12–13	5	5	2	2.5	3.5	1.5
	14–18	7	5	2	2.5	3.5	2
	Pregnant (up to 18 years)	8	5	2	3.5	3.5	2
	Breastfeeding (up to 18 years)	9	5.5	2	2.5	4	2
Women	19–50	6	5	2	2.5	2.5	2
	51–70	4	5	2	2	4	2
	70+	3	5	2	2	4	2
	Pregnant (19–50 years)	8.5	5	2	3.5	2.5	2
	Breastfeeding (19–50 years)	9	7.5	2	2.5	2.5	2

(source: Australian Government, NHMRC 2013, 'Eat for Health. Australian Dietary Guidelines. Summary', pp. 41–2 CC BY 4.0)

The Healthy Eating Pyramid

Non-government organisations such as Nutrition Australia often undertake initiatives that involve the promotion of healthy eating. Nutrition Australia is a not-for-profit, community-based organisation that aims to promote the health and wellbeing of all Australians. The mission of Nutrition Australia is to promote optimal health for all Australians by encouraging food variety and physical activity.

The objectives of Nutrition Australia are:

- to act as a source of scientific information on key nutrition issues
- to produce and disseminate material on nutrition to policy makers, the media, educators, food industry and consumers
- to act as consultants to government departments, food industry and consumer groups as required on issues related to food and nutrition
- to encourage innovation in the dissemination of nutritional knowledge.

Extract from Nutrition Australia, 'Mission and objectives. Our objectives'

The range of services offered by Nutrition Australia includes:

- provision of the latest information on nutrition research and current food and health trends
- coordination of events in the annual National Nutrition Week campaign ...
- extensive media coverage and public speaking demonstrations ...
- food industry consultancies
- nutrition training and presentations
- menu assessments.

Extract from Nutrition Australia, 'About Us'

Nutrition Australia's Healthy Eating Pyramid (Figure 3.15) is 'a simple, visual guide to the types and proportion of foods that people should eat every day for good health'. It was first introduced by Nutrition Australia in 1980, and it has been updated several times since then.

The current version of the Pyramid depicts the five core food groups, as well as healthy fats.

The layers of the Pyramid are based on the recommended food intake for 19–50 year olds according to the Australian Dietary Guidelines (2013). However, the proportions and placement of each food group are generally applicable to all age groups from 1–70 years.

Extract from Nutrition Australia, 'Healthy Eating Pyramid fact sheet'

Summary of the pyramid

The **foundation layers** make up the largest portion of the Pyramid. They include the three plant-based food groups: fruits, vegetables and legumes, and grains. These layers comprise approximately 70% of the Pyramid, because plant-based foods should make up the largest portion of what we eat.

The **middle layer** includes two food groups:

- milk, yoghurt, cheese and alternatives
- lean meat, poultry, fish, eggs, nuts, seeds and legumes.

The **top layer** consists of healthy fats, both monounsaturated and polyunsaturated. We should eat small amounts of healthy fats daily to support heart health and brain function. However, unhealthy fats, such as saturated fats and trans fats, should be avoided in the diet where possible.

This version of the Pyramid includes several additional messages.

- **Enjoy herbs and spices.** Using herbs and spices to add flavour is a healthy alternative to adding salt. Create foods to suit a variety of tastes by cooking with fresh, dried or ground herbs and spices.



Figure 3.15 Nutrition Australia's Healthy Eating Pyramid

CRITICAL FRIEND

Ask the person next to you to list three similarities between the Australian Guide to Healthy Eating and the Healthy Eating Pyramid.

- **Choose water.** Nutrition Australia encourages the choice of water as the primary drink, and discourages sugary options such as soft drinks, sports drinks and energy drinks. Water is the best drink to stay hydrated with, and it supports many essential bodily functions.
- **Limit salt and added sugar.** Data shows that the average Australian consumes too much salt and added sugar. Salt and sugar intake are linked to health risks such as heart disease, obesity and type 2 diabetes. Avoid packaged foods with salt or added sugar in the ingredients, and try to avoid adding salt or sugar during cooking and eating.

Investigation



Weblink

Here are some frequently asked questions about the Healthy Eating Pyramid. Try to answer each one, then research the answer by going to the website for the Healthy Eating Pyramid.

- 1 Is the Healthy Eating Pyramid for everyone?
- 2 Does the Healthy Eating Pyramid replace the Australian Dietary Guidelines or the Australian Guide to Healthy Eating?
- 3 Is the new-look Healthy Eating Pyramid a new diet/new guidelines?
- 4 Why does the grain food group have its own layer?
- 5 Why are legumes and beans in two food groups?
- 6 Can vegans and vegetarians follow the Healthy Eating Pyramid?

Extract from Nutrition Australia, Healthy Eating Pyramid, FAQ

Case study

A brief history of the Pyramid

Nutrition Australia first introduced the Healthy Eating Pyramid in 1980, based on a 'more to less' concept developed in Sweden in the 1970s. It was designed as a simple, conceptual model for people to use as an introduction to adequate nutrition.

Since then the Pyramid has continued to evolve with the same aim: to encourage Australians to eat a varied and balanced diet in line with current dietary guidelines.

[The Healthy Eating Pyramid is simple, and continues to be popular.] ...

In 2015, Nutrition Australia launched the latest version of the Healthy Eating Pyramid, based on the 2013 Australian Dietary Guidelines.

Past Pyramids

The original Healthy Eating Pyramid separated foods into four layers:

- The larger 'Eat Most' layer at the base was all plant-based foods: fruit, vegetables, legumes, nuts, grains, bread and cereals.
- The 'Eat Moderately' layer had dairy foods (and dairy alternatives) and meat (and meat alternatives)

- Two separate layers in the 'Eat in small amounts' section: added fats and added sugar.

Extract from Nutrition Australia, 'A brief history of the Pyramid'

The Pyramid was redesigned in 1999, and again in 2004, after the 2003 Australian Dietary Guidelines were released. The 'Move More' layer was added to the bottom with the 2004 update, and it was renamed the 'Healthy *Living* Pyramid'. In 2007 it was redesigned again. Until May 2015, with the launch of the latest Healthy Eating Pyramid, that was the Pyramid familiar to many Australians.

Case study questions

- 1 Contrast the original Healthy Eating Pyramid with the latest version.
- 2 Provide reasons for the changes that the Pyramid has undergone over time.
- 3 Predict any changes that may occur to the Pyramid in the next 10 years.

The Health Star Rating system

The Health Star Rating is a nutritional labelling system that features on many packaged foods in Australia. The Health Star Rating system evaluates the nutritional profile of a packaged food and assigns it a 'star' rating between ½ and 5 stars, with higher stars indicating a healthier choice. The Health Star Rating system was developed by the Australian, state and territory governments in collaboration with industry, public health and consumer groups, in order to help address Australia's growing obesity crisis. With approximately 63% of adults and one in four children being classed as overweight or obese, Australia has one of the highest obesity rates in the world. The Health Star Rating system aims to help address this issue and is being implemented voluntarily by the food industry from June 2014 until 2019, with a progress review in 2016, and a formal review in 2019.

Most packaged foods display a complex Nutrition Information Panel that informs the buyer of the nutritional contents of the food. However, the Health Star Rating is a much faster and simpler standard overview of products for the average busy shopper, which helps them to easily compare the nutritional profile of packaged foods and make healthier choices. The star rating for a product is determined by evaluating its level of:

- energy (kilojoules)
- risk nutrients (saturated fat, sodium and sugars)
- positive nutrients (dietary fibre, protein and the proportion of fruit, vegetable, nut and legume content).

Risk nutrients and high-energy foods are linked to obesity and diet-related chronic diseases, so choosing foods that are higher in positive nutrients and lower in risk nutrients will contribute to a balanced diet and better health.



Weblink

WATCH

Watch the Choice video from 27 August 2015, 'How to use health star ratings'. Visit <http://hhdvce1and2.nelsonnet.com.au> to access the weblink.

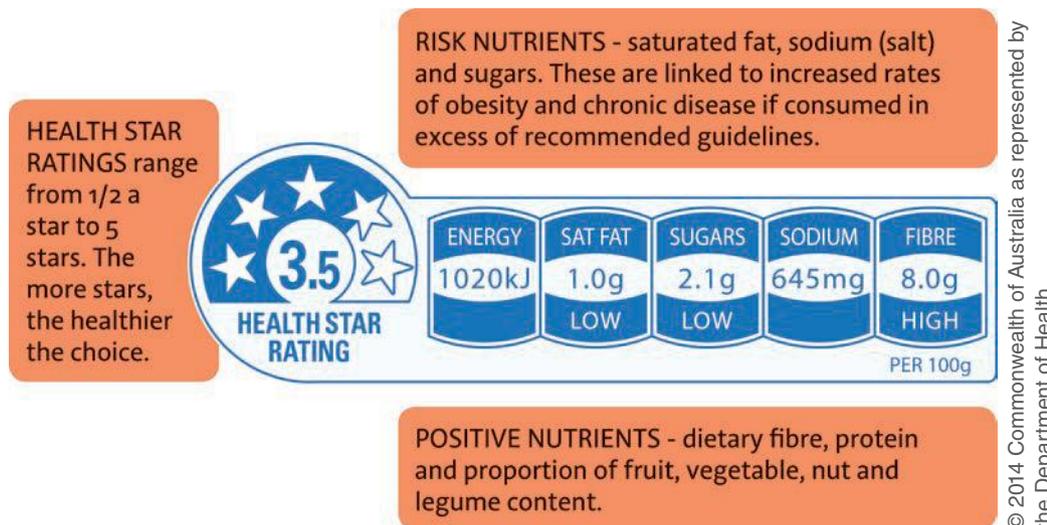


Figure 3.16 The Health Star Rating system explained



Figure 3.17 The Health Star Rating on a product label



Weblink

CRITICAL FRIEND

Ask a friend in your class to explain how a consumer can use the Health Star Rating system to improve their food choices.

The Health Star Rating Calculator and nutritional information

The Health Star Rating is calculated using an algorithm (a set of rules used to solve a problem) developed by Food Standards Australia New Zealand and technical and nutrition experts, to determine the number of stars assigned to a particular food. The Health Star Rating Calculator takes into account the positive and risk nutrients in the food, based on a consistent measure of 100g or 100mL of product, to establish a final star rating.

It is the responsibility of food manufacturers and retailers to ensure the Health Star Rating system is being used correctly. This includes:

- calculating the Health Star Rating accurately, ensuring it is consistent with the nutrition information panel
- displaying nutrient information correctly
- observing all relevant legislation and regulations.

In addition to the star rating, products may also display further nutritional information directly below or beside the star rating on the product label. This details the amount of nutrients in the food, including energy (kilojoules), saturated fat, sodium and sugars, measured as either per 100g or 100mL (liquids), per pack (single-serve foods) or per serve (as specified, for example 'per 600mL bottle'). The correct measurement reference will be indicated on the label. This additional information may also include a positive nutrient, such as protein, dietary fibre, particular vitamins or minerals, all of which are important elements of a balanced diet.

A further nutritional profile is found on the nutrition information panel on the food packaging.

Using the Health Star Rating label

The Health Star Rating system is voluntary, and food manufacturers and retailers (such as supermarkets) may choose to display the Health Star Rating on some packaged food products and not others. So not all products display a Health Star Rating label. Products unlikely to display the rating include:

- fresh unpackaged food (such as fresh fruit and vegetables)
- alcoholic beverages
- formulated products for infants and young children
- non-nutritive condiments (such as vinegar, herbs and spices)
- non-nutritive foods (such as tea, coffee)
- single-ingredient foods not intended to be eaten on their own (such as flour)
- foods where a nutrition information panel is not required.

The purpose of the Health Star Rating system is to help consumers quickly and easily make comparisons between the nutritional values of similar packaged food products. The Health Star Rating is simply one tool to help in achieving a healthy diet. However, a high star rating does not necessarily mean that that food supplies all the essential nutrients required for a balanced diet.

When making healthy food choices, consider the following tips.

- Look for foods with a high Health Star Rating and use the rating to compare it with similar products (the higher the stars, the healthier the choice).
- Use the nutrition information on the label to choose foods that are low in sodium, saturated fat and/or sugars.
- Consume a wide variety of nutritious foods, including fresh fruit and vegetables.
- As well as the Health Star Rating system, use other tools such as the Australian Dietary Guidelines to help achieve a healthy, balanced diet.



Weblink

INVESTIGATE

Visit the Australian Government Health Star Rating system website for the latest information. Visit <http://hhdvce1and2.nelsonnet.com.au> to access the weblink.

Case study

Health Star Rating campaign launches new phase – April 2016

The third phase of the Health Star Rating (HSR) campaign launched on Sunday 17 April 2016 includes a new range of advertising to help consumers understand how to use the Health Star Rating system.

The Health Star Rating is a front-of-pack food labelling system which provides an at-a-glance comparison using stars, from half a star to five, between similar packaged and processed food. The rating on the overall nutritional profile of the food considers energy, risk nutrients, saturated fat, sodium (salt) and sugars, and positive nutrients, dietary fibre, protein and the proportion of fruit, vegetable, nut and legume content. Essentially, the more stars on the front of pack, the healthier the choice.

It allows grocery buyers to quickly compare similar packaged products, to see which one is the healthier option. You can compare breakfast cereals with breakfast cereals or muesli bars with muesli bars for example, but not between vastly different products, such as yoghurt and frozen lasagne.

Over 3000 products, from at least 75 companies, now carry the Health Star Rating as at March 2016. The system is also prompting product change, with at least one cereal manufacturer and one muesli bar manufacturer reformulating their products to improve the nutrient profile, resulting in improved health star ratings.

Consumer awareness of the Health Star Rating system is also improving, with findings from evaluation research in October 2015 showing that the system is achieving behaviour change. Over half of those surveyed who had seen the campaign, have used the Health Star Rating system to help choose a new product (55%).

Nearly 3 in 4 people surveyed (72%) agreed that the system makes it easier for them to identify the healthier option, makes it easier for them to compare products in the same section of the supermarket and helps them think more about nutrition when buying food ...

Extract from Commonwealth of Australia, 'The Health Star Rating. Health Star Rating campaign launches new phase', 19 April 2016

Case study questions

- 1 What evidence does this article provide that indicates the Health Star Rating system is contributing to the manufacturing of healthier food products?
- 2 Is it correct to use the Health Star Rating system to compare a breakfast cereal with a tub of yoghurt? Why or why not?
- 3 Explain why the Health Star Rating system may not have been a popular idea from a manufacturer's point of view.
- 4 Outline another way in which people may gain knowledge of the contents of food other than using the Health Star Rating system. Evaluate which source of information is more useful.

Review and reflect

- 1 Explain the difference between the Australian Dietary Guidelines and the Australian Guide to Healthy Eating.
- 2
 - a List the five food groups represented in the Australian Guide to Healthy Eating.
 - b Describe how a person aged 16 could use the Australian Guide to Healthy Eating to improve their diet.
- 3
 - a Outline the purpose of the Health Star Rating system.
 - b Discuss why the Health Star Rating system is being implemented.
- 4 Explain why Nutrition Australia's Healthy Eating Pyramid may not be easily understood by young people.

The consequences of nutritional imbalance in a youth's diet

Youth is a time of significant growth and development, when the body requires a range of nutrients. Both males and females undergo a growth spurt during youth; in this time, males generally increase in height by 20 cm or more, and females by 16 cm or more. This requires the body to expend significant amounts of energy, which must be met through adequate nutrition. Adequate nutrition is also required because additional soft tissue (such as fat and muscle) and hard tissue (such as bone) is being formed as the body grows. If a young person under- or over-consumes a range of nutrients during their growth spurt and throughout their youth, this can have a significant impact on their short- and long-term health and wellbeing. The following section examines some of the consequences of **nutritional (dietary) imbalance**.

nutritional (dietary) imbalance when a person has too little or too much of a particular nutrient in their diet

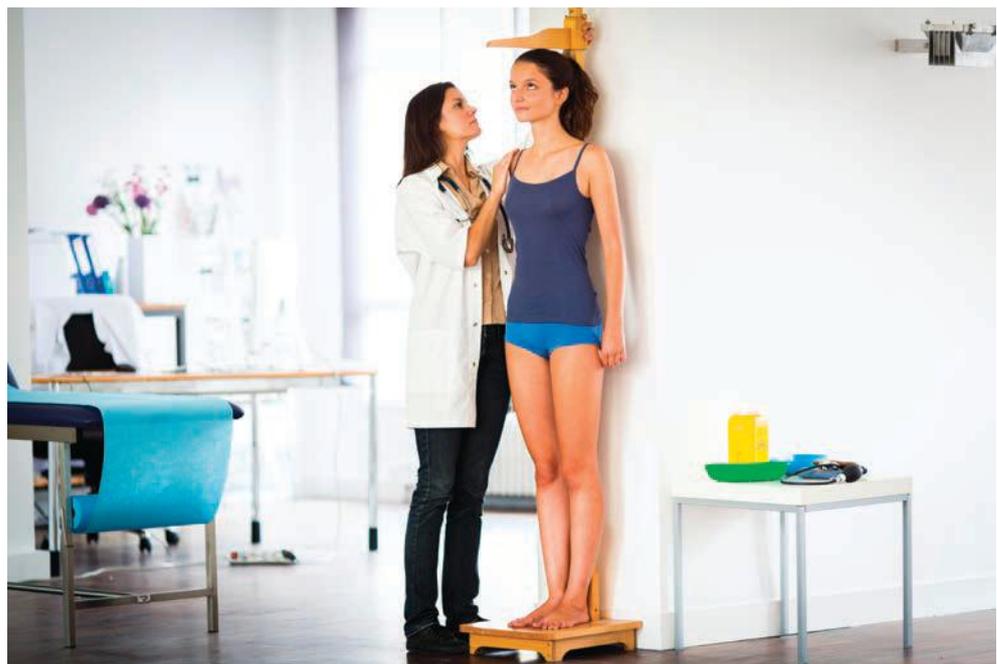


Figure 3.18 Youth is a time of significant growth and this requires a well-balanced diet.

Alamy Stock Photo/Phanie

Short-term consequences

By 'short-term consequences' of over- or under-nourishment we mean the hours or immediate days following eating (or not eating). These consequences can usually be remedied in a short amount of time, by eating more or less.

Our bodies constantly require energy to carry out various bodily processes, and so one consequence of nutritional imbalance may be a reduction in the body's ability to generate energy, and therefore function at its full capacity. As mentioned previously in this chapter, the body's preferred fuel source is carbohydrates, in particular the molecule glucose. The **glycaemic index (GI)** is a system that ranks carbohydrate-rich foods according to the extent to which they affect a person's blood glucose level.

glycaemic index (GI) a method of ranking carbohydrate-rich foods according to how much they affect the body's blood glucose level

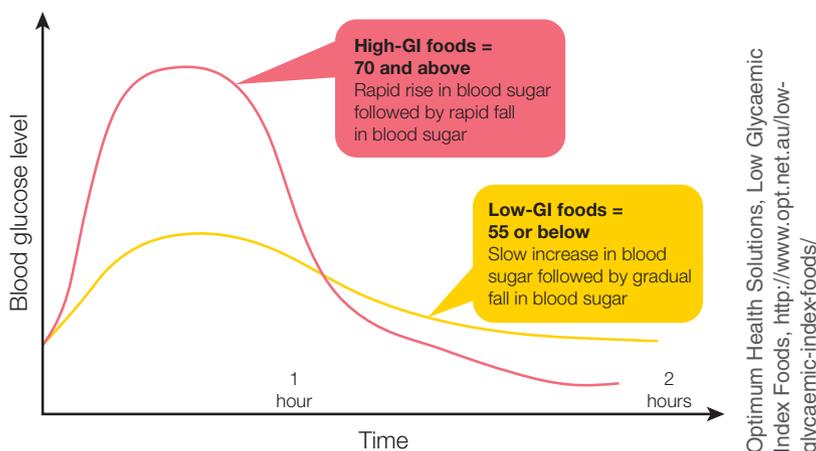


Figure 3.19 Change in blood glucose levels after eating foods at different ends of the GI scale

Foods that can raise a person's blood glucose levels quickly are referred to as high-GI foods. Foods that have a more gradual, sustained impact on a person's blood glucose levels are referred to as low-GI foods. Low-GI foods are generally recommended by health professionals, as they provide the body with a fuel source for energy production over a longer period of time and therefore do not require the individual to eat as frequently. A person who consumes a high-GI meal and then does not eat for an extended period of time may feel tired and have less energy to go about their daily tasks.

Water is required daily by the body. It can be consumed as water, or via other drinks and, to a certain extent, in the food we eat. When a person does not have adequate water in their diet they may notice that they spend less time at the toilet, are more prone to feeling dizzy, faint, tired or thirsty, and are at increased risk of developing headaches, constipation and low blood pressure.

Water can combine with fibre in the digestive tract and in this way can assist the digestive system. Foods containing both water and fibre can therefore help prevent a person from becoming constipated.

Long-term consequences

A range of conditions can develop from an unbalanced diet over a long period of time. Many of these conditions are due to over-consumption of foods containing particular nutrients, but under-consumption of certain nutrients can also have long-term health consequences. The following conditions can all result from long-term dietary imbalance.

Obesity

When energy intake exceeds energy output, the body stores the excess energy as fat. An extended period of food consumption above levels of energy output will lead to fat being stored, which can place an individual outside the healthy weight range and can lead to obesity. Eating foods that are energy dense and nutrient poor often results in obesity, as these foods are often high in sugar (carbohydrates) and fats.

Type 2 diabetes

There are three types of diabetes: type 1, type 2 and gestational. Type 2 diabetes generally comes from diet and lifestyle choices that lead to overweight or obesity. Excess weight contributes to the body being unable to use the hormone insulin properly. An inability to respond properly to insulin contributes to high levels of blood glucose and, if untreated, can cause further complications such as loss of vision. A significant cause of type 2 diabetes is lifestyle related, so it is possible for a person with type 2 diabetes to overcome the condition by changing their diet and exercising more. If they do not change their lifestyle, they risk further complications.

Cardiovascular disease

Cardiovascular disease relates to conditions that involve the heart and blood vessels. These include coronary heart disease (which can cause heart attack) and stroke. A range of nutrients including sodium (salt), fats and carbohydrates can contribute to cardiovascular disease if over-consumed.

Foods with high sodium content can contribute to an increase in blood pressure, which makes events such as stroke or heart attack more likely. Overconsumption of saturated and trans fats can increase blood cholesterol levels and increase the risk of cardiovascular disease. Eating too much of any fats can lead to weight gain, as fats are energy dense. Being overweight or obese places extra strain on the heart. Carbohydrates when eaten in excess can also contribute to weight gain and therefore obesity, and can lead to cardiovascular disease.

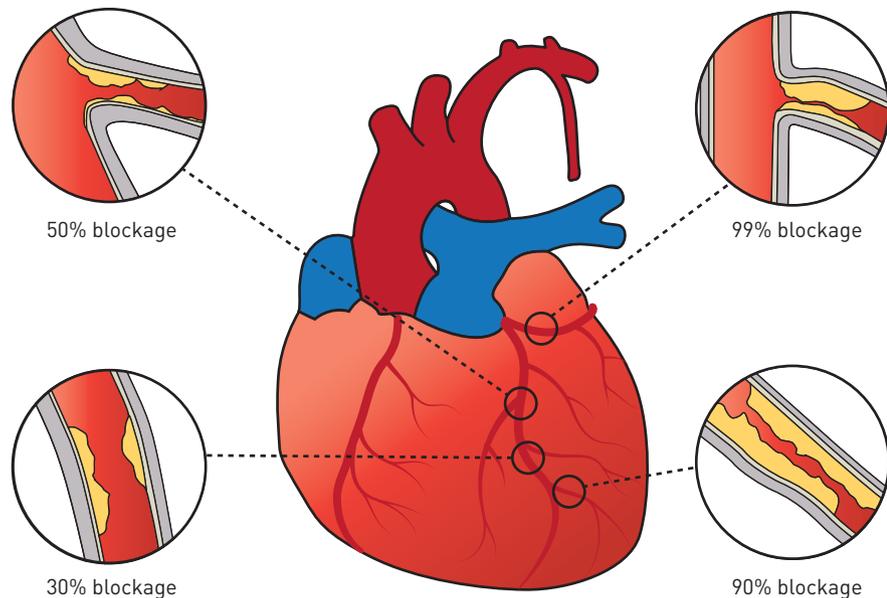


Figure 3.20 Dietary behaviour can contribute to the arteries that supply blood to the heart becoming blocked. This can cause a heart attack. The greater the build-up, the greater the likelihood of a blockage.

Colorectal cancer

Colorectal cancer starts in the large intestine (colon) or the rectum (end of the colon). The wall of the colon and rectum is made up of layers of tissues. Colorectal cancer starts in the inner layer and can grow through some or all of the other layers. The colon is part of the digestive system, where food is processed for energy, and fluid is used to form solid waste, which then passes from the body.

When water and fibre are lacking from the diet, it is more difficult for food to move through the digestive system. Fibre and water help regulate bowel movements, and so lack of these nutrients in the diet is linked to an increased risk of developing colorectal cancer.

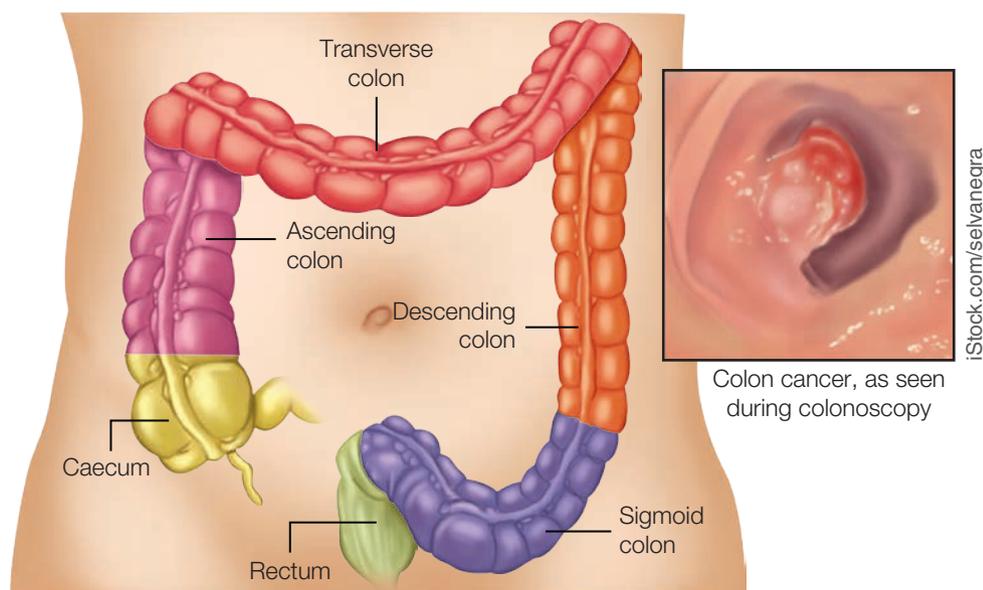


Figure 3.21 Areas of the intestinal tract that can be affected by colorectal cancer

Osteoporosis

Osteoporosis occurs when bones lose minerals more quickly than the body can replace them, leading to loss of bone density (bone mass or thickness). As a result, the bones become thinner and less dense, so even a minor injury or accident can cause serious fractures.

A diet with inadequate calcium and phosphorus prevents bones from being able to strengthen and mineralise. This can lead to reduced bone density and strength, and eventually to osteoporosis. Vitamin D assists the body to absorb calcium and phosphorus, and so is important in preventing osteoporosis.

Anaemia

If an individual's diet lacks iron, their body is less able to produce enough red blood cells. Lack of red blood cells can result in anaemia, with symptoms including tiredness and weakness. Vitamin C helps the body to absorb iron, so if there is little or no vitamin C in the diet, the risk of developing anaemia is increased. If anaemia does occur, the lack of energy may reduce exercise, possibly resulting in weight gain or a lack of weight-bearing activity and reduced bone mass (a risk factor for osteoporosis).

CRITICAL FRIEND

Ask the person next to you to outline how a diet high in energy-dense foods in youth may lead to three different health conditions in adulthood.

dental caries tooth decay; breakdown of the substance that makes up the tooth

Dental caries

Dental caries is the scientific term for tooth decay. The mouth naturally contains bacteria, some of which feed off sugars and produce acids that contribute to tooth decay. So a high-sugar diet can contribute to tooth decay. Lack of calcium in the diet can weaken teeth and lead to easier destruction of the tooth surface, resulting in cavities and tooth decay.

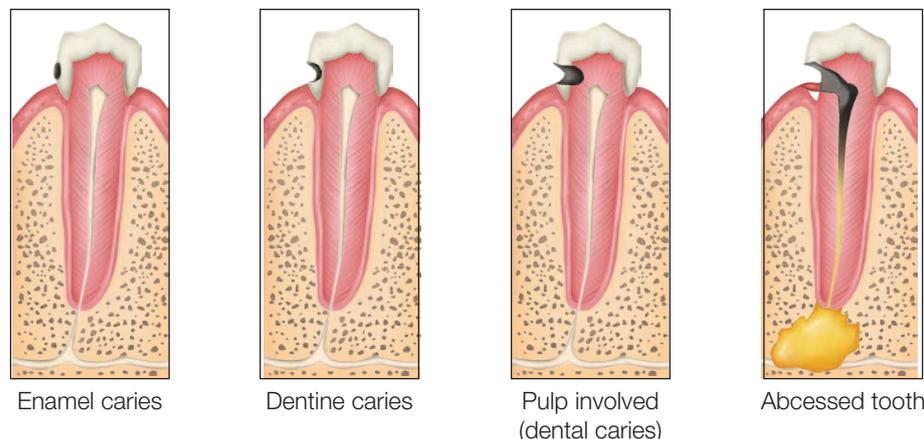


Figure 3.22 How tooth decay develops

anorexia nervosa an eating disorder characterised by extremely low weight, fear of gaining weight and a strong desire to be thin

malnutrition a condition in which a person's nutritional requirements are not met

Underweight

Just as over-consumption of high-energy food can result in weight gain, under-consumption can cause weight loss. If a person regularly consumes foods that do not meet their energy needs then they will start to lose weight. For some people this may be necessary, to move them from the overweight category into the healthy weight category. However, if someone who is losing a significant amount of weight was previously in the healthy weight range, they may become underweight. People can also develop conditions such as **anorexia nervosa**, an eating disorder that (if not treated) can cause **malnutrition** and death.

Case study

Taller, faster, sooner: Australia's growth spurt

Thunk is the sound of a teenager's head connecting with a door frame constructed by colonial carpenters.

The hardwood lintel capping the front door of Reynolds Cottage in Sydney's The Rocks was built in 1829 and it's just part of the obstacle course 18-year-old Jackson Raddysh must run each time he visits his father Wes's workplace. Standing 191.7cm in his port-coloured Vans, Jackson looms over his 180.3cm-tall dad, who runs ghost tours of the former penal colony out of one of Australia's oldest surviving dwellings.

To enter the tiny front room through its 183cm-high door and avoid the *thunk*, Jackson is forced to hunch his shoulders and shuffle through in a crouch. When convicts built Reynolds

Cottage nearly two centuries ago, the average male height in the colony was 165cm. They couldn't have known that Australians would start growing at a rate of knots: over the past 150 years our average height has soared almost 15cm. Now each generation is 3–4cm taller than the previous one. At 177.8cm, the average male aged 18–24 years today is 8.1cm taller than a man aged 75 and over (169.7cm), according to the ABS. Women aged 18–24 (163.8cm) are also 8.1cm taller than those of their grandparents' generation. (We've also grown outward, with average weight up 3.9kg for men and 4.1kg for women between 1995 and 2011–12).

'When I started teaching about 20 years ago, I was noticeably taller than my students,' says Timothy Olds, professor of health sciences at the University of South Australia. 'Now there are very few I'm taller than.' Professor Olds studies the evolution of body size and shape in children and says that while better



nutrition and improved public health help to explain the soaring heights, which typically max out around age 20 for boys and 16 for girls, there's a new factor at play.



Nick Cubbin

Figure 3.23 Jackson Raddysh at Reynolds Cottage.

'Puberty appears to be very important,' he says. 'We know that kids grow much more rapidly when they reach puberty. If they achieve that earlier, they are obviously growing faster younger, so kids are getting relatively taller.' The pubertal growth spurt is the most significant of the three major growth spurts — the first occurs in infancy, the second between the ages of six and eight — and there is a wealth of scientific data to show the age of onset of puberty has been falling, particularly in the past two decades.

At the turn of the 20th century, the average age for a girl to get her period was 16 to 17. Today that number has plummeted to a mean age of 12.5, with girls as young as seven starting to develop breasts and the growth spurt kicking in around 10. Similarly, boys are reaching puberty about four years earlier, around the age of 13. Why is unclear. Excess body fat, stress, less physical activity, and the presence of chemicals known as endocrine disruptors in food and the environment have all been touted as possible contributors.

Puberty is not just occurring earlier; some public health professionals say the process itself is compressed into a shorter

time frame. 'What was a process that perhaps took up to seven years now lasts three to four years,' says Professor George Patton, an epidemiologist at the Murdoch Childrens Research Institute in Melbourne. 'So not only is the growth spurt occurring earlier, it tends to be over more quickly.'

Diet is also crucial, with nutritionists claiming the removal of any one of 50 essential nutrients from a diet can restrict growth. This partly explains the height plateau in America, with its obesity problems and ultra-processed diet. In Australia, evidence shows kids are eating better than they did in the past. 'We know kids are getting fatter, so we were doubtful about this,' says Olds, who looked at 2574 reports of energy intake in children from different countries dating back to 1854. Our great-grandparents 'obviously expended more energy, but the amount they ate back then was unbelievable,' he says. 'The other striking thing was how stodgy the diet was — huge amounts of meat and potatoes, very little fruit, no fresh vegetables. Our diet is so much better today in terms of variety and freshness and less saturated fat.'

A person's height is mainly (about 80 per cent) determined by the combined effects of hundreds of genes. 'Everyone is born with a genetic height potential but the likelihood they will reach that is based on a set of environmental circumstances such as nutrition,' says Professor Ravi Savarirayan, clinical geneticist and paediatrician at Victorian Clinical Genetics Services. He points to Korea where, since the country's division, North Koreans have become several centimetres shorter than their counterparts in the South, despite similar genetics, 'because they are starving.'

Extract from Lehman M, 'Taller, faster, sooner: Australia's growth spurt', *The Australian*, 26 March 2016

Case study questions

- 1 Describe the changes in height that have occurred in the past 150 years for males and females.
- 2 Outline a reason mentioned in the article for the changes in height over the past 150 years.
- 3 Provide two examples of nutrients and explain how they may contribute to a reduction in growth if not consumed adequately.
- 4 List two food sources of each of the nutrients you named in Question 3.

Review and reflect

- 1 Distinguish between short-term and long-term health consequences.
- 2 Describe how a diet lacking in carbohydrates could be detrimental for health and wellbeing in the short term.
- 3 Explain how a diet low in calcium in youth may result in two different health conditions later in life.
- 4 Outline the types of food a person would have to be consuming regularly to develop cardiovascular disease.
- 5 Discuss why a poor diet may not be a concern for youth even though they are aware of the long-term health consequences of a poor diet.

Chapter summary

- A person's nutritional requirements are based on what is required to ensure their body functions effectively and stays healthy. Generally, age, gender, height and weight, physical activity level and disease status affect nutritional requirements. Many foods can act as risk and protective factors for health conditions.
- Nutrients are generally grouped into two categories: macronutrients and micronutrients.
- Proteins are used by the body to build, maintain and repair cells, and therefore tissues, within the body. They are also used to produce molecules such as hormones, antibodies and enzymes, and can be used as a source of energy production for the body.
- Carbohydrates are the body's preferred fuel source for energy, particularly the molecule glucose.
- Fibre is a form of carbohydrate that is found in plant-based foods. It is not absorbed by the body but plays a vital role in promoting health and wellbeing.
- When 'good fats' (monounsaturated and polyunsaturated fats) are consumed at appropriate levels, they help improve blood cholesterol levels and therefore reduce the risk of cardiovascular conditions such as heart attack and stroke.
- The 'bad fats' (saturated and trans fats) increase blood cholesterol levels and therefore the risk of cardiovascular conditions such as heart attack and stroke.
- Iron is important in the transport of oxygen around the body to cells and tissues.
- Calcium is a micronutrient and a mineral that is essential for strong bones and teeth.
- Vitamin D assists in the absorption of calcium from the digestive system into the bloodstream and therefore contributes to the development and maintenance of bone.
- Vitamin C assists in the absorption of iron, and therefore helps prevent iron deficiency or anaemia.
- Water is required for the efficient functioning of all body cells and body systems, as it acts as a medium in which chemical reactions in the body can occur.
- Food selection models provide advice about the amount and types of foods people should eat to maintain good health. Examples of food selection models include the Australian Guide to Healthy Eating, the Healthy Eating Pyramid and the Health Star Rating System.
- The Australian Guide to Healthy Eating (AGHE) is a food selection guide that visually represents the proportions of the five food groups recommended for consumption each day, and is part of the Australian Dietary Guidelines.
- The AGHE encourages daily consumption of foods from each of the five food groups in proportions that are consistent with the Australian Dietary Guidelines.
- The Nutrition Australia Healthy Eating Pyramid is a visual guide to the types and proportions of foods that people should eat every day for good health. Its foundation layers include the three plant-based food groups: vegetables and legumes, fruits and grains. The middle layer includes the milk, yoghurt, cheese and alternatives group, and the lean meat, poultry, fish, eggs, nuts, seeds, legumes group. The top layer consists of healthy fats (monounsaturated and polyunsaturated).
- The Health Star Rating is a nutritional labelling system that features on the front of packaged foods. It evaluates the nutritional profile of a packaged food and assigns it a 'star' rating between $\frac{1}{2}$ and 5 stars, with higher stars indicating a healthier choice.
- If youth are under- or over-consuming a range of nutrients during their growth spurt and throughout the period of youth, this can have a significant impact on their short- and long-term health and wellbeing.
- Short-term consequences of nutritional imbalance can include lack of energy for daily tasks, dehydration and constipation.
- Long-term consequences of nutritional imbalance can include conditions such as obesity, cardiovascular disease, type 2 diabetes, colorectal cancer, osteoporosis, dental caries and anaemia.

Exam-style questions with sample answers

- 1 List one food source of fibre and describe how this nutrient may promote health and wellbeing. **(3 marks)**

Sample answer: Fruit such as pears **(1 mark)**. A diet that contains fibre promotes the feeling of fullness and may prevent overeating **(1 mark)**.

This promotes physical health, because when people are a healthy weight they are better able to complete daily tasks and activities **(1 mark)**.

- 2 Explain how the Australian Guide to Healthy Eating may be used in a high school to promote healthy eating among youth. **(2 marks)**

Sample answer: The Australian Guide to Healthy Eating outlines the five food groups and the proportions of each that should be consumed in the daily diet **(1 mark)**. A high school could put posters of the AGHE up in walkways and teach students in health/PE classes or at an assembly how to read and interpret the visual guide to help them improve their diet **(1 mark)**.

Questions for you to practise

- 1 Name a condition that may result from over-consumption of sodium. Describe this condition and foods that should be avoided to reduce the risk of developing it. **(3 marks)**
- 2 Explain how the Healthy Eating Pyramid is different from the Australian Guide to Healthy Eating. **(2 marks)**

Chapter 4: Food promotion

Key knowledge

- sources of nutrition information and methods to evaluate its validity
- tactics used in the marketing of foods and promoting food trends to youth, and the impact on their health behaviours
- social, cultural and political factors that act as enablers or barriers to healthy eating among youth, including nutrition information sourced from social media and/or advertising.

Key skills

- evaluate the validity of food and nutrition information from a variety of sources
- analyse the interaction between a range of factors that act as enablers or barriers to healthy eating among youth.

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Key terms

advertising
cultural factors
political factors
social factors
social media
trend
valid

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Sources of nutrition information

Most people are aware that, if they want to reduce their risk of disease and prolong their life, they should try to maintain a healthy body weight. An important contributor to maintaining a healthy body weight is a person's food consumption, or diet. Even though most people recognise that a healthy diet is important, it can be difficult in this age of information overload to determine what sources of nutrition are important in maintaining good health and what should be avoided. This is due in part to the overwhelming number of sources of nutrition information available. People can be duped into following harmful fads or be convinced by skilful marketers that certain foods are healthier and better for them than others. Most people know that you shouldn't believe everything you hear about nutrition, but at times we can all be fooled into believing the latest **trends** and fads.

trend a general direction in which something is going or changing



iStock.com/gpointstudio

Figure 4.1 Healthy food choices can be difficult if you cannot access reliable nutrition information.

According to research, most people turn first to the Internet, television and magazines for their nutrition information, while medical professionals such as dietitians are less likely to be consulted. This trend is worrying as it depends on people being able to determine for themselves what information is reliable and what can be trusted. If this sounds like you, you may want to look more critically at the nutritional information you have been relying on. It may not be wrong, but unless you know how to determine whether it is based on solid scientific research, you could be making needless changes to your diet – or worse, putting your body at risk. In the following section, a range of sources that can be accessed to find information on nutrition are discussed, along with suggestions on how to differentiate **valid** information from claims that are misleading and false.

valid legally sound or well founded

Trained health professionals

One way to access reliable nutrition information is to seek out a trained professional. Unfortunately, this is not as straightforward as it might seem, as there are considerable differences in training among the people who offer nutritional help. As you will see below, a registered dietitian is a more reliable source of information than someone who simply calls themselves a 'nutritionist'.

Registered dietitians

In Australia, Accredited Practising Dietitians (APD) are university-qualified professionals who undertake ongoing training and education to ensure that they are an up-to-date and credible source of nutrition information. They translate scientific health and nutrition information into practical advice. They are trained in all facets of nutrition, from basic nutrition to nutritional biochemistry, to treating nutrition-related medical conditions through a modified diet. These conditions may include diabetes, heart disease, gastrointestinal diseases, food allergies, food intolerances, eating disorders, and overweight or obesity. In their day-to-day work an APD may:

- assess nutritional needs
- develop personalised eating plans that consider medical conditions and personal circumstances
- provide nutrition counselling and support to individuals and groups
- provide information on healthy eating, shopping for food, eating out and preparing food at home
- undertake nutrition and food research
- train health care professionals
- develop nutrition communications, programs and policies
- provide consultancy services to corporate organisations, food manufacturers, schools and health care facilities.

Dietitians may have their own private practices but also work in hospitals and a range of other organisations, such as sports clubs and community health centres.

Nutritionists

A nutritionist will usually have completed a tertiary qualification in a number of fields, including nutrition, food science and public health. The main role of a nutritionist is to help people achieve optimal health by providing information and advice about health and food choices. Nutritionists may work in a number of roles, including research, nutrition consultants and advisors, public health and health promotion officers, community development officers, quality and nutrition coordinators, food technologists and media spokespeople. Nutritionists also provide nutrition support to individuals and groups.

Nutritionist or dietitian?

Many nutrition professionals refer to themselves as either a 'nutritionist' or a 'dietitian', but in Australia, professional nutritional practice is not regulated by the government, and there is no legal protection over these terms. Consulting a 'nutritionist' is not a guarantee that you are seeing a qualified nutrition professional. People may attend a weekend workshop, read popular nutrition books, read information on the Internet, and then call themselves a 'self-taught nutritionist'. To be assured that the nutrition health professional you are seeing is genuine, ask where and what they have studied.

Professional organisations and consumer advocacy groups

There are a number of well-respected professional organisations in Australia that provide a range of services to the public, including the dissemination of nutrition information and advocating for policy change in the area of food and



Weblink

INVESTIGATE

See the Nutrition Australia website for more information on the difference between dietitians and nutritionists. Visit <http://hhdvce1and2.nelsonnet.com.au> to access the weblink.

nutrition. These organisations include Nutrition Australia, the Heart Foundation and Diabetes Australia. Each has its own website, where Australians can access nutrition information that is tailored to the organisation’s focus. For example, the Heart Foundation website contains nutrition information to assist Australians to maintain good heart health, whereas the nutrition information on the Diabetes Australia website assists Australians in reducing their risk of developing diabetes. As well as providing information online, organisations such as these are out in the community promoting healthy eating. For example, the range of services offered by Nutrition Australia includes:

- coordination of events in the annual National Nutrition Week campaign
- facilitation of high-profile seminars for the general public and health professionals
- extensive media coverage and public speaking
- industry consultancies
- nutrition training and presentations
- facilitation of a range of community nutrition education and food preparation programs
- facilitation of workplace health and wellbeing programs.

Many professional organisations and advocacy groups in Australia provide information on food and nutrition. Generally, organisations that have existed for a lengthy period and use research and evidence to support their claims and advocacy efforts are a better source of information than new groups whose claims lack evidence and who have not been around long enough to demonstrate that they can bear prolonged scrutiny.

CHOICE

CHOICE is Australia’s leading consumer advocacy group. It was established more than 50 years ago and provides Australians with information and advice on a range of consumer products. CHOICE is independent and therefore free from commercial bias. It reviews, advises and campaigns on consumer issues and also publishes two magazines that outline the results of hundreds of product reports and tests. Through this work, CHOICE acts as a source of reliable nutrition information and is expected to provide unbiased facts on nutritional products.



Figure 4.2 Some front covers of CHOICE magazines – many have a food and nutrition element.



Weblink

INVESTIGATE

Visit the Heart Foundation website to find further information about healthy eating, food and nutrition, food labelling and more. Visit <http://hhdvce1and2.nelsonnet.com.au> to access the weblink.



Weblink

INVESTIGATE

See the ‘Food and drink’ section of the CHOICE website for more information. Visit <http://hhdvce1and2.nelsonnet.com.au> to access the weblink.

CRITICAL FRIEND

Find a friend in class and ask them to list five sources of nutrition information. Then see if you can add five more sources to their list. Try to order your list from most trusted to least trusted.

Governments

Both the federal and state governments in Australia provide nutrition advice to the public. Most information that comes from a government source is evidence-based and has been through some form of review process before being released to the public. An example of a source of information released by the Australian Government is the eatforhealth.gov.au website. The information on this website includes:

- the Australian Dietary Guidelines, including the Australian Guide to Healthy Eating
- nutrition calculators that allow people to calculate their daily energy needs
- tips on reading food labels
- healthy recipes
- information about what food and nutrition is required at different stages of life.



National Health and Medical Research Council (CC BY 4.0)

Figure 4.3 The Australian Government's 'eat for health' website provides information on nutrition and healthy eating.

Better Health Channel

Australian state governments also provide information to the public about food and nutrition. The Department of Health and Human Services in Victoria manages the Better Health Channel website, which provides health and medical information to improve the health and wellbeing of people and the communities they live in. This includes information and advice about food and drinks needed in the diet to promote good health and prevent a range of health conditions.

The Healthy Choices framework

Healthy Choices is the Victorian Government's policy framework to increase access to healthier foods and drinks (and reduce unhealthy options) in places where people spend their time. Encouraging healthy food and drink choices outside the home is essential to helping people to eat well and be healthy. The policy has been implemented in many settings across Victoria, including hospitals and health services, sport and recreation centres, workplaces and parks. Healthy Choices:

- encourages change in food environments, rather than nutrition education, which focuses on individuals. By making food environments healthier, we help to make the healthy choice the easy choice for people.
- uses a traffic light system to classify foods and drinks as green (best choices), amber (choose carefully) or red (limit or avoid). There are requirements around the proportion of food from each category that can be offered (at least 50% green and no more than 20% red) as well as how foods and drinks can be advertised or promoted (green foods and drinks should be actively encouraged and red choices should not). Brief examples of food and drink in each category include:
 - Green: vegetables and fruit (fresh, frozen or canned with no added sugar), lean meat, chicken, fish, eggs, milk, yoghurt, wholegrains, beans, legumes, nuts and seeds.
 - Amber: some muesli bars, breakfast bars, fruit juice, muffins, savoury snack foods
 - Red: confectionery (lollies, chocolate etc.), deep-fried foods, crisps and chips, pastries and sugar-sweetened drinks (like soft drinks and sports drinks).



Weblink

INVESTIGATE

Visit the Better Health Channel website to read more about diet and nutrition – for example, healthy eating for teenagers. There is also a portal of healthy recipes. Visit <http://hhdvce1and2.nelsonnet.com.au> to access the weblink.



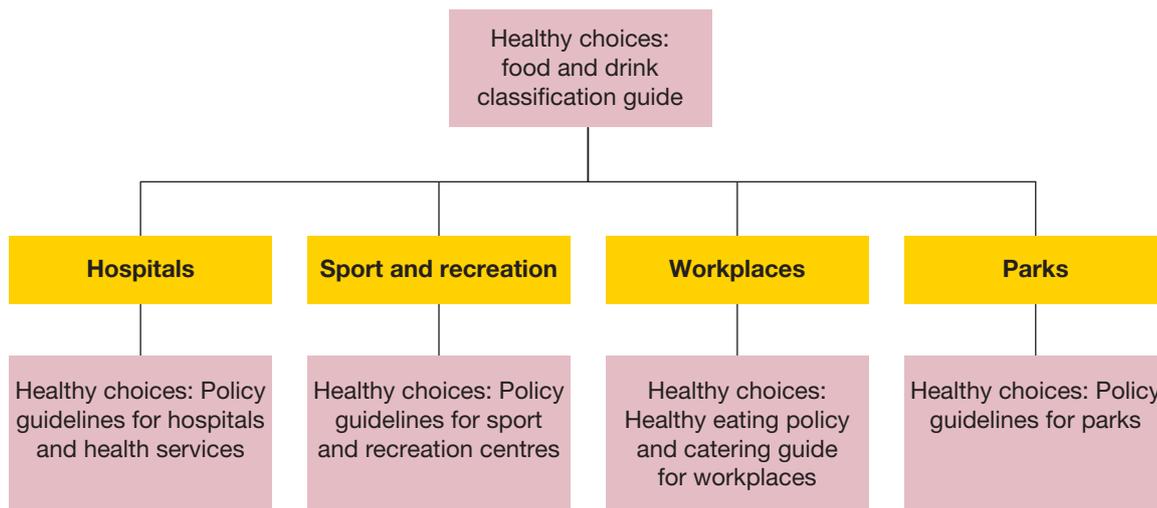
Healthy Choices framework

(For a comprehensive list, visit the *Healthy choices: food and drink classification guide* via <http://hhdvce1and2.nelsonnet.com.au>.)

- applies to food and drink available through retail food outlets (e.g. cafés, cafeterias, kiosks), vending machines and catering
- includes recommendations about unhealthy food and drink branding (such as for vending machines and ice-cream fridges) and sponsorship
- includes a food and drink classification guide, and specific resources for implementing the policy in hospitals and health services, sport and recreation centres, workplaces and parks.

Learning tip

When you read different sources of nutrition information, think about the strengths and weaknesses of the information. Is it likely to be reliable, and why or why not?



Adapted from the Healthy Choices policy framework, <https://www2.health.vic.gov.au/public-health/preventive-health/nutrition/healthy-choices-for-retail-outlets-vending-machines-catering>

Figure 4.4 The Healthy Choices policy framework.

FoodChecker

FoodChecker is an online tool for assessing menus, products and recipes against Victorian government guidelines for long daycare centres, schools, and food outlets and catering. FoodChecker is for anyone. It is particularly helpful for childcare centres, schools, hospitals and health services, sport and recreation centres, workplaces, parks, universities and TAFEs.

Any employees of these organisations may use FoodChecker, as well as food and drink manufacturers and distributors and health professionals. FoodChecker can be used to check current or future menus, recipes and products, to enable you to plan and source healthier items.



School curriculum

Many young people are first exposed to nutrition information when they are at school. Most schools teach students information related to healthy eating and sources of nutrients, during health or physical education classes in primary or early secondary school. The exact information delivered in different schools varies, and therefore it is difficult to determine the quality of the information. If teachers follow the prescribed curriculum, students will learn information such as meeting daily energy needs, the importance of a balanced diet high in fruit and vegetables, and risk and protective nutrients for a range of health conditions such as obesity and heart disease.

Family and friends

For most people the greatest sources of food and nutrition information in our early lives are family and friends. As we grow up, we are introduced to a range of food types and food products, mainly via our family and our friends. With our family, we may be introduced to particular cultural traditions that involve food or particular patterns of eating, such as vegetarian or vegan diets. Our parents may have told us what foods we should or should not eat at different times of the year or in different periods of our lives. When we visit friends' homes, they may introduce us to foods and food products that we are not exposed to at home, and therefore we learn to taste new foods. The people we surround ourselves with, generally family and friends, can play an important role in shaping our eating habits. As teenagers progress into adulthood they often start to think more deeply about their food habits and the eating patterns they have developed as a result of living with their family. This often leads to significant changes in diet and eating habits.

The Internet, television, newspapers and magazines

The Internet

Increasingly, people are turning to the Internet for nutrition information. Millions of websites promote particular food and nutrition trends, facts and tips, and so it is not surprising that the Internet can be overwhelming as a source of information. When people enter their nutrition-related search term into a search engine, they may end up with hundreds or even thousands of results to choose from. This can make it difficult to identify reliable information.

There are some things you can do to help distinguish reliable from misleading information.

Check the URL suffix

- Check the URL suffix – that is, the section at the end of the URL. Websites ending in .org.au, .edu.au or .gov.au are non-commercial websites. These are the best to start with when searching for reliable nutrition information.
 - Use Australian government websites (.gov.au) for peer-reviewed scientific nutrition information. Check the date of the information on the website is recent.
 - University (.edu.au) websites generally provide accurate research-based information that is unbiased and peer-reviewed. Again, check the date.
 - Professional organisations, non-profit organisations, consumer groups and trade organisations use the '.org.au' designation for their websites. You should screen the information on these sites – one way to do this is to cross-check the material with information on one or more known reliable websites.
 - Websites using a '.com.au' suffix *may* be sources of reliable information. Sometimes they are simply commercial sites trying to sell a product. At other times they may provide useful and reliable information, but you should evaluate the information carefully.

Check the website owner

- See if you can determine who the owner of the website is, the purpose of the website, and the credentials of the authors. This can affect the information presented. If the person or organisation responsible for the website did not write the information, they should cite the original source of the material. Search for a date that indicates when the material was written or last reviewed.

CRITICAL FRIEND

Ask the person next to you to describe how they have sourced information about what food is healthy for them to eat. Critically evaluate whether or not the sources they have described are reliable.

Television and news

With the success of cooking shows such as *Masterchef* and *My Kitchen Rules*, many Australians are receiving significant amounts of food information via television cooking shows. Much of the information regarding food on these shows is about how to use ingredients in a recipe, with occasional references to nutrition and health benefits.



Getty Images/Frederick M. Brown

Figure 4.5 There are many TV shows about preparing and eating food, though few of them provide nutrition information.

Nutrition studies often feature in the news, and it can be tempting to assume that you should change the way you eat, based on these reports. However, journalists must condense the results of a complex research study into a quick, brief summary, and so caution is required in interpreting what they present. The reported results may be based on just one minor study, and a reporter generally doesn't have the capacity to describe how these results compare to previous research, or if they are completely new findings that need to be studied further before any accurate conclusions can be drawn. Also, the media often report studies that were undertaken on animals and extend the results to humans, or take the results of research done on a particular group of people and apply the results to the entire population. Neither is a correct way to apply the results of research. Keep in mind also that television reporters rarely have in-depth knowledge or expertise in nutrition, and so what they present may be an oversimplification of the research and its results. We all know that information in the media is often sensationalised in order to capture the attention of viewers, and so a healthy scepticism towards media reports is always advised.

Magazines

Magazines are another popular source of nutrition information. There are countless enticing headlines on magazine covers in supermarkets and newsagencies, and it is these 'teasers' that often prompt people to buy a magazine on impulse. While it is true that many magazines use nutrition professionals to write or edit

Learning tip

Consider the possible health implications for someone who gets all their nutrition information from one source. Using a range of sources allows an individual to consider more of the information available and so they are more likely to find credible information that they can rely on when formulating their diet.

nutrition articles, many do not. What you read in a magazine article may be factual, but you need to know how to spot the fallacies. Therefore, give nutrition articles in popular magazines the same critical attention that you apply when interpreting news reports. Ask the following questions about the magazine article:

- How large was the study and was it undertaken using humans or laboratory animals?
- What are the credentials of the author?
- Are there any references to support the claims being made? If so, investigate those references. You may find that they are simply websites, or other magazine articles, or sources that just repeat the same claim, but without providing any scientific evidence to validate the claim.



Alamy Stock Photo/RosalireneBetancourt 3

Figure 4.6 Magazines are still a common source of nutrition information – more so for adults.

Diet books and cookbooks

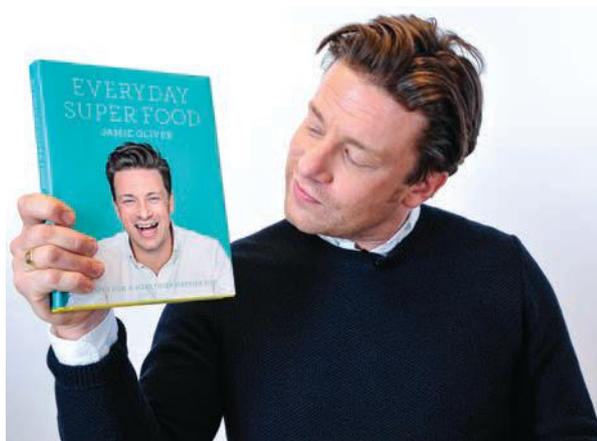
Diet books and cookbooks routinely top the best-seller lists, and it seems that there are new diet plans and cooking advice nearly every week. With approximately two-thirds of Australia's adult population either overweight or obese, it is easy to see why book publishers produce diet books and cookbooks at such a rapid pace – and why they sell. Be wary of the use of catchphrases such as 'superfoods' and 'revolutionary new diet', as often these catchphrases are simply a marketing technique. In the same way that you decide whose nutrition advice to listen to, select and evaluate cookbooks carefully, in the same way that you would evaluate a magazine article.

Celebrity bloggers, sports stars and social media

In the past 20 years there has been a surge in the use of celebrities and sports stars for product endorsement, including food and beverage products. Nicole Kidman, for example, is a brand ambassador for Swisse, a vitamin and supplements brand that promotes 'wellness'. Celebrities and sports stars often have their own websites, Facebook and Instagram pages, and some even write blogs. Often these public figures share their own diet and nutrition tips with fans who want to emulate them. **Social media** allows these famous figures to connect directly with everyday people, and this can have both positive and negative consequences for the promotion of food and nutrition products.

social media technology-mediated activities that allow the creation and sharing of information and ideas

A positive outcome of the rise of social media is that often the communication is fast (even live) and in a form that everyday people find easy to absorb. However, there are several drawbacks to acquiring food and nutrition information from celebrities and sports stars via the Internet and social media. First, many celebrities or sports stars are unlikely to have nutritional qualifications or tertiary-level knowledge about the food or nutrients they are recommending (e.g. endorsing a supplement).



Getty Images/George Pimentel/WireImage

Figure 4.7 Some cookbooks can provide reliable nutrition information, and some celebrity chefs are involved in healthy eating programs, but consumers need to be discerning when they choose which book to buy.

The celebrity's belief that something has helped them is not a compelling reason for all people to start consuming that product. And second, the celebrity may be receiving a financial reward or incentive for marketing the product. This means that they are not in a neutral position when they make their recommendation – they have a vested interest in more people purchasing the product.

Before purchasing food or nutrition products that are endorsed by celebrities or sports stars, consider the following questions:

- Does this person have an appropriate qualification in nutrition?
- Am I similar enough to the person making the recommendation that it is likely to work for me?
- Is it likely that the celebrity or sports star is being paid to recommend the product and, if so, does this change the way I should interpret their recommendation?



Newspix/Peter Ristevski

Figure 4.8 Curtis Stone promoting food for Coles supermarkets.

Case study

Boys prefer foods spruiked by sports celebs: study

Boys are more likely to choose unhealthy foods with on-pack endorsements by sports stars than those without, a new study of primary school-aged children has found.

The Cancer Council Victoria's Centre for Behavioural Research in Cancer surveyed 1302 Victorian children in grades five and six and concluded that sports stars should be prevented from promoting energy-dense, low-nutrient foods.

The researchers also found that children of both sexes were more likely to want foods with packaging that displayed claims about the food's nutritional content, such as 'reduced fat' or 'source of calcium.'

The children were asked to look at mocked-up food packets for products in five categories: sweetened breakfast cereal, cheese dip snacks, ice cream bars, frozen chicken nuggets and flavoured milk drinks.

'For each food product category, a comparison pack was prepared, matched on packaging style to control for visual appeal of factors other than the promotion condition, but with a healthier nutritional profile,' the study said.

'Overall, results show that on-pack nutrient content claims made pre-adolescents more likely to choose energy-dense, nutrient-poor products and increased perceptions of their nutrient content. Sports celebrity endorsements made boys more likely to choose energy-dense, nutrient poor products.'

The study was published in the journal *Pediatric obesity*.

Dr Helen Dixon, lead author of the study and senior research fellow at the Centre for Behavioural Research in Cancer, said the researchers only used images of male sports stars in their study because images of male sports stars are more common than female sports stars in food packaging.

Policy change

Dr Dixon said, 'Stricter measures need to be introduced to limit food manufacturers' use of nutrient content claims and sports celebrity endorsements to promote unhealthy foods, to ensure consumers aren't confused about the healthiness of such products.'

'We already have rules about the sorts of products that can carry health claims. You could make a rule that certain foods are ineligible to carry a nutrient content claim or a sports person's image,' she said, adding that sports celebrities should think more carefully about the foods they promote.

'A lot of sports people who personally have an interest in health and fitness need to think about the effect they are having on children's diets when they endorse food products. We have one in four kids overweight or obese in Australia, and when unhealthy food products are marketed heavily toward kids it can influence their food choices.'

Role model responsibility

Sandra Jones, Director of the Centre for Health Initiatives at University of Wollongong, said she was not surprised by the study's findings.

'The boys really identify with sport players, and they really internalise it. And there's a sense that that food actually contributed to those outcomes,' she said.

'There's also the perception that if they consume it, it must be good for you. It's about needing more of it in order to keep playing, or celebrating their success.'

Professor Jones also called on high profile role-models to take more responsibility for the products with which they are associated.

'What we should be saying is: you're a role model for kids and you know you are. Is it really wise for you to promote this? Is it really a good idea to stick your name and your face on this product?'

Timothy Gill, Principal Research Fellow at University of Sydney, said the study clearly shows that children are easy to influence in terms of their product choices.

'Naivety around the market is something that, despite the fact that there are codes in place, is still widely utilised by the industry to encourage consumption of high profit margin products,' he said.

Extract from Bourke E & See-Tho M, 'Boys prefer foods spruiked by sports celebs: study', *The Conversation*, 28 May 2013 CC BY-ND 4.0

Case study questions

- 1 Describe how endorsement by sports stars may influence a young person's food consumption. What may be the long-term consequences of this, if these products contain high levels of risk nutrients?
- 2 Why might sports stars endorse certain food and beverage products?
- 3 Explain why some sports stars may be reluctant to endorse food and nutrition products.
- 4 Outline possible policy changes that could reduce the impact of sports stars endorsing unhealthy food products.

Review and reflect

- 1 List five sources of nutrition information.
- 2 Outline techniques that can be used while reading nutrition information from the Internet to determine whether the information is reliable.
- 3 Explain why you should not necessarily believe nutrition information provided by celebrities or sport stars.
- 4 Name two government websites that contain reliable nutrition information.
- 5 What questions should you consider when listening to a news report on a study that claims to have discovered foods that will help you to live longer?

Tactics used in marketing foods and promoting food trends to youth

In Australia approximately one-quarter of young people aged 5–17 years are either overweight or obese. This is particularly alarming, given the number of health consequences that result from being overweight or obese, and even more concerning when we consider that approximately 4 out of 5 obese adolescents will become obese adults. A significant contributing factor to the rising rates of obesity in Australia is the marketing of unhealthy food and beverages, particularly to children and young people. Marketers target children and young people when attempting to sell their products, as they are aware that these groups can influence their parents' food and beverage choices and will often carry their dietary habits into adulthood, becoming lifelong consumers.

Young people are exposed to a vast array of unhealthy foods and beverages, and food trends, through television and other modern media. In recent decades and with the rise of the Internet, a number of new marketing avenues have opened up, including smart phones, tablets, apps, games and online streaming of movies and television content. Promotional techniques used by food companies to target young people include:

- specials, sales, claims, colours and jingles
- giveaways and competitions
- celebrity endorsements
- sports events and celebrities
- film and television advertising
- online marketing – social media, apps and online games.

In the following section we explore some of the tactics used in marketing foods and promoting food trends to young people.

Specials, sales, claims, colours and jingles

Companies often use specials and sales such as 'buy one get one free' or '30% off' to encourage young people to try new or existing products, in the hope that they will enjoy that product and continue to purchase it regularly. These specials are increasingly along the lines of 'buy two and get the third free', leading to consumers who may have intended to purchase only one product going home with three!



Shutterstock.com/Morrowind

Figure 4.9 Food advertising is often targeted at children and youth.

Companies may use a variety of labelling strategies to encourage young people to purchase their products. Food labels often include enticing colours and images of the product, and phrases that make the product more attractive, such as 'natural', 'light', 'high in vitamins and minerals', 'low in fat', 'boosts energy'. These labelling strategies are used to grab the consumer's attention. But the product should also be scrutinised by reading the fine print and the nutrition information panel.

advertising a form of marketing that aims to sell a product

Companies and marketers will often use a particular colour repeatedly in their **advertising**, to reinforce their brand by creating a link in the consumer's mind between that colour and their product. This strategy helps people to remember that colour and then pick the product out from a crowded supermarket shelf more easily. You may have noticed that the colour red often appears in the marketing of fast food products. This is because research has shown that this colour is more likely to be associated with excitement, creating a sense of urgency and stimulating one's appetite. Fast food products are generally marketed on the basis of desire, and as the colour red is linked to urgency and appetite stimulation, this is a good fit for fast food companies.

Companies will often create a catchphrase or slogan to accompany a product, such as 'A Mars a day helps you work, rest and play' or 'Red Bull gives you wings'. These catchphrases are designed to resonate with consumers and reinforce a feature of the product, making people more likely to purchase that product over others.



Shutterstock.com/Ken Wolter



Shutterstock.com/kevin brine

Figure 4.10 The colour red often appears in fast food brands.

Case study

How we get sucked in by junk food specials in supermarkets

Three in five Australian adults get sucked in by promotions and specials on junk food and sugary drinks at the supermarket, research released today shows.

The research for LiveLighter – a health education campaign delivered by the Cancer Council and Heart Foundation – found 53% of shoppers visit the supermarket several times a week or every day.

This presents many occasions during which shoppers are influenced to purchase unhealthy foods through the layout of the store, product placement and advertising.

From healthy intentions ...

Most people aspire to eat a healthy diet. Two-thirds of the 2000 Australians surveyed regularly plan their meals in advance. Around half compare supermarket products to see which is healthier.

But three in five respondents said they were likely to purchase junk foods – lollies, chocolate, chips, biscuits, ice-cream and soft drinks – when they were on sale or promotion. It's hardly surprising, given how cheap and conveniently junk foods are located; not just in our shops, but also at transport hubs, workplaces and local neighbourhoods.

In an attempt to trigger impulse purchases in supermarkets, processed snack foods are available at the end-of-aisle and in-island bin displays, as well as at the checkout. Sometimes they are on special, or feature large promotional packages, multipacks or two-for-one offers, appealing to price-sensitive shoppers.

Shoppers may place value on the convenience, taste or brand of a highly processed 'snack' food. Discounted fruit or vegetables don't have the same persuasive power to increase purchases, nor do these products have the same profit margins. Supermarket catalogues and websites promote weekly specials which include some fresh produce but are dominated by unhealthy food promotions.

Around 35% of Australians' daily energy intake now comes from unhealthy food. As a result, around 63% of Australian adults and 27% of children are overweight or obese.

What needs to be done?

Supermarkets have a role to play in helping make the healthy choice the easy choice for Australian families.

Some supermarkets have introduced initiatives like confectionery-free checkouts and offering free fresh fruit to children in store. We'd like to see more of this.

We'd also like to see healthy food and drinks feature more heavily in their end-of-aisle promotions, catalogues and advertising.

When it comes to obesity more broadly, comprehensive action is well overdue. There is growing international consensus about the types of measures that are most likely to have the biggest impact on the promotion of healthy eating. These include:

- Restricting the advertising and promotion of discretionary junk foods and drinks to children and young people. Current self-regulation is seriously inadequate and should be addressed with more robust regulation
- Introducing a sugary drinks tax to increase the price of these products and reduce consumption. The funds raised could be used for obesity-prevention initiatives
- Taking action to make the Health Star Rating System mandatory and refining the system to ensure it reflects dietary guidelines
- Limiting the promotion and availability of unhealthy foods and drinks in settings such as hospitals and public places, with particular attention to places that are frequented by children and young people
- Supporting the reformulation of processed foods to reduce key nutrients of concern to health, with clear targets and timelines to achieve these
- Sustaining and increasing funding for evidence-based public education campaigns. Evaluation shows they can increase knowledge and understanding and shape attitudes, leading to intention to change behaviour.

As a society, we are all responsible for ensuring that there are measures in place to protect the health of our children and our nation.

Extract from Martin J & Shilton T, 'How we get sucked in by junk food specials in supermarkets', *The Conversation*, 11 October 2016 CC BY-ND 4.0

Case study questions

- 1 Outline some of the strategies that supermarkets use to get consumers to buy unhealthy 'junk foods'.
- 2 Explain why unhealthy foods on sale are more likely to be purchased than healthy foods on sale.
- 3 What suggestions does this article make to reduce the number of consumers who purchase unhealthy foods?
- 4 Discuss how a consumer may purchase their groceries in a manner that avoids going to a supermarket.

Giveaways and competitions

Often marketers will try to lure young people into purchasing an unhealthy food or beverage product by offering some form of incentive to buy the product. This incentive may take the form of an additional free product or the chance to enter a competition and win something significant. In this way, marketers try to convince a consumer that they are getting more than their money's worth when they purchase a product. Giveaways that marketers may offer include additional quantities of the original product, such as McDonald's 'Monopoly promotion' or Mars' 'Win free bars' promotion. Alternatively, the consumer may receive something unrelated to the actual product they are buying, such as free movie tickets or sports trading cards. Other food and beverage products tempt consumers by offering prizes such as playing cards, or cash prizes that can be won by entering a barcode or promotion code online or via phone. Once again this tactic tries to convince a consumer that there is more than one benefit in buying the unhealthy product.



Figure 4.11 Free giveaways are often used to promote a brand.

Celebrity endorsements

As mentioned earlier, celebrities are often used to endorse products. Consumers may feel as though they have a relationship with a celebrity whom they see often in the media or whose work they read regularly. Marketers exploit this trust in celebrities by paying them to promote products. Marketers use celebrities to



Figure 4.12 Pop star Beyonce promoting Pepsi.

endorse products in a range of ways, such as a major commercial deal using prime time advertisements and huge billboards, or subtler ways such as using the celebrity's social media account to promote a product.

Sport

Many companies find sport an attractive avenue to market their products. In Australia approximately 60% of young people participate in organised sport outside school hours. Therefore, if successful, marketing food products through sport can reach a large, targeted audience. Sports events are an ideal opportunity for a company to promote its product, as people tend to associate sport with positive characteristics, such as being active, healthy, young, energetic and vibrant. Sport can also generate excitement and emotional attachment among supporters. Some marketers believe that this positive image associated with sport can transfer to the products associated with that sport and thereby increase the likelihood that consumers will buy their product. Prominent examples of food sponsorship of elite sport include KFC's long-time relationship with Cricket Australia, including the KFC T20 Big Bash League, the Carlton football club and Mars, and Coca-Cola and McDonald's long-standing sponsorship of the Olympics.

CRITICAL FRIEND

Find a friend in class and ask them to describe an advertisement they have seen recently for a food or beverage. Work with your friend to decipher as many techniques as possible used by the marketing company to sell that product.



Getty Images/Brett Holburt/
Racing Photos

Figure 4.13 Schweppes sponsors some horse racing events.



Getty Images/Michael Willison/AFL Media

Figure 4.14 Mars sponsors the Carlton AFL team.

Case study

Food trend predictions for 2017: What's hot, what's not

Restless foodies, home cooks and industry professionals are eagerly waiting for the doors to open on the world's virtual smorgasbord of new food and drink trends for 2017.

With various motives, they're eager to join the rush to the Next Big Things, as decreed by a combo of consumer interest and savvy marketing.

Which came first – the Korean fried chicken or the baked egg? Regardless, selfies will be rampant.

So what's going to be hot and what's not, and who decides?

Depends on who is asked and what stakes are involved. Everyone, it seems, has an opinion.

The global marketing firms that serve as consultants to the restaurant and supermarket chain industries have their picks ('fierce flavours' at breakfast, more ethnic-inspired dishes), as does the National Restaurant Association in the US (savoury desserts, healthy children's menus) and even the Wall Street Journal (the versatile jackfruit).

Reporting on likely trends are the many food-centric websites and magazines. They all agree on at least one thing: Though it might seem contradictory, we want to get back to (or discover) foods and techniques grounded in tradition (a hearty stew is always in fashion) while continuing to 'explore global cuisines' (what is Brazilian feijoada, anyway? Oh yeah, a hearty stew).

There are hundreds of well-reasoned (and not so much) guesses about 2017's 'hot' list, but no guarantees; for starters, few things seem sacred.

It's forecast that kale will be replaced by a yet-to-be-named superfood, which could be seaweed, Swiss chard or cauliflower.

Move over kale – there's a new superfood in town.

Sriracha sauce may be nudged aside by harissa, the North African hot chilli pepper paste.

Sugar-heavy cool drink sales are clearly down, and makers of sparkling water and bottled teas are betting their products will become the next favourite non-alcoholic drinks of the world's millions of millennials. Though a concern could be that their favourite drinking vessel is the Mason jar.

As for past trendsetters such as devilled eggs and veggie chips, you'll find them over there behind the box of Cronuts and plate of fairy bread. No, to the left of the avocado toast and stack of maple syrup-glazed bacon, next to the egg-white omelette. You need to move the ramen burgers, the ube and the chlorophyll extract to find them.

We gazed into a few crystal balls unveiled by some expert observers, as an indicative sampler.

Continuing their runs from 2016 will be coconut everything, Asian noodles, gourmet mac 'n' cheese, flavoured spirits, 'authentic' Mexican cuisine, charcuterie, mocktails, oatmeal with unusual toppings, more farmers markets, grilled veggies, preserved anything, craft beers and cocktails, more flavours of granola, more uses of ancient grains, and creative ways to use fresh turmeric root in cooking – given the excitement over its purported health-inducing powers.

Trends that could take off this year include enhanced transparency in food labelling; re-purposing food waste (simmering Parmesan cheese rinds in pasta sauce always works); sustainable seafood (focused on 'green' fisheries and improved aquaculture systems); savoury desserts (spaghetti-flavoured ice pops); artisan cheeses; coffee served in chocolate-coated ice-cream cones; more restaurants offering breakfast all day

There's also more choices for filling 'bowls' (beyond acai and poke); pastas made from grains other than wheat (lentils, chickpeas); smoked and flavoured sardines (because everybody loves fish breath); bone broths; cuts of goat meat; the 'discovery' of African spices (berbere, dukkah); chilli heat in surprising dishes (cayenne woos ice-cream); and – you'll like this one – that trusted antioxidant, dark chocolate, at breakfast.

Look for more plant-focused restaurant menus (even Brussels sprouts can be a main dish) and vegetarian comfort foods such as chicken-fried portobello mushroom steak, avocado fries and zucchini hash browns and pancakes.

Also, the use of Japanese condiments in particular could continue its roll (ponzu, kelp, plum vinegar), coupled with a general trend for 'creative condiments' such as chilli pepper jam, black garlic puree, adobo sauces and sambals, sumac and fenugreek, and salsas made from vegetables (beets, bell peppers) and fruits (strawberries, watermelon).

What do you think of chocolate-chip hummus, beet yoghurt and chipotle-cherry jerky? Don't answer until you've tasted.

For another perspective, we turned to gastronome Ed Levine, the 'founding father' and chief executive of the James Beard Award-winning site seriouseats.com: 'You can always tell what the trends are by when the big chains put out their versions.'

In the dine-in world, Levine noted 'people gravitating toward a grazing style of more casual and less costly (eating).' And restaurants are figuring out how to accommodate that,' he said. One way is with those aforementioned bowls. 'People are looking to eat healthfully, but most of them aren't willing to sacrifice taste,' Levine said.

But while 2017 looks to be another game of chutes and ladders for many food trends – including home-delivered meal kits, sous vide cooking and 'butcher-to-table' operations, Levine points out that the new year won't be all about change. 'Preserving and fermentation are here to stay,' he said.



- 'Comfort foods will always be with us – mashed potatoes, french fries, mac 'n' cheese, fried chicken, ice-cream, pizza, grilled cheese. 'Those things will never die, nor should they.'

Extract from 'Food trend predictions for 2017: What's hot, what's not', *The West Australian*, 6 January 2017

Case study questions

- 1 What is a food trend?
- 2 Describe some food trends from before 2017.
- 3 Why should young people be wary of following food trends? How may food trends be negative for one's health?
- 4 Is a food trend likely to last? Why or why not?

Film and television

Statistics suggest that most young people spend over one hour per day watching some form of free-to-air commercial television. Also, young people are increasingly streaming television series and movies on their smart phones and personal computers, contributing to even more time being spent watching screens. Companies know that young people are often influenced by the people and products they see on film and television. Therefore, not only are companies purchasing advertisement time during television breaks, but they are increasingly embedding products and marketing techniques within TV shows. 'Embedding' or 'product placement' is when a product or brand is visually or verbally present on screen during a show, implying that the product is associated with the people, often celebrities, in that show. Film and television are just two examples of where product placement or embedded marketing occurs. It also occurs in online games, radio, music videos and magazines, to name a few. Marketers hope that young people will associate their product with the show or with celebrities they enjoy watching or want to emulate, and will therefore be more likely to purchase the product. Companies that use embedded marketing are often the sponsors of a show, or they may pay a fee for their product placement.



Alamy Stock Photo/AF archive

Figure 4.15 Companies often pay to have their products featured in films or TV shows (such as this one, titled *Bohhood*).

Online marketing: social media, apps and online games

Australian studies have shown that children aged 8–17 spend on average over one hour per day on Internet activities, a number that is sure to continue rising, with increasing numbers of young people owning and using smart phones and personal computers. Activities that young people engage in online include communications, such as messaging, chatting or using social websites, and other activities such as using apps, playing games and watching television shows, movies, cartoons and video clips.

Companies and marketers have recognised this shift in young people spending time online and have increased the proportion of their marketing that is delivered via this medium. Unhealthy food and beverage marketing can be done simply by buying ads on popular websites or popular social media sites such as Facebook. Advertising messages are also embedded into apps and interactive games.

Marketers are increasingly focusing on apps and online games, partly because:

- they can achieve sustained engagement of young people, who may play a game frequently and for lengthy times, leading to enhanced marketing opportunities
- often the online medium is interactive and involves young people in branded communication, playing games, entering competitions and interacting on social networking sites. This increases the opportunity for marketers to engage consumers in emotional attachment to a product or brand.

Many companies now have interactive websites where young people can participate in games and activities that may have very little to do with consuming the company's actual product, but may use characters, logos or labels in these interactions to reinforce the brand. An example of this is the practice used by some soft drink and spread companies of enabling consumers, via the company website, to 'personalise' a product by writing a name or a message on the label, which can then be shared on social media.

CRITICAL FRIEND

Ask the person next to you to describe how marketing in apps and online games may be more beneficial to a company than marketing on TV.



Weblink

INVESTIGATE

Check out the Nutella website to see how an interactive label activity is used to promote its brand. Visit <http://hhdvce1and2.nelsonnet.com.au> to access the weblink.



Getty Images/Anthony Kwan/Bloomberg

Figure 4.16 Personalised labels are a way for companies to engage consumers in activities related to their product.

Impact of food marketing and promotion on youth health and behaviour

The tactics used by marketers to sell food to youth is leading to increased consumption of foods that are often high in nutrients such as fat, sugar and sodium, which are energy dense and low in nutritional value. There are many adverse long-term health consequences possible for youth if they consume a diet that is nutritionally imbalanced. These consequences include a range of health conditions that may develop in adulthood, such as obesity, cardiovascular disease and osteoporosis. If marketers are able to convince young people to purchase their brands during adolescence, there is an increased chance that this behaviour will continue into adulthood, as a pattern of behaviour is often established. Therefore by targeting youth in its marketing, a company is often attempting to 'lock in' the consumers of the future. If this does occur and the products that young people start consuming in their youth are unhealthy, then this may further contribute to a range of adverse health conditions in adulthood.



Alamy Stock Photo/Elisabeth Coelfien

Figure 4.17 Eating habits established in youth can become entrenched in adulthood.

Learning tip

Practise describing how each of the strategies used by marketing companies may influence young people's eating behaviour. In each response, outline how this may then influence a young person's health in the short-term or the long-term.

Review and reflect

- 1 a List four marketing techniques used to promote food and food trends.
 - b Choose one of the techniques you listed in part a, and describe how this technique is used to engage young people in purchasing a food product.
- 2 Why is online marketing increasing in popularity over conventional marketing avenues such as television and newspapers?
- 3 Outline how you could go about purchasing food and beverage products without being lured in by marketing techniques.
- 4 Explain how marketing of food and food trends may be contributing to rising levels of diet-related health conditions in Australia.

Enablers and barriers to healthy eating in youth

With fewer than one in 10 Australians consuming enough vegetables to meet the Australian Dietary Guidelines, and fewer than half meeting the guidelines for daily fruit intake, there is much room for improvement in Australian diets. Diet-related chronic diseases, such as cardiovascular disease, colorectal cancer, type 2 diabetes and osteoporosis, dominate Australia's disease burden, yet much of this burden could be prevented through improvements in dietary patterns – patterns that are often established in youth. It must be acknowledged, however, that a

social factors aspects of society and the social environment that affect health, such as poverty, early life experiences, social networks and support

cultural factors aspects of culture and the cultural environment that affect health, such as customs, beliefs, practices and religion

political factors aspects of the political environment that affect health, such as legislation, policy and political party affiliation

person's dietary behaviour is a response to the broad conditions – the **social**, **cultural** and **political** context – in which they live. It is important to consider how these factors may act as enablers or barriers to healthy eating, and how changes can be implemented to increase the level of healthy eating and reduce Australia's significant diet-related disease burden.

It can be difficult to separate the enablers and barriers to healthy eating. It is often the case that when a barrier is reduced, it becomes an enabler. For example, a barrier to healthy eating may be a lack of educational attainment and therefore a lack of knowledge about what foods contribute to good health. Once this barrier is reduced, it becomes an enabler, because people with higher levels of educational attainment are more likely to have knowledge about what foods contribute to good health. Therefore, in this section, the social, cultural and political enablers and barriers to healthy eating among youth are discussed together.

Social enablers and barriers to healthy eating

Income

The amount of money that an individual has access to influences the type and quantity of food they can buy. In most countries, fresh food and food considered to be healthier is generally more expensive than processed packaged food, which tends to be higher in sugar, fat and sodium. Young people who come from a low-income household or are on a low income themselves are therefore more likely to consume higher quantities of processed foods, as they can buy more of these foods than they could fresh and healthier options, for the same price. Often processed foods are tastier and keep for longer, further encouraging people to purchase these foods. Young people who have access to greater amounts of money have a wider range of options when making food choices. They are therefore more likely to try healthier options and create healthy eating patterns that they may carry through their lives.



Figure 4.18 Vegetables and fruit can appear expensive compared with processed foods.

Educational attainment

Level of educational attainment is strongly associated with healthy behaviours such as consuming a healthy diet. People with higher levels of educational attainment are more likely to have knowledge about what foods contribute to good health and are therefore more inclined to make food choices that reduce their risk of developing diet-related health conditions. Conversely, low educational attainment is a risk factor for eating less fruit and vegetables, and for lower nutrient intake, and thus contributes to higher levels of conditions such as cardiovascular disease and type 2 diabetes in this group. Educational attainment is closely linked to the type of occupation attainable by a person, which often influences income, and this link illustrates the importance of a quality education in influencing healthy eating behaviour.

Family/living circumstances and peer group

The people around us influence our food choices. Young people who are living with their family are likely to rely on the food that is provided for them. Depending on a family's circumstances and choices, this may be fresh and healthy food, or it may be food that is pre-prepared and high in contents such as fat and sodium. It is difficult for young people who do not have their own income source or adequate cooking skills to change their dietary habits if they are living at home and rely on food provided for them. The dietary role modelling that a parent provides – whether good or bad – can influence a young person's dietary habits for the remainder of their life. A young person's food choices are also influenced by their peers, as some foods may be seen by the peer group as more socially acceptable than others. Peers who are more inclined to want to eat a diet high in fruit and vegetables may encourage and influence their friends to do the same, just as peers who are more inclined to eat a diet high in sugary and fatty foods may influence those around them to do so.

Living alone is associated with lower nutrient intake and unhealthy dietary patterns, particularly for men. Often people who live alone are less motivated to spend significant amounts of time and money on sourcing and cooking nutritionally well-balanced meals, and can be more inclined to purchase convenient pre-prepared meals, which often do not contain adequate servings of vegetables and are high in risk nutrients.



iStock.com/DmitryBairachnyi

Figure 4.19 Living alone is likely to result in poorer food choices.

CRITICAL FRIEND

Ask a friend in class to describe their diet. If they have a relatively healthy diet, ask them to identify the factors that they think help contribute to it. If they have a relatively unhealthy diet, ask them to identify the factors that they think contribute to this.

Social media and advertising

It is hard for young people to avoid advertisements in the media for food and beverage products, many of which are for the newest product on the market. Understandably, young people find it difficult to resist trying something that is new and seems appealing. However, there are new products coming out continually and so trying new things continues indefinitely – many of these new products are not necessarily good for health. Advertising and marketing are often effective in making young people think that particular foods and beverages are better for one's health than they actually are. Phrases like 'low in fat', 'sugar free' and 'all natural' encourage choices that may unintentionally lead to unhealthy eating.

Social media may act as both a barrier and an enabler to healthy eating. If a young person is 'following' a friend, health professional or celebrity who encourages healthy food choices and eating, this may increase the likelihood that the young person will adopt the recommended habits. As noted previously in this chapter, young people need to be discerning when following the advice of others who are not qualified to provide reliable nutrition advice. Social media may also be a barrier to healthy eating. Companies are increasingly conducting their advertising on social media sites, as it is known that many young people spend a lot of time on such sites each day. If these sites are regularly promoting unhealthy food products, this may entice young consumers to purchase these products, putting their health at risk.



iStock.com/DonNichols

Figure 4.20 People who are under time pressure are more likely to purchase pre-prepared convenience meals.

includes a high proportion of pre-prepared meals, they may be increasing their risk of developing diet-related diseases.

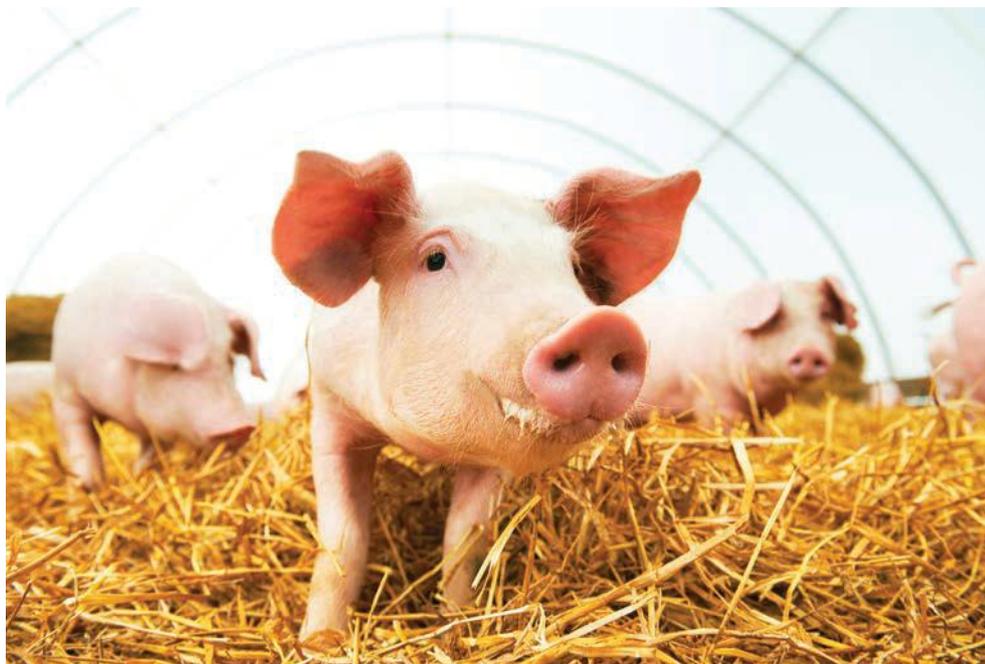
Time and effort

In today's fast-paced world, many people, including young people, report feeling under greater pressure to get more tasks done in each day. With increasing pressure on people's time, food preparation is often one of the first tasks to be sacrificed in order to spend time on other activities. Preparing a healthy meal can take considerable time and effort when planning, cooking and washing up are all taken into consideration. This time pressure is leading more people, adults and young people alike, to purchase pre-prepared foods that require simple heating or little effort to be prepared. If these foods are chosen with care, they can contribute to a balanced diet; however, they are often high in risk nutrients such as sodium, fat and sugar. These nutrients often enhance flavour and may increase the shelf life of the product. If a person's diet

Cultural enablers and barriers to healthy eating

Religious traditions and beliefs

Food is often an important part of a person's religion, and religion often influences the traditions that people engage in. Some religions restrict certain foods at particular times of the year, or require fasting for significant periods. Some of these traditions and the beliefs that underpin them can limit food choices for a young person, and can affect their health.



iStock.com/kadmy

Figure 4.21 Some religions do not permit the consumption of pork.

Ethnicity and language

People from particular ethnic groups often speak a common language and carry out cultural traditions associated with that social group. These influences can act as both enablers and barriers to healthy eating among youth from a particular ethnic group. For example, numerous studies have been conducted on the 'Mediterranean diet', which has been shown to reduce the risk of heart disease and other health conditions, in part due to the high proportion of vegetables, fruit, whole grains, fish and healthy oils in the diet. Young people who are brought up following particular ethnic eating patterns may find it difficult to alter their diet away from these patterns in adulthood, and this may either increase or decrease their risk of developing certain health conditions.

Language and the ability to speak the local language can influence a person's ability to access nutritious foods. If a young person has recently moved to Australia from another part of the world, they might not speak fluent English. This could make it more difficult for them to navigate supermarkets and find food that they are familiar with and know they can prepare healthy meals with.

CRITICAL FRIEND

Ask a friend in your class to describe how family and friends may act as enablers or barriers to healthy eating for a young person. Ask them to then link their answers to possible health implications for a young person if family and friends act as a barrier.



Getty Images/Jeff Greenberg/UiG

Figure 4.22 People who have recently moved to Australia may find it difficult to make healthy food choices due to cultural barriers such as language.

Political enablers and barriers to healthy eating

Taxes, trade and agriculture policy

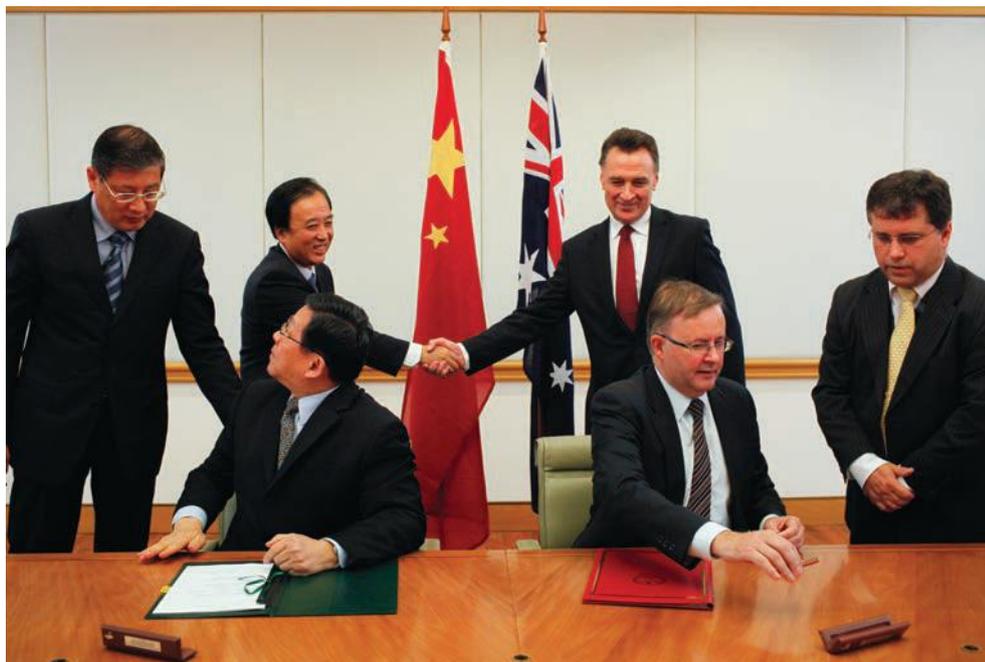
The Australian Government is involved in influencing the types, quantities and prices of the foods available for people to purchase. A range of subsidies, price supports and protective measures are in place via different policies, including trade and agriculture, that make some foods more and others less accessible to young people in Australia. For example, the Australian Goods and Services Tax (GST), at 10% on most goods and services consumed in Australia, does not apply to most foods unless they fall into certain categories such as savoury snacks, confectionery, ice-cream and similar products. This affects the price of these foods in Australia and may make them and others less affordable for young Australians. The Australian Government has a range of free trade agreements with other countries. These agreements often lead to food products from such countries entering Australia without incurring particular tariffs, and this then contributes to these foods being more accessible and affordable around the country.



Weblink

INVESTIGATE

To learn more about what foods and beverages the GST applies to, see the Australian Tax Office website. Visit <http://hhdvce1and2.nelsonnet.com.au> to access the weblink, and navigate to 'GST status of food items'. Are you surprised by any items there, or not there?



AAP Image/Lukas Coch

Figure 4.23 Australia and China have a free trade agreement.

Marketing laws and regulations

The marketing and advertising of unhealthy foods has been shown to have a strong influence on people's food choices and consumption. The government has the power to enact legislation that influences how companies market their products and, in certain media, at what time this occurs. The success of such controls on smoking, for example, can be seen in the decline in smoking rates over the past 20 years. However, when it comes to commercial marketing of unhealthy food and beverage products, the government of Australia appears less willing to become involved and instead encourages self-regulation by the food and beverage industry – the industry sets its own standards of behaviour and monitors whether or not companies within the industry comply. As a result, young people still encounter frequent advertisements for unhealthy products when they are watching television, using social media or listening to radio.

One way in which the government tries to influence the food-purchasing behaviour of consumers is by contributing to the development of the Australian Food Standards Code. This code is administered by Food Standards Australia New Zealand, a bi-national government agency, and lists a range of requirements for foods, including labelling. For example, all packaged foods sold in Australia (with a few exceptions) must have a nutrition information panel – this information can be used by consumers to make informed choices about the foods they purchase, as they can read exactly which nutrients the packaged foods contain.

Learning tip

Consider a range of population groups who live in Australia, such as males and females, Indigenous and non-Indigenous, low- and high-socioeconomic status groups, and those living outside or within major cities. Practise listing a range of social and cultural factors that may be influencing the dietary choices of these groups.

FOOD LABELS

WHAT DO THEY MEAN?

1 Nutrition information panel

This panel shows the average amount of energy, protein, fat, saturated fat, carbohydrate, sugars and sodium in a serve and in 100 g (or 100 ml) of the food. The amount of any other nutrient or substance about which a nutrition content or health claim is made must also be shown (e.g. the amount of calcium must be shown if a claim about calcium is made).

2 Percentage labelling

Food labels must show the percentage of the key or characterising ingredients or components in the food. This allows similar foods to be compared. The characterising ingredient for this strawberry yoghurt is strawberry and the ingredient list states that it contains 7% strawberries.

4 Information for people with food allergies or intolerances

Some food ingredients and substances can cause severe allergic reactions and must be declared when present in a food. These ingredients are peanuts, tree nuts (e.g. cashews, almonds, and walnuts), crustacea, fish, milk, eggs, sesame, soybeans, and wheat. Sulphites (if added at 10 mg or more per kg of food) and cereals containing gluten (e.g. wheat, oats, barley, rye and spelt) also need to be declared.

12 Nutrition and health claims

Nutrition content claims are claims about the content of certain nutrients or substances in a food, (e.g. 'contains calcium'). Health claims refer to a relationship between a food and health. There are rules for when nutrition content or health claims are made on food labels.

3 Food identification

To help identify a food, food labels must show:

- the name of the food
- the name and business address in Australia or New Zealand of the supplier of the food
- the lot identification of the food.

The name or description of the food must reflect its true nature (e.g. strawberry yoghurt must contain strawberries). If the yoghurt contained strawberry flavouring rather than real fruit, then the name would need to indicate that it is strawberry-flavoured yoghurt.

5 Date marking

Foods that should be eaten before a certain date for health or safety reasons must be labelled with a use-by date.

Otherwise a best-before date is required if the food has a shelf life of less than two years. Although it may be safe to eat a food after its best-before date, it may have lost quality and some nutritional value.

11 Country of origin

Australia and New Zealand have different country of origin labelling requirements.

In Australia, the country of origin of packaged and some unpackaged foods must be stated on the label. Read more about country of origin labelling on the Australian Competition and Consumer Commission website at www.accc.gov.au

In New Zealand, country of origin labelling is required on wine only. Further information is available on the Ministry for Primary Industries website at www.foodsafety.govt.nz/industry/sectors/wine/labelling-composition

10 Legibility requirements

Any labelling requirements must be in English, be legible and prominent so as to contrast distinctly with the background on the label.



6 Ingredient list

Ingredients must be listed in descending order (by ingoing weight). So if an ingredient is listed near the start of the list, then the food contains more of this ingredient than others lower down the list.

7 Labels must tell the truth

Under Australian and New Zealand consumer laws, labels must not be false, misleading or deceptive.

Suppliers must also label foods with accurate weights and measures information. The National Measurement Institute in Australia (www.measurement.gov.au) and the Ministry of Consumer Affairs in New Zealand (www.consumerprotection.govt.nz) ensure that correct weight and measurement information is used on food labels.

8 Food additives

Food additives must be identified in the ingredient list, usually by their class name (e.g. 'thickener' or 'colour') followed by the food additive name or number. A thickener has been used in this yoghurt and is labelled as 'thickener (1442)'. A full list of food additive names and numbers is available from www.foodstandards.gov.au

9 Directions for use and storage

Where specific storage conditions are required for a food to keep until its best-before or use-by date, those conditions must be included on the label.

If the food must be used in accordance with certain directions for health or safety reasons, those directions must be included on the label.

For more information on food labelling

Visit www.foodstandards.gov.au/foodlabelling

Or follow us on [Facebook](https://www.facebook.com/FoodStandards) [Twitter](https://www.twitter.com/FSANZnews)

Disclaimer: This poster has been produced as a guide to consumers only. Industry and enforcement agencies should refer to the Food Standards Code.

Figure 4.24 Food label information as set by FSANZ

Case study

Why it's hard to change unhealthy behaviour – and why you should keep trying

... Many of us [think] about changes we'd like to make in our lives. When it comes to health recommendations, we mostly know the drill: Exercise most days of the week; eat a varied and nutritious diet; keep your body mass index between 18.5 and 24.9; get enough sleep; keep up with medical screenings for blood pressure, cholesterol, and blood sugar; get mammograms and Pap smears at recommended intervals; don't smoke; and limit alcohol. Reducing stress, improving relationships, and developing new interests or hobbies also contribute to healthy living.

Making healthy lifestyle changes affects not only our risk for disease and the way we feel today but also our health and ability to function independently in later life. What we do for ourselves is often more important than what medicine can offer us. Yet making healthy changes is easier said than done. Even when we're strongly motivated, adopting a new, healthy habit – or breaking an old, bad one – can be terribly difficult.

...

Change is a process, not an event

There are several models of behaviour change, but the one most widely applied and tested in health settings is the transtheoretical model (TTM). First developed in the 1980s by alcoholism researchers James O. Prochaska and Carlo C. DiClemente, TTM presumes that at any given time, a person is in one of five stages of change: pre-contemplation, contemplation, preparation, action, or maintenance.

The idea is that people move from one stage to the next. Each stage is a preparation for the following one, so hurrying through or skipping stages is likely to result in setbacks. Also, different strategies are needed at different stages. For example, a smoker who's at the pre-contemplation stage – that is, not even thinking about quitting smoking – probably isn't ready to make a list of alternatives to smoking.

... [Doctors] and health educators use TTM to counsel patients, but you don't need to be an expert to try this approach. Anyone motivated to change can use it to assess their situation and formulate strategies. Below are the TTM stages of change and some ideas about how people move through them:

- *Pre-contemplation.* At this stage, you have no conscious intention of making a change, whether through lack of awareness or information ('Overweight in my family is genetic; it's just the way we are') or because you have failed in the past and feel demoralized ('I've tried so many times to lose weight; it's hopeless'). You tend to avoid reading, talking, or thinking about the unhealthy behaviour, but your awareness and interest may be sparked by outside influences, such as public information campaigns, stories in the media, emotional experiences, illness, or a doctor's or family member's concern. To move past pre-contemplation, you must sense that the unhealthy behaviour is at odds with important personal goals, for example, being healthy enough to travel or to enjoy your children or grandchildren.
- *Contemplation.* ... In this stage, you are aware that the behaviour is a problem and are considering doing something about it, but you still aren't committed to taking any action. Ambivalence may lead you to weigh and re-weigh the benefits and costs: 'If I stop smoking, I'll lose that hacking cough, but I know I'll gain weight,' or 'I know smoking could give me lung cancer, but it helps me relax; if I quit, stress could kill me, too!' Health educators use several techniques to help people unstuck themselves and move on to the next stage. One is to make a list of the pros and cons of making a change, then examine the barriers – the 'cons' – and think about ways to overcome them ...
- *Preparation.* At this stage, you know you must change, believe you can, and are making plans to change soon – say, next month. You've joined a health club, purchased a supply of nicotine patches, or added a calorie-counting book to the kitchen shelf. At this stage, it's important to anticipate potential obstacles. If you're preparing to cut down on alcohol, for example, be aware of situations that provoke unhealthy drinking, and plan ways around them. If work stress triggers end-of-day drinking, plan to take a walk when you get home. If preparing dinner makes you want a drink, plan to have [soda] water instead of wine. If social situations are a problem, make a list of alternatives, such as going to the movies instead of having drinks or dinner with friends. At the same time, create a realistic action plan with achievable goals. If you've been sedentary and want to exercise more, start by making it your goal to avoid using the elevator for two-, three-, or four-story trips. Or plan to walk 15 minutes every day. This can help you work your way up to more ambitious goals.
- *Action.* At this stage, you've changed ... and you've begun to experience the challenges of life without the old behaviour. You'll need to practice the alternatives you identified during the preparation stage. For example, if stress tempts you to eat, you can use healthy coping strategies such as yoga, deep breathing, or exercise. At this stage, it's important to be clear about your motivation; if necessary, write down your reasons for making the change and read them every day. Engage in 'self-talk' to bolster your resolve. Get support. Let others know you're making a change.
- *Maintenance.* Once you've practiced the new behaviour change for at least six months, you're in the maintenance stage. Now you're working to prevent relapse and integrate the change into your life. That may require other changes,





especially avoiding situations or triggers associated with the old habit. It can be tough, especially if it means steering clear of certain activities or friends while you work to fully assimilate your new, healthier habit.

Extract adapted from Harvard Women's Health Watch, 'Why it's hard to change unhealthy behaviour – and why you should keep trying,' January 2007

Case study questions

- 1 Describe some factors that may make diet-related behaviour change difficult.

- 2 List the five stages of the transtheoretical model (TTM) of behavioural change.
- 3 Contrast the pre-contemplation and contemplation stages.
- 4 Explain the thoughts/actions an individual may go through in each stage of the TTM if they are attempting to improve their diet.
- 5 Outline how an individual may plan for setbacks in achieving nutrition-related goals. What strategies could someone have in place to support them in achieving their goals?

Case study

Understanding eating disorders for young people

A person has an eating disorder when their beliefs about food, weight and body image lead to unhealthy patterns of eating and/or exercising.

This can interfere with their life and relationships with others. Eating disorders often begin in adolescence and early adulthood and they are more common in females but can also affect young males. Mortality rates are two to six times higher in people with an eating disorder compared to the rest of the population.

Many young people have concerns about eating or their body image but generally they do not develop an eating disorder. Body image and eating disorders are not always related.

Body image or eating concerns become a problem when they begin to affect your physical or mental health, or how you cope in your daily life. Eating disorders can cause significant physical health complications and so they can be life threatening. It is very important that when the early signs of an eating disorder begin they are treated effectively.

Signs and symptoms of having, or being at-risk of developing eating disorders can include:

- Excessive eating, dieting or exercising
- Thinking and talking a lot about body image, body weight and food
- Avoiding social situations that involve food
- Eating only certain types and amounts of food
- Becoming irritable or withdrawing from friends and family
- Wearing loose fitting clothing to hide weight loss
- Wanting to eat alone
- 'Playing' with food rather than eating it
- Feeling faint, dizzy and weak
- Going to the bathroom straight after meals

- Difficulty concentrating
- Often feeling tired and low
- Irregular menstrual cycles (if female).

There are three main types of eating disorder: anorexia nervosa, bulimia nervosa and binge-eating disorder.

A person who has anorexia nervosa:

- Restricts how much they eat; resulting in a low body weight. In young people eating less may result in either weight loss or not gaining the weight expected as they grow
- Has an intense fear of gaining weight or refuses to keep a healthy body weight
- Has distorted or inaccurate perceptions of their weight and body shape (e.g. believing they are overweight despite being underweight).

When someone has anorexia nervosa they may use extreme weight loss strategies in an attempt to control their weight. These might include fasting, excessive exercising, vomiting after eating, taking diet pills, or misuse of diuretics or laxatives. Their self-esteem is generally influenced by their perceptions of their weight and body shape. They may experience anxiety, feel depressed or be in an irritable mood, feel very tired and have difficulty concentrating. Often young people experiencing anorexia nervosa do not recognise their symptoms, or deny having a problem with weight and body image issues. This can make it challenging to get them the help they need.

A person who has bulimia nervosa:

- Regularly binge eats; they eat large quantities of food and feel unable to control their eating. During these episodes they may eat more quickly than normal, and/or until they are uncomfortably full, even if they are not hungry
- Uses extreme weight loss strategies in efforts to 'makeup' or 'compensate', for binge episodes and avoid weight gain. This may involve making themselves vomit, using laxatives or diuretics, fasting, or excessive exercising.





Triggers for bingeing include relationship stress, dietary restraint, negative feelings related to their body image, their weight, availability of food and boredom. Bingeing typically results in intense feelings of guilt, depressed mood and high levels of distress. Repeated episodes of bingeing and compensating create a compulsive cycle that feels beyond a person's control.

A person who has binge eating disorder:

- Binges repetitively without trying to 'make up' or 'compensate' for these binges. This causes high levels of distress.

Unlike anorexia nervosa, where people are underweight, people with bulimia nervosa and binge eating disorder are usually within the normal or overweight range. Due to shame and guilt individuals often try to hide their symptoms from others so it can be difficult to tell when someone has bulimia nervosa or binge eating disorder.

Health problems from eating disorders

Starvation or repeated cycles of bingeing and self-induced vomiting or using diuretics/laxatives ('purging') can cause damaging changes in the body.

Starvation, for example, can lead to osteoporosis (weakening of the bones), headaches, constipation or diarrhoea, fainting and damage to most major organs including the heart and kidneys.

Vomiting after eating exposes the teeth to stomach acid causing decay. It can also cause sore throats, heart problems and abdominal pain.

Laxative abuse can cause constipation or diarrhoea, as well as dehydration and bowel disease.

Individuals who have an eating disorder are also at higher risk of developing other mental health problems including depression, anxiety and substance use disorders.

How can I help a young person with an eating disorder?

If you are concerned that a friend or family member has an eating disorder let them know that you are worried and care about them.

Even if they deny there is a problem, or do not want to talk about it, gently encourage them to seek professional help. Often a young person will not want to seek help. In these situations, you should seek further advice from a professional about your concerns.

Help is available from general practitioners (GPs), school counsellors, psychologists and specialist mental health workers. Contacting your GP or your local headspace centre is a good place to start.

For more information, to find your nearest headspace centre or for online and telephone support, visit eheadspace.org.au.

Treatment of eating disorders

People with eating disorders will benefit from professional help. Keeping the person safe is the first priority. If their weight loss is severe and there are serious health complications, then a stay in hospital may be needed.

Professional treatment starts with developing a good working relationship with the young person, then the focus changes to providing information, looking after physical health and establishing healthy patterns of eating and exercise. Individual counselling, family work and medication (when appropriate) might all be required and are usually provided by a treatment team. As the problems with eating tend to have developed over a long period of time, treatment can also take time so getting help when problems first begin is really important.

Useful websites

Mental Health First Aid Guidelines for Eating Disorders

The Butterfly Foundation

Headspace

Understanding and dealing with eating disorders – for young people, <https://www.headspace.org.au/young-people/understanding-and-dealing-with-eating-disorders-for-young-people/>
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Weblink

Case study questions

- 1 Describe how a person may know if they have developed an eating disorder.
- 2 Summarise the three different types of eating disorders.
- 3 Explain how body image concerns may act as a barrier to healthy eating in a young person.
- 4 Outline sources of help that are available for young people who may have an eating disorder.

Review and reflect

- 1 **a** List four social factors that may act as barriers or enablers to healthy eating in youth.
 - b** Choose one of your answers to part **a** and describe how it may enable healthy eating in youth.
- 2 Explain how religious beliefs may influence food choice.
- 3 Using examples of social, cultural or political factors, discuss why young people may find it difficult to consume a healthy diet.
- 4 Outline how the Australian Government can act as an enabler to healthy eating in Australia's youth.

Chapter summary



Unit 1 Area of
Study 2 revision
cards

- There are numerous sources of nutrition information, but they are not all equally reliable. Consumers need to use their own knowledge and skills to determine what information can be trusted. Sources of nutrition information include:
 - trained health professionals
 - professional organisations and consumer advocacy groups
 - governments
 - school curriculum
 - family and friends
 - the Internet, television, newspapers and magazines
 - diet books and cookbooks
 - celebrity bloggers, sports stars and social media.
- Questions that consumers may want to ask themselves when they hear claims made about food and beverage products are:
 - What are the credentials of the author or the source? Do they have a qualification that supports their ability to provide this information?
 - Are there any references or evidence to support the claims being made? Are the references or the evidence good quality?
- Young people are exposed to a vast array of unhealthy food and beverage products and food trends through television and other modern media. In recent decades and with the rise of the Internet, a number of new marketing avenues have opened up, including smart phones, tablets, apps, games and online streaming of movies and television content. Promotional avenues used by food companies to target young people include:
 - specials, sales, claims, colours and jingles
 - giveaways and competitions
 - celebrity endorsements
 - sports events and sports celebrities
 - film and television
 - online marketing – social media, apps and online games.
- People's dietary behaviour is often a response to broad conditions, such as the social, cultural and political context in which they live. These factors may act as enablers or barriers to healthy eating.
- Social enablers and barriers to healthy eating include:
 - income
 - educational attainment
 - family/living circumstance and peer group
 - social media and advertising
 - time and effort.
- Cultural enablers and barriers to healthy eating include:
 - religious traditions and beliefs
 - ethnicity and language.
- Political enablers and barriers to healthy eating include:
 - taxes, trade and agriculture policy
 - marketing laws and regulation.

Exam-style questions and sample answers

- 1 List a source of nutrition information, and describe two ways in which consumers can determine whether this information is reliable. **(3 marks)**

Sample answer: The Internet **(1 mark)**. Consumers can examine the website URL – .gov.au and .edu.au sites are likely to be reliable sources of nutrition information **(1 mark)**. Consumers can cross check the information on a website with other known reliable sources **(1 mark)**.

- 2 Explain how social media can be a barrier to healthy eating in youth. **(2 marks)**

Sample answer: Companies are conducting more and more of their advertising on social media sites, so if these sites are promoting unhealthy food products **(1 mark)** this may entice young consumers to purchase these products, and this can be a barrier to healthy eating **(1 mark)**.

Questions for you to practise

- 1 Name three tactics used by marketers to promote specific food products. Choose one of these tactics and describe how it may encourage people to purchase unhealthy food products. **(3 marks)**
- 2 Explain how culture may influence people's food choices. Discuss the possible health implications of culturally determined food choices. **(4 marks)**

Chapter 5: Aspects of youth health and wellbeing requiring health action

Key knowledge

- aspects of youth health and wellbeing requiring health action, as indicated by health data on burden of disease and health inequalities, and research on the concerns of young people

Key skills

- use research and data to identify social inequality and priority areas for action and improvement in youth health and wellbeing
- describe and analyse factors that contribute to inequalities in the health status of Australia's youth

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Key terms

food insecurity
food security
social inequality

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Introduction

Australia is one of the healthiest countries in the world, and our youth (those aged 12–18 years) are among the healthiest subgroups of the population.

Youth is a time when individuals further establish behaviours that have a significant impact on their health and wellbeing. During this period, young people are undergoing rapid emotional, physical and intellectual changes, beginning the transition from childhood to adolescence and then to independent adulthood. It is critical, therefore, that accurate and comprehensive information on the health and wellbeing of Australia's youth is closely monitored and action taken where it is needed.

Areas where action is required include:

- leading contributors to burden of disease among youth in Australia
- health inequalities among youth in Australia
- the leading causes of concern for youth in Australia.



Figure 5.1 Youth is a time when behaviours that affect health and wellbeing are established.

What is social inequality?

Over the past few decades, government and non-government organisations have increased their focus on reducing **social inequality** and, in doing so, addressing the social determinants of health. The social determinants of health include not only social, but economic, political, cultural and environmental determinants. Essentially, these are the conditions in which people are born, grow, live and work (WHO 2017).

It is being increasingly recognised that factors such as occupation, level of education, material resources, social support network and social status affect the health of individuals and population groups and, in turn, contribute to broader health inequalities within the population. According to the World Health Organization (WHO), 'the social determinants of health are mostly responsible for health inequities – the unfair and avoidable differences in health status seen within and between countries'.

social inequality the existence of unequal opportunities, conditions and rewards for people of different social position or status within a group or society

Some groups in society have greater (or less) access to particular opportunities because of their socioeconomic status (including income and education), gender, age, geographical location, citizenship status and ethnicity, among other things. These opportunities include employment, access to health care, food security, access to quality education and access to transport services.

According to the Australian Council of Social Service (ACOSS), income in Australia has become more concentrated – in the hands of fewer people – over the past 20 years. A 2015 report by ACOSS stated that:

- Inequality in Australia is higher than the OECD average – a person in the top 20% income group has around *five times* as much income as someone in the bottom 20% ...
- Groups more likely to be found in the bottom of the income distribution are: over 65 year olds; sole parents; people from non-English speaking countries; and people on government benefits as their main source of income ...
- There is also an urban and regional divide. People in capital cities are more likely to be in the top 20%, while those outside capital cities are more likely to be in the bottom 20%.

Extract adapted from Australian Council of Social Service 2015, 'A nation splintering amid growing inequality: new ACOSS report'

The Australian National University (ANU), using data from the 2006 and 2011 censuses, reported that the gap between Indigenous and non-Indigenous incomes has widened. In 2006, Indigenous Australians' average disposable income was \$400 per week. In 2011 this had increased to \$488 (a 22% increase), while income for non-Indigenous Australians had increased by 25.6% (Biddle 2013).

Other examples of social inequality among Indigenous and non-Indigenous Australians (for 2012–13):

- 59% of Indigenous 20–24 year olds completed Year 12 or equivalent, compared with 86–88% of non-Indigenous Australians (Productivity Commission 2014).
- 7.3% of Aboriginal and Torres Strait Islander Year 12 students achieved an ATAR of 50.00 or above, compared with 44.3% of non-Indigenous students.
- The unemployment rate for Indigenous Australians was approximately five times that of non-Indigenous Australians.



Getty Images/GREG WOOD/AFP

Figure 5.2 Poor-quality housing is an example of inequality that leads to poorer health outcomes for some populations within Australia.

- 19.3% of Indigenous people were living below the poverty line, compared with 12.4% of non-Indigenous Australians (ACOSS 2014).
- The median income for Indigenous households was \$465, compared with \$869 for non-Indigenous households.
- 23% of Indigenous Australians lived in overcrowded households. In very remote areas the proportion was 53–63%.
- Only 78% of Indigenous households were living in houses of an acceptable standard (including structural issues and working facilities).

These differences in social opportunities and conditions lead to dramatic differences in health outcomes, not only among youth but throughout the lifespan.

Review and reflect

- 1 Briefly describe the social determinants of health.
- 2 List three social determinants of health.
- 3 Define 'social inequality'.
- 4 List three characteristics that can either enhance or reduce opportunities in Australia.
- 5 Using two examples, explain how differing levels of income could result in different health outcomes for population groups within Australia.
- 6 According to ACOSS, a person in the top 20% income group has around five times as much income as someone in the bottom 20%. Discuss the impact this could have on the health status of youth in the bottom 20%.
- 7 The ACOSS report discussed in this section also stated that groups more likely to be found in the bottom of the income distribution are: people aged 65+ years old; sole parents; migrants from non-English-speaking countries; people who do not live in cities; and people who rely on government benefits as their main source of income. Choose one of these population groups and describe the impact that low income could have on their health.
- 8 List three examples of social inequalities that exist between Indigenous and non-Indigenous Australians, and explain how they result in differing health outcomes.

Priority areas for action and improvement

Priority areas for action and improvement in youth health and wellbeing are determined by a variety of factors, including:

- health data on burden of disease for the youth of Australia
- health inequalities that exist among youth in Australia
- research on the concerns of young people.

The priority areas include: weight issues, smoking, alcohol use, road accidents, illicit substance use and STIs. Each of these priority areas is discussed below.

Weight

Australia's youth experience a variety of issues with their weight, whether underweight, overweight or obesity. These have an impact on all dimensions of health and wellbeing and have both short- and long-term impacts.

Body mass index (BMI) allows an individual to check whether they have an appropriate body weight. A variation on the BMI method that is appropriate for youth has been created. As youth grow, their amount of body fat changes, and so too does their BMI. This is why the BMI calculation must take into account the young person's age and gender, as well as their height and weight.

Learning tip

You are encouraged to further investigate these priority areas for youth: health data on burden of disease, health inequalities, and the specific concerns of youth.

Being outside the healthy weight range has ramifications for health and wellbeing for young people.

Being underweight

While eating disorders can certainly affect males and females of all ages and backgrounds, the average time of onset for eating disorders (including anorexia nervosa and bulimia nervosa) is during adolescence. As this is a time of great change, stress and often confusion, many young people experience self-consciousness, low self-esteem, peer pressure around body shape and ensuing body image concerns. These feelings can manifest in eating disorders, which are often a coping mechanism for young people attempting to gain control of their situation when they feel helpless in other areas of their life. Being underweight is linked with having a weakened immune system, leaving the individual more susceptible to illness, with reduced muscle strength, digestion issues, and the risk of developing osteoporosis later in life.

Being overweight or obese

Being overweight or obese increases a young person's risk of poor health in both the short term and the long term. In the short term, it can have a negative impact on the mental wellbeing of young people, and it increases the risk of developing cardiovascular conditions, asthma and type 2 diabetes. Possible long-term health consequences include adult obesity, increased risk of coronary heart disease, diabetes and certain cancers, along with increased risk of depression and anxiety. Being overweight is typically linked with an imbalance between energy intake and energy expenditure as a result of excess calorie consumption (diet) and inadequate physical activity.



Figure 5.3 Australia's youth experience a variety of issues with their weight, including being underweight, overweight or obese.

BMI for children and teenagers
Calculate body mass index for anyone aged 2–20 years

Gender
 Male Female

Date of birth
 DD MM YYYY

Height
 cm

Weight
 kg

Calculate

Figure 5.4 A version of the body mass index (BMI) method has been developed for those aged 2–20, to determine whether youth are of an appropriate body weight.

Review and reflect

- 1 List three weight-related issues experienced by Australia's youth.
- 2 Identify and briefly discuss the possible impact of the following on the health of an individual:
 - a being underweight
 - b being overweight.
- 3 List the possible impact of being overweight on the following dimensions of health:
 - a physical
 - b social
 - c mental
 - d emotional
 - e spiritual.

Injury

Injury is a leading cause of death and hospitalisation among young people aged 12–24 years, more than all other causes of death combined. Injuries can affect a person's employment, educational and recreational opportunities, and can leave them with serious disability or long-term conditions that affect their health and wellbeing.

Leading causes of injury among young people include road traffic accidents, suicide and self-inflicted injuries, unintentional injuries, homicide and violence, other transport accidents, poisoning, falls, machinery accidents, drowning and burns.

Injury patterns change during adolescence and early adulthood. With more independence comes greater responsibility for decision making and therefore more opportunities to engage in risk-taking behaviour, such as consuming alcohol, using illicit drugs and speeding while driving. There are also changes to the brain that affect decision making. These factors combine to make young people more prone to certain types of injuries, such as falls, transport accidents, accidental poisoning and assault, while they are under the influence of alcohol or illicit drugs and/or trying to impress their peers.

CRITICAL FRIEND

Young adults are more likely to be involved in road traffic accidents. With a classmate or group, identify and discuss two reasons for this.

Road traffic accidents

Young adults, particularly males, are more likely to be involved in *road traffic accidents* due to speeding, drink or drug driving, driving while fatigued, and lack of driving experience and skill. Intentional injuries, such as self-harm or suicide and assault, are also leading causes of hospitalisation and death among young people. The hospitalisation rate for intentional self-harm for Indigenous Australians increased by almost 50% from 2004–05 to 2012–13 (Productivity Commission 2014).

Suicide

Young Indigenous Australians are more likely to die by *suicide* than non-Indigenous youth. Indigenous suicide increased from 5% of total Australian suicides in 1991, to 50% in 2010, despite the fact that Indigenous Australians make up only 3% of the total Australian population.



Figure 5.5 Indigenous youth are more likely to die by suicide than non-Indigenous Australians.

Review and reflect

- 1 List and discuss two impacts that injury can have on the life of an individual.
- 2 Identify three of the leading causes of injury disease burden among young people, and briefly explain how certain behaviours may be linked to these outcomes.
- 3 Young Indigenous Australians are more likely to die by suicide than non-Indigenous youth. Identify and discuss two social inequalities that should be addressed, to lower the suicide rate for Indigenous Australians.

Tobacco smoking

Australia has one of the lowest smoking rates in the world, but tobacco remains the leading cause of preventable deaths and hospitalisation. Most tobacco smokers take up smoking in adolescence, with very few people beginning to smoke as adults, so raising awareness of the dangers of smoking tobacco during this period is critical to improving health outcomes for Australians.

Data gathered in 2014 shows that the prevalence of smoking among Australian teenagers was at its lowest since surveys began (more than three decades earlier), with just 5.1% of 12–17 year olds in Australia being 'current smokers' (that is, having smoked in the past seven days) (Greenhalgh & Winstanley 2015). It was also shown that those who smoke take it up later in their teen years. In 2013, the average age of initiation of tobacco use was 16.2 years, which was a statistically significant increase from 16.0 years in 2010 and 15.6 years in 1995.

Smoking has both short- and long-term effects on the health of an adolescent. Smoking-related respiratory problems can be observed within several weeks of starting to smoke. The negative long-term health effects of smoking are well documented and include an increased risk of developing:

- respiratory problems
- emphysema
- coronary heart disease
- many different types of cancers, including lung, throat, mouth, bladder, kidney, cervical and stomach
- peripheral vascular disease due to decreased blood flow.



iStock.com/michaeljung

Figure 5.6 Although Australia has one of the world's lowest smoking rates, tobacco is still our leading cause of preventable deaths and hospitalisation.

The number of adults who smoke daily differs between geographic areas and socioeconomic groups. For example, 23% of adults in outer regional and remote areas are likely to be daily smokers, compared with 15% of adults in major cities, 24% of adults living in the most disadvantaged areas, but only 9% of those in the least disadvantaged areas.

Indigenous Australians aged 15–17 were 4.5 times as likely to smoke daily as non-Indigenous young people (18% and 4% respectively), while those aged 18–24 were 2.7 times as likely (43% and 16% respectively) (AIHW 2015).

Review and reflect

- 1 Most tobacco smokers take up smoking in adolescence, with very few people beginning to smoke as adults. Discuss two possible reasons for this.
- 2
 - a List two short-term effects that smoking can have on health.
 - b List two long-term effects that smoking can have on health.
- 3 Adults living in outer regional and remote areas are 1.5 times as likely to smoke daily as those living in major cities. Adults living in the most disadvantaged areas are 2.6 times as likely to smoke daily as those living in the least disadvantaged areas.
Identify and discuss two social inequalities that need to be addressed in order to reduce smoking rates in these disadvantaged populations.

Alcohol use

In Australia, excessive consumption of alcohol is responsible for a considerable burden of death, disease and injury. Alcohol-related harm to health is not limited to drinkers but also affects families and the broader community. Alcohol consumption during adolescence and risky behaviours often go hand in hand. These behaviours often lead to short- and long-term impacts. 'Binge drinking' has long been a rite of passage for Australian youth and is a harmful culture that must change if the burden of disease attributable to teen drinking is to be reduced.

Binge drinking can mean different things to different people, but it is commonly thought of as drinking with the deliberate intention of getting drunk, consuming a lot of alcohol in one sitting, and/or occasional and irregular bouts of heavy drinking. Engaging in this behaviour is associated with:

- nausea and vomiting
- loss of consciousness
- motor vehicle accidents (both driving and as a pedestrian)
- trips and falls
- increased risk of assault
- risky sexual behaviour
- increased risk of depression
- reduced productivity.

In the long term, binge drinking is linked with:

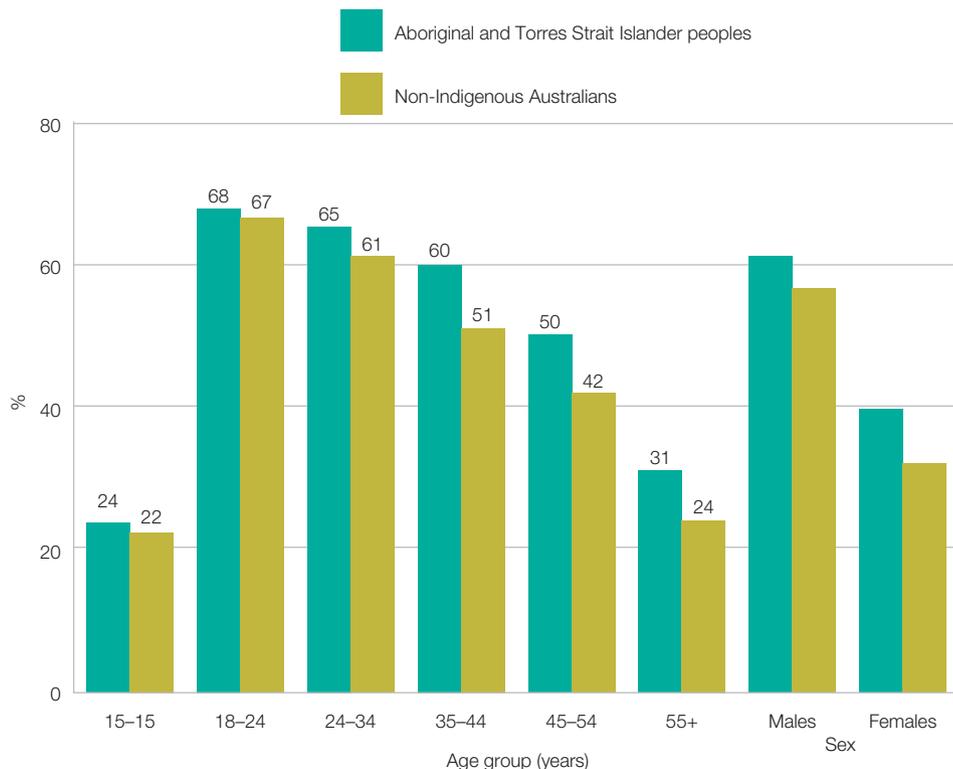
- damage to the liver
- weight gain
- stomach ulcers
- increased risk of depression.

The NHMRC drinking guidelines recommend that people aged under 18 do not drink alcohol at all – an individual’s brain continues to develop until their early 20s, and alcohol can negatively affect this development, not only harming their problem-solving skills and performance at school, but also affecting their body, mood and mental health. In spite of this, alcohol use among adolescents is common in Australia. In 2013, 15.4% of males and 11.3% of females aged 12–17 drank alcohol in a way that placed them at risk of harm on a single occasion. These rates have declined from around 20% in 2010. Other improvements have seen younger people delaying the age at which they start drinking – the average age of 14–24 year olds when they first tried alcohol increased from 14.4 years in 1998 to 15.7 years in 2013 (AIHW 2017).

Subpopulations among Australian youth who are more likely to consume alcohol at risky levels include those who are:

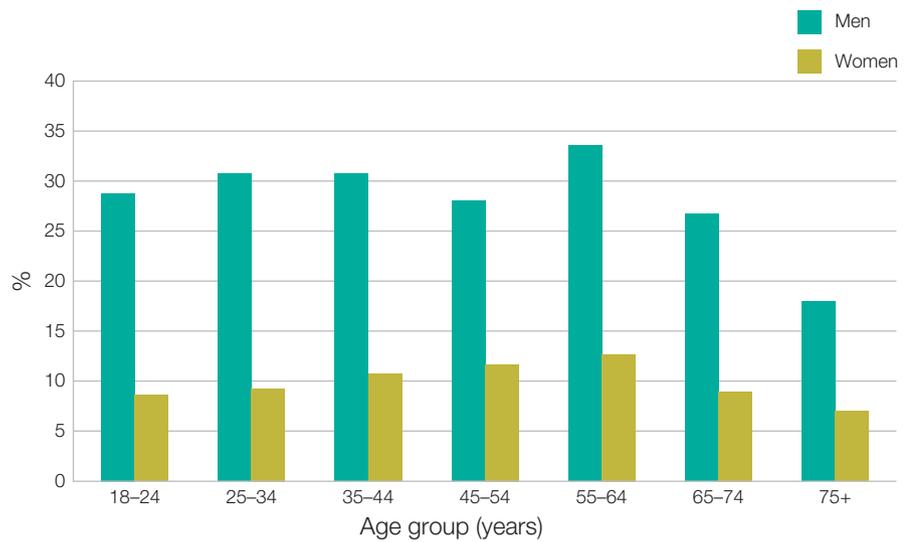
- male
- Indigenous
- living in a rural or remote area, or
- of low socioeconomic status.

For adults, consuming alcohol responsibly can enhance mood, aid relaxation and play a role in many social occasions. The NHMRC released *The Australian Guidelines to Reduce Health Risks from Drinking Alcohol 2009* to further promote a safe level of drinking in Australia. The guidelines recommend that parents do not allow their children to drink until they are 18.



Aboriginal and Torres Strait Islander Health Performance Framework 2014 Report, Figure 2.16-2 Persons aged 15 years and over who exceeded single occasion risk guidelines, by age and sex, and Indigenous status, 2012–13, Source: ABS and AIHW analysis of 2012–13 AATSIHS. © Commonwealth of Australia 2015 CC BY 3.0 Au

Figure 5.7 People aged 15 years and over who exceeded single occasion risk guidelines, by age and sex, and Indigenous status, 2012–13



ABS 2012, Australian Health Survey: First Results, 2011–12, cat. 4364.0.55.001. Canberra: ABS, CC BY 3.0 Au

Figure 5.8 Exceedance of lifetime alcohol risk guidelines in persons aged 18 and over, by sex, 2011–12

Learning fields

NHMRC Guidelines on youth drinking

NHMRC Guideline 3: Children and young people under 18 years of age ...

A. Parents and carers should be advised that children under 15 years of age are at the greatest risk of harm from drinking

and that for this age group, not drinking alcohol is especially important.

B. For young people aged 15–17 years, the safest option is to delay the initiation of drinking for as long as possible.

Extract adapted from National Health & Medical Research Council (NHMRC) 2009, 'Alcohol guidelines: reducing the health risks,' Guideline 3

Learning fields

Alcohol, under 18s and the law

If you are under 18, it is illegal to carry alcohol or to consume it in a public place. It is also illegal to be in a venue that serves alcohol (unless you are with a responsible adult aged over 18).

In Victoria, it is illegal for someone to provide alcohol to a person aged under 18, in a private residence (like someone's home), unless they have specific permission from that person's parents or guardians.

Breaking any of these laws is punishable by fines of between \$500 and \$7000.

Review and reflect

- 1 Alcohol-related harm to health is not limited to drinkers, but also affects families and the broader community. Explain what you think this means.
- 2 What is 'binge drinking'?
- 3 Binge drinking is often seen as a rite of passage for Australian youth – what does this mean? List and briefly discuss three ways in which binge drinking affects the health of Australian youth.
- 4 List three long-term effects that excessive alcohol consumption can have on health.
- 5 In Australia, young males are more likely to engage in risky drinking than young females. Identify and discuss one social inequality that needs to be addressed in order to reduce the number of young men engaging in this behaviour.



Newspix/Gordon McComiskie

Figure 5.9 Paramedics attend to a man who has been injured during an alcohol-fuelled altercation

Road traffic accidents

Road traffic accidents are accidents involving vehicles, including cars, motorcycles, pick-up trucks, vans, buses, trains, trams, animal-drawn vehicles, bicycles and other means of transportation. Injury is the biggest cause of death among Australian youth, and road traffic accidents in particular account for approximately 45% of these deaths. Almost half of all hospitalisations of young Australians are drivers who have been involved in a road traffic crash, and close to another quarter are passengers in road traffic accidents.



iStock.com/sturti

Figure 5.10 Injury is the greatest cause of death among Australian youth, with road traffic accidents in particular accounting for approximately 45% of all young Australian injury deaths.

Other statistics on the impact of road traffic accidents:

- Road deaths are nearly three times as high for young males as for females.
- One-third of all speeding drivers and riders in fatal crashes are males aged 17–25, while just 6% are females in the same age bracket.
- The death rate from injury for Indigenous youth is five times that of non-Indigenous youth.
- Drivers aged 17–25 years represent only 10–15% of drivers on Australian roads, but they represent one-quarter of all Australian road deaths.

Many factors increase the risk of injury and death for young drivers on the road.

- The biggest factor in the death of young drivers is speeding. An increase in average speed is directly related both to the likelihood of a crash occurring and to the severity of the consequences of the crash.
- Drink driving increases both the risk of a crash and the likelihood that death or serious injury will result. Limiting the legal blood alcohol concentration (BAC) for drivers to 0.05 g/dL or below has been effective in reducing the number of alcohol-related crashes. Young, inexperienced drivers are at increased risk of road traffic crashes when under the influence of alcohol, and therefore anyone who holds a learner or probationary licence, most of whom are teenagers/young adults, must have a BAC of zero when driving.
- Wearing a seatbelt reduces the risk of fatality among front-seat passengers by 40–50% and rear-seat passengers by 25–75%. Young people are generally less likely to use seatbelts than adults.
- Distractions while driving – including using a mobile phone – increase reaction time and are often a factor in road traffic accidents. Sending text messages, checking social media accounts or making phone calls are all common distractions for young drivers that can have disastrous outcomes. A driver who is using a mobile phone is approximately four times more likely to be involved in a crash than a driver who is not. Interestingly, evidence suggests that hands-free phones are not much safer than hand-held phones.
- Driver error due to inexperience is particularly linked to an increase in single-vehicle crashes and an increased rate of accidents occurring at night. Limited ability and judgement, and an underestimation of the risks of dangerous driving, often play a role.
- Having passengers increases risk – fatal crashes among teens are more likely to occur when other teens are in the car. The risk increases with each additional passenger.

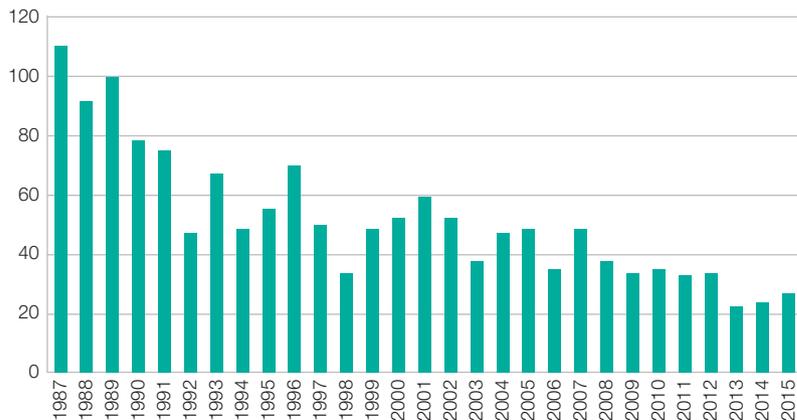
In the *Road trauma Australia 2015 statistical summary* (BITRE 2016), it was reported that some progress is being made in reducing injuries and deaths among young drivers in Australia. Analysis by age group showed that death rates fell for all age groups studied, with the largest reduction in those aged 17–25 years. In spite of this, this rate remains above the national average and further action is required.

Young driver statistics

More than 350 young drivers aged 18–25 have lost their lives in Victoria in the last 10 years – representing one in four or 25% of drivers’ lives lost in Victoria in this period.

In 2015, 22% of drivers who lost their lives were aged between 18 and 25 years, with this age group only representing around 13% of Victorian licence holders.

Young drivers’ lives lost 1987–2015



Transport Accident Commission 2015, ‘Young driver statistics’

Of the 27 young drivers who lost their lives in 2015:

- 78% were males
- 63% lost their lives on country roads
- 56% lost their lives in single vehicle crashes
- 67% lost their lives in crashes that occurred during high alcohol times
- 67% lost their lives on 100 km/h signposted roads

Note: High alcohol times are those times of the day and week when casualty crashes are ten times more likely to involve alcohol than casualty crashes at other times

Figure 5.11 Young driver statistics

Review and reflect

- 1 Provide a broad definition of ‘road traffic accidents’.
- 2 Young males are more likely to die while driving a motor vehicle than young females. Identify and discuss two reasons for this.
- 3 Discuss a strategy that could be implemented by schools to help reduce the number of young males being injured or killed in motor vehicle accidents.
- 4 Young Indigenous drivers are more likely to die while driving a motor vehicle than young non-Indigenous drivers. Identify and discuss two reasons for this.
- 5 In spite of the fact that they represent only 10–15% of drivers on Australian roads, drivers aged 17–25 represent one-quarter of all Australian road deaths. Identify and discuss one social inequality that needs to be addressed in order to reduce the number of young people being killed in road traffic accidents.

Illicit substance use

Many of the risk-taking behaviours of adolescence are associated with peer group acceptance, and experimenting with illicit or illegal substances is one of these behaviours. Although a single experiment with an illicit substance can result in a serious health problem, experimentation does not typically develop into an ongoing pattern of addiction for young people. For a minority of young people,

especially those who participate in chronic or multiple substance use, serious immediate and long-term health and social consequences are possible, and can be destructive for both themselves and their families (AIHW 2007).



Figure 5.12 The use of illicit substances is linked with many negative impacts for young Australians.

Illicit drug use by young Australians is influenced by a number of factors, including a desire to feel better or different from how they are feeling at that time, as part of socialising with friends, for relaxation, to fit in with peers, out of boredom or curiosity, or to escape some form of pain (psychological or physiological).

The most commonly used illegal drugs among young people in Australia include marijuana (cannabis), methamphetamines (speed and ice) and ecstasy.

According to the National Drug Strategy Household Survey of Australians aged 12–17 years, in 2013:

- Around one in six (14.8%) had tried cannabis ...
- According to Australian secondary school students' use of tobacco, alcohol, and over-the-counter and illicit substances in 2011, nearly three per cent had tried amphetamines ...
- 2.7 per cent had tried ecstasy.
- Around one in five 12–17 year olds have deliberately sniffed inhalants at least once – such as petrol, glue and solvents.
- 1.7 per cent of 12–17 year olds who take cocaine have only used it once or twice.
- 1.6 per cent have tried heroin.

Extract from Better Health Channel, 'Drugs and teenagers'

The use of illicit substances is linked with many negative effects for young Australians.

Relationships

Relationships are often strained – people using illicit substances often become moody and struggle to maintain positive connections with peers and family.

Concentration

Concentration is negatively affected – in turn this affects studies at school, TAFE or university.

Employment

Productivity is reduced, due to being either drug affected or 'coming down' after using illicit substances, as well as being linked with absenteeism and not meeting commitments.

Financial

Purchasing illicit substances can strain a young person's finances, making it more difficult to pay for everyday items. In extreme cases, people who are highly dependent on drugs may turn to crime and/or gambling to continue to pay for their habit.

Dependence

Young people using illicit substances regularly can become dependent on them, using increasing quantities and struggling to function without them.

Violence

Some drugs, such as amphetamines, can increase the likelihood of the person acting in a violent way or being the victim of violence.

Homelessness

Some young people who use illicit drugs are asked to leave the family home. Others find it difficult to pay rent and for other essential items after spending large sums of money on funding their habit.

Stress

Increased levels of tension, anxiety, paranoia and other symptoms contribute to high levels of stress for the user.

Psychosis

A number of illicit drugs can trigger psychosis, a mental disorder where the sufferer loses touch with reality.

Depression

The risk of depression is increased, due to the change in chemicals in the brain and/or things the user has done while drug affected.

Injuries and accidents

These are linked with increased risk taking.

STIs or unwanted pregnancy

The user is less likely to use a condom and more likely to engage in risky sexual behaviours that could lead to sexual transmissible infections (STIs) or unwanted pregnancy.

Damage to internal organs

Heavy use of some illicit drugs can damage the liver, brain, lungs, throat and stomach.

Risk of infectious disease

Sharing needles is a major risk for getting diseases like hepatitis B or C, or HIV, which are all spread through blood-to-blood transmission.

Other than ecstasy and cocaine, Indigenous Australians use illicit drugs at a higher rate than the general population ... In 2013, [compared with non-Indigenous people aged 14 or older] Indigenous Australians were:

- 1.6 times more likely to use any illicit drug in the last 12 months
- 1.9 times more likely to use cannabis
- 1.6 times more likely to use meth/amphetamines
- 1.5 times more likely to misuse pharmaceuticals.

Extract adapted from Australian Institute of Health and Wellbeing, 'Drug use and Indigenous Australians' CC BY 3.0 Au

Table 5.1 Recent illicit* drug use by people aged 14 years or older, by age, 1995–2013 (%)

Age group (years)	1995	1998	2001	2004	2007	2010	2013
Males							
14–19	36.7	39	28.8	20.9	15.6	18.1	20.6
Females							
14–19	26.8	37.4	26.5	21.8	17.7	18.2	14.5
Persons							
14–19	32	38.2	27.7	21.3	16.6	18.2	17.6

*Illicit use of at least 1 of 17 drugs in the previous 12 months in 2013; the number and types of illicit drug used varied between 1995 and 2013.

(source: AIHW 2013, 'National Drug Strategy Household Survey: detailed report' Drug statistics series no. 28. cat. PHE183, Table 5.6, CC BY 3.0 Au)

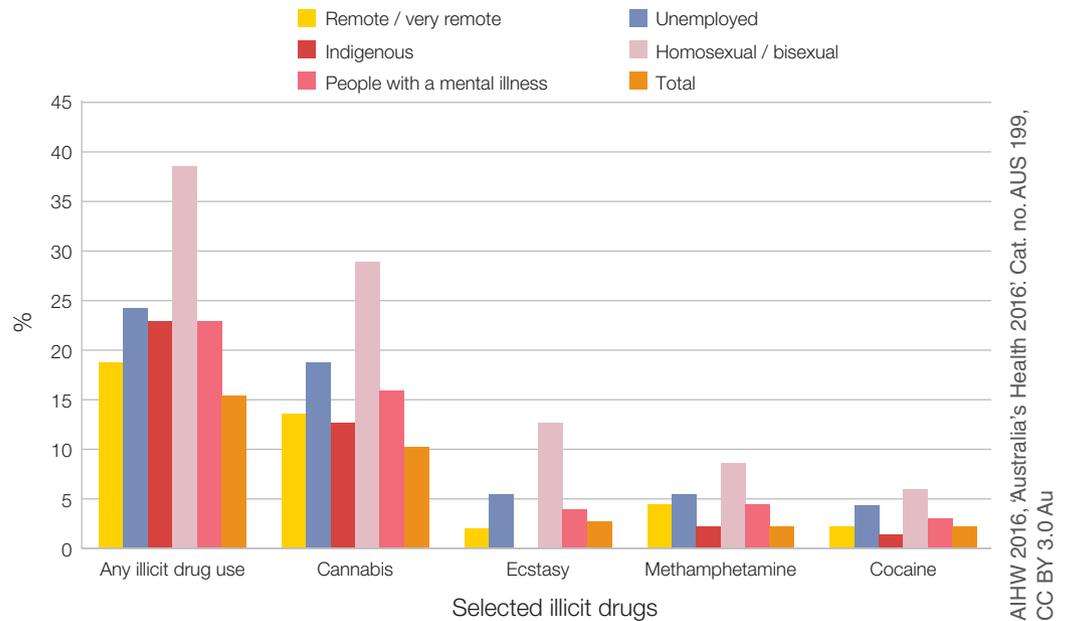
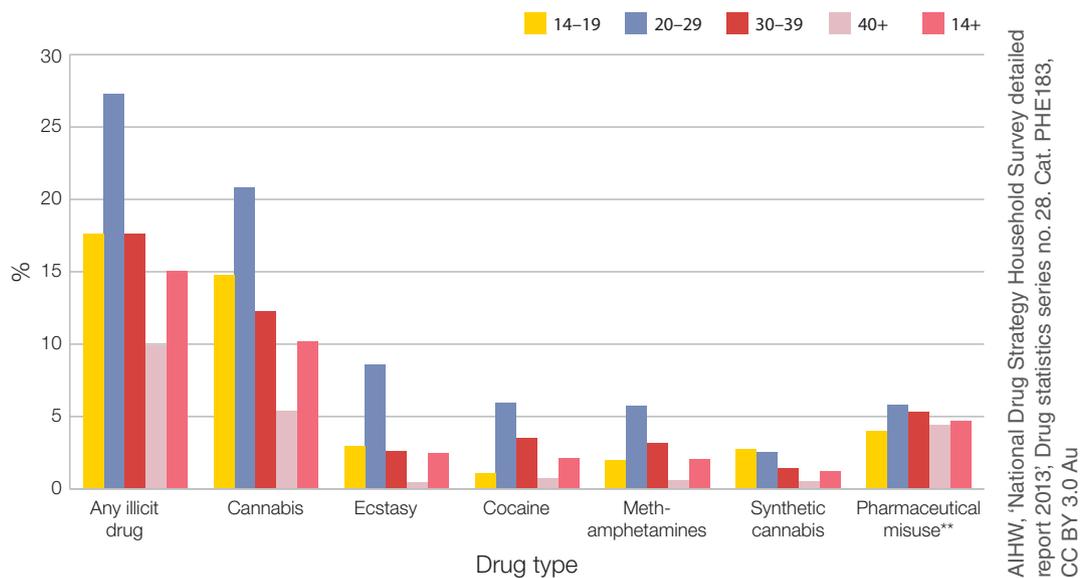


Figure 5.13 Proportion of illicit drug users, aged 14 and over, by specific population groups, 2013.

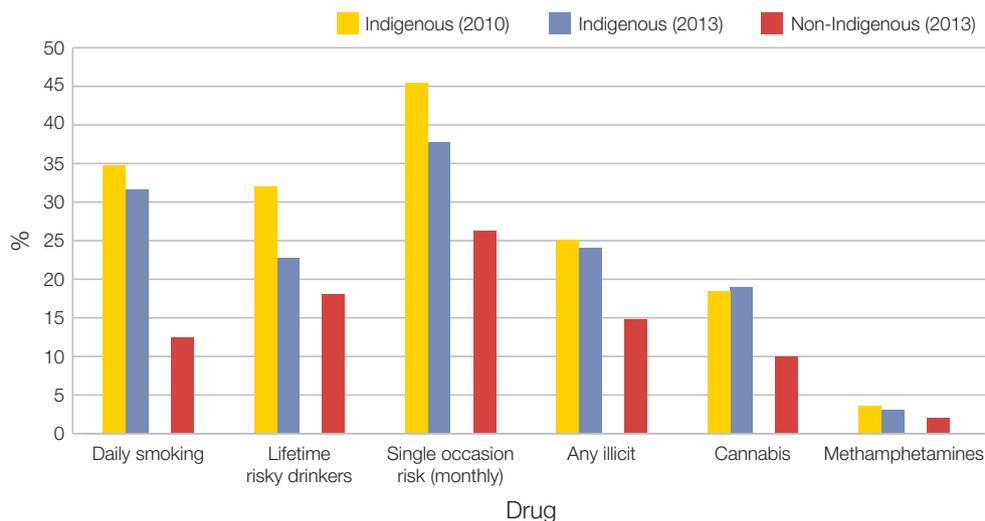


AIHW, 'National Drug Strategy Household Survey detailed report 2013'; Drug statistics series no. 28. Cat. PHE183, CC BY 3.0 AU

Figure 5.14 Recent (in the last 12 months) use of illicit drugs, people aged 14 or older, selected illicit drugs, 2013.

Review and reflect

- 1 Identify three reasons why young Australians experiment with illicit drugs.
- 2 List three of the most commonly used illegal drugs among young people.
- 3 According to the National Drug Strategy Household Survey, in 2013, 2.7% of Australians aged 12–17 years had tried ecstasy. Does this statistic surprise you? Justify your response.
- 4 Identify and discuss three negative impacts associated with the use of illicit drugs.
- 5 Apart from ecstasy and cocaine, Indigenous Australians use illicit drugs at a higher rate than the general population. Identify and discuss two social inequalities that need to be addressed in order to reduce the number of Indigenous Australians using illicit substances.
- 6 **a** Identify a trend in the graph in Figure 5.15.
b Discuss two possible reasons for this trend.



AIHW, 'National Drug Strategy Household Survey detailed report 2013'; Drug statistics series no. 28. Cat. no. PHE183, CC BY 3.0 AU

Figure 5.15 Drug use by Indigenous status, people aged 14 or older, in 2010 and 2013.

Case study

Methamphetamine use in Australia tripled in past five years, research shows

By Danuta Kozaki



iStock.com/JTSorrell

Figure 5.16 Methamphetamine use in Australia, including ice, has tripled in five years.

The number of Australians using the illegal drug methamphetamine – including crystal methamphetamine or ice – has tripled over the past five years, the National Drug and Alcohol Research Centre estimates.

A new study published in the Medical Journal of Australia shows there are 268 000 regular and dependent methamphetamine users in Australia.

One of the study's authors, Sarah Larney, said that five years ago the number of users was about 90 000.

Dr Larney said the results were based on the number of people seeking treatment in Australia, and when other factors were taken into account, the data reflected a jump in the use of the drug.

She said the most alarming finding was that the number of users in the 15 to 24 age group has more than doubled from about 21 000 regular and dependent users five years ago to 59 000 users now.

'Our concern with the 15 to 24-year-olds is that there is a clear indication we are talking about new methamphetamine users,' she said.

'The previous discussions have suggested that increasing use has been among existing users of the drug who are just using more.

'But this data suggests that there is a new, young population initiating methamphetamine use and developing regular and dependent use, and the harms associated with that.'

Dr Larney said it was the first time increases across different age groups had been quantified.

'Previously we have been relying on data from the household survey, which has been very good for telling us about broad drug use trends,' she said.

'But it doesn't really focus on regular and dependent and regular use, which is where the harms are occurring.

'This is the first data to quantify that increase and certainly suggest that what we are seeing in the household survey is underestimating regular and dependent use.'

Dr Larney said one of the most important aspects to take away from the survey was the opportunities for early intervention to prevent the transition into regular and dependent drug use.

Better services needed to prevent repeat of 'heroin crisis'

Drug rehabilitation services have also called for earlier intervention strategies to stop young people trying ice in the first place.

Matt Noffs from the New South Wales-based Ted Noffs Foundation said the study showed more work was needed.

'If we're going to prevent the kind of crisis that we saw with heroin, where we still have people who were teenagers in the 90s still dependent on heroin ... we need to intervene earlier and I don't think what we have now is ample,' he said.

'We absolutely need more research into this and to better target our services.

'The kind of interventions we are talking about are coalface – residential programs, day programs.

'We need a suite of strategies to be working with young people earlier.'

Mr Noffs also said broader issues such as youth unemployment and education needed to be part of the solution.

Extract from Kozaki D, 'Methamphetamine use in Australia tripled in past five years, research shows,' ABC News, 29 Feb 2016

Case study questions

- 1 The number of Australians using the illegal drug methamphetamine – including crystal methamphetamine (ice) – has tripled over the past five years, according to the National Drug and Alcohol Research Centre estimates. What is this statistic based on?
- 2 What did Dr Larney report as the most alarming find of the study?
- 3 How might this dramatic increase in the use of ice affect the health status of Australia's youth? List two health status outcomes, and explain your choice.
- 4 Mr Noffs also said broader issues such as youth unemployment and education needed to be part of the solution. Explain how these two social factors are linked to levels of drug use among Australia's youth.

Sexually transmissible infections

Sexually transmissible infections (STIs) are infections that can be spread through the exchange of bodily fluids (including blood, semen, vaginal) during intimate physical contact, including sexual intercourse (vaginal, anal, oral) or non-penetrative genital contact. Caused by micro-organisms such as bacteria or viruses, they are sometimes referred to as sexually transmitted diseases (STDs) and are typically associated with non-fatal disease burden among youth in Australia. Sexually transmissible infections include chlamydia, herpes, gonorrhoea, syphilis, genital herpes, scabies, pubic lice (crabs), hepatitis and HIV.

Chlamydia

Chlamydia is the most common STI among young Australians. It is ‘a bacterial infection that can infect the prostate, urethra and testes in men and the cervix, uterus and pelvis in women’ (ABS 2012). Most people are unaware they have it, because it is largely asymptomatic; however, left untreated, chlamydia can cause serious health complications, such as infertility in men and pelvic inflammatory disease in women, leading to ectopic pregnancy, chronic pelvic pain and, ultimately, infertility. Treating chlamydia is typically straightforward, and usually involves taking a course of antibiotics.

In 2014, chlamydia was the most frequently reported notifiable condition in Australia (89%).

Women aged between 15 and 19 years had the highest rates of diagnosis, with 2228 per 100000 receiving a positive diagnosis, while men aged between 20 and 24 years had the highest rate, with 1423 per 100000 (2011 figures). Overall, chlamydia diagnosis for men and women aged between 15 and 29 years accounted for 82% of diagnoses for the whole population ... The largest increases were for women and men aged 15–19 years. For women aged 15–19 years, the notification rate increased from 569 per 100000 in 2001, to 2228 per 100000 in 2011. For men, the rate increased nearly five times, from 150 per 100000 in 2001, to 714 per 100000 in 2011.

Extract from ABS 2012, ‘Sexually transmissible infections. Bacterial STIs: Chlamydia’, cat. 4102.0, Australian Social Trends, CC BY 2.5 Au

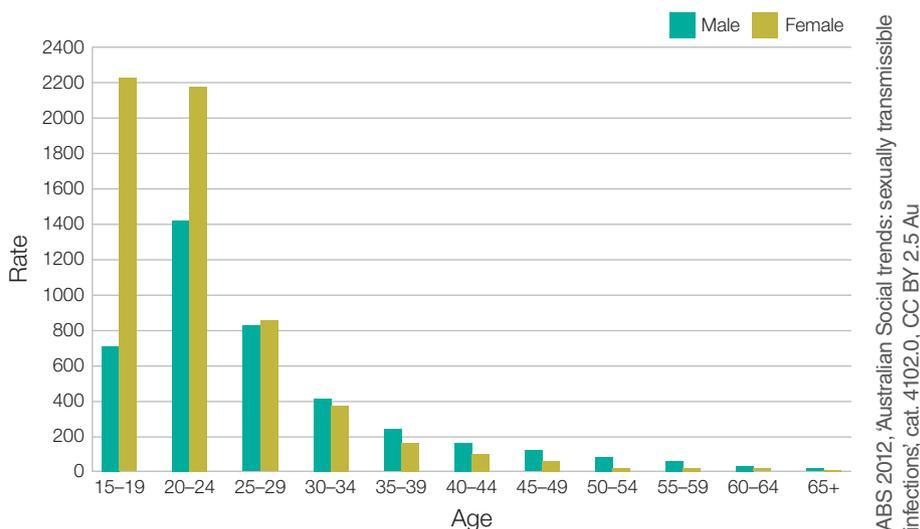


Figure 5.17 Chlamydia notifications by age (2011). Rates are highest for those aged 15–24, making it a major health concern for Australian youth

Rates among people aged 15–19 were similar in most states and territories of Australia. However, the rate among Aboriginal and Torres Strait Islander people was approximately four times higher than the national average (Middleton & McDonald 2013).

Gonorrhoea

Gonorrhoea is also a bacterial infection, and has similar characteristics to chlamydia. It is one of the most prevalent STIs among adolescents in Australia. Like chlamydia, it infects reproductive organs, typically has no symptoms and increases the chances of contracting other infections. If left untreated, gonorrhoea can also cause infertility in men and women. Typically, a course of antibiotics can cure gonorrhoea.

Notification rates of gonorrhoea have generally increased over the past 10 years.

For women, the highest rates of diagnosis were in the youngest age groups, with 178 and 128 diagnosed per 100 000 for those aged 15–19 years and 20–24 years respectively. Men and women aged between 15 and 34 years accounted for nearly three quarters (74%) of total gonorrhoea diagnosis.

Extract from ABS 2012, 'Sexually transmissible infections. Bacterial STIs: Gonorrhoea', cat. 4102.0, Australian Social Trends, CC BY 2.5 Au

The rate of diagnosis in Aboriginal and Torres Strait Islander men and women aged 15–24 was more than 30 times higher than the rate in non-Indigenous men and women of the same age (Middleton & McDonald 2013).

Reasons for STI incidence

Young Australians suffer from STIs for a variety of reasons.

- They are more likely to have unsafe sex with more than one sexual partner.
- They are more likely to have sex without a condom. In 2008, only half (51%) of sexually active young people reported always using a condom in the past 12 months, and a further 43% sometimes did (AIHW 2014).
- They often lack the communication skills and confidence to discuss condom use with their partner.
- They may be too embarrassed to go to a doctor for appropriate treatment.
- Young people might not have ready access to condoms, due to the barriers of cost and the embarrassment associated with purchasing them.
- Young people may not know how to properly apply a condom.
- Young people's level of awareness about the prevalence of STIs might be low, and they might be less likely to take on board health promotion messages about condom use.

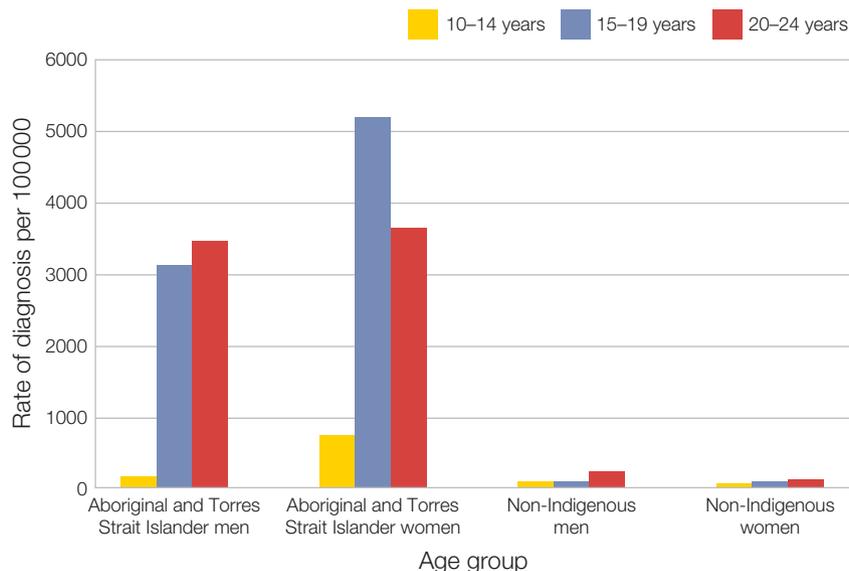
Review and reflect

- 1 Briefly describe your understanding of the term 'sexually transmissible infections (STIs)'.
- 2 What are STIs caused by?
- 3 STIs are typically associated with non-fatal disease burden in Australia. Explain what this means.
- 4 List three examples of STIs.
- 5 What is chlamydia?
- 6 If untreated, chlamydia can lead to serious health problems. List two of these issues for men and two for women.





- 7 A diagnosis of chlamydia in men and women aged 15–29 accounted for 82% of diagnoses of chlamydia for the population as a whole. List and discuss two reasons for this population group accounting for such a high percentage of diagnoses.
- 8 Young Australians suffer from STIs for a variety of reasons. List four reasons. For each reason, suggest ways in which secondary schools around Australia could help counter it.
- 9 Refer to the graph in Figure 5.18 to answer the following questions.
 - a Comment on the rates of diagnosis of gonorrhoea in Aboriginal and Torres Strait Islander men and women aged 15–24 versus the rate in non-Indigenous men and women of the same age.
 - b Identify and discuss two social inequalities that have led to this outcome.



Data source: Middleton, M and McDonald, A (2013) 'STIs among young people in Australia: An overview' HIV Australia Vol 11 no. 1 March 2013

Figure 5.18 Rate of diagnosis of gonorrhoea by Aboriginal and Torres Strait Islander status, sex and age group, 2011.

Factors that contribute to inequalities in health status

A range of factors contribute to inequalities in the health status of Australia’s youth. According to the World Health Organization (WHO):

the social determinants of health are mostly responsible for health inequities – the unfair and avoidable differences in health status seen within and between countries.

http://www.who.int/social_determinants/sdh_definition/en/

In this section, we investigate these social factors and analyse how they lead to such differences in health outcomes between population groups.

Socioeconomic status

Socioeconomic status (often referred to as SES) refers to a person’s position in society in comparison to other people, based on three factors – education, income and occupation. The first two factors, education and income, are of particular importance to youth in Australia, given that most youth are still in school and may only work limited hours in part-time or casual employment. Typically, the lower

the socioeconomic status, the poorer the health outcomes, while the higher the socioeconomic status, the better the health outcomes.

In 2007–08, 24% of people (aged 15 years and over) living in the most disadvantaged areas [i.e. low socioeconomic status] rated their health as fair or poor, compared with 10% of people living in the least disadvantaged areas [high socioeconomic status]. Chronic conditions were more prevalent among people living in the most disadvantaged areas as follows ...:

- 16% of people living in the most disadvantaged areas had mental or behavioural problems, compared with 11% of those in the least disadvantaged areas
- 8% of people living in the most disadvantaged areas had diabetes, compared with 3% of those in the least disadvantaged areas
- 6% of people living in the most disadvantaged areas had ischaemic heart disease, compared with 2% of those in the least disadvantaged areas

Extract from Australian Bureau of Statistics, 'Measures of Australia's progress, 2010. Socioeconomic disadvantage', cat. 1370.0, CC BY 2.5 Au

A global study that included data from 40 000 Melburnians courtesy of Cancer Council Victoria (as well as studies from other developed countries) reported that low socioeconomic status reduces life expectancy by 2.1 years, ranking it worse than obesity and high blood pressure as a major health risk factor (Dengate 2017).

Given the important role that education and income play in the health of Australia's youth, we will investigate these separately.

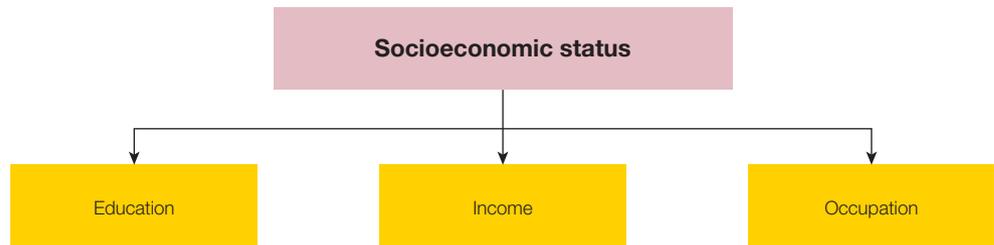
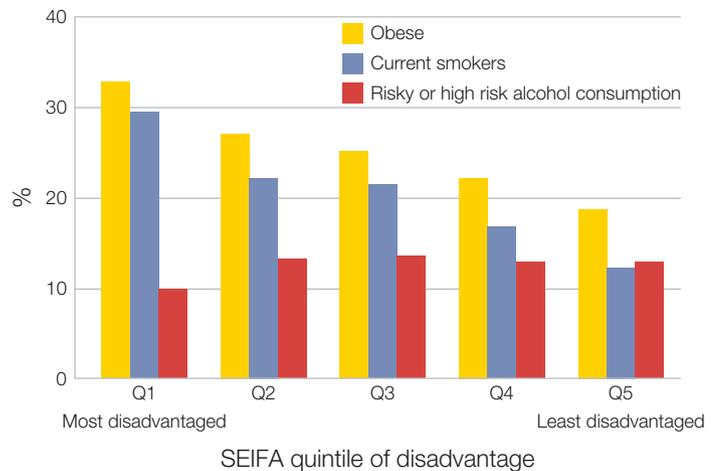


Figure 5.19 Socioeconomic status refers to a person's position in society in comparison to other people based on three factors – education, income and occupation.

Review and reflect

- 1 Briefly explain what 'socioeconomic status (SES)' means.
- 2 **a** Describe the typical relationship between SES and health.
b Provide two examples of this relationship.
- 3 **a** Identify two trends in the graph.
b Choose one of these trends and give a possible reason for it.

Figure 5.20 Proportion of population with health risk factors, by relative disadvantage of area (2007–08) (ABS 2007–08, National Health Survey)



ABS (2010) Australian Social Trends, 4102.0 Health and socioeconomic disadvantage CC BY 2.5 Au

Education

Research suggests that there is a clear relationship between level of education and health outcomes. Specifically, the higher the average level of educational attainment, the better the health outcomes for a population group. This may also be linked to the fact that higher educational attainment is also associated with developing problem-solving skills, making better choices, higher self-esteem, being more socially connected, attaining a higher-quality job with a higher income, and living in adequate housing, all of which promote positive health outcomes. On the other hand, international and Australian research demonstrates a link between lower levels of education and poorer health.

The greater the level of an individual's education, the more likely it is that they will take on board health promotion messages that promote healthy behaviours. As a direct result, those who are well educated are more likely to engage in appropriate amounts of physical activity, visit a doctor, be able to read and understand food labels, and eat appropriate amounts of fruit and vegetables. They are also less likely to smoke and less likely to use illicit drugs. The opposite is true for those with low levels of education, and so low levels of education are linked with poorer health outcomes including higher morbidity and mortality rates, and lower life expectancy.

One of the causes of health inequalities among Australian youth is differing levels of access to education and educational outcomes. Examples of these inequalities discussed in *Australia's Health* (AIHW 2014) are described below.

Non-school qualifications

In 2011, 26% of Indigenous Australians aged 15 and over had completed a non-school qualification [in comparison to] 49% of non-Indigenous Australians ... [Approximately] 3% of Indigenous Australians had a Bachelor degree compared with 14% of non-Indigenous Australians.

Extract from AIHW, 'Australia's health, 2014. Understanding health & illness', Australia's health series no. 14 cat. Aus178

Reading levels

While 95.9% of non-Indigenous students in Year 7 were at or above the national minimum benchmark for reading in 2014 NAPLAN, the figure is only 77.1% for Indigenous students. For students living in remote communities, the figure is even more concerning, with just 34.9% reaching the benchmark.

Extract from Riddle S & Fogarty B 2015, 'Closing the Gap in education report card: needs improvement', *The Conversation*, 11 February 2015, CC BY-ND 4.0

Smoking

The likelihood of smoking decreases when higher levels of schooling are attained. According to the Australian Institute of Health and Wellbeing in 2015, 28% of Indigenous adults who completed Year 12 were current daily smokers. In comparison, 51% of those who completed schooling to Year 10 or below were current daily smokers (AIHW *The Health and Welfare of Australia's Aboriginal and Torres Strait Islander Peoples* 2015).

Living in a rural or remote area

While only 10 per cent of Australians live in rural and remote areas, this population is spread across a vast continent with one of the lowest population densities in the world.

Extract from Mitchell Institute, Victoria University 2015, Fact sheet 6, 'Young people in rural & remote communities frequently missing out'

As a result, the proportion of students living in very remote areas who meet recommended educational milestones between early childhood and early adulthood is 19–48% less than the Australian population overall.

Rural and remote students have reduced access to education services compared to [students living in urban areas, which means they] attend school less frequently, are less likely to go to university and are more likely to drop out if they enrol.

Extract from Mitchell Institute, Victoria University 2015, Fact sheet 6, 'Young people in rural & remote communities frequently missing out'

One-quarter of Australia's Indigenous population live in remote communities, and as a result:

the educational challenges [of living in] remote areas have a disproportionate impact on Indigenous Australians.

Extract from Mitchell Institute, Victoria University 2015, Fact sheet 6, 'Young people in rural & remote communities frequently missing out'



AAP Image/Tracey Nearmy

Figure 5.21 Research suggests that higher levels of average educational achievement are associated with better health outcomes for a population group.

Review and reflect

- 1 Describe the typical relationship between education and health.
- 2
 - a List three outcomes linked with higher levels of educational attainment.
 - b For one of the outcomes you identified in part a, explain why you think this outcome is linked to high levels of educational achievement.
- 3 ‘The greater the level of education, the more likely it is that an individual will take on board health promotion messages that promote healthy behaviours.’ Discuss what you think this statement means, while listing three examples of what you consider to be healthy behaviours.
- 4 Select one population group that experiences poorer educational outcomes than other Australians, and briefly discuss two possible reasons for this.
- 5 ‘All Australians should be made to complete a basic health education course during their secondary education. The program would run for approximately three months and would focus on promoting healthy behaviours. It should be compulsory for all and funded predominantly by the Federal Government.’ Discuss one positive and one negative associated with this idea.
- 6
 - a Identify a trend in the graph shown in Figure 5.22.
 - b Discuss the role of education in creating this trend.

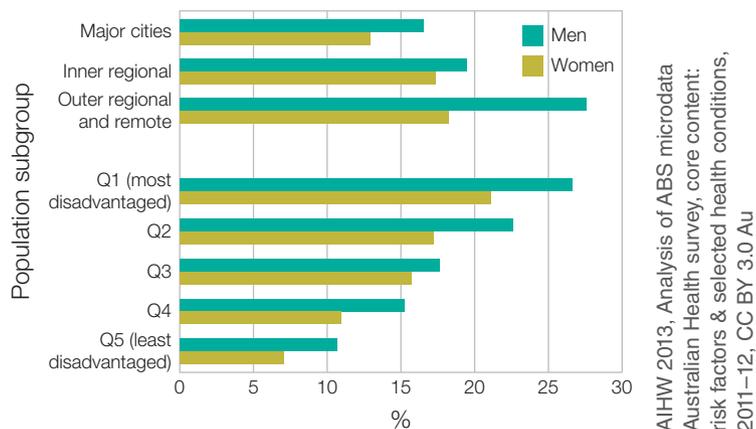


Figure 5.22 Daily smoking in adults, by selected population characteristics, 2011–12.

Income

The old adage that, ‘The healthier you are, the wealthier you are’ certainly rings true in Australia – data shows that the higher the level of income, the better the health outcome for Australia’s youth.

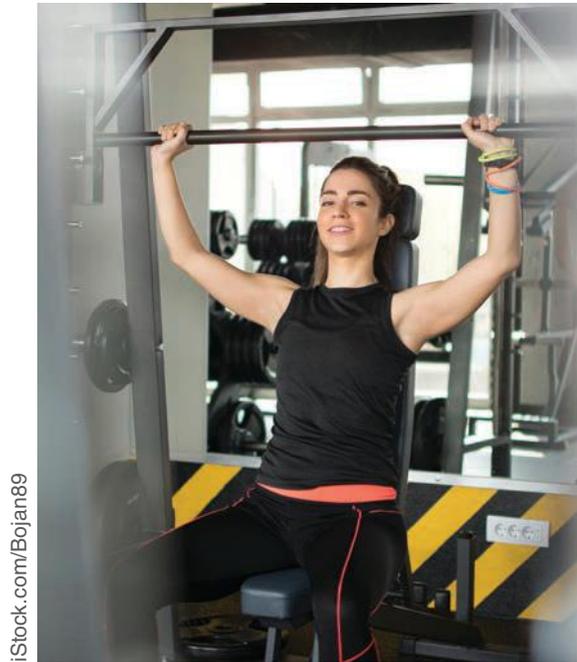
Low income is a cause of health inequality among youth in Australia. Most youths rely on their parents/guardians for some income, so the financial position of their primary caregiver/s influences their access to various services and resources.

Many young people have part-time jobs and earn only a small amount of money per year, while others who have left home and are either unemployed or earning less than a minimum amount are eligible for financial support from the Federal Government through a scheme called Youth Allowance. In order to be eligible for this payment, young people need to pass a means test and be:

- 16 to 21 years of age and looking for full time work or doing approved activities
- 18 to 24 years of age and studying full time

- 16 to 17 years of age and:
 - have finished year 12 or equivalent
 - need to live away from home to study, or
 - are independent for Youth Allowance, or
- 16 to 24 years of age and doing a full time Australian Apprenticeship

Extract from Australian Government, Department of Human Services 2017, 'Who can get youth allowance'



iStock.com/Bojan89

Figure 5.23 A higher income provides youths with greater access to paid recreation facilities, such as local gyms.

Higher levels of income for youth (via the primary caregiver) are linked with better access to:

- education – this is linked with higher average income later in life as well as higher self-esteem and social connectedness
- recreation facilities
- transport
- health care (particularly services not covered by Medicare)
- medication (particularly medication not included in the Pharmaceutical Benefits Scheme)
- housing
- private health insurance
- greater food security.

Review and reflect

- 1 Explain your understanding of this statement: 'The healthier you are, the wealthier you are.'
- 2 List three things linked to higher levels of income, and explain how they have a positive impact on health.
- 3 Discuss how having a low income could affect the mental health of a young person in Australia.
- 4 Youth Allowance is a support system established by the Federal Government to support young Australians who are unemployed and meet a series of other criteria. Identify and discuss one positive and one negative factor associated with a program like this, including how these factors could affect the health of young people.

Early life experiences

Early life experiences contribute to inequalities in the health status of Australia's youth. These experiences begin at conception and influence health and wellbeing throughout the lifespan. For example, the diet of a mother while pregnant will influence the foetus's growth and can influence health outcomes (positively or negatively) for the child years later. Maternal illness, exposure to toxins (including tobacco smoking, drug use, alcohol) and stressful intrauterine conditions

negatively affect the health of the growing foetus and will also influence growth and development later in life.

Early life experiences influence a person's attitudes, values and patterns of behaviour. Youth who experience poorer health outcomes often have role models within the family who engage in unhealthy behaviours (such as smoking tobacco, drinking alcohol excessively, consuming a diet high in sugar/saturated fat/sodium, and not engaging in adequate amounts of physical activity). While youth is a time of growing independence, behaviours witnessed early in life are often mirrored, and may be linked with poorer health outcomes.

Education early in life has a significant impact on behaviour during youth. The basis for literacy and numeracy skills, the ability to concentrate and self-regulate behaviour, communication skills, patterns of thinking and levels of resilience, cognitive skills, conflict resolution and decision-making skills are practised and established early in life, so it is little wonder that young Australians who have the best health outcomes are those who have had opportunities to develop in these areas early in life.

Review and reflect

- | | |
|---|--|
| <ol style="list-style-type: none"> 1 Explain your understanding of the term 'early life experiences'. 2 Provide an example of an early life experience that could have a negative impact on the health of an unborn foetus and later in life. 3 Early life experiences influence attitudes, values and patterns of behaviour. Provide an example of how this is true for you, looking carefully at your own early life experiences. 4 Select one population group that experiences poorer health outcomes than other Australians. | <p>Briefly discuss two negative early life experiences that this group are more likely to have had, and explain the link between these experiences and health status outcomes.</p> <ol style="list-style-type: none"> 5 Early life experiences may include exposure to an environment that is conducive to learning and a social setting that promotes education. Provide one example of how childcare facilities in Australia aim to ensure that this takes place, and explain how this could have a positive impact on health during youth. |
|---|--|

Housing

Housing has a range of impacts on health. Housing insecurity and unaffordability, overcrowding and inadequate housing (including uninsulated housing) are associated with health inequalities for Australian youth.

If houses are overcrowded, the rate of infectious, communicable disease rises. Overcrowding is more common among Indigenous Australians and low socioeconomic communities, and this is reflected in their poorer health outcomes. Overcrowded housing is also associated with increased levels of noise, poorer quality of sleep and lack of privacy, all of which are linked to increased anxiety and stress for youth. If a young person is still attending school, these conditions are also less than favourable for studying and focusing, which can have a negative impact on educational outcomes for that person.

Overcrowded housing places excessive demands on bathroom, kitchen and laundry facilities, which can result in a more rapid spread of communicable disease, and this can have a negative impact on school attendance rates for youth.



Getty Images/Jeff Greenberg/UIG

Figure 5.24 Overcrowded living conditions increase the rate of infectious and communicable diseases.

Other housing-related causes of health inequality in youth:

- Housing that has no or poor-quality insulation increases the chances of young people getting illnesses such as colds and flu, as well as some respiratory conditions.
- Housing that is insecure (for example, with poor-quality security fittings), and is in a low socioeconomic area where the crime rate is high, can result in young people experiencing higher rates of anxiety and poorer-quality sleep.

Review and reflect

- 1 Housing insecurity and unaffordability, overcrowding and inadequate housing are associated with inequalities in health for youth in Australia. Choose one of these factors and discuss in detail how it affects the health of Australia's youth.
- 2 Discuss three negatives associated with overcrowded housing.
- 3 Insecure housing is linked with poorer mental health outcomes – explain why.
- 4 Reflect on your own housing situation and discuss one way in which it positively affects your health. In your answer, ensure you refer to the dimensions of health.

Access to health care services

Health care is defined as the maintenance and restoration of health by the treatment and prevention of disease, especially by trained and licensed professionals. These health care professionals include doctors, nurses, physiotherapists, dentists, pharmacists, osteopaths and other professionals who diagnose and then treat health conditions/illness. These services are typically carried out in a hospital or a private practice.



Figure 5.25 Factors that can limit access to health care include time, distance, culture and knowledge.

Access to health care can be limited for some youth in Australia, for many reasons, including those discussed below.

Distance

Youth living in rural and remote areas may struggle to access health care because of the need to travel long distances to do so, particularly if they don't have a driver's licence or other adequate transportation.

Time

Youth in Australia are often busy attending school and participating in activities in the community (such as sport or music), and may believe that they don't have time to visit a health practitioner. For many youths, it might not be a priority unless they are in need of immediate care or treatment. Time can also be a barrier for young people living in remote areas – many are required to travel long distances to access health care.

Knowledge

Some youth in Australia lack understanding about the importance of early detection of health issues and subsequent intervention. This lack of knowledge means youth of a low socioeconomic status, Indigenous youth and those in rural and remote areas are less likely to seek health care until a health issue arises.

Cultural barriers

Some Australians may avoid seeking conventional treatment of illnesses by physicians, for various reasons – for example, they might lack faith in Western medicine. Female youth may not find it appropriate to be treated by a male doctor, which can limit their treatment options, particularly in rural and remote areas where the local doctor may be the only health care professional in relatively close proximity.

Income

Many health care treatments are not covered by Medicare in Australia, which limits access to those who can afford to pay for them. Services provided by specialists are often particularly expensive.

Peer group

If a young person belongs to a peer group that believes that going to the doctor is undesirable, they are less likely to attend. This is often an issue for young men in Australia, who often try to uphold the 'macho' attitude that going to the doctor is for the weak, and may therefore delay seeing a doctor until absolutely necessary.

Review and reflect

- 1 Explain your understanding of the term 'health care'.
- 2 Many factors can limit access to health care. Choose three such factors discussed in this section, and explain:
 - a how these factors limit access
 - b how this limitation can affect health status.
- 3 Research an initiative/program put in place by a government or non-government organisation that aims to increase access to health care for youth from a disadvantaged group in Australia. Share information about the program with your classmates. Use the following cues as a guide:
 - Who implements/administers the program?
 - What is the aim of the program?
 - What does the program do to increase access to health care – what barrier is it helping to remove?
 - Why is this program necessary?

food security continuous access to adequate, safe, nutritious food to maintain a healthy and active life

food insecurity limited or uncertain availability of nutritionally adequate and safe foods, or limited ability to acquire foods in socially acceptable ways

Food security

In 2011–12, 4% of Australians experienced **food insecurity** (Lindberg et al. 2015). Youth from low socioeconomic status areas, Indigenous youth and youth who live in rural or remote areas are more likely to experience food insecurity than other Australian youth. For example, in 2012–13, 22% of Indigenous Australians were living in a house that in the past year had run out of food and had not been able to afford to buy more, compared with 3.7% of the non-Indigenous population. This figure was even higher for Indigenous Australians living in remote areas (ABS 2015).

These differences occur for a range of reasons, such as:

- low income level – many young people may struggle to afford healthy foods and be more inclined to buy take-away food that is cheap, easy to access and affordable, as well as being calorie-dense and typically high in fat and salt
- poor access to transport – those living in rural and remote areas can be required to travel long distances to access healthy foods
- lack of knowledge – not knowing where or how to access healthy foods can be a barrier to food security
- geographical location – for those in remote areas, supermarkets are often a long distance away and so it is easier to store processed foods than to travel frequently to access fresh foods.

Food insecurity contributes significantly to inequalities in the health status of Australia's youth. It is a major concern for Indigenous youths in remote areas, as it has a significant effect on their dietary behaviour. Food insecurity can negatively affect students' performance at school by lowering levels of energy and concentration, and it is linked with increased rates of obesity, cardiovascular disease and type 2 diabetes later in life.



iStock.com/LightFieldStudios

Figure 5.26 Even with food security, individuals can still make poor food choices for various reasons, such as peer group pressure.

Review and reflect

- 1 Explain your understanding of the terms 'food security' and 'food insecurity'.
- 2
 - a List the three subpopulations of Australian youth who are more likely to experience food insecurity.
 - b Identify and discuss two reasons for these groups experiencing food insecurity.
- 3
 - a List three health outcomes linked with food insecurity.
 - b Choose one of the outcomes you listed in part a, and explain why this is the case.

Social inequality and priority areas for action

A key skill required in this unit is listed at the beginning of this chapter:

use research and data to identify social inequality and priority areas for action and improvement in youth health and wellbeing

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You are encouraged to visit a number of websites and access a variety of information sources in order to carry this task out thoroughly.

Suggested sites include the Australian Institute of Health and Welfare, which includes several helpful links, including those to:

- *Australia's Health 2016*
- *Young Australians: their health and wellbeing 2011*



Weblinks

INVESTIGATE

Check out the links to *Australia's Health and Young Australians* from the AIHW website. Visit <http://hhdvce1and2.nelsonnet.com.au> to access the weblink.



- Youth health and wellbeing publications page
- National Youth Information Framework.

You are encouraged to use a number of sources in your research, and list them as references. Your research should focus on the health and social opportunities among youth in the following population groups:

- people living in low socioeconomic areas
- people living in rural and remote areas
- Indigenous Australians.

Review and reflect

- 1 Identify a youth population group in Australia that experiences poorer health in comparison to the rest of the Australian population.
- 2 Use research and data to identify social inequality and priority areas for action and improvement in youth health and wellbeing within the group you identified in Question 1. Suggested discussion points include:
 - differences in life expectancy
 - differences in burden of disease
 - differences in social determinants of health, such as education, income, unemployment, social isolation, access to health care, early life experiences – link these determinants to health outcomes
- 3 In consultation with your teacher, present your findings in one or more formats, such as:
 - written report
 - blog
 - podcast
 - poster
 - oral presentation
 - Prezi
 - video.

Concerns of young people in Australia

Research conducted into the concerns of young people in Australia reveals many existing concerns, as well as some new ones that have come to prominence.

Mission Australia survey results

Mission Australia runs an annual Youth Survey where young people in Australia are quizzed on a number of things, including how concerned they have been about particular issues over the past year. Responses are rated on a 5-point scale, ranging from extremely concerned to not at all concerned. In 2016, the 15th year of the survey, over 22000 respondents were questioned, making it the biggest Australian survey of its kind.

The results revealed that coping with stress, school or study problems, and body image, were the top three concerns for both males and females (Bailey et al. 2016).

Some other interesting results from the survey:

- The top three issues of concern were the same as in previous years.
- Coping with stress was the top issue of concern, with 44.4% of respondents indicating that they were either extremely concerned or very concerned about this issue.

- School or study problems ranked second, with 37.8% of young people reporting that they were either extremely concerned or very concerned about this issue.
- Consistent with past surveys, body image was an issue of major concern for 30.3% (extremely concerned 13.0%; very concerned 17.6%).
- Around one in five respondents were either extremely concerned or very concerned about depression and family conflict.
- The proportion of females concerned about each of these issues was much higher than the proportion of males. For example, 41.4% of females indicated that body image was a major concern (extremely concerned 18.0%; very concerned 23.4%), compared with 17% of males (extremely concerned 6.1%; very concerned 10.9%).
- Other issues featuring in the top ten issues of personal concern for the youth surveyed included personal safety, bullying/emotional abuse, discrimination, suicide, drugs, alcohol and gambling.



iStock.com/MachineHeadz

Figure 5.27 Body image issues are still one of the leading causes of concern for young people in Australia.

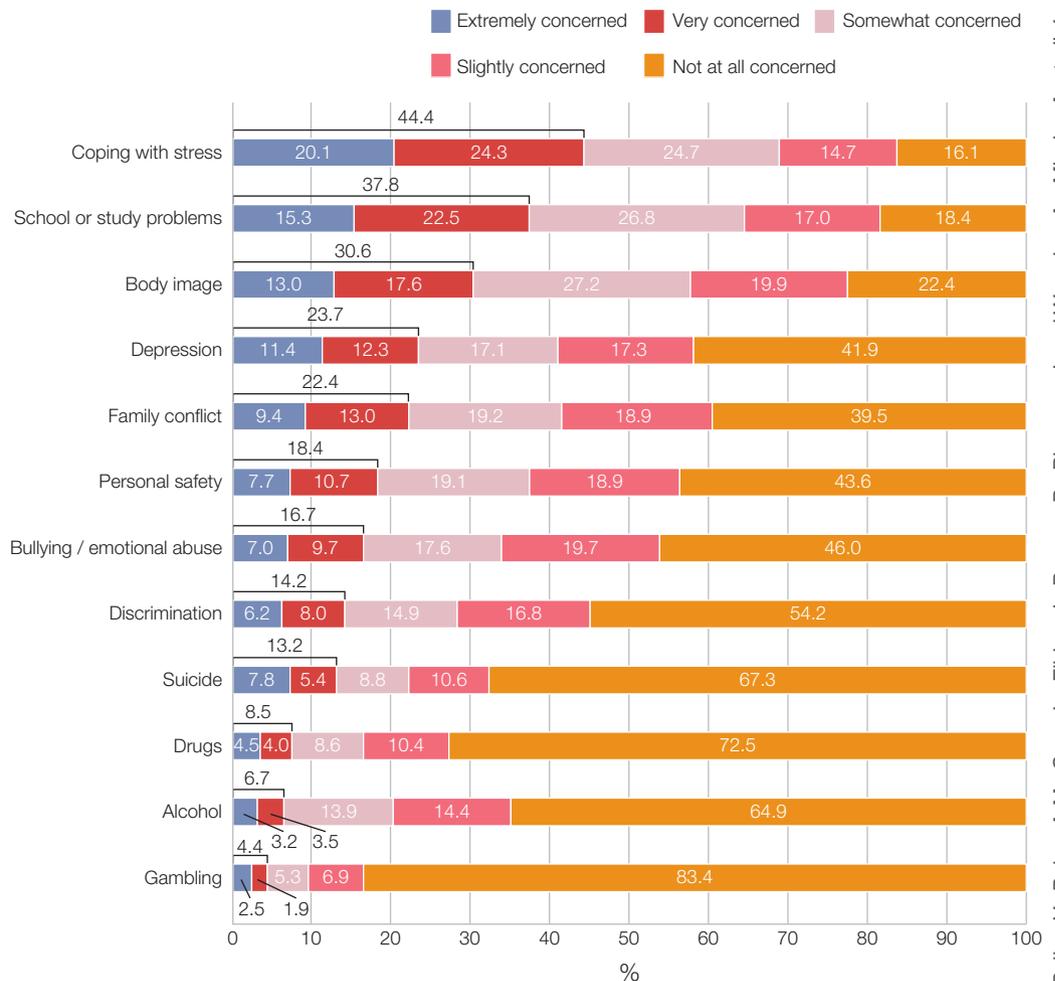
Table 5.2 Issues of personal concern to young people, by gender, 2016

Females	Extremely concerned %	Very concerned %	Somewhat concerned %	Slightly concerned %	Not at all concerned %
Coping with stress	28.2	30.1	23.5	10.9	7.4
School or study problems	19.8	26.9	27.3	14.9	11.1
Body image	18.0	23.4	29.0	17.0	12.6
Depression	13.8	15.2	18.7	17.8	34.5
Family conflict	11.4	16.0	21.7	19.7	31.3
Personal safety	8.6	12.5	21.3	20.4	37.2
Bullying/emotional abuse	8.2	11.8	19.9	20.9	39.3
Discrimination	6.5	9.5	16.9	18.4	48.8
Suicide	8.4	6.6	10.0	12.2	62.8
Drugs	3.7	4.4	8.9	11.2	71.9
Alcohol	2.3	4.0	15.4	15.2	63.1
Gambling	1.6	1.8	4.3	6.5	85.7

table continues ...

Males	Extremely concerned %	Very concerned %	Somewhat concerned %	Slightly concerned %	Not at all concerned %
Coping with stress	9.8	17.9	26.7	19.8	25.8
School or study problems	9.5	17.7	26.6	20.0	26.2
Body image	6.1	10.9	25.6	23.8	33.5
Depression	7.3	8.8	15.4	17.1	51.3
Family conflict	6.4	9.5	16.3	18.4	49.4
Personal safety	6.1	8.7	16.7	17.3	51.2
Bullying/ emotional abuse	4.8	7.3	14.9	18.7	54.2
Discrimination	4.8	5.9	12.7	15.4	61.1
Suicide	6.0	3.7	7.3	8.7	74.2
Drugs	4.6	3.6	8.2	9.5	74.1
Alcohol	3.5	3.0	12.4	13.7	67.3
Gambling	2.8	1.9	6.3	7.3	81.7

(source: adapted from adapted from Bailey et al, *Mission Australia's 2016 Youth Survey Report*, Mission Australia, 2016, Table 1.5, p. 22)



Bailey, V., Baker, A-M., Cave, L., Fildes, J., Perrins, B., Plummer, J. and Wearing, A., *Mission Australia's 2016 Youth Survey Report*, Mission Australia, 2016, Figure 1.5, p. 21

Figure 5.28 Issues of personal concern to young people

Within this survey, the responses of young Aboriginal and Torres Strait Islander people were compared with those of young non-Indigenous Australians.

- Coping with stress was the number one issue of personal concern for Aboriginal and Torres Strait Islander respondents, with 38.0% indicating that they were either extremely concerned (20.9%) or very concerned (17.1%) about this issue.
- The second-highest ranked concern was school or study problems, with 33% of Indigenous respondents identifying it as a major concern (extremely concerned 17.7%; very concerned 15.3%).
- Body image ranked third among Indigenous respondents, with 31.6% reporting that they were either extremely concerned (17.7%) or very concerned (13.9%).
- Close to 30% of Aboriginal and Torres Strait Islander respondents were extremely concerned or very concerned about family conflict and depression.

It was also discovered that there were some differences between the top concerns of young males and females in Australia.

- While the top three concerns for both were the same (coping with stress, school or study problems and body image), the number of females concerned about all of these (and many of the other issues) was much higher than that of males.
- Approximately 60% of all females surveyed indicated that coping with stress was a major concern (extremely concerned 28.2%; very concerned 30.1%), compared with just over 25% of all males surveyed (extremely concerned 9.8%; very concerned 17.9%).
- 46.7% of females indicated that school and study problems were a major concern, compared with 27.2% of males.
- For 41.4% of females surveyed, body image was a major concern (extremely concerned 18.0%; very concerned 23.4%), compared with 17.0% of males (extremely concerned 6.1%; very concerned 10.9%).
- Depression was a major concern for 29.0% of females (extremely concerned 13.8%; very concerned 15.2%), compared with 16.1% of males (extremely concerned 7.3%; very concerned 8.8%).



iStock.com/Gastuner19

Figure 5.29 School or study problems were among the top three concerns of young Australians.

Review and reflect

- 1 a** List the two top concerns of young people in Australia in 2016, according to the Mission Australia Youth Survey.
- b** Choose one of the concerns you identified in part **a**, and discuss the possible impact on this concern of one of the contributing factors to inequalities in the health status of Australia's youth.
- 2** Close to 30% of Aboriginal and Torres Strait Islander respondents were extremely concerned or very concerned about family conflict and depression. Discuss the impact that family conflict and depression can have on the dimensions of health for young Indigenous Australians.
- 3 a** Using the data provided in Table 5.3, identify three of the differences in the major concerns of young males and females.
- b** Choose one of these differences and explain why you think it has occurred.
- 4** Research an initiative or program by a government or non-government organisation that aims to address one of the leading concerns of young people. Share your information about the program with your classmates, using the following prompts as a guide.
 - Who implements/administers the program?
 - What is the aim of the program?
 - What does the program do to address the concerns of young people in Australia?
 - Why you think this program is effective/ ineffective?

Chapter summary

- Social determinants of health include social, economic, political, cultural and environmental. These are associated with health inequities within and between countries.
- Priority areas for action and improvement in youth health and wellbeing are determined by health data on burden of disease for the youth of Australia, health inequalities that exist among youth in Australia, and research into the concerns of young people.
- Australia's youth experience a variety of issues related to weight – such as being underweight, overweight or obese.
- Injury is a leading cause of death and hospitalisation for young people aged 12–24 years, accounting for more deaths than all other causes of death combined.
- Despite Australia having one of the lowest smoking rates in the world, tobacco remains the leading cause of preventable deaths and hospitalisation. Most tobacco smokers take up smoking in adolescence.
- In Australia, excessive consumption of alcohol is responsible for a considerable burden of death, disease and injury. 'Binge drinking' during adolescence has negative short- and long-term health effects.
- Road traffic accidents account for 45% of all young Australian injury deaths.
- A single experiment with an illicit drug can be deadly for a teenager. Some teens participate in chronic or multiple substance use and experience serious short- and long-term health and social consequences that can be destructive for both themselves and their families.
- Sexually transmissible infections (STIs) are infections that can be spread through the exchange of bodily fluids. They are typically associated with non-fatal disease burden among youth in Australia.
- Factors that contribute to inequalities in the health status of Australia's youth include socioeconomic status (income, education and occupation), early life experiences, food security, access to health care and housing.
- Socioeconomic status (SES) refers to a person's position in society compared with other people, based on education, income and occupation.
- Research suggests a clear relationship between education level and health outcomes. Specifically, the higher the level of average educational attainment, the better the health outcomes of a population group.
- Higher income level is associated with better health outcomes for Australia's youth, and with better access to education, health care, improved housing and better food security.
- Early life experiences begin at conception and influence health and wellbeing throughout the lifespan, including the teenage years. They strongly influence attitudes, values and patterns of behaviour, all of which affect health.
- Housing insecurity and unaffordability, overcrowding and inadequate housing are all associated with inequalities in health for youth in Australia.
- Access to health care can be limited for some youth in Australia due to barriers of distance, time, knowledge, culture, income or peer group pressure.
- Food security is influenced by the barriers of income, access to transport, knowledge and geographical location, and is a cause of health inequities among Australian youth.
- According to research into the concerns of young people in Australia, coping with stress is the top issue of concern, with school or study problems ranked second and body image third.

Exam-style question and sample answers

- 1** Education is an example of a social determinant of health where inequality exists in Australia.
- a** Identify a population group who experience poorer educational outcomes than other Australians. **(1 mark)**
- Sample answer:* Indigenous Australians **(1 mark)**
- b** Analyse how education level can contribute to inequalities in the health status of Australia's youth. **(2 marks)**
- Sample answer:* Due to lower levels of education than the rest of the population, Indigenous Australians experience a higher prevalence of sexually transmitted diseases, as they are less likely to take on board health promotion messages. This also results in higher morbidity rates for Indigenous youth. **(2 marks)**

Questions for you to practise

- 1** Use the information in the table below to answer the questions that follow.

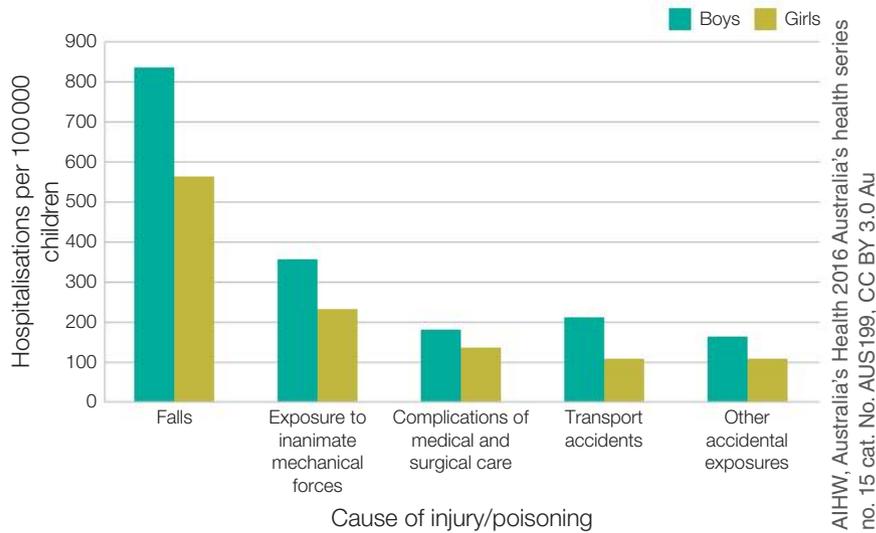
Inequalities in selected chronic diseases

	Year	Lowest socioeconomic group (%)	Highest socioeconomic group (%)	Rate ratio: lowest/highest socioeconomic group
Arthritis	2014–15	19.7	12.1	1.6
Asthma	2014–15	12.8	9.8	1.3
Back problems	2014–15	18.9	15.9	1.2
Chronic kidney disease	2011–12	13.5	8.3	1.6
Coronary heart disease	2011–12	5.0	2.3	2.2
Diabetes	2014–15	8.2	3.1	2.6
Lung cancer incidence	2006–09	52 per 100 000	33 per 100 000	1.6
Mental and behavioural problems	2014–15	21.5	15.0	1.4
Oral health rated as fair or poor	2010	31.2	12.2	2.6
Stroke	2014–15	1.1	0.5	2.0

(source: AIHW 2016, 'Australia's Health 2016'; Australia's health series no. 15 cat. AUS199, CC BY 3.0 Au)

- a** Identify a trend in the data. **(1 mark)**
- b** Identify one condition that is:
- prevalent among youth
 - experienced at higher rates by the lowest socioeconomic group. **(2 marks)**
- c** Identify and describe a factor that contributes this inequality. **(2 marks)**
- 2 a** List one priority area for action and improvement in youth health and wellbeing. **(1 mark)**
- b** Other than education, identify and describe one factor that contributes to inequalities in your chosen priority area among Australian youth. **(2 marks)**

- 3 Use the information in the graph below to answer the questions.
- a Identify a trend in the graph. (1 mark)
 - b Choose one area where boys have a higher prevalence of hospitalisations than girls. (1 mark)
 - c Identify and describe how early life experiences could contribute to this difference. (2 marks)



Hospitalisations for the top five principal diagnoses of injury and poisoning, by cause and sex, children aged 0–14, 2013–14

Chapter 6: Programs relating to youth health and wellbeing

Key knowledge

- government and non-government programs relating to youth health and wellbeing
- community values and expectations that influence the development and implementation of programs for youth

Key skills

- analyse the role and influence of community values and expectations in the development and implementation of health and wellbeing programs for youth

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Key terms

community expectations
community values

In this chapter

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 Youth obesity page 168
 Suicide and self-harm page 170

Violence causing injury and premature death among youth page 172
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Illicit drug use by youth page 179
Road safety and youth page 180
Risky sexual behaviour by youth page 181

Programs for youth health and wellbeing

Programs relating to youth health and wellbeing are funded and implemented by both government and non-government organisations. These programs aim to promote positive behaviours that enhance the wellbeing of Australia's youth, and address areas of concern. While there are many programs run in different parts of Australia, this chapter looks closely at a few, and examines the community values and expectations that influence the development and implementation of these programs for Australia's youth.

Community values and expectations that shape programs for youth

Community values are collective beliefs about good behaviour and what things are important within that community. **Community expectations** are the types of behaviour that are expected of people within a community. These values and expectations influence the development and implementation of programs for youth, as community leaders attempt to set an agenda and create and implement programs to steer youth towards behaviours that promote health, not endanger others and enhance their wellbeing.

Youth are often perceived by older people in a negative light. Some perceptions about the youth of today:

- Many young Australians are using drugs.
- The youth of today love to binge drink.
- Young people are 'hoons' who drive over the speed limit.
- The youth of today are lazy and don't want to get a job.
- Young people in Australia are all sexually active.
- Young people are often violent and often 'king hit' others.
- The youth of Australia are narcissistic, selfish and enamoured with themselves.

Of course, sweeping statements like these aren't true. However, these harmful stereotypes held by some can sometimes form the basis of the community's response to the most important issues facing Australia's youth today, including youth unemployment, poor access to housing for young people, mental illness among youth, and youth suicide.

Community values also insist that community action be strengthened, with older people stepping up to assist young people in addressing inequities in opportunity, social factors and, therefore, health outcomes. Governments and non-government organisations fund, implement and evaluate programs, initiatives and campaigns that aim to reduce social inequities and, hence, improve health outcomes for youth in our community who are experiencing disadvantage. Federal, state and local government elections are often pitched around which party or person will do the most to address these issues, and governments are

community values collective beliefs about what constitutes good behaviour and the things that are important within a community

community expectations the types of behaviour that are expected of people within a community

judged by the extent to which they live up to their pre-election promises. Similarly, if non-government organisations apply for financial grants or raise money to fund a program, they are expected to make the program an effective one.

Community expectations and values have driven public debate about how governments, communities and organisations will tackle the leading causes of inequality in health among the youth of Australia. Topics regarding the health of Australians that have been most relevant in recent times include:

- depression and anxiety
- road safety and reducing the number of road deaths
- illicit drug use, particularly 'ice'
- violence causing injury and premature death
- obesity
- suicide and self-harm
- tobacco smoking
- risky sexual behaviour.

These major health issues, the community values and expectations that surround them, and the community-driven responses that aim to address these issues, are discussed below.

Youth obesity

Community values and expectations

Body weight is a critical determinant of adult health. Worryingly, the AIHW reported that in 2011–12, 33% of young Australians aged 15–24 were either overweight (20%) or obese (13%) (AIHW 2017).

Being overweight or obese can be caused by a range of factors, including low levels of physical activity, an energy-dense diet, a diet low in fruit and vegetables, and spending large amounts of time in sedentary behaviour, such as watching television, playing computer games or using the Internet. Young people who are overweight or obese are at increased risk of experiencing chronic health conditions later in life, such as type 2 diabetes, colorectal cancer and cardiovascular disease.

The perception among the community is that youth are not engaging in enough physical activity, due to a number of factors, including spending far too much time sitting down, and playing and working on computers. The community also bemoans the fact that while young people are not burning enough energy, they are also consuming too many calories and, hence, contributing to weight gain.

The community expects teenagers to be more physically active and to eat healthier foods, to improve their health. Programs have been developed to encourage healthy eating and promote physical activity among youth, and have had mixed results in recent years.



Figure 6.1 The community perceives that youth spend too much time in front of computers and playing games on consoles when they should be outside being active.

Community response

Rethink Sugary Drink

Rethink Sugary Drink is a campaign run by a collaboration of 13 health and community organisations, including the Australian Dental Association, Cancer Council, Diabetes Australia, Heart Foundation, Dental Health Services Victoria, Dental Hygienic Association of Australia, Kidney Health, Nutrition Australia, Obesity Policy Association, Parents Voice, Stroke Foundation, VACCHO and YMCA.

This program aims to educate the Indigenous community about the health effects associated with overconsumption of sugary drinks (soft drink, energy drinks and sports drinks), such as weight gain and obesity, which can lead to many other health problems. The program aims to promote a change to drinking water, reduced fat milk or unsweetened beverages.

As part of the campaign, research has been undertaken and a consensus statement containing a number of recommendations for reducing the consumption of sugary drinks has been produced. The campaign's website provides links to information such as the sugar content of many popular sugary drinks, and facts about the health problems associated with such beverages. The program has been put into place to help Indigenous Australians understand these health risks, and targets youth by providing links to 'Tips for parents', 'Tips for schools', and 'Tips for the individual'. The program also target Indigenous youth by making them a focus of their advertising and using language that will appeal to this demographic.

The program also has a Critics Choice initiative, where youth are encouraged to watch nine advertisements from around the world, complete age-appropriate activities aligned with the videos, and then vote for their favourite advertisement (Cancer Council Victoria 2017).

Review and reflect

- 1 Outline the main features of the Rethink Sugary Drink program, including:
 - the organisation/s that fund and implement the program
 - the aims of the program
 - actions/promotions associated with the program that address the issue
 - why this program has been put into place
 - why the program is effective or ineffective, in your opinion.
- 2
 - a Using research, outline one government and/or non-government program, not detailed in this textbook, relating to the issue of youth obesity.
 - b Identify and discuss a community value and/or expectation that has had an impact on the development and implementation of the program you described in part a.

Suicide and self-harm

Community values and expectations

Self-harm or intentional injury, including attempted suicide, is one of the leading causes of hospitalisation of teenagers in Australia. In Australia in 2010–11, the hospitalisation rate for self-harm for women aged 15–19 was almost triple the rate for men, and 29% of all Australians hospitalised for intentional self-harm were aged 15–24 (AIHW 2017).

Suicide was the leading cause of death for Australians aged 15–24 in 2011, accounting for 26% of deaths in this population group, with young men taking their own lives 2.5 times more often than young women. Between 2001 and 2010, Indigenous people aged 15–19 were more likely to take their own lives than non-Indigenous people, with Indigenous males 5.9 times more likely to take their own lives than non-Indigenous females (AIHW 2017).

Despite these findings, youth suicide and self-harm are not often discussed. The expectations of the Australian community regarding self-harm and suicide are difficult to ascertain. In general, young people are expected to make the



Figure 6.2 The community recognises that youth suicide and self-harm are significant issues that need to be addressed.

most of their opportunities, to recognise that they are growing up in a country that offers many opportunities not afforded to previous generations, and to be positive. The community also recognises the need to support programs that assist young people who are struggling with life issues. Many programs have been established to address behaviours and social determinants that are closely linked to self-harm and suicide, including social connectedness, drug abuse and access to health care.

Community response

R U OK?

The R U OK? program aims to inspire and empower people to connect with others around them, and to provide support to people who are struggling with life. It is aimed at suicide prevention, with the simple question, 'Are you okay?' The initiative is partly funded by the Australian Government Department of Health, along with many other supporters.

One of the most significant theories to date about the characteristics of those most at risk of self-harm was created by Dr Thomas Joiner, whose father took his own life. Dr Joiner believes an at-risk person is affected by three factors: they think they are a burden to others; they think they can withstand a high degree of pain; and they do not feel connected to others. The R U OK? program aims to address the third factor (lack of connectedness) by enhancing social connectedness and reducing isolation.

This program was founded by Gavin Larkin, in honour of his father, who took his own life. He created the program with the aim of helping prevent other families from feeling the pain he and his family went through upon the loss of his father, with the premise that asking the question, 'Are you okay?' is a simple, effective way to open the door to more meaningful conversations with others.

The website provides helpful information about ways to go about initiating conversation, and has an entire section on youth awareness, called 'R U OK? At School'. Many celebrities and sporting heroes are advocates of this campaign, and help increase its profile and marketability among youth (R U OK? n/d).

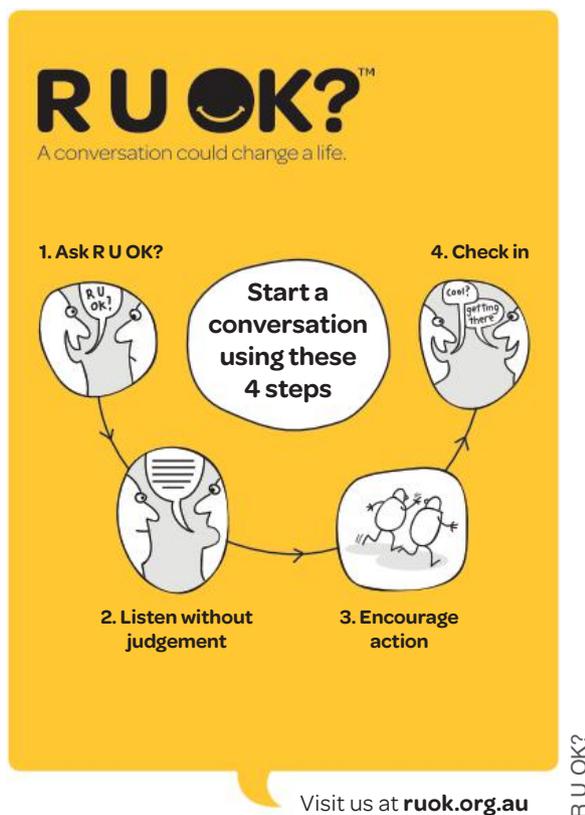


Figure 6.3 R U OK? produces posters and advertisements that aim to help provide youth and other age groups with the skills to start and follow up on conversations.

OneLife

In Western Australia, suicide is the main cause of preventable death among young people. The OneLife initiative is part of the 'Suicide Prevention 2020: together we can save lives' movement funded by the Western Australian Government. It has been designed to strengthen families, communities and workplaces, and build resilience, to help prevent suicide in Western Australia. The program aims to halve the number of suicides in Western Australia over the next ten years, and is aligned with the National Coalition for Suicide Prevention.

The OneLife program's action areas include, among other things:

- increasing public awareness
- developing local support and community prevention across the lifespan
- providing targeted services for high-risk groups
- increasing suicide prevention training.

The program also endeavours to ensure its long-term success, by establishing a youth engagement strategy involving young people at a local level. The OneLife website provides free resources including suicide prevention videos, information for health professionals, communities, family and friends of people who may be suicidal, and media organisations, as well as links to other programs or sites that young people may find useful if contemplating self-harm (WAMHC 2015).

Review and reflect

- 1** Outline the main features of the OneLife program or the R U OK? initiative, including:
 - the organisation/s that fund and implement the program
 - the aims of the program
 - actions/promotions associated with the program that address the issue
 - why this program has been put into place
 - why the program is effective or ineffective, in your opinion.
- 2 a** Using research, outline one government and/or non-government program not detailed in this textbook, relating to the issue of youth suicide and self-harm.
b Identify and discuss a community value and/or expectation that has had an impact on the development and implementation of the program you described in part **a**.

Violence causing injury and premature death among youth

Community values and expectations

Youth-on-youth violence is a cause of concern for the community. It causes many preventable hospitalisations and significant pain and suffering throughout Australia each year. Depending on the severity of the violence, injuries resulting from youth-on-youth violence can result in absence from school or work, time in hospital, long-term disability or, in extreme cases, death. Recent media reporting of deaths that resulted from a punch to the head of an unsuspecting victim, and the renaming of this act from 'king hit' to 'coward punch' has increased the profile of this issue.

The community values a harmonious environment that is free of violence and aggression. A sense of safety and calm togetherness is the ideal for most people in the community, who are keen to live in an environment that does not include violence.

The community often expects that it will be youth, typically young men, who will engage in violent behaviour. Stigmas exist around youth gangs and the damage they can inflict upon others. The community are also wary of being caught in the crossfire and are keen to see these acts of violence stopped.



Figure 6.4 The community values a harmonious environment free of violence and aggression, and so youth violence is frowned upon.

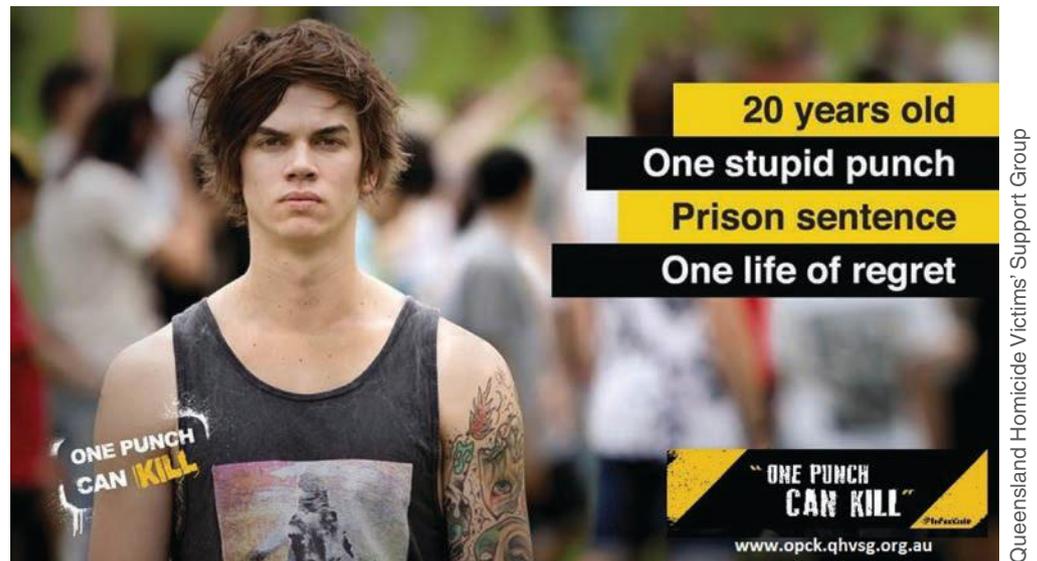
Community response

One Punch Can Kill

The One Punch Can Kill™ is the original anti-violence awareness campaign that originated in 2007 after rising levels of youth violence in QLD. The campaign is trademarked and managed by the Queensland Homicide Victims' Support Group. It aims to reduce levels of youth violence throughout Queensland, by focusing on three areas:

- health – harm associated with drug and alcohol use
- justice – the Queensland Criminal Justice system
- social behaviour – the use of social media and peer behaviour.

The One Punch Can Kill campaign builds partnerships with businesses, sporting organisations, the media and government to spread the 'One punch can kill' message. The program also uses advertising campaigns, including posters that appear on buses (a means of transport that youth are likely to use) and screening an advertisement in cinemas around Queensland prior to popular youth films. The program also develops materials that can be used by high school students Australia-wide, including educational and teaching resources, as well as interactive multimedia education programs, which can also be used by sporting clubs and community organisations.



Queensland Homicide Victims' Support Group

Figure 6.5 The One Punch Can Kill™ anti-violence campaign began in 2007 in response to rising levels of youth violence in Queensland.

Review and reflect

- 1 Outline the main features of the One Punch Can Kill program, including:
 - the organisation/s that fund and implement the program
 - the aims of the program
 - actions/promotions associated with the program that address the issue
 - why this program has been put into place
 - why the program is effective or ineffective, in your opinion.
- 2
 - a Using research, outline one government and/or non-government program not detailed in this textbook, relating to the issue of violence causing injury and premature death among youth.
 - b Identify and discuss a community value and/or expectation that has had an impact on the development and implementation of the program you described in part a.

Tobacco smoking among youth

Community values and expectations

Community attitudes towards tobacco smoking have changed dramatically over the past few decades, as research has increasingly revealed the long-term effects of smoking. Now that the significant link between smoking and poor short- and long-term health outcomes is recognised, smoking is frowned upon more than ever before. This also applies to youth smoking, perhaps because people understand that teenagers who smoke are far more likely to smoke later in life than teens who don't smoke.

The community has long associated the rebellious act of smoking with youth, so a young person trying smoking is not unexpected. These days, however, the community expects young people to not smoke, given the high level of awareness of the dangers of smoking that health promotion campaigns have worked hard to promote. These campaigns have also worked to institute programs to further reduce rates of smoking among the youth population.

Community response

Tackling Indigenous Smoking (TIS)

The Tackling Indigenous Smoking (TIS) program is funded by the Australian Government, to assist in reducing tobacco use and smoking rates among Aboriginal and Torres Strait Islanders.



Alamy Stock Photo/PhotoAlto

Figure 6.6 Smoking is one of the most preventable causes of poor health and early death.

Current statistics show that one in five deaths among Aboriginal and Torres Strait Islander people are tobacco related, and that smoking is one of the most preventable causes of poor health and early death (Dept Health 2017).

The TIS program works in a number of ways to target Indigenous smoking, including:

- regional tobacco control grants designed to prevent the initial uptake of smoking, and promote smoking cessation among Indigenous Australians
- enhancing existing Quitline services
- innovation grants for remote and very remote communities that have high smoking rates, and for specific at-risk groups such as pregnant women, and youth who are susceptible to taking up smoking (Dept Health 2017).

Research suggests that campaigns targeting the population as a whole are also effective at delivering the message to youth. Hence, many programs target the entire population (QRC 2017).

Review and reflect

- 1** Outline the key features of the Tackling Indigenous Smoking (TIS) program, including:
 - the organisation/s that fund and implement the program
 - the aims of the program
 - actions/promotions associated with the program that address the issue
 - why this program has been put into place
 - why the program is effective or ineffective, in your opinion.
- 2 a** Using research, outline one government and/or non-government program not detailed in this textbook, relating to the issue of tobacco smoking among youth.
- b** Identify and discuss a community value and/or expectation that has had an impact on the development and implementation of the program you described in part **a**.

Alcohol consumption by youth

Community values and expectations

In spite of the fact that medical professionals strongly recommend delaying the consumption of alcohol until after the age of 18, many adolescents fail to heed this warning. Although not necessarily approved of by most, there is almost an expectation in the community that teens will engage in binge drinking at some stage prior to the age of 18.

The community in general frowns upon pregnant women drinking alcohol, while being more forgiving towards teens who drink. However, it is recognised that underage drinking is associated with risky behaviours, including unprotected sex and physical violence, and so there is a desire in the community to reduce these behaviours.

Community response

Alcohol. Think Again

Managed by the Western Australian Mental Health Commission, the 'Alcohol. Think Again' campaign aims to reduce the level of alcohol-related harm and ill health in Western Australia (WA 2014). Its primary strategy for influencing the Western Australian community is social media marketing, which is often effective in targeting youth.

Specific 'Alcohol. Think Again' campaigns feature the National Health and Medical Research Council (NHMRC) Australian Guidelines to Reduce Health Risks from Drinking Alcohol. The guidelines aim to:

- 1** reduce the risk of alcohol-related harm over a lifetime
- 2** reduce the risk of injury on a single occasion of drinking
- 3** allow parents and young people to make informed choices about delaying initiation to alcohol use – specifically, children under 15 should not drink at all, and teenagers aged 15–17 should delay drinking for as long as possible
- 4** increase women's abstinence from alcohol during pregnancy and when breastfeeding.

The program offers:

- a free Alcohol and Drug Support Line that people can call for guidance and help
- a Parent and Family Drug Support Line for those who have a loved one who is experiencing drug dependence
- a Working Away Alcohol and Drug Support Line for people who are working away from home and are concerned about their own or a family member's alcohol or drug use.



Science Photo Library

Figure 6.7 The human body can suffer many negative effects of excessive alcohol intake. This patient has alcoholic liver disease and cirrhosis.

Hello Sunday Morning

Hello Sunday Morning began in 2009, and has become the largest online campaign for promoting alcohol behaviour change. The program aims to provide technology that assists and supports individuals in changing their relationship with alcohol.

#HELLOSUNDAYMORNING

Every Sunday the HSM community share highlights of their hangover free day, check them out on Instagram and join the movement

With the support of VicHealth, Hello Sunday Morning explores drinking behaviour among Victorians as well as the motivating, restricting and enabling factors associated with alcohol use.

Hello Sunday Morning requires participants to stop consuming alcohol for a period of time, set a goal and document their experience on a personal blog. It is a unique program in that it is not run in a formal clinical setting and uses media and technology to create structured participation. Participants record their progress, as well as demographic, behavioural and engagement data.

Hello Sunday Morning works well for many individuals who find it hard to have conversations about their alcohol use with friends and family, and creates a community where participants can share their thoughts and feelings in an online blog.

The Hello Sunday Morning website provides links for accessing help in many countries around the world, and also has Facebook groups that allow people to connect with other participants in their area.

The program is appropriate for youth who have been binge drinking and wish to change their behaviour – it allows them to attempt to alter their drinking behaviour anonymously and away from the potential judgement of parents and peers.

Review and reflect

- 1** Outline the main features of 'Hello Sunday Morning' or the 'Alcohol. Think Again' program, including:
 - the organisation/s that fund and implement the program
 - the aims of the program
 - actions/promotions associated with the program that address the issue
 - why this program has been put into place
 - why the program is effective or ineffective, in your opinion.
- 2 a** Using research, outline one government and/or non-government program, not detailed in this textbook, relating to the issue of alcohol consumption by youth.
- b** Identify and discuss a community value and/or expectation that has had an impact on the development and implementation of this program.

Illicit drug use by youth

Community values and expectations

The use of illicit drugs is not an accepted part of Australian culture, because it is illegal and is linked with many negative outcomes, including addiction, crime, premature death and depression. Many in the community perceive that a large number of Australian youth are using illicit drugs. More recently, public conversation has turned to the scourge of crystal methamphetamine, commonly known as 'ice', and its impact on individuals, families and communities.

According to the Australian Institute of Health and Welfare, between 2001 and 2013 approximately 2.1% of Australians had used methamphetamine or amphetamine drugs such as ice, speed, base and prescription amphetamines, in the previous year. The same survey found that use by those aged 14–19 was less than 2% (AIHW 2014).

Without looking at the figures, community perceptions would put this percentage at a much higher rate.

The community expects young people to not use illicit drugs and are fearful at the prospect of a society where the use of drugs continues to grow, and so this is often a topic of debate in newspapers, on talkback radio and on television current affairs shows. As a result, programs have been created to address this worrying topic, with the aim of having a happier and safer community for all by reducing the number of young drug users.

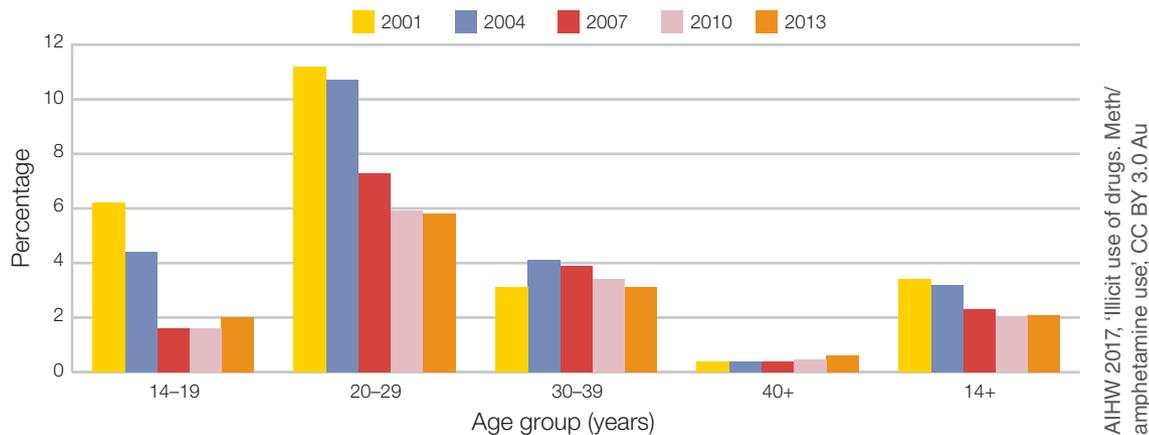


Figure 6.8 Methamphetamine use by people aged 14 years or older. The community often perceives that many teenagers use methamphetamines, but the numbers are in fact quite low.

Community response

National Drugs Campaign

The National Drugs Campaign is an Australian Government initiative that aims to reduce the motivation of young Australians to use illicit drugs, by increasing their knowledge and awareness of the consequences of drug use. The campaign is designed to support education about the use of illicit drugs, and is part of the National Drug Strategy 2010–15. The campaign began in 2001 and focuses on different drugs at different times, depending on current drug trends. A recent campaign, 'Ice destroys lives', focuses on the devastating effects of ice (crystal methamphetamine).

The National Drugs Campaign website includes a section for youth, and provides information on the impact of drugs, decision making, avoiding drug-related situations, and how to support friends/family members who may be using illicit substances. It also provides information about where to go for support and advice in times of difficulty, in order to seek help and to avoid a situation where one may consider using illicit drugs.

Review and reflect

- 1 Outline the main features of the National Drugs Campaign, including:
 - the organisation/s that fund and implement the program
 - the aims of the program
 - actions/promotions associated with the program that address the issue
 - why this program has been put into place
 - why the program is effective or ineffective, in your opinion.
- 2
 - a Using research, outline one government and/or non-government program, not detailed in this textbook, relating to the issue of illicit drug use by Australian youth.
 - b Identify and discuss a community value and/or expectation that has had an impact on the development and implementation of the program you described in part a.

Road safety and youth

Community values and expectations

Australian people value their safety, and the thought of risky driving by young people endangering others is frightening for many. The community expects young Australians to drive aggressively and over the legal speed limit. Reality tells us that young Australians, particularly young men, are over-represented in car crashes and road fatalities. These incidents are often linked to speed but can also be caused by inexperience and lack of skill. Hence, campaigns and programs created by the community often target these causes of accidents and deaths among the young population.

Community response

Keys2Drive

Keys2Drive is an Australian Automobile Association initiative, funded by the Australian Government, which aims to improve driver safety by targeting P plate drivers in their first six months of driving. The Keys2Drive coaching approach is designed to be a realistic and thorough experience of the realities of licensed driving. The target group – youth who are transitioning from L plates to P plates – have been identified as extremely high-risk in their first six months of solo driving, with the risk of a motor vehicle accident increasing 20–30 fold within this period.

Keys2Drive Program



Free driving lessons through the Government's keys2drive program

keys2drive is a revolutionary approach to learning road safety and the free driving lesson is an opportunity for learner drivers, driving instructors and parent/supervisors to learn together. We are accredited keys2drive instructors and encourage our students to take part in this exciting, Government funded initiative aimed at teaching driver safety for beginner drivers.



Figure 6.9 The Keys2Drive program promotes safe driving by providing a free 60-minute driving lesson for learner drivers.

The Keys2Drive program provides a free first lesson for learner drivers in Australia, as well as online support via a website that provides information, support and activities to guide learner drivers and their parents/supervisors through the learning experience. The website also provides information about driving skills and tips, and safe driving when on P plates.

Review and reflect

- 1 Outline the key features of the Keys2Drive program, including:
 - the organisation/s who fund and implement the program
 - the aims of the program
 - actions/promotions associated with the program that address the issue
 - why this program has been put into place
 - why the program is effective/ineffective, in your opinion.
- 2
 - a Using research, outline one government and/or non-government program, not detailed in this textbook, relating to the issue of youth road safety.
 - b Identify and discuss a community value and/or expectation that has had an impact on the development and implementation of the program you described in part a.

Risky sexual behaviour by youth

Community values and expectations

Unsafe sex and the resultant spread of sexually transmissible infections (STIs) among youth is an issue that requires attention due to the prevalence of STIs and resultant non-fatal disease burden. Chlamydia, gonorrhoea and syphilis are among the more prevalent STIs in Australia among youth, and just over half of all STIs reported in Australia in 2012 were among 15–24 year olds. Having more than one sexual partner, not using a condom during intercourse, poor communication skills and low levels of education are all reasons for this high figure.

Discussion about strategies to reduce the number of STIs among Australia's youth is limited in public forums, including many secondary schools. Discussing sexual behaviour and the reality of STIs is often taboo and, hence, many young people lack knowledge about this important topic. While the community values the health of young people, many adults struggle to discuss this touchy topic with teens, and so younger people are at risk because they lack information about preventative strategies.

Community expectations include the assumption that all young people are sexually active and change partners regularly. Young people are also expected to 'mess up' and, hence, be at increased risk of experiencing an STI. As a result, programs have been developed by government and non-government organisations to raise awareness of this taboo topic in a way that avoids embarrassment by distancing the topic from the family home and school setting.

Community response

YEP Project

The Youth Educating Peers (YEP) Project is an initiative by YACWA (Youth Affairs Council of Western Australia). It is designed to support and educate young people about relationships, sexual health and blood-borne viruses, and works in partnership with the WA Youth Sector. The YEP Project recognises the power of young people educating other young people on relationships, sexual health and blood-borne viruses.

The key focus of the program is to use peer education as a health promotion strategy among young people. The project acknowledges that youth workers are ideal candidates to deliver education about sexual health and blood-borne viruses to young people, and aims to provide the tools for them to do so. The program aims to:

- increase information and education about sexual health and blood-borne viruses available to young people via face-to-face (metropolitan Perth and regional/remote WA) or online services
- increase the confidence and competency of youth workers to deliver peer education programs
- increase public awareness of sociocultural norms and attitudes about sexual health and blood-borne viruses.

In achieving these proposed outcomes, the YEP Project aims to support and educate young people about issues associated with sexual health and blood-borne viruses in a community where they feel safe, respected and valued as sexual beings (YACWA 2017).



Review and reflect

- 1** Outline the main features of the YEP Project, including:
 - the organisation/s that fund and implement the program
 - the aims of the program
 - actions/promotions associated with the program that address the issue
 - why this program has been put into place
 - why the program is effective or ineffective, in your opinion.
- 2 a** Using research, outline one government and/or non-government program, not detailed in this textbook, relating to risky sexual behaviour in youth.
b Identify and discuss a community value and or expectation that has had an impact on the development and implementation of the program you described in part **a**.

Chapter summary

- Community values are collective beliefs about good behaviour and what things are important within that community. Community expectations are the behaviours that are expected of people within a community. These values and expectations influence the development and implementation of programs for youth.
- Community values insist that community action be strengthened and inequities in opportunity, social factors and health outcomes be addressed. Governments and non-government organisations fund, implement and evaluate programs, initiatives and campaigns that aim to reduce social inequities and improve health outcomes for disadvantaged youth in our community.
- Community expectations and values have driven public debate about how governments, communities and organisations should tackle the leading causes of inequality in health among the youth of Australia, including depression and anxiety, road safety, illicit drug use, violence, obesity, suicide and self-harm, tobacco smoking and risky sexual behaviour.
- There is a perception in the community that youth are physically inactive. The community expects teenagers to be more physically active and eat healthier foods. An example of community response: the Rethink Sugary Drink program.
- Youth suicide and self-harm is a difficult topic for discussion in the community, although there is recognition of the need to support programs that assist young people who are struggling. Examples of community response: RU OK? and OneLife.
- The community disapproves of smoking, as the link between smoking and poor health outcomes is recognised. Young people are expected not to take up smoking, now that health promotion campaigns have raised awareness of the dangers of smoking. Example of community response: the Tackling Indigenous Smoking program.
- Medical professionals recommend that consumption of alcohol be delayed until after the age of 18, but many adolescents drink. There is community disapproval of pregnant women drinking alcohol, but tolerance of teens drinking. The community recognise that underage drinking is associated with risky behaviours including unprotected sex and physical violence, and there is a desire to reduce these practices. Examples of community response: Alcohol. Think Again, and Hello Sunday Morning.
- The use of illicit drugs is not an accepted part of Australian culture, as it is illegal and linked with many negative outcomes including addiction, crime, premature death and depression. Many in the community perceive that a large number of Australian youth are using illicit drugs. The community expects young people to stop using illicit drugs and are fearful of the prospect of increasing drug use. Example of community response: the National Drugs Campaign.
- Australian people value safety and many fear that risky driving by young people is endangering others. The community expects young Australians to drive aggressively and over the legal speed limit. Young Australians, particularly young men, are over-represented in car crashes and road fatalities. Example of community response: the Keys2Drive program.
- Unsafe sex and the spread of STIs among youth requires attention due to the prevalence of STIs and resultant non-fatal disease burden. The community assume that all young people are sexually active, change partners regularly, and are at increased risk of experiencing an STI. Example of community response: the YEP Project.

Exam-style questions

- 1 Outline a government and/or a non-government program relating to youth health and wellbeing. **(3 marks)**
- 2 Identify and discuss a community value and/or expectation that has had an impact on the development and implementation of the program you outlined in Question 1. **(2 marks)**
- 3 Read the following extract about the DrinkWise Stay Classy program, and then answer the questions that follow.

DrinkWise urges Schoolies to 'stay classy'

25 November 2014

DrinkWise will build on the success of its award-winning *How to Drink Properly* campaign by reminding young Australians around the country to 'stay classy' and drink responsibly during Schoolies and the holiday season.

First launched in February, the ground-breaking social marketing program challenges the often harmful drinking culture among many young Australians by reframing moderation as a socially-acceptable behaviour. The campaign targeted 18 to 24 year-olds and challenged them to 'stay classy' by moderating the intensity and frequency of their drinking.

The second phase will introduce a series of new animations and promotional materials across television, digital, on-premise and at point of sale in Schoolies hotspots (including Gold Coast, Byron Bay, Lorne, Victor Harbour and Dunsborough) and social media.

DrinkWise will also host 'All Class' activations at Melbourne and Sydney Airports prior to Schoolies on the Gold Coast, providing school-leavers with gift packs and tips to 'stay classy' on their travels.

DrinkWise chief executive John Scott said the campaign had already shown early positive behavioural shifts among young Australians in relation to responsible alcohol consumption.

'*How to Drink Properly* allows DrinkWise and its contributors to work closely and effectively to reinforce moderate drinking behaviour and promote a safer, healthier drinking culture in Australia,' Mr Scott said.

'One-third of 18 to 24 year-olds who experienced the first phase of the campaign reported they subsequently drank less on a night out and 80 per cent considered the benefits of responsible drinking.

'DrinkWise is using a combination of poignant and targeted messaging and practical tips and resources to remind Schoolies visitors to enjoy themselves, but also to be aware of the risks of excessive alcohol consumption.

'This second phase is talking to them at a critical stage of the drinking cycle: before the partying gets into full swing and to arm them with information and incentives to moderate excessive drinking.

DrinkWise ambassador Dr Andrew Rochford has added weight to the program with advice for parents and support materials to help parents set realistic expectations for their kids, while ensuring lines of communication remain open, which is available online at drinkwise.org.au.

Extract from DrinkWise Australia 2014, 'DrinkWise urges Schoolies to 'stay classy''

Questions

- a The DrinkWise Stay Classy program targets 18-year-olds who are going on Schoolies and prone to excessive drinking. Identify and discuss a community value and/or expectation that has had an impact on the development and implementation of this program. **(2 marks)**
- b Identify two health status outcomes that are more likely if this program is adopted by youth, and explain why that is the case. **(4 marks)**

Chapter 7: Mental health of Australia's youth

Key knowledge

Key features of **one** health and wellbeing focus relating to Australia's youth including:

- impact on different dimensions of health and wellbeing
- data on incidence, prevalence and trends
- risk and protective factors
- community values and expectations
- healthcare services and support
- government and community programs and personal strategies to reduce negative impact

- direct, indirect and intangible costs to individuals and/or communities
- opportunities for youth advocacy and action to improve outcomes in terms of health and equity.

Key skills

- research and collect data on one particular health and wellbeing focus relating to youth, with critical analysis of its impact, management and costs
- plan advocacy and/or action based on identification and evaluation of opportunities for promoting youth health and wellbeing.

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Key terms

advocacy
comorbidity
mental health

mental illness
protective factors
risk factor

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Mental health issues

mental health a state of wellbeing, where the person feels that they can cope with the normal stresses of life

Learning tip

Students will be required to complete a similar investigation into another area of youth health in Australia requiring attention.

mental illness a health problem that significantly affects how a person thinks, feels, behaves and interacts with others

This chapter takes a detailed look at the mental health of youth in Australia, as well as the prevalence of mental illness among this population group. **Mental health** is defined by the World Health Organization as ‘a state of well-being in which every individual realises his or her own potential, can cope with the normal stresses of life, can work productively and fruitfully, and is able to make a contribution to her or his community’. As such, mental health is not a substitute for mental illness; rather, it is about *wellness* rather than *illness*. Each person experiences a level of mental health that can be plotted on a continuum – at one extreme is feeling good, feeling confident, having high self-esteem and coping well with day-to-day stresses, while at the other end are signs and symptoms of mental illness. In addition, that position on the continuum is not fixed; mental health may improve, just as it may worsen.

Research and data suggest that the majority of Australian youth are in good mental health. However, in the ABS 2011–12 Australian Health Survey, an estimated 258 100 (12%) of young adults aged 18–24 reported high or very high levels of psychological distress.

It is important to distinguish between the terms ‘mental illness’ and ‘mental health problem’ prior to looking at this issue in more detail. **Mental illness** is an umbrella term used interchangeably with the term ‘mental disorders’. A mental illness impacts upon how a person thinks, feels and behaves.



Figure 7.1 The mental health of young Australians, while mostly good, is an area requiring attention by governments and policy makers, as well as the health and educational sectors.

Although 'mental health problem' has a similar meaning to mental illness, in that it also impacts on a person's thoughts, feelings and behaviour, it does so to a lesser extent. Mental health problems occur commonly throughout one's life, are temporary, tend not to be diagnosed by a health professional, and usually arise as a result of a stress in everyday life. However, if a mental health problem goes unaddressed, it may evolve into a mental illness.

Mental illnesses are classified under several categories, including depressive, anxiety and psychotic disorders. Mental illnesses within a classification tend to have a similar underlying feature. For example, all anxiety disorders have fear and anxiety as their major symptom. However, individual disorders differ in some signs and symptoms, length and severity. Schizophrenia is an example of a psychotic disorder. Borderline personality disorder is an example of a personality disorder. Anorexia nervosa is an eating disorder. However, depressive disorders and anxiety disorders are the most common among Australian youth.

When a person is struggling with mental illness, it can be hard to engage with everyday activities. Young people might find it hard to keep attending school, playing sport, working part-time or even spending time with friends. They might feel like a mental illness has robbed them of their interests and passion for life. If they feel anxious, they might struggle to even leave the house.

Less common types of mental illnesses among Australia's youth involve psychosis, including schizophrenia and bipolar mood disorder. Young people experiencing an episode of psychosis lose touch with reality and struggle to make sense of the world around them. A psychotic episode typically involves delusions, hallucinations and disorganised thinking.

A delusion is a firm belief that does not change, even when confronted with conflicting evidence. Delusions come in many forms, such as the belief that the person is being harassed when they are not, or is going to be harmed



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Figure 7.2 Mental illness is a major concern for young Australians, requiring further action and investigation.

(persecution), that they are exceptionally gifted, wealthy or famous when they are not (grandiosity) or that seemingly random things are directed to or referring to them, such as the weather or road signs (referential). Hallucinations usually involve seeing or hearing things that are not there. A hallucination is experienced by the sufferer as clearly and vividly as a genuine normal perception, but without the actual stimulus. A hallucination is not voluntary. Although hallucinations are usually seeing or hearing things that are not there, sufferers can also hallucinate smells, tastes and touch. A hallucination can be very frightening, regardless of whether the person knows they are hallucinating. (Knowing you are hallucinating is not sufficient to make it stop.) Disorganised thinking is a sign of psychosis usually noticed by other people in the form of a person's speech, in that the person may jump from topic to topic, struggle to answer questions, and sometimes be even nearly incomprehensible in conversation.

Experiencing a mental health disorder during adolescence can have a lasting impact on a person's health and wellbeing and the lives of their families and loved ones. It is ultimately associated with poorer health outcomes in later life.

The 2007 National Survey of Mental Health and Wellbeing revealed that approximately 671 100 – a staggering 26% – of people aged 16–24 in Australia were suffering from a mental disorder when surveyed (ABS 2008). While young women (30%) were more likely to report a mental disorder than young men (23%), statistics may be skewed by the fact that young men are less likely to report a mental disorder due to gender expectations. The survey investigated three different classifications of disorders:

- 15% of young people reported *anxiety disorders*
- 13% had *substance abuse* disorders
- 6% reported affective (mood) disorders, which are those that involve alterations of mood, such as mania or depression (ABS 2008).

Some survey respondents reported that they had more than one disorder.

Having more than one diagnosed illness at the same time is known as

comorbidity having more than one diagnosed illness at a time

comorbidity. For example, a person might report having panic disorder as well as major depressive disorder. (The term also applies outside the scope of mental health, to other forms of illness.)

More recently, according to the Young Minds Matter Survey conducted in 2013–14, approximately 14% (equivalent to 245 000) of Australians aged 12–17 had experienced a mental health disorder over that past year (DoH 2015). The most commonly reported three disorders were anxiety disorders (7%), attention deficit hyperactivity disorder, (6.3%) and major depressive disorder (5.0%).

Finally, the report on the survey, *The Mental Health of Children and Adolescents. Report on the Second Australian Child and Adolescent Survey of Mental Health and Wellbeing* (DoH 2015) clarified that 7.7% of 11–17 year olds met the criteria for major depressive disorder. Among the individual anxiety disorders, separation anxiety was the single most common reported in that year among 12–17 year olds, with 3.8% for males and 3.1% for females.

The effects of mental illness on the youth of Australia are many and varied, but often depend on the severity of the illness. Mentally ill young people are less likely to perform well at school and will experience higher rates of unemployment, poorer physical health, social isolation and are more likely to self-harm.

Review and reflect

- 1 Briefly describe what the term 'mental health' means.
- 2 List two characteristics of a person experiencing positive mental health.
- 3 List two characteristics of a person experiencing poor mental health.
- 4 Discuss one statistic listed in the text above that illustrates there is a need for action when it comes to mental health issues among Australia's youth.
- 5 Identify three impacts of mental illness on young people.
- 6 Refer to Figure 7.3 and state two facts that can be drawn from the graph.
- 7 Discuss the impact that any of the disorders referred to in the graph could have on the dimensions of health.

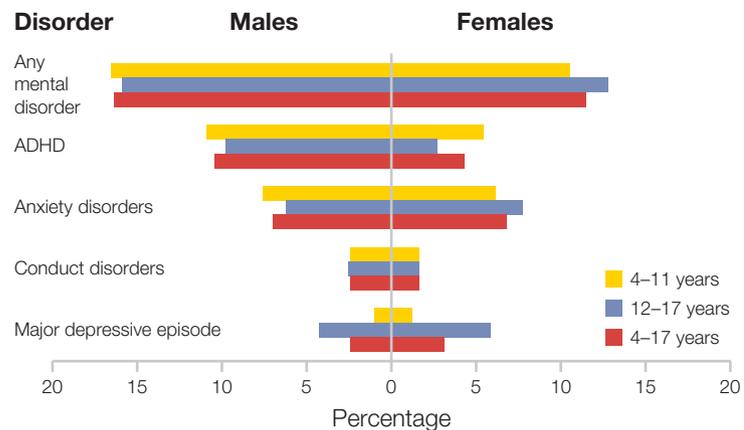


Figure 7.3 The 12-month prevalence of mental health disorders, by disorder type, age and sex, 2013–14

AHW 2016, Australia's Health 2016;
Australia's health series no. 15 cat. no.
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Depression, anxiety and self-harm

Depressive disorders and anxiety are among the most common mental illnesses among Australian youth.

What is depression?

While it is normal to feel sad now and then, especially in response to stress or life's ups and downs, a prolonged low mood or sadness can be a sign of depression. When a person is depressed, they do not just feel miserable – they can feel hopeless, helpless and struggle with their self-worth. They enjoy life less and this might mean they do not want to spend time with friends or family, or take part in day-to-day activities that they normally enjoy, such as playing sport or going out. They may have trouble going to school and work. It is more difficult to concentrate and to make decisions, so it is harder to get things done, such as finishing assignments or meeting deadlines.

A depressed person might also experience:

- weight loss or gain
- a change in appetite
- difficulty sleeping
- low energy levels
- problems with drugs or alcohol
- negative self-image and thoughts (e.g. 'I'm worthless', 'Everyone would be better off without me')
- headaches, nausea and other physical symptoms
- suicidal feelings.

There are different types of depressive disorders, but the term 'depression' is usually used to refer to *major depressive disorder*. According to the Young

Minds Matter Survey, in 2013–14, one in five girls aged 16–17 reported having major depressive disorder, as did one in thirteen of all 11–17 year olds. Common depressive disorders include seasonal affective disorder (SAD), persistent depressive disorder (dysthymia) and postpartum depression (PPD). Table 7.1 describes some common depressive disorders in detail.

Table 7.1 Common depressive disorders

Name	Symptoms
Major depressive disorder (MDD) or clinical depression	<p>In a <i>major depressive episode</i>, a person:</p> <ol style="list-style-type: none"> 1 feels depressed for most of the day, for more days than not 2 loses interest and pleasure in day-to-day activities 3 has a significant change in appetite and/or unintended weight loss or gain 4 struggles to sleep (insomnia) or sleeps a great deal (hypersomnia) more days than not 5 appears distressed and restless (e.g. hand-wringing, pacing) or struggles to perform 'normal' tasks (e.g. stops brushing teeth, does not return phone calls, cannot make a shopping list) 6 feels tired and lacks energy more days than not 7 experiences intense negative feelings, such as (any of) hopelessness, anxiety, worthlessness, irritability, guilt and emptiness 8 struggles to concentrate, make decisions and remember fine details 9 considers and/or attempts suicide. <p>The person must experience five of the symptoms above for at least two weeks, as long as at least one of the five is either (1) or (2). <i>Major depressive disorder</i> is usually diagnosed when the person:</p> <ul style="list-style-type: none"> • has recurrent major depressive episodes • feels significant distress or impairment on a social or occupational level as a result of the episodes • is not under the effects of a substance or a medical condition or suffering from another psychological condition, and has not suffered from a manic or hypomanic episode. <p>Major depressive disorder is also strongly associated with instances of self-harm, particularly among young women.</p>
Seasonal affective disorder (SAD)	<p>The person:</p> <ul style="list-style-type: none"> • has major depressive episodes (as above), but they occur during a given time of year, typically winter (but not always) • does not have major depressive episodes during other parts of the year (or instead has manic/hypomanic episodes) forming a characteristic pattern • has experienced the pattern of depressive episodes throughout one season only for at least two years • has had more depressive episodes within this given season each year than outside of it in their lifetime.
Persistent depressive disorder (dysthymia)	<p>The person:</p> <ol style="list-style-type: none"> 1 feels depressed for most of the day, for more days than not, for at least two years 2 while depressed (any two of): <ul style="list-style-type: none"> • has no appetite or overeats • struggles to sleep or sleeps a great deal • feels tired or lacks energy • has poor self-esteem • struggles to concentrate or make decisions. 3 is never free of the symptoms from (1) and (2) during the two-year period for more than two months at a time 4 often also meets the criteria for major depressive disorder (as above), such as having major depressive episodes, continuously for two years (this is called 'double depression'). <p>In addition, the person is not under the effects of a substance, a medical condition, or another psychological condition, and has never suffered from a manic or hypomanic episode. The person also feels significant distress or impairment on a social or occupational level as a result of the condition.</p>

table continues ...

Name	Symptoms
Postpartum depression (PPD)	<p>The woman:</p> <ul style="list-style-type: none"> experiences a major depressive episode (as above) any time during pregnancy or within four weeks of giving birth may also be diagnosed, at discretion of the mental health professional, if she has a major depressive episode any time within the first year of giving birth. <p>PPD can significantly impact on bonding between parent and infant, which affects child development. Instances of PPD are also known to occur after a miscarriage. Men can also get PPD.</p>

(source: American Psychiatric Association 2013, *Diagnostic and statistical manual of mental disorders*, 5th edn)

What is anxiety?

Anxiety disorders are a class of mental disorders that involve experiencing intense and incapacitating fear and anxiety. Fear occurs as a response to an immediate threat, whether it is real or imagined, while anxiety anticipates a future threat.

Some of the more common anxiety disorders include panic disorder, generalised anxiety disorder (GAD), social phobia, specific phobias, obsessive-compulsive disorder (OCD) and post-traumatic stress disorder (PTSD). They are described in detail in Table 7.2.

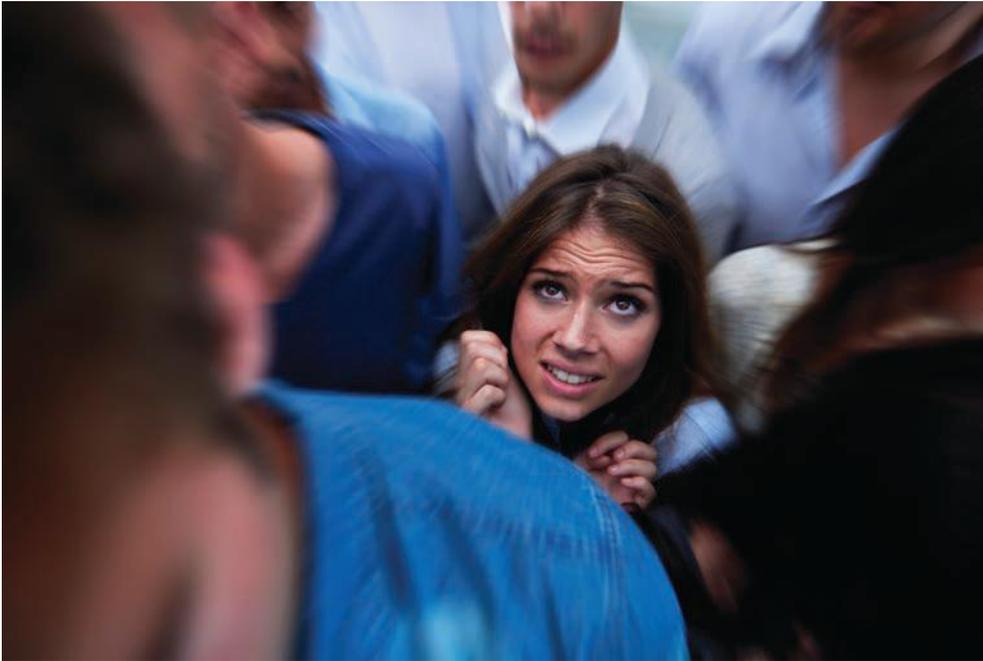
Table 7.2 Common anxiety disorders

Name	Symptoms
Panic disorder	<p>A <i>panic attack</i> is a sudden episode of overwhelming fear or distress that peaks within a few minutes but often lasts around 30 minutes, which is accompanied by (at least any four of):</p> <ul style="list-style-type: none"> increased heart rate or palpitations excessive sweating chest pains shaking or trembling difficulty breathing or feeling choked nausea or upset stomach dizziness, light-headedness or feeling faint numbness or 'pins and needles' fear of loss of control or that you are dying the sense the world is not real. <p><i>Panic disorder</i> is when a person:</p> <ol style="list-style-type: none"> has recurring, unexpected panic attacks over a period of time, usually for longer than a month worries in between panic attacks that they will have one, or what they might mean makes changes to their life that relate to the panic attacks, such as avoiding exercise to avoid raising heart rate.
Generalised anxiety disorder (GAD)	<p>The person:</p> <ol style="list-style-type: none"> feels overwhelming worry, for six months or more, on more days than not, about a variety of situations, events or activities, such as work, school, health, money, family or relationships struggles to control the worry because of the intensity of the worry, also tends to (any three of): <ul style="list-style-type: none"> become tired easily struggle to concentrate feel irritable have tense muscles have sleeping difficulties feels that the worry and its symptoms are causing distress and impairment to their life and ability to function.

table continues ...

Name	Symptoms
<p>Social phobia (also known as social anxiety disorder)</p>	<p>The person:</p> <ol style="list-style-type: none"> 1 feels excessive fear or anxiety in social situations where they may be observed or scrutinised by others, such as having a conversation or being observed eating 2 fears that they will act in an embarrassing way in public or will reveal anxiety, causing negative criticism from others 3 is seldom without fear or anxiety in such social situations 4 avoids or tries to avoid social situations as a result of the feeling of fear 5 experiences the fear or anxiety out of proportion to the situation 6 suffers symptoms for six months or more 7 knows that his or her ability to function normally has been impaired. <p>Situations known for causing the phobia include going to work or school, meeting new people, talking to colleagues, or even eating in front of others.</p>
<p>Specific phobias</p>  <p>7.1 Phobias</p>	<p>The person:</p> <ol style="list-style-type: none"> 1 feels a persistent, irrational fear regarding a specific situation (such as heights, <i>acrophobia</i>) or objects (such as snakes, <i>ophidiophobia</i>, or spiders, <i>arachnophobia</i>) usually lasting for more than six months 2 tries to avoid the cause of the fear (the trigger) 3 may become very distressed if the trigger cannot be avoided 4 may become distressed in anticipation of the trigger 5 may experience physical symptoms such as sweating, blushing, nausea or even panic attacks (as above).
<p>Obsessive-compulsive disorder (OCD)</p>	<p>The person:</p> <ol style="list-style-type: none"> 1 has persistent unwanted, repetitive and upsetting thoughts, such as an irrational worry that the front door is unlocked or that loved ones might die (obsession) 2 tries to ignore the thoughts or suppress them, or to relieve them by performing an action (compulsion). Compulsions are: <ul style="list-style-type: none"> • tasks that are undertaken repeatedly and have rigid rules applied; usually they are <i>checking tasks</i>, such as checking that the front door is locked; <i>ritual tasks</i>, such as hand-washing; or <i>mental acts</i>, such as counting • <i>specifically aimed</i> at preventing or relieving the distress caused by a dreaded event or situation, but are either not a realistic measure to relieve the distress, or are excessive 3 spends excessive time worrying about the obsessions or carrying out the compulsions (e.g. more than one hour daily) or feels they cause impairment to normal functioning.
<p>Post-traumatic stress disorder (PTSD)</p>	<p>The person:</p> <ol style="list-style-type: none"> 1 experiences a serious trauma, typically life-threatening, often violent, usually through direct exposure (e.g. assault, being in a fire) or witnessing (e.g. seeing someone die). <p>Beginning within six months of that trauma and continuing for at least one month, the person:</p> <ol style="list-style-type: none"> 2 relives the trauma through recurring, vivid, intrusive memories; upsetting nightmares; flashbacks to the original event; and/or distress in situations similar to the original trauma, such as being in a car after being in a car accident 3 tries to avoid situations that are similar to the original traumatic event, such as avoiding being a passenger in a car after being in a serious car accident 4 has more negative thoughts and a worsened mood since the trauma, along with (any two of): <ul style="list-style-type: none"> • inability to remember parts of the trauma • a distorted view of themselves and/or the world (e.g. 'I'm worthless' or 'The world is unsafe') • persistent blame towards themselves or others for causing the trauma • persistent negative feelings such as shame, guilt, fear and anger • lack of interest in everyday activities • feeling of detachment and distance from others • loss of positive emotions. 5 will demonstrate negative behavioural changes (any two of): <ul style="list-style-type: none"> • outbursts of irritability or anger • self-destructive or reckless behaviour • constant focus on checking their environment for signs of danger (hypervigilance) • becoming startled very easily (exaggerated startle response) • difficulty concentrating • difficulty sleeping.

(Source: American Psychiatric Association 2013, *Diagnostic and statistical manual of mental disorders*, 5th edn.)



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Figure 7.4 Anxiety disorders are a class of mental disorders that involve experiencing intense and incapacitating fear and anxiety.

What is self-harm?

Self-harm, or self-injury, is when a person deliberately and directly causes injury to their own body but not as part of a suicide attempt. Although the most common form of self-harm is called cutting, and involves using a sharp object to cut one's skin, there are many other types of self-harm. In trichotillomania, sufferers pull their own hair out. In dermatillomania, sufferers pick at their own skin constantly, which stops wounds from healing, or actually causes them.

Self-harm is most common among the ages of 12 to 24, although it can occur at any age, and it occurs in both males and females. According to the Young Minds Matter Survey 2013–14, one in 12 adolescents aged 12–17 reported that they had self-harmed in the last 12 months. Among 16–17 year-old girls, while one in four reported that they had self-harmed at some point in their life, one in six said they had self-harmed at least four times.

Motivations for self-harm vary, because each person's mental health background is unique. It might be a coping mechanism, a distraction, an expression of inner turmoil, or it might occur for any number of reasons; however, attention-seeking is rarely a motivator. In fact, most self-harmers go to great lengths to hide their self-harm from others. In some circumstances, self-harmers may themselves not understand why they are compelled to self-harm, only that they are. They may feel as though they are fighting against the compulsion to injure themselves and are losing, but because self-harm is stigmatised and associated with guilt, shame and embarrassment, they become isolated. Self-harmers often do not seek help until someone discovers their self-harm accidentally or they injure themselves severely enough to require medical intervention.



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Figure 7.5 In 2013–14, one in six 16–17-year-old girls reported in the Young Minds Matter Survey that they had self-harmed at least four times. Self-harm is associated with guilt, shame, embarrassment and intense isolation.

Self-harm itself is not a specific mental disorder, but is usually considered a symptom of another mental disorder. Self-harm is associated with various forms of depression and anxiety, especially major depressive disorder and PTSD, as well as substance abuse, eating disorders, schizophrenia and several personality disorders, particularly borderline personality disorder. People who self-harm often have a history of serious previous trauma, and need to be treated with sensitivity, tact and compassion.

Review and reflect

This investigation should be completed in pairs.

- 1 With a partner, select one of the disorders listed in Table 7.1 or Table 7.2.
- 2 Research together online to find out how the disorder affects Australia's youth. Look for data/information on:
 - how the disorder impacts on the dimensions of health and wellbeing
 - incidence, prevalence and trends
 - factors that put you at risk for the disorder, or lower your risk (protective factors)
 - community values and expectations
 - health care services and support for sufferers
 - availability of government and/or community programs for sufferers
 - the direct, indirect and intangible costs to sufferers and/or communities
 - any youth advocacy programs that might be available, or opportunities for advocacy and action that might improve outcomes for sufferers

- 3 Analyse the information you have found with respect to the impact of the disorder on the person and community, its management, and its costs. Using this specific example, identify an opportunity for action or advocacy for mental health (such as a government program, a non-profit, an independent initiative or an awareness campaign) that could help sufferers of this disorder, their families and the community.
- 4 Explain how your identified opportunity would promote youth health and wellbeing, with reference to the dimensions of health. Justify your answer.

Extension

- 5 Outline a one-page plan for your action or advocacy OR write and design a sample text, such as a brochure, advertising campaign or slogan.

Review and reflect

- 1 Write a brief overview of depression as a whole and its signs and symptoms.
- 2 If a person has experienced a major depressive episode, when might they be diagnosed with major depressive disorder? Make reference to Table 7.1 in your answer.
- 3 Distinguish between postpartum depression and seasonal affective disorder with reference to the symptoms in Table 7.1. Include the similarities as well as the differences in your answer.
- 4 Provide a brief overview of anxiety including signs and symptoms.
- 5 List three types of anxiety disorders and briefly describe them.
- 6 Define:
 - acrophobia
 - arachnophobia
 - ophidiophobia.
- 7 If a person has experienced a panic attack, when might they be diagnosed with panic disorder? Make reference to Table 7.2 in your answer.
- 8 List three mental disorders commonly associated with self-harm.

Impact on dimensions of health and wellbeing

The dimensions of health and wellbeing have been discussed in Chapter 1, on pages 8–11.

Physical health

A person's state of mental health has a significant impact on their physical health and wellbeing. Examples are listed below.

Cardiovascular health and life expectancy

- People with a mental illness have a significantly lower life expectancy – approximately 15–20 years – but this is mostly a result of cardiovascular disease, not suicide.
- According to the Heart and Vascular Institute of the Johns Hopkins University,

... people with depression but no previously detected heart disease, seem to develop heart disease at a higher rate than the general population.

Dr Roy C Ziegelstein, http://www.hopkinsmedicine.org/heart_vascular_institute/clinical_services/centers_excellence/womens_cardiovascular_health_center/patient_information/health_topics/depression_heart_disease.html

Diabetes

- Sufferers of schizophrenia are 2.5 times more likely to have diabetes than the rest of the population, according to a 2015 review of 25 studies internationally (Stubbs et al. 2015).

Immune system

- In the long-term, the high stress levels caused by mental illness can negatively affect the immune system, increasing susceptibility to illness.



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Figure 7.6 Depression and other mental health disorders can cause insomnia as well as low energy levels. With a disrupted sleep pattern, you are more likely to become rundown and experience ill health.

Physical symptoms and side effects

- If you are depressed, you are more likely to experience symptoms including low energy levels and tiredness, feeling generally rundown, headaches and muscular pain, difficulty sleeping and loss of appetite.
- Panic attacks cause physical symptoms such as chest pains, increased heart rate and difficulty breathing (see Table 7.2), which can have an impact on a young person's day-to-day functioning.
- Many mental health disorders, especially depression, are associated with insomnia, or difficulty falling and staying asleep at night. If normal sleep patterns are interrupted for more than a couple of nights, stress levels often increase. Energy levels drop, and it becomes harder to concentrate. In turn, you become rundown and more likely to experience ill health.

Activity levels and substance use

- Mental illness can reduce your motivation and energy to engage in activities that enhance physical health, such as appropriate levels of physical activity. You may even struggle to leave the house to spend time with friends or run simple errands.
- Instead, a mentally ill person may want to self-medicate to feel better or distract from their feelings, using drugs or alcohol, or make harmful changes to their diet, such as under- or overeating. Drug and alcohol use and dietary changes can have an adverse impact on physical health.



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Figure 7.7 If a young person is experiencing a mental illness, they may self-medicate using alcohol or drugs, negatively impacting on their physical health.

Table 7.3 Mental illness is linked to poorer physical health outcomes

Modifiable risk factor	Schizophrenia	Bipolar disorder
Obesity	45–55%, 1.5–2 times increased risk	21–49%, 1–2 times increased risk
Smoking	50–80%, 2–3 times increased risk	54–68%, 2–3 times increased risk
Diabetes	10–15%, 2 times increased risk	8–17%, 1.5–2 times increased risk
Hypertension [high blood pressure]	19–58%, 2–3 times increased risk	35–61%, 2–3 times increased risk
Dyslipidemia [elevated plasma cholesterol and/or triglycerides, which increases risk of heart attack, stroke, clogged arteries and other cardiovascular illnesses]	25–69%, 5 times increased risk	23–38%; 3 times increased risk
Metabolic syndrome	37–63%, 2–3 times increased risk	30–49%, 1–5 times increased risk

(source: Mental Health Commission of NSW 2016, 'Physical health and mental wellbeing. Evidence guide', Sydney, Mental Health Commission of NSW, Table 1, page 11 © 2016 State of New South Wales)

Self-harm

- Self-harm is highest among young people diagnosed with major depressive disorder (see Table 7.1), particularly young women. *The Mental Health of Children and Adolescents. Report on the second Australian Child and Adolescent Survey of Mental Health and Wellbeing* (DoH 2015) indicated that approximately half of young women with major depressive disorder have self-harmed: 54.9% based on self-reporting and 49.2% based on reports from parents/carers. Young women were also more likely to require medical treatment for self-harm injuries.
- Overall, for young people aged 12–17, based on self-reporting, 46.6% of major depressive disorder sufferers had self-harmed. Based on reports from parents/carers, the figure was 32.5%. For all other mental health disorders, based on reports from parents/carers, the rate of self-harm was 10.6%. In those with no disorders, again based on parent/carer reports, the figure was 4.2%.
- This meant that young people with other mental health disorders had rates of self-harm at more than double the rate of those without a disorder.

Suicide

- Suicide was the leading cause of death for young people aged 15–24 in 2011–13, at a rate of 11 deaths per 100000, making up 28% of deaths of young people. Suicide is typically linked to mental illness.

Mental health

Young people suffering from mental illness experience poorer mental *health* than those young people who are not. While suffering from a mental illness, a young person might struggle to:

- receive, process and analyse information quickly
- make decisions and judgements
- maintain focus and concentrate, hampering performance at school and work, and harming relationships
- comprehend and absorb information quickly, as well as retain it in their memory
- set goals and be decisive.

Social health

The social health and wellbeing of young people coping with a mental illness typically suffers. While suffering from a mental illness, a young person might struggle to:

- form new relationships due to low levels of energy, lack of focus and low confidence
- maintain existing relationships, because of a desire to withdraw from social engagements due to low levels of energy and motivation, lack of focus, difficulty concentrating and low confidence, particularly if this causes absences from school or work
- communicate effectively with others
- understand or apply social norms when it comes to behaviour
- participate in the community in both an independent and cooperative manner.



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Figure 7.8 A mental illness can make it difficult to communicate effectively with others, negatively impacting social health.

Emotional health

Many young people suffering a mental illness struggle to manage their emotional health in various ways. This may result in damage to relationships, substance abuse, loss of social connections, and issues at school and in the workplace.

While suffering from a mental illness, a young person might struggle to:

- manage increasing levels of stress and anxiety
- deal with a tendency towards increasingly pessimistic thoughts
- cope with low levels of self-esteem and self-confidence
- remain resilient, making it harder to handle difficult life events or changes
- experience, comprehend and process various feelings
- manage potentially rapidly fluctuating emotions; for example, being very happy one moment and then overcome with sadness the next
- control (regulate) their emotions; for example, displaying intense anger with subsequent aggressive behaviour.

Spiritual health

As with the other three dimensions of health and wellbeing, mental illnesses also have a negative impact upon spiritual health. While suffering from a mental illness, a young person might struggle to:

- maintain their sense of self, or find meaning and purpose in life
- identify and adhere to the set of values and beliefs that have formed a guide for how they live their life, resulting in behaviour that is outside the norm
- recognise their own understanding of right and wrong, which is more focused when mentally well
- establish and maintain a sense of harmony between themselves and the world around them

- find inner peace, calm or serenity due to levels of anxiety and depression, which can be distressing to those who follow belief systems that normally find meditation or prayer comforting
- reflect on their actions, the world around them and their future goals.

Review and reflect

- 1 Explain how depression can affect cardiovascular health.
- 2 List three ways that mental illness can affect:
 - a physical health
 - b mental health
 - c social health
 - d emotional health
 - e spiritual health.
- 3 Construct a mind map with the title 'The impacts of mental illness among youth on the dimensions of health and wellbeing' in the centre. Having completed Questions 2a–e already, try to complete the mind map without referring to your notes.

Incidence, prevalence and trends

The 2013–14 Young Minds Matter Survey showed that the majority of children and adolescents in Australia were in good mental health at the time of the survey. However, it also revealed that 1 in 7 (14%, or 560 000) children and adolescents aged 4–17 had suffered from a mental disorder within the year of the survey period (2013–14).

In addition, the prevalence rates of all mental health disorders were higher among males (16%) than females (12%) with the exception of major depressive disorder.

However, the most prevalent mental illnesses in females were anxiety disorders, and these were more common among 12–17 year olds than 4–11 year olds.

A comparison of the results of the 2013–14 survey with that of the first Young Minds Matter Survey (1998) showed that the prevalence of mental health disorders remained similar. However, it also showed that rates of attention deficit hyperactivity disorder (ADHD) had dropped, while rates of major depressive disorder had risen.

In 2011, the AIHW reported that mental health problems and disorders were responsible for the highest burden of disease among young people – almost half the burden of disease in this demographic. The leading contributors were anxiety and depression, making up 24% of the disease burden for this demographic in 2003.

After investigating the health of young people aged 16–24, in 2007, the AIHW reported that:

- approximately 26% of young people experienced at least one mental disorder in the previous 12 months
- females (30%) were more likely to have suffered from mental disorders than males (23%)
- the most often reported disorders were anxiety disorders (15%), substance-use disorders (13%) and affective (or mood) disorders (6%); however, males were more likely to report substance-use disorders (16%) than anxiety disorders (9%)

- PTSD (50%) and social phobias (35%) were the most widely reported anxiety disorders
- the most common substance-use disorder was harmful use of alcohol (30%).

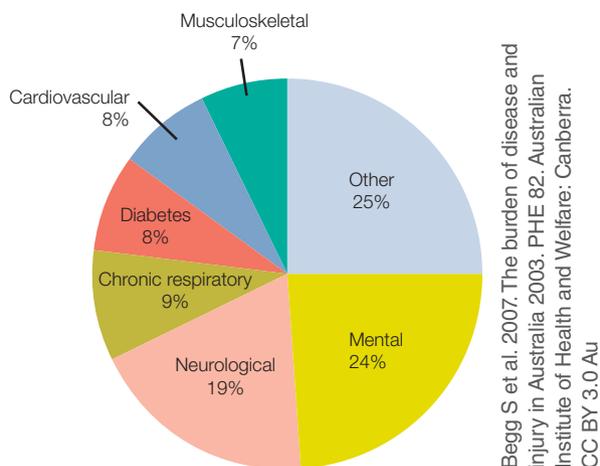


Figure 7.9 Burden of mental illnesses relative to other disorders, in terms of years of life lost as a result of disability. Note that the graph depicts the non-fatal disease burden of mental illnesses across the lifespan and is not specific to youth.

Table 7.4 Leading causes of death among people aged 15–24 in Australia, 2010–12; suicide is often associated with mental illness.

Rank	Cause of death	Deaths	Per cent (%)
1	Suicide (injury)	964	26.2
2	Land transport accidents (injury)	933	25.3
3	Accidental poisoning (injury)	189	5.1
4	Assault (injury)	111	3.0
5	Event of undetermined intent (injury)	95	2.6

(source: AIHW 2013, National mortality database 'Deaths among young people aged 15–24' CC BY 3.0 Au)

Table 7.5 Associations between household demographics and the prevalence of mental health disorders, 2013–2014

	[Less common]	[More common]
Family composition	10.4% Original family	18.3–23.7% Step-, blended and one-parent families
Yearly income	10.5% Highest (\$130 000)	20.5% Lowest (\$2000 or less)
Parent/carer employment	10.8% Both parents/carers employed	21.3–29.6% Sole parent/carer; neither parent employed
Family functioning	10.9% Very good	35.3% Poor
Location	12.6% Larger capital cities	16.2% Rest of state

(source: adapted from The Young Minds Matter Survey, <http://www.aihw.gov.au/WorkArea/DownloadAsset.aspx?id=60129556769>)



Review and reflect

- 1 Refer to stats and facts from the Youthbeyondblue website. Choose two stats and facts and comment on why you believe they might be true.
- 2 Comparisons between the 2013–14 data from the second national survey of the mental health of young people with the results of the first survey, conducted in 1998, showed the prevalence of major depressive disorders had risen. Discuss two reasons why this is a worrying trend for Australia as a nation.
- 3 The Young Minds Matter Survey identified associations between household demographics and the prevalence of mental health disorders (see Table 7.5). Identify two of these and discuss.
- 4 Access the Young Minds Matter website and the survey results. Investigate the prevalence and statistical trends of a chosen mental health issue such as depression, anxiety disorders or schizophrenia, and present your findings to the class.

Protective and risk factors for depression and anxiety in youth

protective factors behaviours, resources, supports or strategies in individuals, families, communities or society in general that can enhance health or reduce the chances of health problems developing

A **protective factor** is a characteristic that reduces the chances of mental health problems in youth. These include characteristics that relate to the individual, their family circumstances, peers, and the wider community. Table 7.6 lists some common protective factors.

Table 7.6 Common protective factors for mental health difficulties

Individual	Family	Peers	School	Community
Easy temperament (e.g. sociable)	Positive parent or carer relationship	Positive peer role models and influences (e.g. peer group with pro-social values and activities)	Supportive relationships	Participation in community networks
Socially and emotionally competent (e.g. able to regulate emotions)	Family provides structure, limits, monitoring and predictability	Inclusive group norms: <ul style="list-style-type: none"> • Mental health status • Same sex attraction • Disability • Open group membership 	Opportunities for academic or other school achievement	Access to support services (e.g. mental health care and family support)
Good coping and problem solving skills	Clear expectations for behaviours and values		Opportunities to participate in a range of activities	Economic security

table continues ...

Individual	Family	Peers	School	Community
Optimistic (e.g. a belief life has meaning and hope)	Supportive relationships between family members		Physically and psychologically safe environment	Safe and inclusive community
Physically healthy	Support available at critical times		Clear policies on behaviour and bullying	
Positive sense of identity and cultural heritage			Support available at critical times	
Positive attitude to help seeking			Connections to competent and caring adults	
Connected to family, school and community			School acknowledges and respects diversity (inclusive environment)	
			Positive approaches to behaviour education	

(source: MindMatters, Module 1.3, Protective and risk factors © Commonwealth of Australia)

Risk factors are the opposite of protective factors. They are characteristics that increase the likelihood of a person experiencing poor mental health. Risk factors, like protective factors, relate to the individual, their family, peers, school and the wider community.

risk factor something that increases the likelihood of poor mental health

Although having one or more risk factor in your own life does not mean you will definitely experience a mental illness, it does increase your risk, particularly if you have a combination of them. Table 7.7 lists some common risk factors.

Table 7.7 Common risk factors for mental health difficulties

Individual	Family	Peers	School	Community
Difficult temperament (e.g. overly shy or aggressive)	Family conflict including domestic violence	Poor peer role models	Poor student-teacher relationships	Social or cultural discrimination and racism
Low self-worth	Inconsistent or unclear discipline	Exclusive or rejecting peers	Difficult or inadequate student transition management	Socio-economic disadvantage including limited access to support services
Low IQ and learning difficulties	Lack of warmth and affection by parents	Peer norms favouring excessive use of drugs, alcohol and violence or antisocial behaviour	Bullying or discrimination	Neighbourhood violence or crime

table continues ...

FYI

Drug and alcohol use may trigger episodes of mental illness (cause), as well as being worsened by existing mental illness (effect).

According to the Young Minds Matter Survey, alcohol consumption among 13–17 year olds was highest among sufferers of major depressive disorder. MDD sufferers also reported having consumed four or more alcoholic drinks in the last 30 days at more than twice the rate than those without the disorder.

Higher rates of drug use were also observed among young depression sufferers, with the percentage of those who had tried cannabis some three times higher, and six to eight times greater for other drugs, than among young people without depression.

Smoking rates were also four to five times higher in young people experiencing a mental health disorder than those who were not.

Individual	Family	Peers	School	Community
Impulsivity	Parent/s with mental illness or substance abuse problems		School community is not inclusive	
Poor social skills			School violence	
Significant negative life events relating to loss, trauma and abuse			Low teacher expectations of students	
Alcohol and drug use			Lack of parent and community involvement	
Chronic illness, physical or mental disability			Poor absenteeism structures and processes	

(source: MindMatters, Module 1.3, Protective and risk factors © Commonwealth of Australia)

Governments, organisations and the broader community work to develop strategies to strengthen protective factors and reduce risk factors, in order to reduce the prevalence of mental illness.



iStock.com/AntonioGuillem

Figure 7.10 Physical activity is a protective factor against depression.



Shutterstock.com/Dobo Kristian

Figure 7.11 Smoking rates are higher in young people experiencing a mental health disorder.

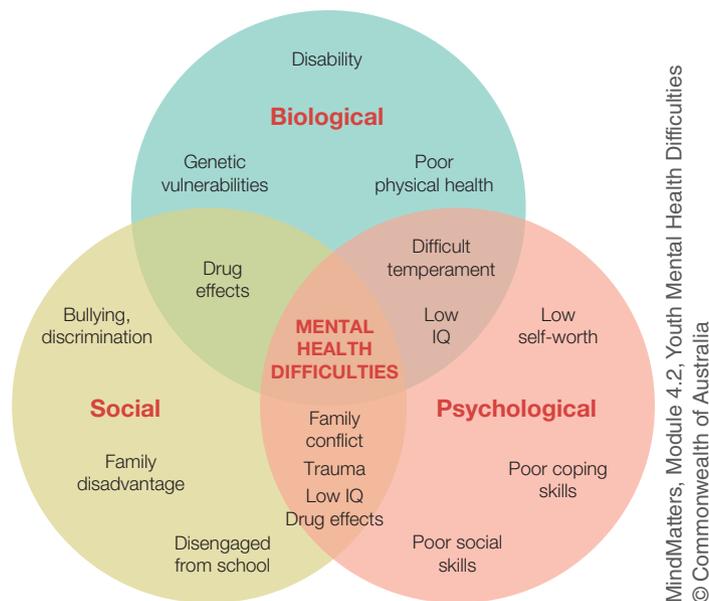


Figure 7.12 The biopsychosocial model of youth mental health difficulties is one way to look at risk factors for poor mental health.

Review and reflect

- Briefly describe your understanding of the terms 'protective factor' and 'risk factor'.
- Identify and outline three protective factors for mental health difficulties for young people, ensuring you explain why they reduce the chances of a young person experiencing a mental illness.
- Identify and outline three risk factors for mental health difficulties for young people, ensuring you explain why they may increase the chances of a young person experiencing a mental illness.
- Considering your own educational setting, identify and describe one protective factor for mental health that you have observed.

Mental health care services and support for young people

Young people can access a variety of health care services to support and assist them with depression and anxiety. *The Mental Health of Children and Adolescents Report on the second Australian Child and Adolescent Survey of Mental Health and Wellbeing* (DoH 2015) revealed that 65.1% of those aged 12–17 with mental disorders had accessed services for emotional or behavioural problems in the past year.

Health care professionals and services who can assist in the diagnosis and treatment of mental health issues include paediatricians, psychiatrists, psychologists, occupational therapists, family therapists, social workers, school counsellors and others, as described in Table 7.8.

Table 7.8 Mental health care services and support

Service	Role	How to contact
General practitioner (GP)	<ul style="list-style-type: none"> • Doctors who work in private practice and community-based clinics, treating individuals and families • The most common source of referrals to other health professionals • Through patient referrals and the development of mental health care plans, they are particularly responsible for patient access to Medicare-funded specialised mental health care services 	<ul style="list-style-type: none"> • Most likely, your family will already have a GP or GP clinic that you attend regularly • GPs practice in standalone private clinics, clinics in shopping centres and strip malls, larger family medical centres with other GPs and a variety of other settings • Most cities and suburbs have more than one GP clinic available, so your family will have options available to them • You do not need a referral to see a GP, and many GP clinics bulk bill with Medicare so that appointments are no-cost • After-hours GP clinics and locums see people for non-emergency care
Paediatrician	Doctor who specialises in the treatment of children and youth	Typically, by a referral from your family doctor (general practitioner) or another doctor
Medicare	<ul style="list-style-type: none"> • Improves access to important medical services by reducing or removing the cost • Subsidises doctor consultations • Provides free treatment in public hospitals • The Pharmaceutical Benefits Scheme is part of Medicare 	<ul style="list-style-type: none"> • Many mental health services that attract a Medicare rebate (bulk billed or subsidised) can be claimed by providing your Medicare card on the spot, such as during admission to a public hospital or during a visit to a GP • Others may require you to pay upfront and then file a claim with Medicare later to receive a refund for the subsidised amount • To claim the Medicare rebates for consultations for specialists such as psychiatrists, a referral from another doctor such as a GP is required

table continues ...

Table 7.8 Mental health care services and support (continued)

Service	Role	How to contact
Psychiatrist	<ul style="list-style-type: none"> • Doctor who typically diagnoses and treats people who are suffering from mental illness (such as depression, schizophrenia or bipolar disorder) or episodes of mental distress • May prescribe medication such as antidepressants or antipsychotics where applicable • Can provide counselling/therapy as required • Can advise on whether in-patient hospital care is needed 	Typically, by a referral from your family doctor (general practitioner) or another doctor to access Medicare rebate
Psychologist	<ul style="list-style-type: none"> • Expert in psychology who helps diagnose, treat and prevent mental health issues, such as depression and anxiety • May focus on providing strategies to help people deal with behavioural and social problems or learning difficulties 	A referral from a doctor is not required; however, under the Australian Government's Better Access to Mental Health (BAMH) initiative, Medicare rebates for psychological treatments with registered psychologists are available, so it is wise to seek a referral from a GP, psychiatrist or paediatrician
Occupational therapist	<ul style="list-style-type: none"> • Experts who design programs and activities to improve a patient's independence, develop coping skills and strategies for their mental health issues • May also help to improve a patient's confidence in social situations 	<ul style="list-style-type: none"> • Through the National Disability Insurance Scheme • By referral from a doctor to access rebates from the Better Access to Mental Health Care initiative
School counsellor	Counselling services provided by your school	Access at your school
School nurse	First-aid and basic medical care provided by your school	Access at your school
Family therapist	Psychologists, psychiatrists or counsellors who may work with the whole family of a patient to help improve relationships within the family unit	<ul style="list-style-type: none"> • By referral from a doctor to access rebates from the Better Access to Mental Health Care initiative
Social worker	<ul style="list-style-type: none"> • Professional who works with individuals, families, groups and communities to improve their wellbeing • Provides practical support, counselling and information on services available to clients • In addition to mental health, often deals with issues such as child and family welfare, homelessness, substance abuse, poverty, unemployment, disability, family violence, trauma, refugees and offending behaviour 	Social workers are employed in a variety of settings, such as: <ul style="list-style-type: none"> • Hospitals • Community health services • State and federal government departments (such as the Department of Human Services or child protective services) • Local councils • Non-government and non-profit organisations • In private practice (such as counsellors) • At schools or universities (as counsellors or teachers) • In aid and advocacy organisations

FYI

Psychiatrists and psychologists can both help to identify the source of a mental health issue and/or diagnose a patient. Both will ideally listen with an open mind and educate the patient using a therapeutic approach that has been effective in treating depression, such as **mindfulness-based cognitive behavioural therapy (CBT)**. Through counselling or 'therapy', they may also assist a patient with recognising strengths, and developing and enhancing their coping skills.



table continues ...

CRITICAL FRIEND

- 1 Visit ReachOut.com’s ‘How to practice mindfulness’ page via <http://www.hhdvce1and2.nelsonnet.com.au>.
- 2 With a partner, read through the section on ‘Building your mindfulness skills’, then, when you’re ready, spend five minutes trying out ‘Mindful breathing’.
- 3 Move on to the ‘Progressive muscle relaxation’ training section to tense and relax different parts of your body.
- 4 When you’re finished, talk to your partner. How did you both go? Did you find it more difficult to focus on your breathing or relaxing your muscles?
- 5 Set a realistic mindfulness goal with your partner to complete before the next class – meditation, breathing, muscle tensing – to see if you can get into the habit of practising mindfulness every day.

Table 7.8 Mental health care services and support (*continued*)

Service	Role	How to contact
Hospital	<ul style="list-style-type: none"> • Emergency Departments and Outpatient Departments often see patients in acute mental distress, such as during psychotic episodes, after episodes of self-harm or suicide attempts • Psychiatric hospitals, both public and private, admit patients during particularly severe episodes of depression, psychosis, mania and so on, and provide a safe, secure space in which to get better; importantly, some psychiatric hospitals have wards specifically for young people, employed with staff trained to work adolescents. An inpatient hospital typically includes a treatment program with group therapy classes, music groups, art classes and contact with nurses, occupational therapists and psychiatrists trained to handle crisis situations 	<ul style="list-style-type: none"> • If you feel you are in the midst of a mental health crisis or feel mentally unwell, attending your local hospital Emergency Department requires no referral from another doctor. You will be able to access immediate help from a medical professional. Most Emergency Departments are staffed 24 hours a day, and mental health concerns are always taken seriously. • Outpatient Departments typically see patients who are visiting other specialists (such as psychiatrists); in public hospitals, this is often an inexpensive option to seek mental health help • While public and psychiatric hospitals provide specific, tailored care, a referral, usually from a psychiatrist, is required to admit a patient • Private psychiatric hospitals attract no Medicare rebate or bulk billing and you will need private health insurance coverage to reduce out-of-pocket costs
Drug and alcohol treatment units/clinics	<ul style="list-style-type: none"> • Inpatient support for people suffering from addiction • Provide a safe place to deal with the physical effects of drug and alcohol withdrawal • Offer ways to break unhealthy routines and talk about the circumstances surrounding substance use 	<ul style="list-style-type: none"> • Victorians can contact DirectLine on 1800 888 236 or use the DirectLine website for pathways into alcohol and other drugs treatment • Your family doctor (general practitioner) is usually the primary point of entry into the treatment system; the treatment is catchment-based and assessment services work with DirectLine

table continues ...

Table 7.8 Mental health care services and support (*continued*)

Service	Role	How to contact
headspace National Youth Mental Health Foundation	<ul style="list-style-type: none"> Funded by the Australian Government Provides a variety of early intervention mental health services and programs to 12–25 year olds Assists in promoting the wellbeing of young people in mental health, physical health, work and study support, and drug and alcohol services 	<ul style="list-style-type: none"> The headspace website Online counselling service eheadspace Visiting headspace centres, which are located across metropolitan, regional and rural Australia The Digital Work and Study Service and postvention suicide support program headspace School Support headspace services are low-cost or free
Telephone counselling services	<ul style="list-style-type: none"> Typically operate 24 hours a day, seven days a week Confidential support services that often provide the first port of call for a mental health crisis Many services allow you to access counselling almost instantly 	<ul style="list-style-type: none"> Kids Helpline: 1800 55 1800 headspace: 1800 650 890 <i>beyondblue</i>: 1300 22 4636 SANE: 1800 187 263 Lifeline: 13 11 14 Suicide Help Line: 1300 651 251 Nurse-On-Call: 1300 60 60 24 Sexual Assault Crisis Line Victoria: 1800 806 292 Switchboard Victoria Inc (LGBTQI): 03 9663 2939 or 1800 184 527 OCD and Anxiety Helpline: 1300 269 438 or 03 9830 0533 Bush support line: 1800 805 391 Griefline: 03 9935 7400
Online support services	<ul style="list-style-type: none"> Information about mental health issues as well as assessment tools, self-help advice, chat rooms, support groups and confidential online counselling Readily available provided you have access to the Internet and the knowledge to locate the resources and engage with them 	<p>Access the health.vic website's Mental health 'Telephone and online services' page for an updated list of online services available for Victorians, such as:</p> <ul style="list-style-type: none"> <i>beyondblue</i> and Youthbeyondblue headspace; in particular, eheadspace KidsHelpLine offers email counselling and webchat at any time for any reason

table continues ...

Weblinks

INVESTIGATE

- Visit the Australian Government Department of Health's Better Access website and download the 'Better access to mental health care: Fact sheet for patients'.
 - What Medicare services can be provided under the Better Access initiative?
 - What are the eligibility requirements?
 - Briefly summarise the three steps to access the services under Medicare.
- Visit the headspace website and locate your nearest headspace centre. Write down the address and contact details of the headspace centre in your notebook.

Table 7.8 Mental health care services and support (*continued*)

Service	Role	How to contact
Crisis assessment and treatment team (CATT)	<ul style="list-style-type: none"> • Responds to requests for immediate help for someone who is suffering from a mental health crisis, such as a psychotic episode, self-harm, suicidal impulses or feeling unsafe/out of control • May deal with flare-up of existing disorders (e.g. schizophrenia) or a person's first experience of mental illness • Assesses the person's current mental state, their psychiatric history, the support available to them and decides how best to work with them and their family to help • Available 24 hours a day, seven days a week • A CATT is composed of mental health professionals who work together, including psychiatric nurses, psychiatrists, psychologists and social workers; can liaise with police, ambulance, drug and alcohol services, child protection and community services where necessary 	<ul style="list-style-type: none"> • If you or a loved one is suffering from a mental health crisis, you can call your state's mental health crisis line for immediate help. In Victoria, this is the Suicide Help Line, 1300 651 251 • In Victoria, contact the Acute Community Intervention Service



Dreamstime/Lisa F. Young

Figure 7.13 Psychiatrists and psychologists can help identify the source of a mental health issue, diagnose and treat a young person.

The Mental Health of Children and Adolescents. Report on the second Australian Child and Adolescent Survey of Mental Health and Wellbeing (DoH 2015) looked at usage of mental health care services, broken down by age, sex, disorder type, health service provider and other factors.

It concluded that 63.5% of males and 67.2% of females aged 12–17 years and currently suffering from a mental health disorder had used a mental health care service in the past 12 months. This meant that, overall, while 65.1% were using services available to them, 34.9% – more than one-third – did not use any.

While 81.6% of 12–17-year-old major depressive disorder sufferers had used a mental health care service in the past 12 months, the figure was just 59.3% for

ADHD sufferers, as shown in Table 7.9.

Table 7.9 Service use in the past 12 months among 12–17 year olds with mental disorders by disorder type

Disorder	12–17 years (%)
Anxiety disorders	71.7
Major depressive disorder	81.6
ADHD	59.3
Conduct disorder	72.0
Any mental disorder	65.1

(source: adapted from *The Mental Health of Children and Adolescents. Report on the second Australian Child and Adolescent Survey of Mental Health and Wellbeing*, Table 7–9, © Commonwealth of Australia 2015)

The most frequently used health service provider was the general practitioner (Table 7.10), whom 41.6% of 12–17 year olds with a mental health disorder had seen within the past 12 months, followed by the psychologist, at 29.1%, and the counsellor or family therapist, at 29%. The most frequently used hospital or specialist mental health service was the hospital itself, in the form of emergency, outpatient or an inpatient department; 8.1% of 12–17 year olds with a mental health disorder sought treatment (Table 7.11).

Table 7.10 Service use in the past 12 months among 12–17 year olds with mental disorders, by health service provider

Health service provider	12–17 year olds (%)
General practitioner	41.6
Paediatrician	19.2
Psychiatrist	10.0
Psychologist	29.1
Nurse	4.5
Social worker	13.4
Occupational therapist	4.2
Counsellor or family therapist	29.0
Other or unsure about profession	8.1
Any health service provider	60.7

(source: adapted from *The Mental Health of Children and Adolescents. Report on the second Australian Child and Adolescent Survey of Mental Health and Wellbeing*, Table 7–12, © Commonwealth of Australia 2015)

Table 7.11 Hospital and specialist mental health service use in the past 12 months among 12–17 year olds with mental disorders by type of service

Type of service	12–17 year olds (%)
Hospital emergency, outpatient or inpatient	8.1
Specialist mental health service	5.7
Drug or alcohol treatment unit	2.7

(source: adapted from *The Mental Health of Children and Adolescents. Report on the second Australian Child and Adolescent Survey of Mental Health and Wellbeing*, Table 7–14, © Commonwealth of Australia 2015)

Table 7.12 School service use in the past 12 months among 12–17 year olds with mental disorders, type of service

Type of service	12–17 year olds (%)
Individual counselling	38.8
Group counselling or support program	12.6
Special class or school	13.2
School nurse	8.3
Other school services	21.1
Any service at school	48.7

(source: adapted from *The Mental Health of Children and Adolescents. Report on the second Australian Child and Adolescent Survey of Mental Health and Wellbeing*, Table 7–16, © Commonwealth of Australia 2015)

Review and reflect

- 1 Identify three health care services a young person may use in order to receive treatment or support for a mental health condition.
- 2 Explain which of these you believe is most effective and why.
- 3 Explain which of these you believe is least effective and why.
- 4 Locate two websites that offer online counselling. For each organisation, record its name, the URL of the website, what the service costs, when it is available, and to whom it is available.



Community values and expectations

Australians are more aware than ever of the mental health issues confronting our youth. The lives of young people are valued, and mental illness has a serious impact on individuals, families and communities, and it results in significant costs: direct, indirect and intangible.

Suicide and self-harm remain ever-present and troubling problems for Australian youth. Strategies to provide adequate support structures, non-judgemental safe spaces and programs to better aid youth are crucial.

Mental illness among youth is becoming more widely discussed in public forums. Political parties, private organisations and others are engaging in meaningful dialogues and becoming more active in trying to tackle the issues. Greater discussion generates more public interest. This in turn creates an expectation among community members that, eventually, the tide will turn, and rates of youth mental illness will decrease.

The community is united in overcoming the issue of youth mental illness and as a result people are prepared to invest more money and time in achieving this. Consequently, there are more community and government programs available than ever before with the main goal of reducing mental illness among Australian youth.

CRITICAL FRIEND

With the person next to you:

- 1 Discuss a community value that exists around the mental health of Australian youth.
- 2 Discuss a community expectation that exists around the mental health of Australian youth.
- 3 Discuss actions that have taken place as a result of these values and expectations.

Importantly, the community is also becoming more aware that it is vital for young people to help drive these programs themselves, so they are relevant to the people to whom they are targeted. Such programs are generally more successful when young people are involved in planning, implementing and evaluating them. A program planned and delivered entirely without the input of the young people it is designed for is often considered less relevant and engaging.

Programs and strategies to reduce the impact of youth mental illness

Youthbeyondblue, by *beyondblue*

Youthbeyondblue is a youth program by *beyondblue*. It is website-based and aims to empower 12–25 year olds, their friends and their caregivers to respond to anxiety and depression. *beyondblue* is an independent, not-for-profit organisation supported by the Federal Government, and every state and territory government in Australia. Financial and other support also comes from individuals, corporate and non-government organisations. It aims to promote and support environments that identify and further develop the strengths of the young people involved.

Youthbeyondblue emphasises the importance of acting if you are feeling sad, down or anxious, and if these feelings are affecting your normal behaviour and your enjoyment of life. It takes a proactive approach as well as a reactive response, offering tips on things such as 'Keeping Well' and Surviving Year 12.

Youthbeyondblue offers comprehensive, easy-to-access information, resources and support for young people dealing with depression, anxiety or suicide. Resources include animated videos, and links to helpful apps and forums where young people can connect with others. There are links to doctor and mental health practitioner registers. Fact sheets on a number of mental health issues are also available. For immediate support, there is a 24-hour, 7-days-a-week direct telephone number and a chat online service operating between 3 pm and 12 am, 7 days per week (see Table 7.8, page 209). Their email service has a 24-hour response turnaround time. All calls and chats are one-on-one with a trained mental health professional, and are completely confidential.

Their campaign, 'Brains can have a mind of their own', encouraged empowerment and action when feeling down. It targeted 13–18 year olds who are experiencing depression or anxiety for the first time but have not yet sought



Figure 7.14 Promotional image from Youthbeyondblue's campaign

professional help. The 'annoying brain' character in the campaign was used to illustrate the thoughts and feelings of young people experiencing depression or anxiety, in an attempt to make them more easily identifiable for first-time sufferers which would hopefully then trigger them to seek help. The brain character is humorous, helping to make the campaign more memorable for young people.

Chilled Plus Online

Chilled Plus Online is an online program targeted to adolescents suffering both anxiety and depression. The program is administered by mental health professionals at the Centre for Emotional Health, Macquarie University, and is funded by Australian Rotary Health.

Conducted online, the program incorporates eight modules that are completed over eight weeks, along with a 30-minute phone call each week with a trained therapist. The program covers various topics:

- Learning about anxiety and depression
- Tackling motivation and setting goals
- Fighting avoidance by facing it (stepladders)
- Managing emotions
- Realistic thinking
- Coping strategies and assertiveness
- Handling teasing and bullying
- Building relationships
- Ways that parents can help

While treatment was initially free, towards the end of 2017 the program was relaunched as a paid service. Treatment is available to any person of high-school age experiencing both anxiety and depression.

Chilled Plus Online helps parents and caregivers to develop skills that can be used to support their adolescent throughout the program and beyond. Based on cognitive behavioural therapy (CBT), the program aims to teach adolescents creative ways to manage emotions and accomplish their immediate goals. All participants are closely monitored by an experienced team of psychologists, and support services are available to families of the adolescents involved in the program.

Ongoing monitoring of anxiety and depression levels for three months after the program is completed will assist in determining the program's long-term success.

Review and reflect

- 1 Outline how either Youthbeyondblue or Chilled Plus Online works. Consider addressing the following key points:
 - the organisation/s who fund and implement the program
 - the aims of the program
 - actions/promotions associated with the program that address the issue
- 2 Identify and discuss a community value and/or expectation that has had an impact on the development and implementation of the program detailed in Question 1.
 - why this program has been put into place
 - why the program is an effective or ineffective one in your opinion

National Youth Week

beyondblue coordinates and funds National Youth Week, which involves a variety of initiatives that aim to promote positive health among Australian youth, with a particular focus on engaging in behaviours that enhance mental health.

The project encourages young people to do two things:

- seek help if you are not feeling great – links on the website are provided to increase access to free support
- do things that make you feel better – young people are encouraged to reflect on the behaviours that enhance their sense of wellbeing and share them online using the platforms of Facebook, Twitter or Instagram, using the #keepsmebetterproject hashtag. Young people are encouraged to share a poem, photo, drawing, quote or video that enhances their wellbeing, as well as activities that help keep them well, such as playing with pets, being physically active, chatting with friends or listening to music.



Weblink

INVESTIGATE

Visit the *beyondblue* website to find out when National Youth Week is this year. Mark the date in your calendar.

#KEEPSMEWELLPROJECT

Figure 7.15 *beyondblue* coordinates National Youth Week and encourages young people to use the hashtag #keepsmebetter when sharing anything that enhances mental wellbeing on social media platforms.

The BRAVE program

The BRAVE program is a free and interactive online program designed to help both children and teenagers deal with anxiety to improve the quality of their lives. It provides resources and information for children, teenagers and their parents. Based on the principles of cognitive behavioural therapy (CBT), an approach that has been effective in the treatment of anxiety among young people, the program is supported by *beyondblue* and is available to all young Australians aged 8–17 and their parents.

BRAVE was developed by a team from the University of Queensland, Griffith University and the University of Southern Queensland. It is an intervention strategy suitable for young people suffering from separation anxiety, generalised anxiety disorder, social phobia, and specific phobias.

The name **BRAVE** is an acronym for the CBT strategies explored in the program.

- **Body signs** – how to detect the physiological symptoms of anxiety
- **Relax** – use relaxation techniques to calm the mind and the body
- **Activate helpful thoughts** – use positive self-talk to assist with reducing anxiety
- **Victory over fears** – how to overcome fears by focusing on problem solving
- **Enjoy yourself** – self-reward and use positive reinforcement

The program focuses on teaching young people more about management strategies, practising them and becoming more competent at them. In the parent versions of BRAVE, parents also receive training in the strategies and are encouraged to explore them with their children.



Online therapy for worried kids
(and their parents)



Figure 7.16 The BRAVE program has options for both teens and parents.

Review and reflect

- 1 Outline National Youth Week or the BRAVE program. Consider addressing the following key points:
 - the organisation/s that fund and implement the program
 - the aims of the program
 - actions/promotions associated with the program that address the issue
 - why this program has been put into place
 - why the program is effective or ineffective, in your opinion.
- 2 Using research, outline one government and/or non-government program not detailed in this textbook relating to the youth health and wellbeing issue of depression and anxiety.
- 3 Identify and discuss a community value and/or expectation that has had an impact on the development and implementation of this program.

Personal strategies to reduce the negative impact of mental health issues

If a young person is experiencing a mental illness such as depression and anxiety, the personal strategies listed below are suggested to help reduce the impact of these conditions. It should be noted that these strategies relate closely to the protective factors discussed earlier in the chapter.

- *Seek help*: a young person experiencing a mental health issue should seek help from a trusted friend, a trusted adult and ideally a health professional in order to receive appropriate support.
- *Communicate effectively*: sharing thoughts and feelings with family and friends can help a young person maintain and strengthen relationships, which can assist in promoting good mental health and, in the instance of a mental illness, receive adequate support.
- *Maintain appropriate levels of physical activity*: exercise makes you feel good because it releases chemicals like endorphins and serotonin that improve your mood. It can also get you out in the world, help to reduce any feelings of loneliness and isolation, and put you in touch with other people.
- *Engage in relaxation techniques, such as mindfulness and meditation*: relaxation helps to clear and calm the mind and relax the body. Youth may wish to use the 'Smiling Mind' app, which provides guided meditations specifically designed for young people.
- *Reduce alcohol intake and do not smoke or use drugs*: substance use changes how the body and the mind work, altering the balance of chemicals that help your brain to think, feel, create and make decisions, so eliminating them can assist with reducing the impact of depression and anxiety.
- *Focus on reducing the pace of breathing*: this improves mindfulness, slows the heart rate and can be supported by using mobile apps such as 'Breathe', which sends gentle reminders during the day to focus on the depth and pace of your breathing.
- *Improve self-talk*: young people are often self-critical and their inner voice often relays negative messages. Teaching youth firstly to be aware of their self-talk and then coaching them in ways that help make this self-talk more positive can be an effective strategy in improving mental health.
- *Improve the quality of sleep*: getting enough sleep helps boost the immune system and will help in coping with day-to-day stresses.
- *Employ psychological therapies*: CBT has been shown to be an effective treatment approach for anxiety and depression. It may help a young person become more aware of their patterns of thought and employ practical self-help strategies.



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Figure 7.17 Meditation can help to clear and calm the mind and relax the body, and is often an effective personal strategy for youth to reduce the negative impact of mental health issues.

Review and reflect

- 1 List and explain three personal strategies that could be employed by a young person experiencing a mental illness to reduce negative impacts.
- 2 Identify a personal strategy you employ to promote your own mental health. Discuss how you developed this strategy and why it is an effective one for you.
- 3 Identify a personal strategy you would like to learn more about and explore. Discuss why you think it could be an effective one for you and why you'd like to explore it more.

The costs of youth mental illness to individuals and communities

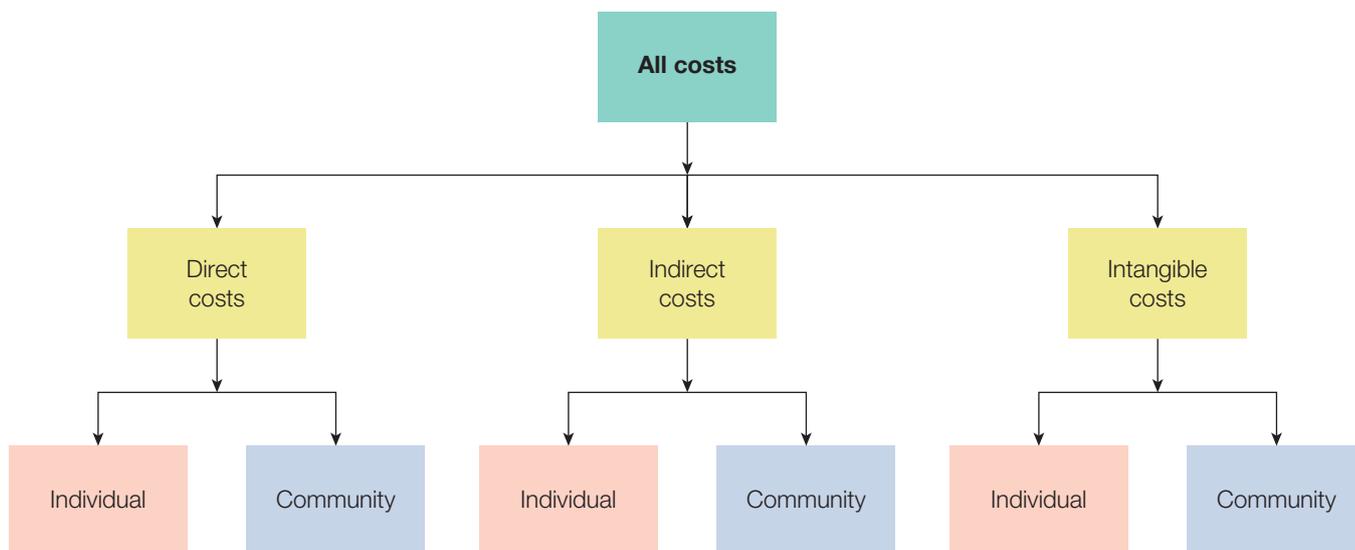
The costs linked to mental illness among youth in Australia are significant. These include direct, indirect and intangible costs to both individuals and the community.

While data is readily available on the direct costs of mental illness in Australia, it is much more difficult to discover specific data on the costs of mental illness among Australia's youth.

In 2009, research into the economic impact of youth mental illness found that, in 2009 alone, the financial cost of mental illness in people aged 12–25 was \$10.6 billion (Access Economics 2009). Of this figure:

- \$7.5 billion (70.5%) was due to lost productivity attributable to lower rates of employment, absence from work, as well as the premature death of young people with mental illness
- \$1.6 billion (15.5%) was attributable to welfare payments and lost taxation

- \$1.4 billion (13.4%) was money spent directly by the health system
- \$65.5 million (0.6%) was other indirect costs
- the financial cost per person with mental illness aged 12–25 was \$10544 per year. Including the value of lost wellbeing, the cost is estimated as \$31014 per person per year.



Direct costs

Direct costs are linked with preventing the mental health issue from occurring, including the funding of health promotion programs, as well as funding health services in order to treat the illness/condition. A dollar value can be placed on direct costs.

Direct costs to the individual

These are monetary costs paid by the sufferer of the mental health condition directly related to treating their illness. This might include:

- paying for medication to treat their condition (e.g. paying for antidepressants)
- out-of-pocket expenses for treatment (i.e. not covered by Medicare)
- paying for an ambulance due to self-harm as a result of a mental illness.

Direct costs to the community

These are associated with funding health promotion programs that aim to raise awareness about mental health issues among youth in Australia, as well as the funding provided through taxation/the community in order to treat and diagnose mental health conditions predominantly through Medicare, the Pharmaceutical Benefits Scheme, private health insurance companies and the public hospital system. These costs include:

- doctor fees funded through Medicare
- costs linked with the running of hospitals

- costs associated with funding health promotion programs and initiatives focusing on youth mental health, funded by the government (predominantly via taxation revenue).

Indirect costs

Indirect costs occur as a result of a young person experiencing a mental illness, but are not directly linked to the diagnosis or treatment of the disease.

Indirect costs to the individual

These are often monetary costs paid by the sufferer of the mental health condition, such as:

- loss of income if a young person is unable to attend work due to their mental illness; many young people do not have sick leave as part of their work agreements
- transport costs in traveling to and from appointments.

Indirect costs to the community

- Lost taxation revenue because a young person is unable to work as a result of their mental illness
- Reduced workplace productivity because a young person cannot function at their optimal capacity, or is frequently absent
- Increased claiming of social security payments such as Youth Allowance, because more young people are unable to work, and earn less money as a result of their mental illness

Intangible costs

The word 'intangible' means something that cannot be touched. Intangible costs are difficult to quantify, but they relate to the pain and suffering experienced by both the sufferer of a mental illness and the community around them.

Intangible costs to the individual

- The pain and suffering experienced by a young person living with a mental illness, including feelings of sadness
- Feelings of self-doubt and worthlessness: a young person suffering from a mental illness may doubt their ability to participate in society, and feel useless and worthless, which can cause great stress and anxiety

Intangible costs to the community

- Sadness felt by family and friends: when a young person suffers a mental illness, their family and friends often feel great grief and despair at seeing a loved one go through a harrowing experience
- Loss of a young person from participation in society: sufferers of mental health conditions often withdraw from social activities and events, meaning that the community suffers as a result. This may include the disappointment a coach feels when a young person has to give up playing sport, or when a boss feels saddened by the resignation of a young person from a workplace.

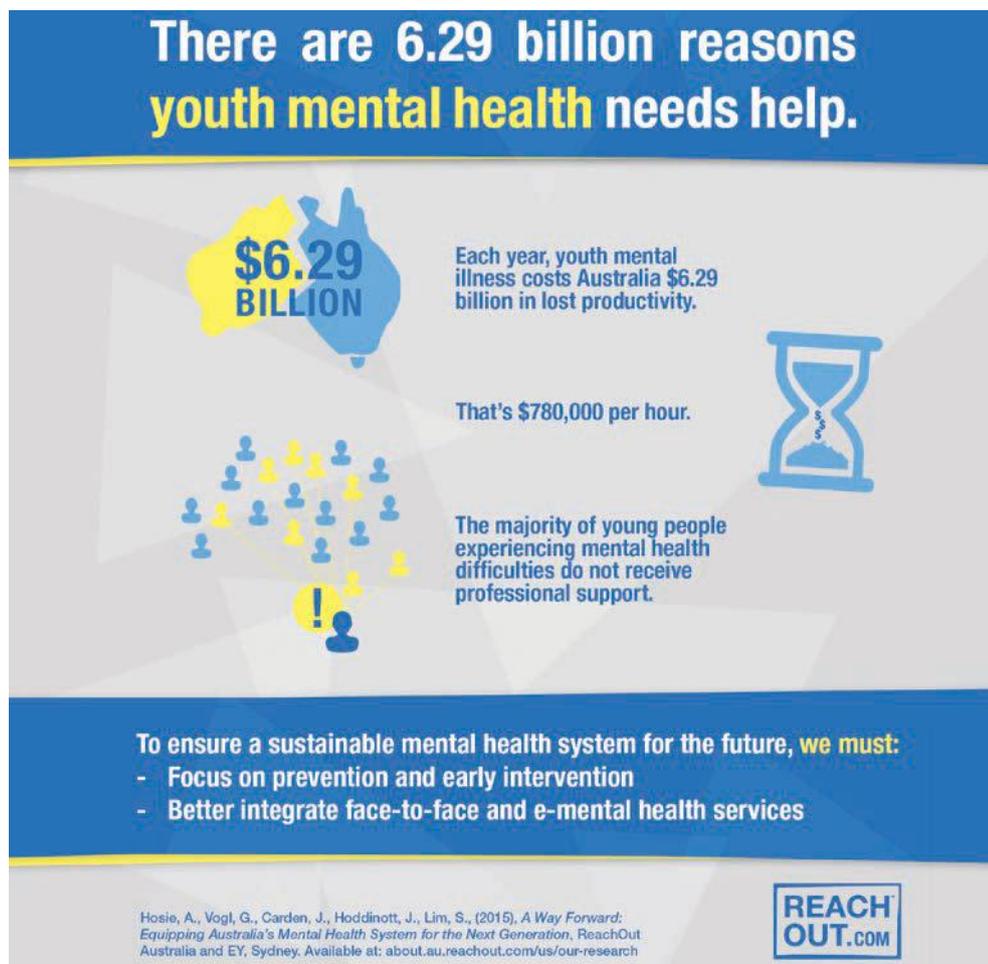


Figure 7.18 In response to a study by Ernst and Young, ReachOut issued this media release to highlight the issue of indirect costs to the community.

Review and reflect

- 1 In the context of youth mental illness, explain the following terms:
 - a direct costs
 - b indirect costs
 - c intangible costs.
- 2 List two examples of direct costs to:
 - a the individual experiencing a youth mental illness
 - b the community as a result of youth mental illness.
- 3 List two examples of indirect costs to:
 - a the individual experiencing a youth mental illness
 - b the community as a result of youth mental illness.
- 4 List two examples of intangible costs to:
 - a the individual experiencing a youth mental illness
 - b the community as a result of youth mental illness.

Case study

Mental health failure: the \$6.2 billion taxpayer bill, as sufferers linger on the dole and in prison

By Sue Dunlevy

Australia's failure to help young people with a mental illness is costing the country a staggering \$6.2 billion a year in health, welfare, business and prison costs.



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Figure 7.19 Up to 70 per cent of young people with a mental illness miss out on services, while half of all young people with a mental illness are unemployed.

Half the young people with a mental illness are unemployed and many are stuck in the prison system because 70 per cent of them don't get help from mental health services.



Shutterstock.com/Steve Snowden

Figure 7.20 Prison costs for people with mental illness amount to over \$247 million a year.

A major new report by accounting and consultancy firm Ernst and Young finds better mental health services and early intervention could produce big savings for taxpayers as well as improve the lives of people with a mental illness.

However, the government would need to double the number of people getting early intervention to reap the benefits.

The unemployment rate for young people with a mental illness is over 50 per cent and taxpayers are spending \$1.2 billion a year on unemployment and disability benefits for this group.

The health care of young people with a mental illness is costing nearly \$1.3 billion a year, Ernst and Young found.

Sick leave to cope with mental illness is costing employers \$631 million and young people are losing \$718 million a year in income as a result of their illness.

Without proper help many young people with a mental illness become embroiled with the justice system and prison costs for these people amount to over \$247 million a year.

Online youth mental health service ReachOut which funded the study says improving mental health services for the young would dramatically lift national productivity as well as improve the health of patients.

'If they do get this right there is a very significant financial benefit for government,' said ReachOut chief executive Jonathan Nicholas.

The mental health sector is putting pressure on the government to release an independent review of mental health services it commissioned and received in November last year.

This report is set to form the basis of any government policy on mental health.

ReachOut says the government could rapidly expand access to mental health care if it used online services and better integrated them into the traditional health system supports.

'First offer people the lowest cost evidence based online self-care,' Mr Nicholas said.

Services like *beyondblue*, Moodgym and others have online tools for specific mental health problems.

If this was not enough people with a mental illness could access online counselling and progressively move up to more serious levels of care if needed, he said.

Extract from Dunlevy S 2015, 'Mental health failure: the \$6.2 billion taxpayer bill, as sufferers linger on the dole and in prison', News Corp Australia Network, 22 February 2015

Case study questions

- 1 This article identified unemployment as a risk factor for poor mental health. Explain why this is the case.
- 2 A report by Ernst and Young found better mental health services and early intervention could produce big savings for taxpayers. Explain how this is the case.
- 3 In order to increase early intervention, the government would need to double the number of people getting early intervention to reap the benefits. Discuss two ways the government could do this and identify positives and negatives associated with each.
- 4 'Without proper help many young people with a mental illness become embroiled with the justice system and prison costs for these people amount to over \$247 million a year.' Explain your understanding of the relationship between mental illness and crime by young people in Australia.
- 5 Free online services are offered by *beyondblue* and Moodgym, among others. Identify two barriers to young people accessing and utilising these tools.

Youth advocacy and action to improve health and equity outcomes

Mental health **advocacy** promotes the rights of people with mental disorders while reducing stigma and discrimination associated with these conditions. It is based around actions that aim to tackle structures within organisations and society, as well as attitudes, that are barriers to achieving good mental health outcomes. It aims to raise awareness, inspire action, help to ensure mental health is on the agenda in workplaces, educational settings and for governments. It also aims to achieve improvement in policies, laws and access to services to enhance mental health.

advocacy actions taken to promote the rights of specific groups of people

While advocacy often occurs through various forms of media and organised events, it can also take the form of a young person voicing their opinion in the media about the need for improved mental health services, participating in outreach projects, and simply starting up conversations in day-to-day life about mental health. Contributing to campaigns, contacting a local member of parliament and lobbying for changes that will enhance wellbeing, and checking in with peers about their state of mind are all other ways of young people being advocates for good mental health.

The most powerful advocates for the mental health of young people are young people themselves. The most powerful advocacy is when young people are not told what to do, but in fact drive action and feel empowered to act themselves. The following are examples of opportunities for youth advocacy and action to improve outcomes in terms of health and equity.

headspace: Youth Advocacy Groups

headspace centres have Youth Advocacy Groups that are involved in a variety of actions driven by young people to promote mental health. One such example is headspace in Werribee, in the western suburbs of Melbourne. To be a member of the advocacy group, participants/applicants need to be between 16–25 years of age, live/work/play in the area, and be passionate about improving youth mental health.

The group meets regularly to make sure that the headspace Werribee centre is an inviting place for young people to come and discuss ways to sell their message in the community. As part of their role, group members are responsible for:

- planning and hosting events to raise awareness of mental health in the community
- planning activities to use in community awareness workshops and assisting in the delivery of these at schools and in the community
- setting up and manning information stalls to talk to young people about headspace Werribee and mental health
- providing feedback about headspace Werribee's services
- developing resources.

Extract from <https://headspace.org.au>

Werribee is a low socioeconomic area, so this program also looks to improve mental health outcomes in terms of equity.

Learning field

Meet Des

Tell us about yourself and your connection with headspace Werribee.

I'm currently studying a Bachelor of Social Work and came to headspace Werribee through a connection with Orygen, the National Centre of Excellence in Youth Mental Health. I have a keen interest in mental health and I had been hoping to volunteer with a service that worked with youth people. The YAG at headspace Werribee has been the perfect opportunity for me!

What sort of things do you work on in the YAG?

We do lots of different things! We're currently working on developing new partnerships with schools in the Wyndham area to increase the knowledge of mental health in young people. We also provide support at events and presentations run by headspace, and give feedback to the centre and Orygen on a range of different matters relating to young people.

Why is the YAG and headspace Werribee important?

Werribee is a major growth area in the west of Melbourne, and it is continually expanding. With all of this change happening, there is a greater potential for young people to experience mental health issues, and that's where headspace Werribee comes in to help out. The Youth Advocacy Group is an excellent platform to contribute ideas and collaborate with like-minded people. We're working to bring mental health into the foreground in a non-invasive and friendly way to the wider community and to advocate for better mental health through youth participation and engagement.

What do you enjoy about the YAG?

I love that every person on the YAG brings something different to the table. We're a diverse group of young people who have a collective goal to create change and support others, and we all work together really well. I'm always excited to attend our meetings, and not just because we have great snacks.

What would you say to others thinking about applying for a position in the YAG?

Definitely jump in and take the chance if you're interested in mental health and want to give something back to the community. I have a renewed sense of purpose from becoming involved in headspace Werribee and I'm so glad I applied.

Extract from Headspace National Youth Mental Health Foundation Ltd [AU], 2016, 'Youth Advocacy Group applications now open for 2017. Meet Des!'

Questions

- 1 Identify and describe two things Des does as part of her role as an advocate at headspace Werribee.
- 2 Werribee is an expanding area and hence there is an increased risk that young people will experience mental health problems. Discuss two reasons why you think this risk is higher in an area that is expanding.

headspace's Youth National Reference Group

headspace's Youth National Reference Group, or hY NRG, are a group of 24 people aged 16–25 who provide feedback and insight to headspace about their strategic direction, programs and mental health services nationally. They aim to ensure youth are involved in the youth, welfare and health sector, to support young people to lead projects locally and nationally, and allow young people to direct youth mental health policy development.

While only a small group, they are a good example of young people acting as advocates for improved mental health among their peers. Members are asked to complete a minimum of 18 months on the team and focus on implementing and coordinating activities, may become involved in community education activities, or act as a spokesperson on the issue of youth mental health at schools, mental health forums and conferences, as well to the media.

Review and reflect

- 1 Identify two reasons why headspace's Youth National Reference Group is an important part of advocacy for improving mental health of young Australians
- 2 List three aims of the group.
- 3 Discuss one of the benefits of a young person acting as a spokesperson on the issue of youth mental health at schools, mental health forums and conferences and to the media.

beyondblue – youth advocacy and action

Gay, lesbian, bisexual, transsexual and intersex community

beyondblue acknowledges that young gay, lesbian, bisexual, transsexual and intersex (LGBTI) people are more likely to suffer from depression, anxiety disorders and/or self-harm than the general population. Research suggests that discrimination, verbal and physical abuse, and social exclusion are key reasons for this. *beyondblue* offers multiple opportunities for young people to advocate for improved mental health of this community, including the following.

Community events

beyondblue has supported a variety of community events and festivals to strengthen relationships with the LGBTI community and to raise awareness of depression and anxiety. *beyondblue* staff and volunteers (often young LGBTI people themselves) distributed bags with information, fact sheets and wristbands at a variety of events attended by youth, including the Midsumma Festival and the Pride March in Melbourne, the Mardi Gras Fair Day in Sydney, and Canberra's SpringOut Fairday, to achieve their goal.

LGBTI Mental Health Roundtable

In December 2009, *beyondblue* hosted a LGBTI Mental Health Roundtable, bringing together key stakeholders including young LGBTI people. The discussion focused on key topics around mental health including social exclusion and discrimination among LGBTI people, as well as the mental health services that are readily accessible in the community. As a result of the conversation, *beyondblue* committed to developing a focused awareness campaign, and to promoting research to identify risk factors for depression and anxiety among LGBTI populations.

Review and reflect

- 1 Identify two reasons why young LGBTI people are more likely to experience mental illness than the rest of the population.
- 2 Discuss one opportunity for youth advocacy and action to improve outcomes in terms of health and equity.
- 3 Go online and research another program that enhances opportunities for youth advocacy and action to improve outcomes in terms of health and equity for young LGBTI people.

blueVoices

blueVoices is a reference group administered by Youthbeyondblue, where people over the age of 16 get the opportunity to share their own personal experiences of anxiety and depression and contribute to Youthbeyondblue projects.

Program activities are conducted through the online portal and by email to address the time and distance barriers, which is particularly helpful to youth located in remote areas.

Members of blueVoices are asked to provide feedback on possible *beyondblue* programs and are also often asked to assist with Youthbeyondblue projects. Possible roles include:

- sharing stories for use in *beyondblue*'s campaigns, information resources or projects
- providing feedback on resources, position statements or campaign materials
- participating in committees and advisory groups
- partaking in research projects
- sharing personal experiences through the media.

Review and reflect

- 1 Identify two communities of Australian youth that could benefit from blueVoices because of the opportunities it provides, as well the barriers to advocacy it removes, for youth mental health.
- 2 List one of the positives associated with blueVoices as an advocacy program.

Planning advocacy and action for promoting youth health and wellbeing

One of the key skills of this unit asks students to **plan advocacy and/or action based on identification and evaluation of opportunities for promoting youth health and wellbeing.**

You are asked to:

- 1 Choose a topic other than mental health where young people experience poor health outcomes.
- 2 Conduct an investigation where you identify and evaluate opportunities for promoting youth health and wellbeing around this chosen topic, including looking into and writing up summaries of programs already in place that involve youth as advocates for good health and behavioural change.
- 3 Create your own program that you could launch in your own school/local community to promote youth health and wellbeing with a focus on your chosen area.

Chapter summary



Unit 1 Area of Study 3 revision cards

- The mental health of young Australians is mostly good but requires attention from governments, policy makers and health and educational sectors.
- **Mental health** is defined by the WHO as 'a state of well-being in which every individual realises his or her own potential, can cope with the normal stresses of life, can work productively and fruitfully, and is able to make a contribution to her or his community.'
- **Mental illness** is an umbrella term used interchangeably with the term 'mental disorder'. Mental illnesses impact upon the way in which a person thinks, feels and behaves. A mental health problem is similar to a mental illness. It also impacts upon the thoughts, feelings and behaviours of a person, but to a lesser degree.
- Various types of mental illnesses exist, with differing signs, symptoms and severity. Examples include depressive disorders, psychotic disorders, personality disorders and eating disorders. Depressive disorders and anxiety disorders are the most common among Australian youth. Psychotic disorders such as schizophrenia are less common among Australian youth.
- **Depression** involves a prolonged low mood or sadness that tends to be combined with feelings of hopelessness, helplessness and issues of self-worth. Common depressive disorders are major depressive disorder, postpartum depression, seasonal affective disorder (SAD), and persistent depressive disorder.
- **Anxiety disorders** are a class of mental disorders that involve experiencing intense and incapacitating fear and anxiety. Anxiety disorders include generalised anxiety disorder (GAD), social phobias, specific phobias, obsessive-compulsive disorder (OCD), panic disorder and post-traumatic stress disorder (PTSD).
- **Self-harm** is when a person deliberately and directly causes injury to their own body but not as part of a suicide attempt. Self-harm is most common among those aged 12 to 24, but can occur at any age, in both males and females. Self-harm is not a mental disorder in its own right, but is associated with mental disorders including depression, personality disorder and post-traumatic stress disorder.
- Mental illnesses negatively impact the physical, social, mental, emotional and spiritual dimensions of health.
- A **protective factor** reduces the chances of mental health problems in youth.
- **Risk factors** enhance the chances of poor mental health.
- Young people with mental health issues use many different **health care services** for support, including GPs, paediatricians, psychiatrists, psychologists, social workers, hospital emergency departments, telephone counselling services, online counselling services, and so on.
- Australian youth face significant costs as result of mental illness. Mental illness has vast impact on individuals and the community, resulting in direct, indirect and intangible costs. Community support has resulted in more community and government programs than ever before, all with the aim of reducing mental illness among Australian youth.
- **Government and community programs** that aim to reduce the negative impact of mental illnesses among Australia's youth include Youthbeyondblue, Chilled Plus Online, National Youth Week and the BRAVE program.
- **Personal strategies** for youth to reduce negative impact of mental health issues include: seek help, communicate effectively, maintain appropriate levels of physical activity, engage in relaxation techniques, reduce alcohol intake and do not smoke or use drugs, slow breathing, improve self-talk, improve the quality of sleep, and employ psychological therapies.
- **Direct, indirect and intangible costs** to individuals and communities as a result of mental illness among Australian youth are significant and need to be reduced.
- **Youth advocacy and action** include headspace's Youth Advocacy Group and Youth National Reference Group, *beyondblue's* youth advocacy and blueVoices.

Exam-style questions

Anxiety and depression are two of the most common mental illnesses among Australian youth.

- 1 Discuss the impact anxiety and/or depression can have on different dimensions of health and wellbeing. **(5 marks)**
- 2 List one risk and one protective factor for anxiety and depression among Australian youth and describe how they can either enhance or decrease the chance of mental illness. **(4 marks)**
- 3 **a** Identify a health care service available to young Australians experiencing anxiety and/or depression. **(1 mark)**
b Discuss two roles this service can play in addressing a mental illness. **(2 marks)**
- 4 Numerous government and community programs have been created and implemented to address the issue of mental illness among Australian youth. Describe one in detail and justify why it has been put in place. **(4 marks)**
- 5 Outline a personal strategy that could be employed by a young person to reduce the negative impact of anxiety and/or depression. **(2 marks)**
- 6 List one each of a direct, indirect and intangible cost to the individual and the community as a result of anxiety and/or depression among young Australians. **(6 marks)**
- 7 Outline one opportunity that has been created for youth advocacy and action to improve outcomes in terms of health and equity by either a government or non-government organisation. **(3 marks)**

Unit 2

Managing health and development

Area of Study 1: Developmental transitions

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Chapter 8: The human lifespan

Key knowledge

- overview of the human lifespan
- perceptions of youth and adulthood as stages of the lifespan
- definitions and characteristics of development, including physical, social, emotional and intellectual

Key skills

- collect and analyse information to draw conclusions on perceptions on youth and adulthood

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Key terms

emotional development
intellectual development
lifespan
maturation
peer pressure
physical development
puberty
resilience
social development

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Overview of the human lifespan

The human **lifespan** is the number of years between the birth and death of an individual. As discussed at the beginning of this book, the number of years a person is expected to live (life expectancy) differs between countries and cultures. Australia has one of the highest life expectancy rates in the world.

The human lifespan consists of distinct stages of growth or maturing of the body, and this growth also supports developmental changes. Each stage of the lifespan is characterised by certain growth and developmental changes, although people do not all develop in exactly the same way, as development can be influenced by factors such as genetics and inheritance, and the environment in which people live, work, study and play.

lifespan number of years between birth and death of an organism



Adapted from image by Getty Images/DigitalVision Vectors

Figure 8.1 Eight stages of the lifespan: prenatal, infant (0–2), young child (2–7), school child (7–11), youth (12–18), young adult (20–40), mature adult (40–65), older adult (65+).

Studying the human lifespan

Lifespan development is a topic of interest not only in Health and Human Development but also other subjects, including Psychology and Biology. While each field of study may consider development from a specific perspective, there is general agreement about the following key principles.

Development occurs in a predictable and orderly way.

Human development normally progresses in a sequence and is ordered. Milestones are often referred to when reviewing a person's development. A *milestone* can be thought of as a marker or signpost indicating the level of development a person could be expected to have reached by a particular age. For example, many key physical development milestones for children are age related – examples are crawling and walking. The exact rate or timing for this change differs between individuals.

Development is continual.

The human lifespan begins at birth and ends at death. The body is constantly making new cells, which allows for ongoing growth, especially in childhood and adolescence.

There are individual variations in the rate and timing of development.

While development is generally a predictable and orderly sequence, no two people achieve the developmental milestones at exactly the same age. Individual variations and differences in achieving milestones can be the result of having opportunities to develop specific skills, as well as exposure to resources that may assist their development, such as education.

Development proceeds from the simple to the complex.

As a person ages, they are better able to complete more complex tasks. This is evident where children develop large muscle groups first, which enable gross motor movement such as grasping or pushing. Over time, as the child develops greater control over these muscles, they are able to complete more difficult tasks that require finer motor movements, such as using a pencil.

Quantitative and qualitative changes

Development throughout the lifespan can be studied by assessing quantitative and qualitative changes.

- *Quantitative* changes are variations in amount, or quantity. They are measurable, and are given in numbers, with units. Examples of quantitative changes are a person's height and weight as they age, and the number of spoken words that a child demonstrates.
- *Qualitative* changes are variations in type, or quality. They are often in the form of descriptions, as they are usually difficult to explain in numbers. An example of a qualitative change is the difference between a child's description of an abstract or difficult concept, such as 'What is love?' and that of an adolescent or an adult.

Stages of the human lifespan

The human lifespan can be categorised into eight key stages, according to age group:

- prenatal (from conception to birth)
- infancy (from birth to age 2 years)
- early childhood (age 2–7 years)
- middle childhood (age 7–11 years)
- youth (age 12–18 years)
- young adulthood (age 18–40 years)
- middle adulthood (age 40–65 years)
- late adulthood (age 65+ years).

The stages are outlined below. More detail regarding specific characteristics of prenatal, infancy, childhood, adolescence and young adulthood are provided in later chapters.

Prenatal: conception to birth

Conception, the beginning of a new human life, is the result of the union of a woman's egg cell with a man's sperm cell through sexual intercourse or reproductive technology. 'Prenatal' refers to the time before birth. The prenatal stage takes place in the female's uterus, where the growing human develops all their body structures. Development during the prenatal stage is discussed further in Chapter 10.

Infancy: 0–2 years

Infancy is the time from birth until the age of 2 years. It is a period of very fast growth of body structures and systems. The central nervous system (brain and spinal cord) matures very quickly, as the brain responds to the sensory experiences of the world. Reflex movements are observed in newborns in this stage. By age two, many children have reached the milestones of movement and interaction responses towards other people, such as their caregiver.

Early childhood: 2–7 years

In early childhood, continuous physical development is evident as children develop finer motor control. A feature of early childhood is an increase in communication skills, such as spoken words. Children in this lifespan stage may also have more opportunities to interact with their wider community in formal education and care settings, such as day care, pre-school and primary school.



iStock.com/gilaxia

Figure 8.2 Prenatal development begins with conception, takes place in the uterus and ends with birth.



iStock.com/X-Star

Figure 8.3 Early childhood provides opportunities to develop communication skills.

Middle childhood: 7–11 years

During middle childhood, physical and motor development continues. Most basic motor skills have been achieved by middle childhood. Social and cultural learning, a key focus of this lifespan stage, is achieved through interactions with peers in settings such as school. School also provides children with further opportunities to develop their problem-solving and questioning skills.



Fairfax Syndication/The Age/EDDIE JIM

Figure 8.4 Social and cultural learning expands in middle childhood.

Youth: 12–18 years

puberty a series of physical changes that occur in the body that enable sexual reproduction; the changes mark the transition from child to adult

The physical changes associated with **puberty** are a key indicator of this lifespan stage. Puberty is the sexual maturing of the body in preparation for reproduction – the ability to create human life. Apart from physical changes and maturing of sex organs, youth is also associated with changes in the person's emotions and sense of identity. There may be opportunities for greater responsibility and independence, through engaging in activities without parental supervision – an example is staying at home alone. Experiences in adolescence can prepare teenagers for the transition to adulthood.



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Figure 8.5 Youth is a time of distinct physical changes and exploration of identity.

Young adulthood: 18– 40 years

While the developmental age at which a person becomes an adult can vary, in Australia the legal age at which a person becomes an adult is 18 years. Young adulthood is the longest period of the lifespan. A person's physical development and body systems can reach peak performance in the early stages of young adulthood. This lifespan stage is often a time of key life achievements and milestones, such as leaving the family home and forming long-term relationships that may result in marriage and/or raising children. Career achievements can also be a significant accomplishment during this stage.



iStock.com/xavierarnau

Figure 8.6 Young adulthood can include milestones in career, relationships and family progression.

Middle adulthood: 40–65 years

Ageing affects every cell, organ and tissue in the human body. In middle adulthood, females go through menopause, the end of the body's natural ability to conceive children. Chronic or lingering health problems, such as body pains, reduced functioning, higher blood pressure and higher cholesterol levels, can become more of a concern as people age. However, healthy behaviours maintained throughout the lifespan, such as a balanced diet and recommended levels of exercise, can contribute to optimal physical functioning during middle adulthood and help prevent chronic health conditions from developing.

Middle adulthood can be an enjoyable time, as life experiences and developed personal values enhance an individual's self-concept. There may be new experiences for some middle-aged people, such as becoming a grandparent or preparing for retirement. Caring for other family members, such as elderly parents, can also occur.



iStock.com/monkeybusinessimages

Figure 8.7 In middle adulthood, a person may care for grandchildren and/or elderly parents.



Figure 8.8 Older adulthood can be a time of increasing health concerns, as well as increased leisure time after retirement.

Late adulthood: 65+ years

In late adulthood, chronic conditions can increase as the body continues to age. The body's systems, such as the immune system, which fights disease, can become less effective. There can be major changes in the social and emotional lives of older adults. Retirement from work can provide more time to enjoy activities such as travel and hobbies. Grandchildren and other family members can be a great source of joy and support. Others may experience feelings of isolation and loneliness, especially if a partner passes away or becomes unwell. Moving around within the community can become more difficult, especially if the older adult is unable to drive or cannot easily access public transport. Some older adults may no longer be able to live independently due to health concerns, and may require home assistance or full-time support in a residential facility.

Review and reflect

- 1 Define 'lifespan'.
- 2 Outline the key stages of the human lifespan.
- 3 List the key principles that are applied when studying the human lifespan.
- 4 Distinguish between a quantitative developmental change and a qualitative developmental change.
- 5 Create a visual representation (poster) of the stages of the human lifespan, with an outline of key features of each stage.
- 6 Have you been told by family members of any of your key milestone experiences? Create a personal timeline to reflect these experiences. How do your results compare to those of others in the class? Examples:
 - How old were you when you spoke your first word?
 - At what age did you begin to eat solid food?
 - When did you take your first step?
 - What was your favourite game?
 - Who was your first friend?

maturation the process of growth over time to reach full functioning

Characteristics of development

Development refers to changes that occur over time. Development is a complex, holistic process that is influenced by a range of factors related to the individual and/or their environment. The development of an individual includes not only physical changes and **maturation** of the body, but also the person's emotional, social and intellectual development. These development areas interact with and influence each other, and continue throughout the lifespan.

Research into human development has led to the identification of milestones or key achievements that are common to individuals at certain lifespan stages. If an area of development is not achieved or if development is delayed, assistance or further support may be required in that area. Families and individuals can access a range of health and educational professionals for support, if there is concern that a developmental milestone is yet to be achieved.

physical development the way a person's body grows, changes and develops throughout their lifetime

Physical development

Physical development refers to the way a person's body grows, changes and develops throughout their lifetime. The cells of the body are constantly growing and changing. The time from birth to adolescence includes key lifespan stages where physical growth is most noticeable. The growth of muscles and joints takes place, and individuals learn to use these to control the movements of their body.

Throughout the time of physical development, individuals develop their gross motor control and fine motor control. *Gross motor control* involves the movement of large muscle groups and joints in the limbs. Climbing, jumping, dancing, digging and lifting are all examples of gross motor movement. *Fine motor control* is the movement of the smaller muscles and joints – an example is the use of fingers in activities such as drawing, threading beads, catching and throwing, and playing with blocks. Developing these motor skills can lead to increased confidence.



iStock.com/oneblueight

Figure 8.9 Gaining control over the fine muscles in the hand is an example of physical development.

Social development

Social development includes the learning of values, knowledge and skills that enable people to interact with others effectively and to contribute in positive ways to their family and wider society. It also includes becoming aware of society and the cultural values and expectations that are considered acceptable in the wider community – such as waiting your turn in a queue at the supermarket, sharing with others, and saying ‘please’ and ‘thank you’. Each community has social roles, or expected behaviour, for individuals. The social roles that an individual plays can change over time, and are learned through observing and modelling from others.

The development of social interaction skills, such as respectful communication, cooperation and trust, provides a basis for successful relationships with others throughout life. **Resilience** is an important personal skill that helps people cope with difficulties in life, and to recover quickly from difficulties such as failure or defeat and hurt due to disagreements with others. Positive social development can foster a person’s resilience and ability to handle life’s challenges.

Successful social development contributes to a positive self-outlook, where the individual feels good about themselves, can confidently interact with others, and has an appropriate level of self-esteem.

While a person’s social development is often shaped by their immediate family environment, other settings that provide social interaction are also influential. These settings can include child care, education, extended family homes, and friends and community groups.

Emotional development

Emotional development is the ability to express appropriately, understand and regulate one’s emotions. As a person develops, the people, situations and events that provoke their emotional responses change, as do the strategies the person uses to manage them.

Very young children’s emotions are made up of mainly physical reactions (such as a racing heart or butterflies in the stomach). Children learn to recognise these physical reactions as feelings. A limited range of feelings can be identified in young children, the most common being anger, joy and sadness. Over time, children become more aware of their own feelings and also experience a broader

social development learning and acquiring the values, knowledge and skills that enable people to interact with others effectively and to contribute in positive ways to society

resilience the ability to recover quickly from difficulties

emotional development the growing ability to express appropriately, understand and regulate one’s emotions

range of feelings. Examples of more complex feelings include jealousy, shyness, guilt, embarrassment and pride.

Emotions can be expressed through words and behaviour. A young child may have a tantrum and scream in public when they are feeling upset or do not get their own way. Society may view this behaviour as acceptable for smaller children, who are still developing their emotional skills. For a teenager or an adult, however, particularly in school or the workplace, such behaviour would be considered very unusual. The ability to manage the expression of our emotions is called *emotional regulation*. People also develop their ability to recognise and understand other people's feelings. The ability to understand the feelings of others is referred to as *empathy*.



iStock.com/patrickheagney

Figure 8.10 Children learn to identify their feelings, and ways to respond to these feelings.

Intellectual development

Throughout life, our brain changes in the way it perceives, thinks and reasons.

Intellectual development refers to the brain's mental functions, including the ability to learn and solve problems.

Our language skills develop early in life, and this development allows us to communicate our thoughts and ideas. As a person grows older, they begin to integrate or incorporate cognitive skills such as memory, attention and thinking. As a child progresses through the school years, their long-term memory increases and they are able to remember what has been learnt, which allows them to build progressively upon previously learned knowledge.

Intellectual development can occur throughout the lifespan. A child's family, care and education settings can provide opportunities for reading, writing, drawing, arts and crafts, and imaginative and creative play, all of which encourage children to communicate and express ideas. As people age, they are often required to expand their cognitive skills as they move to higher education and workplace settings.

intellectual development
growth and change in the brain's mental functions, influencing the ability to think, reason, learn and understand

Interaction between the four areas of development

The four areas of development – physical, social, emotional and intellectual – all interact and influence each other considerably. For example:

- Physical development of the brain enables the development of intellectual skills and emotional regulation.
- Children who play a team sport can develop improved physical gross and fine motor movements. This physical development can in turn lead to improved confidence, self-esteem and social interactions.

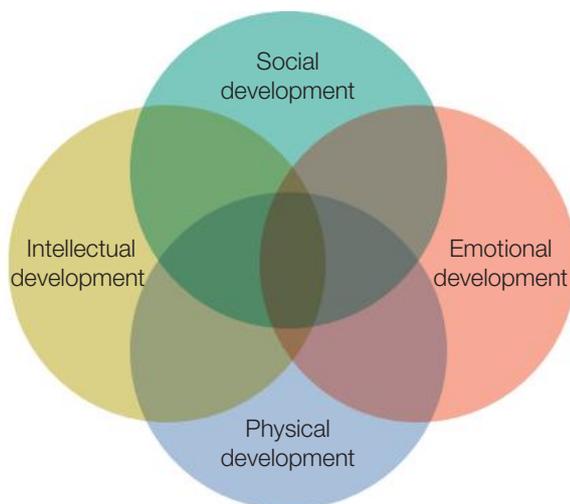


Figure 8.11 Human development is influenced by simultaneous changes in each area of development.

Review and reflect

- 1 Construct a table outlining the four areas of development and their key characteristics.
- 2 The four areas of development interact. Provide three examples of how this may be the case in a person's life.

Perceptions of youth and adulthood as stages of the lifespan

There are many views about what youth is, and what it means to be an adult. Adulthood extends for most of the lifespan, especially if a person lives well into old age. In this section, we consider the key physical, social, emotional and intellectual developments of youth and adulthood. In Chapter 9 we explore the transitions that take place when a person grows from youth to adulthood.

Development in youth

The broad age range for youth is 12–18 years, although in some contexts it can be considered to extend to 24 years. Youth is also referred to as 'adolescence', which comes from a Latin word meaning 'grow in maturity'. Adolescence can be further divided into younger adolescence (12–15 years) and older adolescence (16–18 years).

Physical, social, emotional and intellectual maturation are all evident throughout youth. As in other stages of the lifespan, our experience of youth is influenced by the environments in which we live, socialise, study, work and play.

Physical development

The physical changes associated with puberty are often the most obvious signs that an individual is experiencing youth. Puberty occurs at 10–14 years for most girls, and around 11–15 years for most boys. During puberty, the sex organs of the body mature for reproduction, and the young person’s physical appearance also changes. These changes are stimulated by the brain’s release of hormones into the bloodstream.

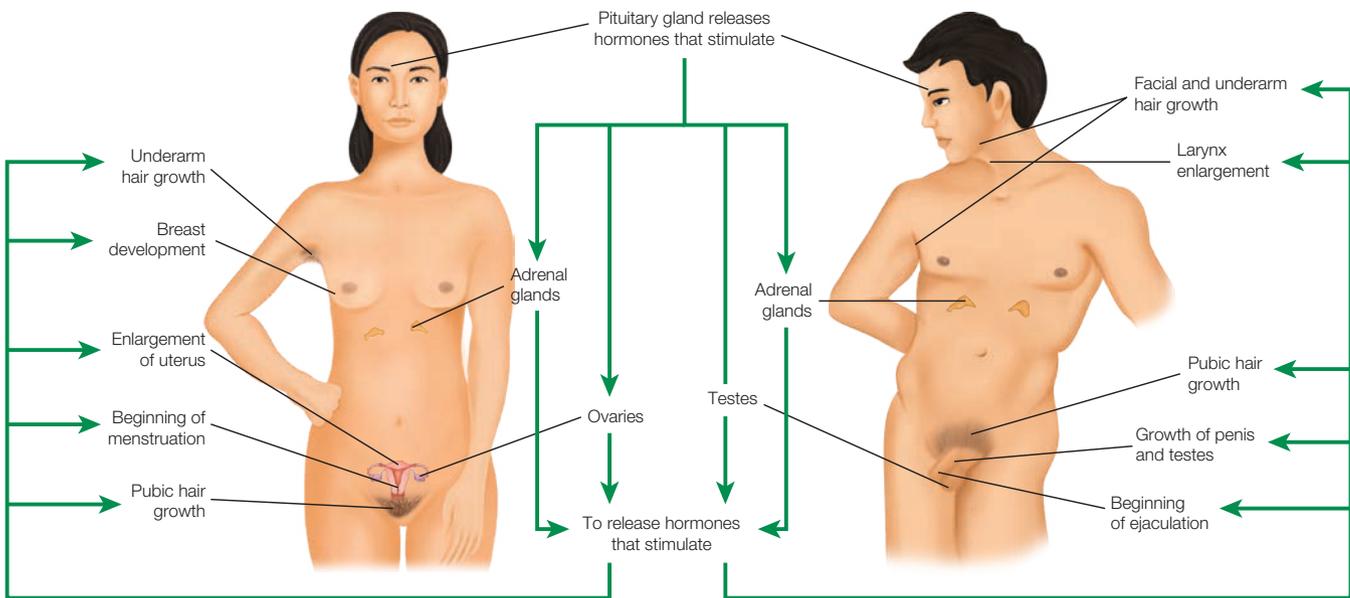


Figure 8.12 Summary of physical changes in males and females during puberty

Table 8.1 Physical changes during puberty

Females	Males
<p>Height</p> <ul style="list-style-type: none"> • A large increase in skeletal growth occurs, increasing height in a short period of time (growth spurt). • Growth spurt starts on average at 12 years. Full height is reached by age 18 years. Growth is not as great as for males. 	<p>Height</p> <ul style="list-style-type: none"> • A large increase in skeletal growth occurs, increasing height in a short period of time (growth spurt). • Growth spurt starts on average at 14 years and can last until 20 years.
<p>Weight</p> <ul style="list-style-type: none"> • Proportion of body fat tends to increase. Can also be influenced by environmental factors (e.g. family diet, level of exercise). • Hips widen and body develops more curves. 	<p>Weight</p> <ul style="list-style-type: none"> • Proportion of body fat tends to decrease. Can also be influenced by environmental factors (e.g. family diet, level of exercise).
<p>Breasts</p> <ul style="list-style-type: none"> • Breasts grow. • Nipples bud and areola develops. 	<p>Voice</p> <ul style="list-style-type: none"> • Voice can become deeper.
<p>Body hair</p> <ul style="list-style-type: none"> • Pubic hair grows. • Body hair grows, including underarm hair. 	<p>Body hair</p> <ul style="list-style-type: none"> • Pubic hair grows, following growth of testicles. • Facial and body hair begin to appear, including underarm hair.

table continues ...

Females	Males
Skin <ul style="list-style-type: none"> • Skin can become oily, causing pimples. • Sweat glands become more active, causing perspiration. 	Skin <ul style="list-style-type: none"> • Skin can become oily, causing pimples. • Sweat glands become more active, causing perspiration.
Genitals/reproductive <ul style="list-style-type: none"> • Growth of genitals, including the vulva and uterus. • Menstrual periods begin. The lining of the uterus becomes thicker in preparation for pregnancy. If pregnancy does not happen, the lining is shed over several days (a period), and exits the body via the vagina. The process occurs on average over 28 days but can be irregular during puberty. 	Genitals/reproductive <ul style="list-style-type: none"> • Testicles and penis grow. • Sperm cells mature and can be ejaculated, including during sleep. • Blood rush to the penis can cause the penis to become erect.

The young person's muscles grow, their strength increases, and their ability to coordinate movements in a smooth and 'fluid' way increases, especially in the hands and arms. Smoothly coordinated movements are needed in many areas of life, including eating, drinking and recreational activities, such as bowling a ball or playing an instrument. The use of smoothly coordinated physical movements is particularly evident when driving a car.

The developing motor movement skills used by adolescent young people as they interact in different environments include:

- posture – standing and responding to different tasks
- mobility – walking, reaching, bending
- coordination – using more than one body part to complete a task
- motor skills – lifting, gripping, carrying, moving.

In addition, young people often need sufficient energy to complete tasks over long periods of time, such as:

- completing a full school day without feeling exhausted
- sitting examinations
- completing a shift at a part-time job after a full day of school
- playing an entire game of weekend sport without constant rest breaks.

These activities would most likely be a struggle for someone in the childhood lifespan stage. To function effectively, a young person needs 9–10 hours of sleep per night, which is more than a child or an adult needs. Many factors can result in a young person not getting the sleep they need – a busy schedule, hormones affecting the sleep–wake cycle, exposure to light (especially from digital devices), and so on.

Social development

During adolescence, the young person may become increasingly aware of the opinions of those around them, and issues affecting the wider world. The young person's role in society and within their own family unit can become very different from the role they had in childhood. There can be an increase in responsibility and a higher level of independence. A young person may begin part-time work, which might require maturity and the juggling of demands such as homework, friends and family to fit in with the requirements of their job. Young people may also take on increased levels of responsibility in the home or in the local community, through volunteer work (e.g. sports coaching). The formation of a person's independent identity and self-concept are shaped by their experiences in youth.

peer pressure the influence of others on an individual's decisions

The opinions of others and how young people are perceived by others can become very important. The development of avenues such as social media has created additional ways for people to seek validation and approval from others, at any time. Interest in romantic relationships can be a particular focus during youth. An intimate relationship can result in young people spending increasing amounts of time together and developing strong feelings of care and connection.

The term **peer pressure** is often used in relation to adolescence. Peer pressure refers to the influence of others on an individual's decisions. It can often be positive – examples are a group of friends who encourage each other to study and do their best on an upcoming test, and sporting team mates who encourage each other to attend training. At other times, peer pressure can present challenges, especially if the young person is pressured to make a decision that goes against a family, school or society rule. Peer pressure can occur at any stage of life but tends to be more significant during adolescence.

Emotional development

The significant physical and social changes of adolescence can contribute to a change in an individual's feelings and emotions. Adapting to a changing physical appearance, adjusting to different body functioning, concern about the opinions of others, romantic interests and increasing responsibilities can lead to a range of emotions, including confusion, worry and angst. There can also be feelings of excitement and happiness as new experiences and opportunities become available.

The hormones that stimulate changes in physical growth can also influence moods and emotional states. Adolescents may find themselves at times moving between states of increased irritability, frustration, sadness and happiness. This can create confusion for the individual and also for those around them, such as family members. It can be a challenge for a young person to find ways of handling emotions effectively and in different ways than when they were a child. This emotional regulation is particularly important when learning to handle conflict or challenging situations at school, in the part-time workplace and in other social settings.

A person's experiences in youth affect their level of self-esteem. Self-esteem is a person's feelings of self-worth and opinion of themselves. Having an appropriate level of self-esteem gives a young person confidence to try new things, take on challenges and interact with others. A negative view or opinion of one's self can lead to feelings of worthlessness, not wanting to try challenging tasks, and difficulties in forming and maintaining relationships with others. We all experience low self-esteem at times, but if a person's negative feelings are ongoing, it is recommended that they speak to someone, such as a teacher, school counsellor or doctor, who can support them in accessing additional help. There are also online resources that provide helpful advice about ways to access support.

Sources of help

If you or someone you know is feeling down or not themselves, here are some sources of support:

- a teacher or school counsellor
- your doctor
- Kids Helpline (tel. 1800 551 800 or go to website)
- Youth Beyond Blue (tel. 1300 224 636 or go to website).



Figure 8.13 Connection with others can be important for young people.

Intellectual development

In youth, we develop more complex learning and thinking skills. ‘Metacognition’ is how people plan, organise, execute and evaluate activities. Metacognition becomes increasingly important as people age, as there is a shift from focusing on concrete tasks that have very clear or straightforward answers to more abstract or difficult problems relating to a general idea or thought.

Young people can find themselves increasingly in situations that require logical or rational thinking and reasoning. This can involve transferring previously learnt skills to new situations – from carrying out school tasks, for example, to making decisions about hobbies, friendships and future careers. Being able to organise tasks in a logical order from start to finish is a sign of increased intellectual development.

Self-awareness also develops during youth. Self-awareness involves identifying one’s own thoughts, feelings and mistakes, as well as strengths and weaknesses. This information can then be used by the person to adapt their behaviour, and in making decisions. Considering points of view beyond their own or those of their immediate friends and family also expands a young person’s thinking skills.

By adolescence, individuals have an increased ability to divide their attention between two or more tasks, as well as remaining focused on specific tasks when required.

Review and reflect

- 1 Outline the key physical changes experienced by male and female youth.
- 2 What factors can prevent a young person getting 9–10 hours of sleep per night?
- 3 Outline the key social, emotional and intellectual changes that occur during youth.
- 4 What experiences in youth could affect self-esteem?
- 5 Think about the differences between primary and secondary school. How do the tasks and teaching reflect differences in intellectual development between children and youth?

Case study

#FOMO leading to higher levels of depression, anxiety for heavy social media users

By Dijana Damjanovic and Isabel Dayman, ABC News, 8 November 2015

The fear of missing out (or FOMO) generated by high levels of social media use can lead to depression and anxiety, according to a new report looking at the way social media impacts wellbeing.

The fifth annual National Stress and Wellbeing in Australia Survey has found Australians are faring worse than they were when the survey began, with higher levels of stress, depression and anxiety being reported.

Study's key findings:

- 66 per cent of the teenagers wanted to share details online when they were having a good time (eg updating a Facebook status)
- 60 per cent said they felt worried when they found out their friends were having fun without them.
- 51 per cent said they felt anxious if they did not know what their friends were doing.
- 78 per cent said it was important that they understood their friends' 'in jokes.'

One in two teenagers feels they are 'missing out' on the seemingly perfect lives that others portray through social media, the survey by Australian Psychology Society found.

Teens also feel they are having less 'rewarding' experiences than their friends.

Other key findings included teens worrying about friends having fun without them and feeling anxious if they did not know what their friends were doing.

This year was the first time the study explored the impact of social media on behaviour and wellbeing.

Flinders University senior social work lecturer Dr Mubarak Rahamathulla said FOMO was opening the door to more concerning feelings, like anxiety and depression.

'FOMO is a real thing – my research and research all over the world is repeatedly indicating that it is a fact,' he said. 'There is a very strong positive correlation between the hours spent on digital technology and higher stress and depression.'

Dr Rahamathulla said it was up to parents and policymakers to make sure teenagers were getting enough information about what is and is not 'real' in cyber space, as well as methods to cope with the social and emotional pressures of social media.

'[Teenagers] are getting confused between cyber world and real world,' he said. 'I think we need, and we have a moral responsibility as a society, to help them to understand how the roles of these two different worlds are working.' ...

Sydney student Jessica Sahay, 17, spends over an hour browsing through Facebook, Instagram and Snapchat before she goes to sleep. She has tried to reduce her usage after feeling worn out from constantly being connected.

'During exams, I tried to reduce the time I spent on social media because it felt quite distracting when you saw what other people were doing,' she said.

Consumer psychologist Adam Ferrier said the way Jessica felt was not a new phenomenon.

'We've always been scared of missing out on the occasional party or seeing friends doing other stuff which you're involved in, but with social media, that feeling has increased in intensity dramatically,' Dr Ferrier said. 'So there's always something happening which you're not a part of.'



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Figure 8.14 FOMO, fear of missing out, is causing high levels of depression and anxiety among teenagers.

More than half of young respondents in the survey said they had felt worried, jealous and anxious after finding out they had been left out of a gathering through pictures or status updates on social media.

'If I'm not invited to a party or to the beach with my friends and I thought I was close with them and then you see a picture on Snapchat, Facebook or Instagram ... you think to yourself, 'why am I not invited?'' Jessica said. 'You feel a bit jealous and the next time you see them it gets a bit tense but that stuff happens all the time.'

The survey found that a fear of missing out does not stop once people enter adulthood, with the survey noting that those aged 18–35 reported the highest feelings of being left out amongst all adults.

Dr Ferrier said that people needed to be aware of the positive and negative impacts of social media.





'It makes it harder for people to feel happy and have gratitude for their own lives and that's quite a debilitating and serious thing,' he said. 'We've got an omnipresent force here that's making people feel less satisfied and less happy with their own lives.'

Extract from Damjanovic D & Dayman I, '#FOMO leading to higher levels of depression, anxiety for heavy social media users', ABC News, 8 Nov 2015

Case study questions

- 1 Explain the concept of FOMO, or 'fear of missing out.'
- 2 Outline the key findings of the National Stress and Wellbeing in Australia Survey.
- 3 How does social media heighten the experience of FOMO?
- 4 What impact could social media have on the health and development of youth?

Development in adulthood

Adulthood begins legally at 18 years of age and continues until death. It consists of three stages: young adulthood, middle adulthood and late adulthood. The experiences of a 20-year-old adult can be very different from those of a 75-year-old adult. Over time, physical functioning declines with age, and can be combined with illness and disease. Our physical appearance changes with age, as can cognitive functioning for certain tasks. The ageing process affects different people in different ways.



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Figure 8.15 Adulthood is the longest lifespan stage, ranging from young adulthood to late adulthood.

Young adulthood

Physical development

In young adulthood, physical functioning is generally efficient. The skeleton is fully developed, and peak bone mass is reached at 25–35 years. Muscle strength also reaches its peak as people enter their 30s. The brain achieves its full weight by age 30.

By age 30, the cartilage that protects bone joints can begin to thin. As people age, their ability to conceive a child can become increasingly difficult. For women, fertility begins to decline at age 30 and becomes increasingly difficult after age 35.

Social development

The beginning of young adulthood can centre around career establishment and progression. Work can play a large role in how a person defines themselves and sees themselves in society. A range of new responsibilities are taken on during adulthood, including finishing study or commencing further study, and living away from the family home. Long-term relationships and raising children can be a feature of young adulthood, which can lead to changes in social roles – becoming ‘partner’, for example, or ‘parent’. These responsibilities contribute to a person’s identity and how they see themselves in the world.

Raising children can provide opportunities for additional social interactions with other parents, as children attend educational settings and outside school activities. Friendships and hobbies may change due to the demands of career and parenting.

Emotional development

The new roles and responsibilities that come with social development can influence emotional development in young adulthood. There may be difficulties in adjusting to new social roles, such as parenting, and meeting the demands associated with these roles. Long-term relationships formed in young adulthood can lead to feelings of happiness and safety, while an unhealthy relationship can be detrimental to self-esteem and wellbeing. A contributor to successful relationships is the ability to communicate our needs, wants and concerns respectfully with a partner. (The importance of respectful and healthy relationships is explored further in the next chapter.) The experience of raising children can be fulfilling and can contribute to a sense of belonging and contentment, but raising children is never stress free and can contribute to emotional challenges, especially for first-time parents. Accessing support networks such as parenting groups and services to assist with the challenges of parenting can be beneficial to the young adult’s emotional wellbeing.

Intellectual development

People never really stop learning, and throughout adulthood, individuals can be continuously building upon previously learnt skills. This is particularly the case when engaging in further study and career development. Workplace training and new experiences all contribute to intellectual development. The ability to apply our mental abilities to new situations (fluid intelligence) is at its peak by the age of 20.

Middle adulthood

Physical development

In middle adulthood, bone mass and lean muscle mass can begin to decrease, as building and maintaining muscle mass becomes more difficult. The energy requirements of the body also decrease, which can contribute to weight gain if people still consume a diet that contains the same number of kilojoules (calories), which is now more than required.

A gradual decline in the sensory systems of the body – such as detection and perception of sight, taste, touch, smell and hearing – begins, and is most noticeable from age 50. A sensory system detects incoming sensory information and the nervous system processes the information in the brain. With increasing age, body systems can begin to function less effectively. The body can also begin to have difficulty with temperature regulation and the skin begins to lose its firmness and elasticity.

From the age of 40, sperm quality decreases, leading to a decline in male fertility. Women may enter menopause, a series of physical changes due to hormone levels, marking the end of their ability to reproduce.

Social development

Middle adulthood can be a time when individuals are caring for or supporting young adult children who are still living in the family home. Living with and supporting young adult children can be a very different experience from living with and caring for a dependent child. Changing expectations of the role of the child and parent in this situation can involve the need to communicate with one another about issues such as personal space and privacy within the home. Caring for older parents can also be required of those in middle adulthood.

As Australia's population ages, retirement is likely to become later in life than in previous generations. This is due to many people remaining in the workforce longer than previous generations did. Improved levels of personal health and less physically demanding jobs have contributed to people being able to remain in paid employment longer. In addition, government changes to the age of retirement and the age at which an individual can access a pension have also contributed to people remaining in the workforce longer and delaying retirement.

In middle adulthood, people may become grandparents, creating another social role as well as opportunities for new interactions.

Emotional development

During middle adulthood, adults may re-evaluate their life and reflect on the past, while also considering the future. This process may create increased levels of stress and angst, especially if goals or dreams have not been achieved. There can also be feelings of enthusiasm about approaching retirement age, or apprehension about leaving the workforce, especially if financial security in older age is not guaranteed. Interactions with family and friends can enhance feelings of belonging and love, especially as family units grow to include grandchildren.

Intellectual development

By middle adulthood, many people have spent considerable time in workplace settings. Many people have also had extensive experience in juggling work with other demands, such as family. The ability to cope with competing demands requires ongoing planning, reasoning and problem-solving skills. These experiences can also lead to the ability to be flexible and adaptive in thinking.

Late adulthood

Ageing is inevitable, and physical functioning declines with age. The speed at which the systems of the body begin to decline can depend on factors such as the person's level of physical activity and mobility during earlier stages of their life. As Australia has an ageing population, there has been an increased emphasis on older adults remaining physically active.

In late adulthood, the following physical changes can occur:

- Bone density and muscle mass decrease, and mobility can become more difficult.
- Cardiac output, stroke volume and maximum heart rate decrease, while blood pressure increases.
- Nerve speeds reduce, which increases reaction times.
- There may be difficulties with balance.

- The body's ability to clear waste products decreases.
- Brain volume and blood flow to the brain decrease.

Older adults are more likely to develop chronic illness and disease, which can affect physical development.

Social development

As it is likely that retirement in Australia will happen later in life than in previous generations, older adults will find themselves working for longer and will therefore still be connected to others in the workplace. Retirement contributes to individuals adjusting to new social roles. Retirement can also result in the person having more time to spend with family and friends, and any grandchildren. Trying new hobbies or activities can lead to new and increased social interaction with others. Older adults who do not have positive family relationships may be at risk of feeling isolated.

Emotional development

Leaving the workforce can be emotionally fulfilling, due to the excitement of new experiences and possibilities. For others it can be emotionally challenging and could lower the person's feelings of self-worth and self-esteem. Without good social networks, older adults may feel isolated and lonely. Loss of a partner due to death can be devastating at any age. Chronic illness can affect not only physical development but also emotional wellbeing.

Intellectual development

As people age, they can draw upon a range of life experiences and knowledge, and tend to display increased skills in applying knowledge gained over time and using their past experience and judgement in responding to situations. This skill is referred to as *crystallised intelligence*.

Some memory systems, including working memory, decline. Working memory is the memory system responsible for linking new information with previously stored information. With ageing, new information can be forgotten more quickly than previously learnt information. The brain needs to work harder in planning and organising activities.

Review and reflect

1 Construct a table that outlines the key physical, social, emotional and intellectual development characteristics of young adulthood, middle adulthood and late adulthood.

2 Compare the development of a person in young adulthood with that of a person in late adulthood.

Society's perceptions of youth and adulthood

We have considered the physical, emotional, social and intellectual development experiences common to individuals in the youth and adulthood stages of the lifespan. How does society view people in these two life stages, and how are these views or perceptions formed? Perceptions of youth and adulthood have changed over time, as society norms and expectations have changed, including gender roles, changes in the jobs market, the average age of marrying, and the number of children people have. More women now participate in the workforce, for example.

Not every person will have direct experience with a young person or an older adult, and therefore they might depend on external sources of information, such as the media, to shape their opinions and views. This can, however, lead to stereotyping. Stereotyping occurs when all people in a group are viewed as being the same, regardless of their individual differences. For example, adulthood is the longest lifespan stage, and a person at the beginning of young adulthood may have very different experiences from those of an adult in their late 60s.

Stereotypes can lead to people being given inaccurate labels. For example, society's perception of youth can be influenced by media reports that highlight youth crime and gang behaviours. Peer pressure can often have a positive effect on behaviour, but media reports can tend to stress the negative effects. There are also many negative stereotypes about older people (see the case study below).

Perceptions, stereotypes and expectations can also create pressure and stress for individuals in a particular lifespan stage who do not match society's expectations. For example, adulthood is the legal age at which a person can marry, and it is a society expectation that people in adulthood will find a life partner, have children and a successful career. This can create stress and anxiety for people who do not fit this mould, such as those who do not have children, do not find a partner or do not have success in their career.

CRITICAL FRIEND

With the person next to you, discuss the common views or stereotypes held in society about 'youth' and 'adults'. Compare your comments with the findings in the case study, 'New report looks at the media and negative stereotypes about older people'.

Case study

New report looks at the media and negative stereotypes about older people



Figure 8.16 Many negative stereotypes about older people exist in Australia.

The [Australian Human Rights] Commission has released specially commissioned research by Urbis that provides evidence of the negative stereotypes about older people that so many people in Australia hold as beliefs, subscribe to in workplaces and are exposed to in our media.

'This research quantifies some of the stereotypical beliefs people hold about older people that lead to discriminatory attitudes and behaviours,' said Age Discrimination Commissioner, Susan Ryan. 'These attitudes and behaviours

act as barriers that prevent many older people from reaching their full potential in workplaces and in the community.'

'One of the conclusions of the report is that our media influences negative perceptions of older Australians,' Commissioner Ryan said. 'It highlights the prevalence of negative stereotypes in portrayals of older people in media and advertising in Australia, as well as the under-representation of older people in the media.'

'Crucially, it also reveals that these sorts of stereotypes and invisibility have influenced perceptions in the younger generations, created negative employer attitudes and impacted negatively on the way older people view themselves,' she said.

The research findings show that 'ageing' is a loaded term that holds predominantly negative connotations, particularly among younger people.

Seventy-one per cent of people feel that age discrimination is common in Australia.

Attributes like 'lonely', 'isolated', 'victims of crime', 'forgetful', 'have difficulty learning complex tasks' and 'likely to be sick' are commonly held stereotypical beliefs that are counter to how older people see themselves and their experiences.

One in ten businesses have an age above which they will not recruit – and that age is 50.

'With the expected radical change in the age profile of our population over the next 50 years, resulting in over 25 per cent of people being aged 65 and over, shifting these attitudes and behaviours is imperative,' Commissioner Ryan said.



'It is interesting that this research highlights so clearly the constructive role that our media and advertising industries can play.'

'It is vital we recognize that the growth in the number of older Australians provides significant and very real economic and social benefits and opportunities,' said Ms Ryan. 'It is my hope that it will encourage constructive collaboration between media, advertisers and corporate Australia to present older Australians in a more accurate, balanced and diverse manner that reflect more realistically their value, capability and experience.'

Extract from 'New report looks at the media and negative stereotypes about older people', 21 June 2013

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Case study questions

- 1 Outline the key findings of the Commission's research regarding negative stereotypes about older people in Australia.
- 2 According to the Commission, who is influencing these stereotypes in Australia?
- 3 Explain the impact that negative stereotypes about older adults can have on individuals and the community.
- 4 Are you surprised at the research findings? Why/why not?

Investigation

Perceptions of youth and adulthood

- 1 Create a survey that assesses people's perceptions (views) of youth and adulthood. Sample survey questions are provided below.
- 2 The task could be conducted in a small group, or your class could develop the survey.
- 3 Students seek participants to complete the survey. The class data can then be organised.
- 4 Remember to collect demographic data from your survey participants (e.g. age, gender) to assist in your research analysis.
- 5 Discuss with your group or class the process for finding participants. Will you access both genders evenly? Will you seek views from different age groups?

The survey could be conducted through face-to-face interviews or by using an online survey tool.

Organise your data into an easily viewed form, such as a table or a clear summary.

Sample questions

- What age range do you consider to be 'youth'?
- What age range do you consider to be 'adult'?
- What words come to mind when you hear the word 'youth'?
- What words come to mind when you hear the word 'adult'?
- What are the traits of a young person?
- What are the traits of an adult?

Survey data analysis

Once your data has been collated (organised), comment on the following:

- How many people completed the survey?
- Describe the age range and gender of the participants who completed the survey.
- Is the data you collected quantitative or qualitative? Explain.
- What were the key findings of your survey?
- Were there common answers to the following questions?
 - What age is considered youth and what age range is considered adult?
 - What words did people use to describe a youth, and to describe an adult?

Chapter summary

- The human lifespan is the number of years between birth and death. It consists of eight stages:
 - prenatal (from conception to birth)
 - infancy (from birth to age 2 years)
 - early childhood (age 2–7 years)
 - middle childhood (age 7–11 years)
 - youth (age 12–18 years)
 - young adulthood (age 18–40 years)
 - middle adulthood (age 40–65 years)
 - late adulthood (age 65+ years).
- When studying lifespan development, the following principles are applied:
 - Development occurs in a predictable and orderly way.
 - Development is continual.
 - There are individual variations in the rate and timing of development.
 - Development proceeds from the simple to the complex.
- Developmental changes can be physical, emotional, social or intellectual. The changes can be quantitative (numerical) or qualitative (descriptive).
- Each lifespan stage is marked by developmental milestones or achievement. The exact time at which an individual achieves a milestone differs from person to person.
- In the prenatal stage, inside the mother's uterus, the growing human develops all body structures.
- Infancy is characterised by very fast body growth.
- In early childhood, gross and fine motor skills develop, along with communication skills.
- During middle childhood, social and cultural learning becomes a key focus as children interact in different environments, including school.
- Youth is characterised by physical changes associated with puberty, along with increased independence and responsibility.
- Adulthood is the longest lifespan stage and is divided into young adulthood, middle adulthood and late adulthood.
- In young adulthood there can be a focus on career development. People can develop long-term relationships and consider having children.
- In middle adulthood, ageing can contribute to the start of physical decline. Individuals may be considering retirement from work and spending more time with family, and may have grandchildren.
- As individuals approach older adulthood, they may be in a position to retire and enjoy activities such as travel and hobbies. There may be challenges such as managing physical health and independence.
- Physical development refers to the way in which bodies grow, change and develop throughout a person's lifetime.
- Social development includes learning the values, knowledge and skills that enable people to interact with others effectively and to contribute to the wider community.
- Emotional development refers to the appropriate expression, understanding and regulation of emotions.
- Intellectual development refers to the mental functions of the brain, including the ability to learn and solve problems.
- People's perceptions of youth and adulthood are based on their experience and on information from the media. Perceptions can be influenced by stereotypes, including negative stereotypes about young people and older adults.

Exam-style questions and sample answers

- 1 Outline key differences that can exist between the physical and intellectual development of youth and adults. **(4 marks)**

Sample answer: Youth experience rapid and distinct physical developmental changes, especially during puberty, which involves the maturing of reproductive organs – i.e. growth of male and female characteristics **(1 mark)**. During adulthood, physical development is characterised by the body systems often achieving peak performance, followed by a decline in optimal functioning as the person continues through adulthood **(1 mark)**.

Youth intellectual development often consists of acquiring and learning new skills such as meta-cognition, increased self-awareness and the ability to demonstrate divided attention **(1 mark)**.

In contrast, adult intellectual development focuses on constantly building and refining planning, reasoning and problem-solving skills **(1 mark)**.

- 2 Outline the relationship between physical, social, emotional and intellectual development. **(4 marks)**

Sample answer: An individual's physical, social, emotional and intellectual development all interact and influence one another. Growth of an individual's body systems, such as their nervous system and brain development (physical development), can influence their learning capacity and their ability complete complex intellectual tasks such as problem solving **(2 marks)**.

Similarly, physical body changes, particularly during puberty, can influence how a person perceives themselves and their level of self-esteem level (emotional development) **(1 mark)**. This in turn can influence their confidence level and their level of comfort among their peer group (social development) **(1 mark)**.

Questions for you to practise

- 1 Distinguish between the youth and adulthood stages of the lifespan.
- 2 Explain how physical development changes over the lifespan.

Chapter 9: Transitions from youth to adulthood

Key knowledge

- developmental transitions from youth to adulthood
- key characteristics of healthy and respectful relationships and the impact on health and wellbeing, and development
- considerations in becoming a parent such as responsibilities, and the availability of social and emotional support and resources.

Key skills

- describe the developmental changes that characterise the transition from youth to adulthood
- analyse the role of healthy and respectful relationships in the achievement of optimal health and wellbeing
- analyse factors to be considered and resources required for the transition to parenthood

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Key terms

abuse
adaptive cognition
fertility
perpetrator
relationship
transition
victim

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Becoming an adult

transition a process of changing from one state or condition to another

relationship the way in which two or more people or groups regard and behave towards each other

A **transition** is the process of changing from one state or condition to another. An exciting life transition is the progression from youth to adulthood. This chapter explores the key physical, intellectual, emotional and social changes and expectations that take place during this lifespan stage. The establishment of long-term relationships is one example of a life transition, and it is important to be able to identify the characteristics of a respectful **relationship**, due to the effects that relationships can have on our health and wellbeing. Another significant life event for many people is the experience of becoming a parent, and this chapter explores the considerations that can lead to this decision.



© Syda Productions/Dreamstime

Figure 9.1 Growing from youth to adulthood is an important and exciting life transition.

Moving from youth to adulthood

There is no set time when a young person becomes a fully developed adult. As discussed in the previous chapter, adolescence is the lifespan stage between 12 and 18 years. In human development, adulthood spans a longer period, from age 18 to 65+ years. The *transition* to adulthood is generally thought to take place between 16 and 24 years. People in this age group are still sometimes referred to as youth or 'young adults'. While each person experiences changes and adjusts to adulthood in their own way, they are also influenced by a range of factors. The transition to adulthood is complex, because of the social, economic, environmental and technological changes currently occurring in the world.

In some cultures, transitioning to adulthood is known as a 'rite of passage' and is marked formally by a significant ceremony or tradition. In Australia, many young people celebrate their 18th birthday as a sign to their family, friends and society that they have legally reached adulthood. Age is a simple way to define when a young person becomes an adult. However, an 18-year-old may still be enrolled in secondary school, and live at home with their family, who provide food and shelter and pay for many of their expenses. This 18-year-old may still be viewed as a dependent child. Overall, the transition to adulthood involves the dependent child, reliant on others, moving towards becoming an independent adult member of the community.

Case study

Indigenous initiation ceremonies

Indigenous Australians can identify themselves through their land areas, their relationship to others and their language and stories. Cultural heritage is passed on from one generation to the next.

An initiation ceremony is a rite of passage whose purpose is to introduce and celebrate boys and girls aged 10–16 as adult members of the community. The ceremony is for boys and girls who have proved themselves worthy, mentally and physically, of taking on the responsibilities of adulthood.

The ceremony can involve symbolic signs, such as body paint, dance and song, wearing ornaments and/or a permanent body marking, that show this person is now an adult in the community. It is also an opportunity for other members of the community to pass on special knowledge and skills. As well as celebrating the young person's new role as an adult, the ceremony is also a time to mourn the end of the individual's childhood.

Indigenous Australia website, 'Aboriginal initiation ceremonies'



Paul Kane/Getty Images

Figure 9.2 An initiation ceremony is just one of the many diverse types of ceremony that may be practised by Indigenous Australian peoples. Here an Indigenous elder performs a smoking ceremony during Welcome to Country.

Developmental changes from youth to adulthood

Physical changes

Adulthood is a stage of the lifespan in which the human body moves towards achieving peak physical fitness and optimal health. The skeletal, respiratory and cardiovascular systems of the body reach adult growth, and reaction times reach optimal speed. Young adults experience fewer illnesses (such as colds) than young children, and fewer chronic (long-lasting) illnesses than older adults.

The changes to key body systems that occur during the transition to adulthood are summarised in Table 9.1.

Table 9.1 Physical development changes during the transition to adulthood

Body system	Changes
Skeletal system	Growth mostly complete by 25 year of age Peak bone mass achieved
Respiratory system	Lungs mature in young adulthood
Cardiovascular system	Heart achieves adult size and rhythm
Integumentary system	Skin becomes drier, and eventually wrinkled with age First signs of grey hair and baldness may appear in young adulthood
Muscular system	Muscles reach peak performance at 20–30 years
Nervous system	Reflexes reach their peak Sensory organs (eyes, ears, nose, mouth, skin) are at their sharpest Brain reaches maximum size by age 20, but some brain areas continue to develop Prefrontal cortex develops

(source: adapted from Cronin A & Mandich M (2005). *Human development and performance throughout the lifespan*. Thomson Learning, New York)

Human brain development

The human brain changes constantly throughout the lifespan, due to experience – this is known as brain *plasticity*. Specific areas of the brain are responsible for specific tasks. An area at the front of the brain, known as the frontal lobe (prefrontal cortex, see Figure 9.3), undergoes significant change during adolescence. This area of the brain is responsible for decision making and impulse control. Research studies have linked poor decision making during adolescence and risky behaviour with the fact that the frontal lobe is not fully developed. Evidence suggests that the frontal lobe is not fully developed until an individual reaches their early twenties.

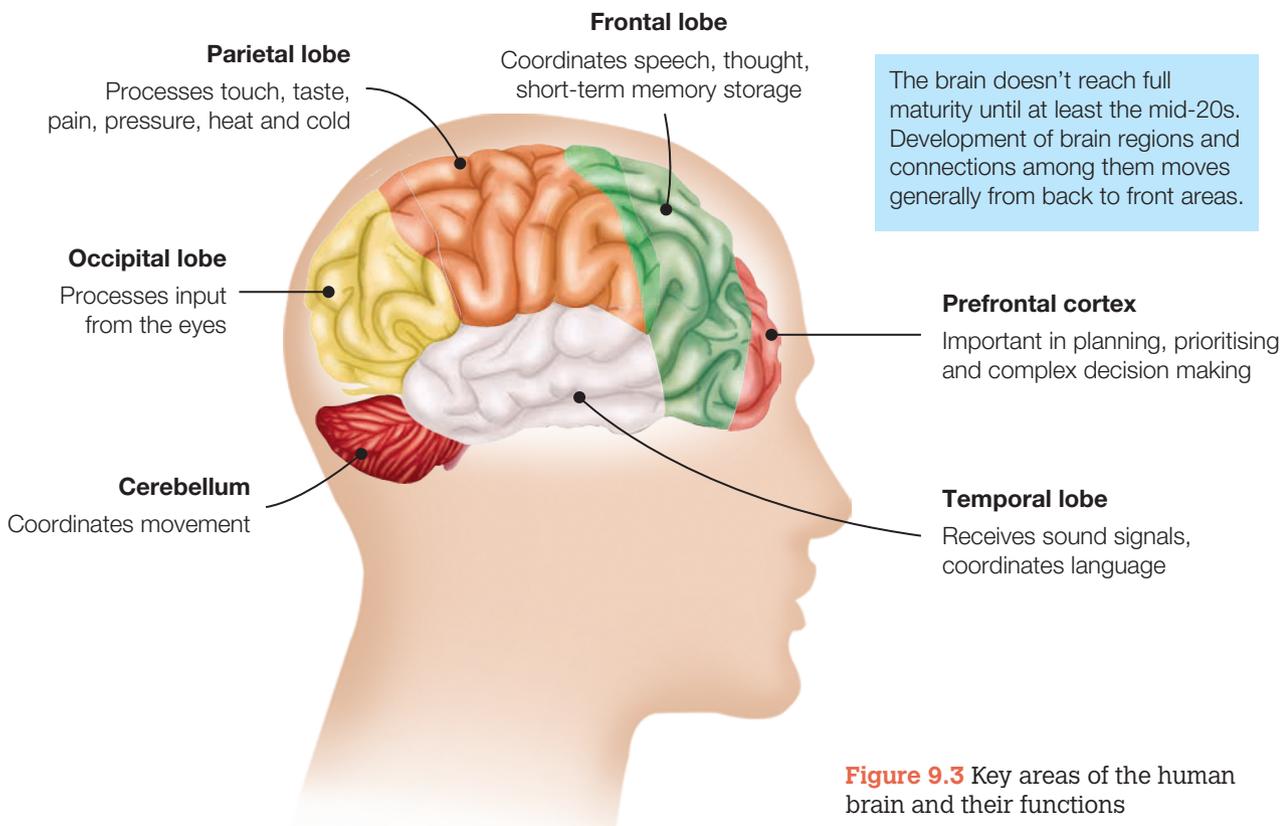


Figure 9.3 Key areas of the human brain and their functions

Social changes

The key changes in social development during the transition to adulthood are centred around major life events that provide increased independence and responsibility. These events lead to the person meeting new people and interacting with others in new settings. The following are examples of decisions and experiences that lead to changes in social development.

Career decisions

The departure from formal secondary schooling requires the individual to make choices about their future direction, such as entry into the workforce or further study. These new environments lead to different social interactions with co-workers, employers, and teaching staff and fellow students at further study institutions such as university, TAFE and private colleges.

Intimate relationships

Higher levels of intimacy begin to take place in close or romantic relationships with others. Well-developed social skills can assist the person in experiencing happy relationships. The relationship may require sacrifices and compromise, to allow the partners to balance spending time with each other with their personal goals and commitments. Young adults can begin to become interested in seeking relationships that will lead to a life partner.



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Figure 9.4 Intimate relationships may require compromise.

Society responsibilities

When a person reaches 18 years of age, they take on a number of legal responsibilities. Laws are created to provide guidelines for citizens to live by, and it is an expectation that all members of society will follow the laws of the country they live in. The legal system allows people aged 18 or over to buy and

drink alcohol, buy and smoke cigarettes, vote in government elections, be held responsible for contract agreements, and marry without permission.

Leaving the family home

Career and study decisions may require a young adult to move away from the family home to be closer to work or higher education. Some people travel overseas (take a 'gap year') before starting further study or full-time work. Leaving the family home and living away from the control of parents gives the young adult increased independence as well as increased personal responsibilities, such as paying for living expenses, preparing meals and carrying out domestic duties such as cooking and cleaning. It is interesting to note that the number of young adults living with parents and not leaving home until later adulthood has increased in recent years, due to factors such as unemployment, rising housing prices and the associated costs of living independently.

Case study

Children are staying in the family home for longer

By Olivia Lambert, 13 November, 2015

'MAYBE this will become, like, a cool thing, living with your parents.'

You may recognise that line from comedy sitcom *Seinfeld*, but there is a new generation of George Costanza's across the world who are refusing to move out of their parents' home.

It's the dream to live rent-free and have somebody to do all the cooking and cleaning, but Melbourne University Associate Professor Cassandra Szoke said those expectations from some children was straining the relationship with their parents.

The Australian Bureau of Statistics shows a rise in the number of young people sticking with their parents with almost one in four people aged between 20 and 34 failing to launch.

About 18 per cent of women were still living at home compared to 24 per cent of males.

Professor Szoke said not giving parents the joy of an empty nest significantly affected them. 'We looked at research involving 20 million people across the world and found children living at home were causing parents financial stress, personal anxiety and causing deterioration in the relationship between a parent and their partner,' she said. 'The relationship between the parents and their child is also affected.' Professor Szoke said there were a number of reasons why children failed to leave home, education being one of them. 'With a lot of postgraduate courses being the norm, the need to have ongoing education is a strong driver for children to stay at home,' she said.

The academic found 'boomerang' situations were also common, where a child would return to the home after previously moving out. She said children who lost their partner, were divorced or suffering from health issues were more likely to navigate their way back to the family home. Unemployment also often forced people to move back in with their parents. Others returned if their parents needed ongoing health care.

'Living with the parents is a rising phenomenon and we need to look at it more,' Professor Szoke said. 'We found that the negatives of a child living at home could be turned into a positive if parents discussed with them what their role and responsibilities are within the household.'

Through her research, Professor Szoke heard some shocking stories, including one couple who were forced to cancel their trip to Europe because their grown-up child moved back in.

Children are more likely to live at home if their parents are still happily married and are more likely to move out, and leave earlier, if they have a stepmother or father. Children will also stick around if their parents are wealthy.

'I think as a society this dramatic rise is something we need to talk about,' Professor Szoke said. She did not have advice for parents struggling to get their children to leave home because each situation was different, but said parents need not be afraid to have the conversation about what is expected.

Extract from Lambert O, 'Children are staying in the family home for longer', news.com.au, 13 November 2015



➤ Case study questions

- 1 According to the Australia Bureau of Statistics, what percentage of women and men are living at home with their parents?
- 2 What reasons does Professor Szoke offer to explain why adults are staying at home or returning to the family home?
- 3 Outline the effects that adults staying at home for longer can have on family interactions.



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Figure 9.5 One in four people aged 20–34 are living at home with their parents.

Emotional changes

The experiences that lead to changes in a person's social development also cause changes in their emotional development. Starting a new career, leaving home and developing intimate relationships all affect an individual's feelings and expression of emotions. The decisions and actions involved in these life events require maturity and effective coping strategies when things do not go to plan – for example, managing conflict in the workplace or speaking to a housemate about their unclean habits. Regulating our emotions and responding to stressful situations requires self-control and personal awareness.

Forming and maintaining a committed relationship can increase a young adult's self-esteem, particularly for those who may previously have been shy. Finding a well-suited partner while maintaining personal independence and ambitions can be a challenging experience, as it requires the person to be able to respond to the needs of their partner while still meeting their own needs. Openly communicating with one another about emotions increases understanding and strengthens relationships. While sexuality may have been explored in adolescence, adulthood can provide opportunities for people to fully explore their needs and wants.

Intellectual changes

Intellectual development is linked to physical developmental changes in the brain (outlined earlier in this chapter). The changes in the prefrontal cortex of the brain can lead to an increased ability to plan and to solve problems. These enhanced skills can support many of the independent choices that a young adult must make, when managing a household, for example, or juggling study and work commitments.

As youth move from a formal classroom environment (such as secondary school), where there is often a 'correct' test or exam answer, to situations where a single answer rarely exists (such as relationships and parenting), a process called

FYI

In 2015, in Australia, 113 595 marriages were registered. This is 6.3% less than in 2014.

The median (average) age at marriage was 31.8 years for males and 29.8 years for females. This is 0.3 years older for males and 0.2 years older for females, compared with 2014.

(source: Australian Bureau of Statistics, <http://www.abs.gov.au/ausstats/abs@.nsf/mf/3310.0>)

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Danko Mykola

adaptive cognition the ability to adjust one's knowledge and thinking adequately or appropriately to the environment or situation

adaptive cognition occurs. Learning new skills that require memory, language and problem solving through further study, apprenticeships, tertiary study and workplace experience all contribute to ongoing intellectual development.

Review and reflect

- 1 Outline the physical changes experienced during the transition from youth to adulthood.
 - 2 Explain, with reference to physical development, why a number of professional athletes often achieve high levels of success during young adulthood.
 - 3 Outline the decisions and life experiences that influence social and emotional development during the transition from youth to adulthood.
 - 4 In Australia, when an individual turns 18 years old, they acquire new legal rights.
They can:
 - buy alcohol and go to a public bar
 - buy cigarettes
 - get married without anyone's permission
 - make a valid will
- change their name without anyone's permission
 - apply for an Australian passport without their parents' consent
 - (in Victoria) apply for a probationary driver's licence.
- They also acquire new legal responsibilities:
- They must enrol to vote in government elections.
 - They can be held responsible for any agreement they make (e.g. borrowing money, renting a flat, signing a contract).
- With reference to physical, social, emotional and intellectual development, explain why the rights and responsibilities listed above do not apply until the individual turns 18 years old.

Characteristics of healthy and respectful relationships

A relationship is the way in which two or more people or groups regard and behave towards each other. Relationships include our interactions with family members, peers, romantic interests, teachers, and work, sport and hobby colleagues. They play a significant role in our life and can have a great impact on our health and wellbeing. Someone in a respectful relationship feels cared for, valued and safe. It is important to be able to identify when a relationship is not respectful, and to access help and support. There are a number of ways to access support and advice if you or someone you know is experiencing an unhealthy relationship.

What is a respectful relationship?

Respect is concern for the feelings, wishes and rights of others. Showing respect means treating others with dignity, without undermining their sense of self-worth. A relationship that is respectful can be a wonderful source of support in life. Respectful relationships increase our feelings of connection and self-esteem. People in respectful relationships feel safe, and comfortable enough to be themselves and pursue their interests and goals in life.

Signs of a respectful relationship include the following:

- People are free to make their own choices and form their own opinions.
- Feelings of self-worth are fostered.
- People's points of view and beliefs are valued.
- Each person's right to be safe, valued and cared for is understood.



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Figure 9.6 Respectful relationships can be a valuable source of support in life.

- People are accepted.
- People are able to disagree at times and say what they think or feel without being put down or hurt.
- 'No' is accepted as an answer, and there is no pressure to engage in sexual activity.
- A person can make mistakes and still be accepted and respected.
- There is respect for each other's friends and families.
- The relationship is never controlling, and encourages personal growth and fulfilment.
- Trust, honesty and happiness are nurtured.

Respect forms the foundation of a healthy relationship. In a healthy relationship, the partners invest time and effort in ensuring that they are working well with each other and in identifying where things can be improved. It is okay and normal to have disagreements in a relationship – it is very rare for people in a relationship to always be happy about everything! What is important is that all partners feel safe, are able to share their concerns with one another, and are treated respectfully.

Unhealthy relationships

It is a general perception in society that in respectful and healthy relationships there is no physical violence. Physical violence is a serious issue in Australia, and females are most likely to be the **victims** of relationship violence. On average, at least one woman a week is killed by a partner or former partner in Australia. Children and parents can also be the victims of violence – referred to as family violence – when a family member directs violence towards them. It is important to note that many forms of **abuse** other than physical violence can occur in a relationship, and that men too can be victims. Violence can occur in any relationship, including same-sex relationships, in any culture, and at any age.

victim a person who is harmed, injured or killed as a result of a crime, accident or other event or action

abuse any action that intentionally harms or injures another person; in relationships, abuse can be in many forms including physical, verbal, emotional, financial and sexual abuse



Figure 9.7 Relationship violence is a serious issue in Australia.

We have identified that in a respectful and healthy relationship, people feel safe and valued. A respectful relationship is a non-violent space where people feel comfortable to be themselves, able to spend time with family and friends and be in control of their decisions.

In an unhealthy relationship, people may feel:

- scared of how their partner might react to their beliefs or behaviour
- unable to disagree with their partner's opinion, due to fear of their reaction
- that they do not have access to their own money
- isolated from their own family and friends
- forced to carry out sexual acts that they do not want to do
- worthless and not appreciated.

Relationship breakdown can occur when people do not communicate effectively with one another about how they are feeling or begin to treat each other in ways that do not show appreciation or respect. All relationships experience difficult times, such as disagreements or hurt feelings. Life stresses, such as work and school pressures, family conflict and money problems, can affect our relationships with others. *However, these are not excuses to treat another person with violence or any other form of abuse.* People who are struggling to cope with stress and events in their lives should be encouraged to seek professional help from services such as their doctor, a psychologist or counsellor. Organisations such as *beyondblue*, Kids Help Line and Lifeline have 24-hour telephone services and useful websites.

The different types of abuse that can occur in relationships are summarised in Table 9.2. More than one type of abuse may be present in a relationship. All types are unacceptable; some are criminal offences.

Table 9.2 Types of relationship abuse

Type of abuse	Description
Creating fear	Fear is created by: <ul style="list-style-type: none"> giving looks or making gestures possessing weapons, destroying property, being cruel to pets.
Intimidation	Includes: <ul style="list-style-type: none"> smashing things, destroying possessions, putting a fist through a wall handling guns or other weapons using intimidating body language (angry looks, raised voice) hostile questioning of the victim harassing the victim at their workplace (e.g. making persistent phone calls or sending text messages or emails, following them to and from work or loitering near their workplace).
Verbal abuse	<ul style="list-style-type: none"> Words are used as a weapon to cause significant damage. This may include screaming, shouting, put-downs, name-calling, swearing, using sarcasm or ridiculing the person's religious beliefs or ethnic background.
Physical abuse	<ul style="list-style-type: none"> Behaviour such as pushing, shoving, hitting, slapping, attempted strangulation, hair-pulling, punching etc. and may or may not involve the use of weapons. It could also be threats to destroy or actually destroying their prized possessions.
Emotional abuse	<ul style="list-style-type: none"> Behaviour that deliberately undermines someone's confidence, leading them to believe they are stupid or useless, or even to believe they are going crazy or are insane. The perpetrator may make threats to harm the victim, their friends or family members or to take their children or to hurt themselves. The perpetrator may use silence and withdrawal as a means to abuse.
Social abuse	<ul style="list-style-type: none"> Involves isolating the victim from their social networks and supports either by preventing them from having contact with their family or friends or by verbally or physically abusing them in public or in front of others. It may involve continually putting friends and family down so they are slowly disconnected from their support network.
Financial abuse	<ul style="list-style-type: none"> The perpetrator takes full control of all the spending and decisions about money so the victim is financially dependent on them. This type of abuse is often a contributing factor for people becoming 'trapped' in unhealthy relationships.
Sexual abuse	<ul style="list-style-type: none"> Any unwanted sexual behaviours. This may include forced sexual contact, rape, or forcing someone to perform sexual acts that cause pain or humiliation.
Controlling behaviours	<ul style="list-style-type: none"> Dictating what a person does, who they see and talk to. Keeping them from making any friends or from talking to their family or having any money of their own. This can include preventing someone from going to work, not allowing them to express their own feelings or thoughts or to make decisions for themselves.

(source: adapted from Domestic Violence Prevention Centre Gold Coast, 'Forms of abuse')



iStock.com/GeorgiaCourt

Figure 9.8 Abuse within a relationship can take many forms, including physical, verbal, social, emotional, financial and sexual abuse, controlling behaviour and intimidation.

Case study

Stop it at the start

Media release, 20 April 2016

A \$30 million national campaign designed to help break the cycle of violence against women and their children will begin on Sunday.

Stop it at the start targets the disrespectful attitudes and behaviors adults might dismiss or ignore in young people – often without realising it.

The campaign will help so-called ‘influencers’ – such as parents, family members, teachers, coaches, community leaders, employers and other role models – become more aware of what they say and do.

This three-year Council of Australian Governments initiative is jointly funded by the Australian, state and territory governments. It will build on efforts already underway by states and territories, as well as organisations like Our Watch and White Ribbon.

‘This campaign represents a new and important approach,’ the Minister for Social Services, Christian Porter said. ‘People know that violence against women is wrong; what they may not know is that we – all of us – can unknowingly excuse and therefore perpetuate the behavior that can lead to violence.’

‘Our research shows that too often, adults believe that disrespectful or aggressive behaviour by young males towards young females is something that should be understood rather than judged and discouraged. Research shows adults often unwittingly excuse objectively unacceptable behaviour with notions such as ‘boys will be boys’. It is also clear from our research that too often adults blame the victim by asking what a victim may have done to invite what should simply be recognised as unacceptable, disrespectful behaviour.’ ...

‘The national campaign will unite families and communities around young people to positively influence attitudes towards respectful relationships and gender equality. This campaign will help role models realise the impact of what they say and help them start conversations about respect with boys and girls.’

‘From early on, adults are a focal point for children to learn about respectful relationships between men and women. Setting the standard for what is and isn’t acceptable, right from the start will help ensure we achieve true cultural change.’

Campaign advertising will include television commercials, newspaper and magazine ads, public transport, cinema and digital.

Extract adapted from Hon. Christian Porter MP, Minister for Social Services, & Hon. Michaelia Cash MP, Minister for Women, Joint Media Release, ‘Stop it at the start’, 20 April 2016

Case study questions

- 1 List examples of people who are considered ‘influencers’ according to the *Stop it at the start* campaign.
- 2 Outline the expectation that the campaign has of adults in society.
- 3 Provide examples of how someone may ‘unknowingly excuse and therefore perpetuate the behaviour that can lead to violence.’
- 4 How effective do you think the *Stop it at the start* campaign will be at addressing violence against women and children? Justify your opinion.

Review and reflect

- 1
 - a Outline what is meant by 'a respectful relationship'.
 - b List four characteristics of a respectful relationship.
- 2 Give some examples of commonly held opinions that may be used to excuse relationship abuse.
- 3 Read the following scenarios about relationships. For each scenario, identify the type of abuse present. Use the descriptions in Table 9.2 on page 263 to assist you.
 - a Alex and Jesse have been together for several years. They have similar interests. Alex adores Jesse, but recently Alex has been too frightened to disagree with anything Jesse says. If Jesse is upset with Alex, then Jesse will refuse to talk to Alex or show any signs of kindness like smiling or hugging. This can last for several days.
 - b Max's friends have noticed that Max has been looking really unhappy lately. Max told a close friend that Billie (Max's partner) has been getting really angry and upset with Max for no reason. Sometimes it has led to Billie hitting Max. Max and Billie have a shared bank account but Billie has taken Max's ATM card, which means Max has to ask Billie for money.
 - c Scott has always loved playing sport with his friends and spending time with his family. Scott has recently started dating Rebecca. Scott's friends and family have noticed that they hardly see Scott anymore, and that he spends all his time with Rebecca. They have found out that Rebecca has been telling Scott that his friends and family are 'no good' and that she will leave him if she finds out he is spending time with them. Scott has given up playing sport, because Rebecca hates sport.
 - d Sam constantly criticises Jody about everything she does. He tells her she is 'stupid' and 'useless'. Jody has thought about leaving Sam, but Sam has told Jody that if she tries to leave him he will hurt her.

The impact of relationships on health and wellbeing and development

Relationships can affect all areas of health, wellbeing and development. It is therefore important that people develop skills and knowledge about maintaining a healthy relationship, and about the warning signs of an unhealthy relationship.

Relationships should promote an environment in which physical growth and development are optimal. Physical violence in a relationship can injure an individual, affecting their physical health. Cuts, bruises, broken bones and internal damage to organs are examples of injuries that could occur in a violent relationship. Sexual violence may damage a woman's reproductive organs, affecting her ability to have children. At its most extreme, physical violence can lead to serious disability or even death.

Emotional wellbeing is largely influenced by our close relationships with others. A healthy relationship can build self-esteem and feelings of self-worth and happiness. As discussed, many forms of abuse in relationships do not involve physical violence. Physical violence, along with other forms of abuse, can affect the social and emotional wellbeing of individuals and their mental health. People in an abusive relationship can find themselves living in constant fear, as they do not know what mood their partner may be experiencing and if and when the partner will be violent again. **Perpetrators** (offenders) of the violence can develop unhealthy and damaging ways of handling emotions and stress. The trauma of experiencing relationship violence can continue to affect the victim after the incident. They may experience 'flashbacks', or develop mental health problems

perpetrator a person who has committed a crime or a violent or harmful act



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Figure 9.9 Relationships should promote optimal health, wellbeing and development.

such as panic attacks, feeling anxious, low mood or stress. These symptoms may become associated with mental illnesses such as post-traumatic stress disorder, depression and anxiety.

Healthy relationships can increase a person's social wellbeing by providing them with opportunities and confidence to interact with others, including their partner's family, friends, work or school peers. A healthy relationship can contribute to increased confidence to pursue personal goals and ambitions in society.

However, an unhealthy relationship can isolate a person from their friends, family and community, leading to loneliness and increased sadness. Victims of relationship violence can lose confidence and opportunities to interact with others. This may prevent them from seeking out opportunities that would enhance their intellectual abilities, such as further education or career advancement.

Accessing support for an unhealthy relationship

Relationships are a big part of our lives and therefore it is highly important that people know the warning signs of an abusive relationship and where to access support if required. There are various ways to access support if you or someone you know is experiencing difficulties in their relationship. If someone is in physical danger, contact the police by phoning 000 straight away.

Other helpful resources

Visit <http://hhdvce1and2.nelsonnet.com.au> to access weblinks to the organisations listed below.

- Speak to a psychologist, counsellor or teacher at school.
- *Head Space* is a national youth mental health foundation. It provides mental health services to 12–25 year olds and promotes young people's wellbeing.
- *1800 RESPECT* is the national sexual assault and family violence counselling service for people living in Australia.
- *beyondblue* is an independent non-for profit organisation that provides telephone and online

support for depression, anxiety and related disorders, as well as online resources and information.

- *Men's Line* provides national telephone and online support, information and referrals for men with family and relationship concerns.
- *Q Life* provides telephone and online support to help lesbian, gay, bisexual, transgender and intersex communities work towards better health, including mental health.
- *Relationships Australia* provides specialist family and relationship services, including counselling, relationship and parenting skills education.



Weblinks

Case study

Teenagers increasingly assaulting, abusing their parents

Cosima Marriner and Timna Jacks, 3 January 2016

Teenagers are increasingly emotionally and physically abusing their parents, lashing out when they don't get their way or are denied something. Family psychologists and researchers have identified an increase in the number of cases of parents being abused by their kids, which they attribute to the sense of entitlement with which children grow up today.

'Much of the violence relates to young people wanting their parent to do something for them, or money or consumer goods like an iPhone or beauty products,' said teen abuse researcher Jo Howard, who is also the executive manager at family support service Kildonan Uniting Care.

Victorian Children's Court statistics show that more than 870 children were placed on family violence intervention orders in 2014 – a rate that has almost doubled in the past five years.

Police statistics also show 6000 family violence reports were made in the same year by parents against children aged under 24 – including against 38 children under 10.

Ms Howard said that while some abusive teens had grown up in homes where there was trauma, violence, poverty and separation, others were simply products of the current parenting fashion of bolstering children's self-esteem. 'There is a strong focus on supporting young people's self-esteem, protecting them from any risk, they shouldn't suffer any

disappointment, we have to do everything to support them,' Ms Howard said. 'They don't get to experience resilience, delayed gratification, or conflict resolution. They've learnt to demand and escalate their behaviour until their parents give in.'

Ms Howard said two-thirds of perpetrators were male, and more than 80 per cent of victims were the mother. The peak age for violence is 15 to 17. Canadian research suggests one in 15 families with teenagers experience this abuse, but there is no comparable research on Australian families.

Psychologists said parents were often unsure whether the abuse was just normal teenage acting-out behaviour, so they didn't clamp down on it early enough. The abuse tends to begin with verbal abuse, gradually progresses to property damage (such as walls and doors being kicked in), and ultimately physical assault of a parent.

'The first act of violence, parents are so shocked and taken aback they don't know how to respond,' Ms Howard said. 'It escalates to the point where parents are too intimidated and scared to stop the behaviour.'

Child psychologist Dr Michael Carr-Gregg said research from the past five years has shown that coping with stress is the number one issue for 15 to 19-year-olds.

Extract from Marriner C & Jacks T, 'Teenagers increasingly assaulting, abusing their parents', Sydney Morning Herald, 3 Jan 2016





Case study questions

- 1 What types of relationship abuse are referred to in the article?
- 2 According to the article, how common is family violence and who is affected?
- 3 Outline the reasons for teenagers becoming abusive, according to teen abuse researcher Jo Howard.
- 4 With reference to physical, social, emotional and intellectual development, how may abusive relationships in the home affect the development of:
 - a teenagers committing the violence?
 - b parents who are the victims of abuse?
- 5 Child psychologist Dr Michael Carr-Gregg said research from the past five years has shown that coping with stress is the number one issue for 15–19 year olds. List four types of support that 15–19 year olds could access, to help them manage stress.

Considerations in becoming a parent

Families in Australia

The decision to become a parent is a unique and personal experience for each individual and relationship. Some people will have a plan for when they would like to become a parent, while others may find themselves in a situation of unexpected pregnancy or caring for another person's biological child. For others, there may be difficulties in becoming pregnant, for a range of reasons. Advanced technology (such as IVF) now enables couples and individuals to access medical support to help them start a family.

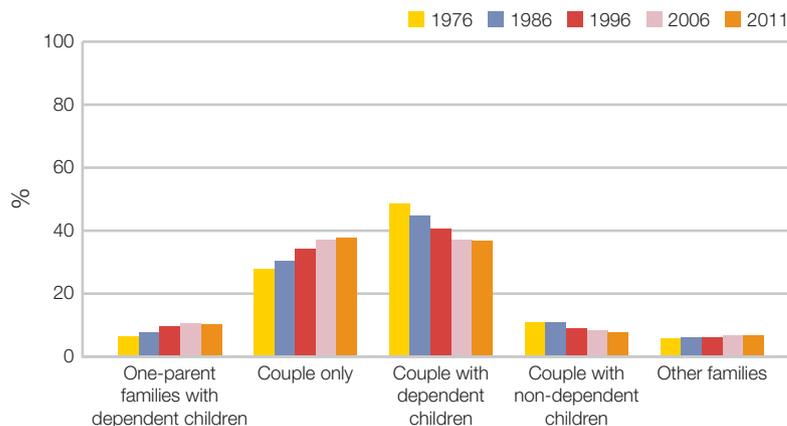
Traditionally, the nuclear family (mother, father and children) was considered the normal family type. In contrast, in Australia today there are many diverse forms of family, such as single parents raising children, children living with unmarried mothers and fathers, blended families, same-sex parents, and mixed sexual orientation and **polyamorous families**. Children may have grandparents or other extended family members living in their home for part or all of their childhood.

Children also come into people's lives through other circumstances, such as foster arrangements, adoption (including overseas adoption) or a child living with other family members. The form of the family unit can differ from family to family, and the reasons for becoming a parent or caregiver are numerous and varied. Australian trends in family type between 1976 and 2011 are shown in Figure 9.11.

The key trends evident in the graph include the following:

- The proportion of couples without children increased (from 28% in 1976 to 37.8% in 2011).
- One-parent families with dependent children increased (from 6.4% in 1976 to 10.6% in 2011).
- The proportion of couples with dependent children decreased (from 48.4% in 1976 to 36.7% in 2011).

polyamorous family a romantic relationship in which the individuals may have more than one partner, with the knowledge and consent of all partners



Australian Institute of Family Studies
2017; 'Types of families in Australia source
data'; Sources Hugo G. (2001). A century
of population change in Australia (ABS –
Yearbook 2001 Australia (Catalogue no.
1301.0)) ABS 2006 and 2011 Censuses,
Commonwealth of Australia CC BY 4.0

Figure 9.10 Change in family types from 1976 to 2011

Deciding to become a parent

Many factors can influence a person's decision to have a child in their family, including personal goals and needs, beliefs, and cultural and societal expectations. Individuals or people in a relationship may consider the following in deciding whether to have children.

- *Personal achievement* – having a child can give a sense of accomplishment in creating a life and/or raising and supporting a new person who will now be part of the world.
- *Emotional benefits* – children can provide parents with the experience of love and affection and increased feelings of connectedness, belonging and feeling needed.
- *Family continuity* – children can be considered a 'legacy' who can continue the family name or heritage beyond their parent's lifespan.
- *Sense of identity* – becoming a parent provides a sense of importance and worthiness in receiving the title of 'parent' and contributing to the valuable role parents play in society.
- *Happiness* – children can be a source of fun, adventure, challenge and excitement in people's lives.
- *Biological urge* – some individuals report a biological or internal urge to become a parent and procreate. This can be described as an internal need, where the person does not feel fulfilled or complete as an individual until this need is met.
- *Economic considerations* – there are many costs involved in raising a child, and this can affect how many children a person has, or whether they have children at all. For some people, children can be a potential source of security and someone to care for them in their old age or assist with a family business.
- *Support from other family members* – some children may not be able to live with their biological parents and live instead with other relatives who have offered to support the child and protect their welfare.
- *External influences* – beliefs and expectations associated with religion, family culture or perceived societal views about parenting can influence the decision to have children. For example, some religions view children as a gift from God that all married couples should accept.



Weblink

WATCH

Watch the video, 'Financial management for families'. Visit <http://hhdvce1and2.nelsonnet.com.au> to access the weblink. In this video, financial expert Paul Clitheroe explains basic strategies for handling the financial burden of raising children. Parents from different family structures talk about coping with their changed financial circumstances. The video also includes tips on budgeting, planning, using the baby bonus, borrowing baby goods, prioritising needs over wants, and making sacrifices to keep income greater than or equal to expenses.



Weblink

INVESTIGATE

For more parenting information, visit the Raising Children website. Visit <http://hhdvce1and2.nelsonnet.com.au> to access the weblink.

fertility the natural ability to produce offspring; a fertile male can father children, a fertile female can become pregnant and carry a baby to full term (9 months after conception)



Shutterstock.com/coasehsieh

Figure 9.11 Many factors influence the decision to have children.

Influence of society on the family unit

Access to affordable health care helps enable women and men to make decisions about their reproductive health. Access to contraception (e.g. condoms and the contraceptive pill) can give individuals greater control and choice over their fertility and family planning. Health education and health promotion programs in schools, such as formal health classes and presentations, can provide young people with increased knowledge about their bodies and their reproductive health choices.

The Australian legal system responds to changes in society. No-fault divorce became legal in 1975, meaning that married couples can apply for a divorce without the court having to consider the reasons for the divorce. This has led to people having more power to leave an unhappy marriage. The legal system also recognises people in relationships who live together without marrying, known as de facto relationships. People in de facto relationships generally have the same legal rights as married couples if they decide to separate.

The increasing cost of living can be a factor in more people choosing to have fewer children. It is also common for people to have children without marrying, or to have children later in their relationship, or at an older age. People are marrying later in life, which in some cases can delay the birth of children. However, male and female **fertility** declines with age, resulting in greater difficulty in conceiving, particularly after the age of 35. While the use of reproductive technologies is becoming more common, this avenue can be a financial cost that some people are unable to afford.

A growing proportion of people in Australia are making the decision to be 'child free', for various reasons, such as wanting to further develop their career, or to have more money and freedom available for travel, hobbies, daily expenses and so on.

Review and reflect

- 1 The proportion of couples without children has increased since 1976. Suggest some possible reasons for this trend.
- 2 Outline five factors that could influence an individual's decision to become a parent.
- 3 Using an example, explain how common beliefs held by society through culture or religion can influence an individual's decision to become a parent.

Responsibilities of parents

Parenting, or being a child's caregiver, is viewed by society and the law as a major responsibility. Parents have a duty of care to keep their child safe from harm. Children are dependent on their carers to meet their physical, social, emotional and intellectual development needs. Furthermore, parents play an important role in assisting their child in accomplishing key development milestones, by exposing them to activities and providing resources that assist the child's learning and skills development.

Legal responsibilities

The Australian legal system aims to protect children's rights. This is particularly important for children who are experiencing family breakdown or are at risk of harm.

Legally, parents have the responsibility to care for and protect their child. The way in which a parent raises their child will depend on the parent's beliefs and values regarding parenting styles, rules and expectations. Parents have the right to make decisions about their child's education, medical treatment and discipline, as long as it does not place the child's health and wellbeing at risk of harm.

Duties of parents

As a parent, you have a duty to:

- protect your child from harm
- provide your child with food, clothing and a place to live
- financially support your child
- provide safety, supervision and control
- provide medical care
- provide an education

Extract from ACT Government 2014, ParentLink, 'What about parents' rights. What are my rights and responsibilities as a parent?'

Learning fields

Rights of children

Under the *Federal Family Law Act 1975*, children have the following rights:

- (a) children have the right to know and be cared for by both their parents, regardless of whether their parents are married, separated, have never married or have never lived together; and
- (b) children have a right to spend time on a regular basis with, and communicate on a regular basis with, both their parents and other people significant to their care, welfare and development (such as grandparents and other relatives); and
- (c) parents jointly share duties and responsibilities concerning the care, welfare and development of their children; and
- (d) parents should agree about the parenting of their children; and
- (e) children have a right to enjoy their culture (including the right to enjoy that culture with other people who share that culture).

Extract from *Family Law Act 1975*, section 60B, paragraph 2

Social and emotional support and resources

There is a saying: 'It takes a village to raise a child'. The saying originates from tribal communities, where children were often raised and supported not only by their biological parents, but also by extended family and other community members. The saying can be applied today when considering the various support systems and resources that can be accessed by parents when raising their children. Support can be in the form of other family members, such as grandparents. It can also include health care services that enhance and monitor the child's physical development, as well as settings such as play groups and day care providing opportunities for socialisation and intellectual learning. Parenting can be a challenging experience and parents need to be encouraged to seek assistance when required, for their own wellbeing and that of their children. When families are provided with support and resources, the parents are better able to fulfill their parenting responsibilities.

Emotional and social challenges of parenting

While parenting can be an exciting and personally fulfilling experience, it is a huge life change and can also contribute to high levels of stress and uncertainty, particularly for first-time parents. The birth of a child can create a number of personal challenges.

Parents can face a loss of independence, as their child is fully dependent on them for basic needs: shelter, food and care. The parents' opportunities to socialise with friends and participate in personal hobbies can be reduced. Parenting can place individuals at risk of isolation, as they struggle to adjust to their child's routines. A baby's sleep and feeding routines may make it difficult for the parents to leave their house. If a family has limited access to transport, this can further isolate individuals from the community. Some families may have one personal vehicle, which may be required by a family member for work. Public transport may be too difficult to access.

The relationship between parents can suffer, as the strains of parenting and new routines can affect the time available for people in a relationship to spend with each other. Energy levels can drop, and high levels of tiredness and stress can affect the new parents' ability to contribute to the relationship in the way that they did before they had children. Women who experience pregnancy and childbirth can experience physical body changes that affect their self-esteem and body image. Changes to hormones can also affect the woman's mood, and may make her feel inadequate, guilty and tired. Becoming a parent can involve a new sense of identity and self-concept. While many parents find it a positive experience, others find it challenging, due to the many changes and effects that children have on daily life.

Within 12 months of giving birth, a woman can develop postnatal depression. Those affected may experience feelings ranging in intensity from mild sadness to intense depression. Men can experience postnatal depression too, highlighting the impact of children on both genders. While the exact cause of postnatal depression is unknown, it is believed that the physical, social and emotional

changes people experience has a major influence. Positive social support networks, including family and friends, are an important part of the prevention and recovery process, and people affected can seek professional support.

Types of emotional and social support available

A range of support services and structures are available to help ensure the emotional and social wellbeing of new parents. These services may be funded or operated by government or not-for-profit organisations. Others can be informal arrangements established by community groups or other parents. All generally provide the opportunity for the parents to interact with other parents. Some programs aim to build specific parenting skills, such as strategies or coping techniques, which can also boost the new parents' confidence and self-esteem. Some sources of support for new parents are outlined below.

Child and family health nurse

In Australia, new parents are offered support from a child and family health nurse, especially after the birth of a child. A child and family health nurse can monitor the physical development of a child (height, weight and so on) and also offer advice and support about topics such as immunisation, breast feeding, learning and development, and the general health and wellbeing of the child and the parents. Support can be provided individually or in a group setting with other parents.

Parenting groups

Parenting groups may initially be facilitated by a child and family health nurse encouraging parents with infants of a similar age to meet regularly, providing each other with peer support. Over time these groups often lead to ongoing social connections between parents.

Day care centres and child care providers

A growing number of parents are returning to work after the birth of a child, which requires day care services for children. Professional services can provide parents with quality care and peace of mind, knowing that their child is being looked after and cared for while the parent is at work. Day care also provides children with increased opportunities to socialise with other children.

Play groups

Play group is a place where caregivers can attend with their children and participate in activities with other caregivers and their children. The activities are run by the members of the group and can include music, art and craft, outings and free play. Play group promotes interaction between children and their caregivers throughout the session.

Special activity groups

Local governments and community organisations can offer specialised groups for parents and children, such as walking groups, music programs, cultural groups and reading programs at local libraries. These programs encourage families to participate in their community and meet other families, and provide children with the opportunity to develop personal skills.

Parenting skills programs

Parents wishing to develop their parenting skills can participate in specific parenting programs. Such programs are facilitated by trained professionals (health nurses, social workers, community development workers). The programs focus on parenting strategies such as responding to challenging child behaviours and establishing sleep routines.

Extended family

Extended family members, such as grandparents and aunts and uncles, can provide parents and their children with tremendous support, including child minding and assistance with home duties.

Schools

Formal schooling, such as pre-school, primary and secondary school, can also provide parents with social and emotional support through professional support services (school counsellors) and community involvement activities (parents and friends associations, volunteer programs and working groups).



Figure 9.12 Parent support groups can provide emotional and social support for parents and children.

The benefits of social and emotional support

Parents gain social support when they are able to interact with other parents in their local area, through parenting support groups, play groups and activities at local libraries. These activities enhance people's connection to their local community and strengthen their sense of belonging. In these 'safe spaces' they can share their concerns with other parents who are experiencing similar challenges – it can be reassuring to learn that any problems they are having with their child are common among other parents too. This in turn provides emotional support, as interacting with others can boost the new parents' self-esteem,

confidence and feelings of happiness. Their children also benefit through interaction with other children, assisting their overall development.

Social support services are sometimes linked or supported by professional services, such as health care centres, community nursing and mental health workers. These services can increase parents' awareness of all the services available and encourage them to access support when they need it.

Apply your knowledge

- 1 Research the resources available in your local suburb or local government area that provide parents of children aged 0–5 with social and emotional support. You may like to consider play groups, parenting programs and kinder gyms.

Use a table like the one below to record key details of each service.

Name and brief description of resource	Location	Is there a cost to access this support?	Type of support
Books and Bubs reading group. Weekly 2 hour program at local library for parents to attend with their child.	Community library	Gold coin donation	Parents can access books that promote their children's intellectual development, and socialise with other parents. Children can develop their social skills through interactions with other children.

- 2 Share your results with the class. When analysing the class data, do you notice any services that are popular or common? Are there any services that are lacking, or certain population groups who are not catered for (e.g. fathers)?

Chapter summary

- There is no set time at which a person becomes an adult. The legal age of adulthood in Australia is 18 years. Transition to adulthood generally occurs at 16–24 years.
- Key experiences in the transition from youth to adulthood are:
 - physical development of body structures – bones, muscles, body systems, brain
 - social development changes – career decisions, mature relationships, leaving the family home, participating in activities permitted by law
 - emotional development changes – expression of feelings, regulation of emotions, forming intimate relationships
 - intellectual development changes – enhanced through further study and career progression.
- A relationship is the way two or more people regard and behave towards each other.
- In a respectful relationship, each person's feelings of self-worth, emotions, wishes and rights are promoted.
- Abuse has many forms, not just physical violence such as hitting. It can also include emotional, financial, social or verbal abuse, controlling behaviour, intimidation, creating fear, or sexual abuse. More than one form of abuse may be present in a relationship.
- An unhealthy relationship can have a significant effect on health and wellbeing and development. Physical effects – harm to the body. Emotional effects – lowered self-esteem and confidence, and increased stress. Social effects – isolation from friends, family and the wider community.
- There are a number of professional support services that people experiencing abuse in their relationship can access for help and assistance.
- In Australia, families come in many forms, and this is reflected in changes in the law, society values and beliefs, education and advances in health care and technology.
- Each person who decides to become a parent does so for their own reasons. Factors that can influence the decision include: personal achievement, happiness, biological urges, economic reasons, and cultural or religious beliefs.
- A parent is responsible for protecting their child from harm, and for assisting in their physical, social, intellectual and emotional development.
- Parenting can create high levels of stress and pressure, as parents must adapt to significant changes in their lives.
- A range of social and emotional support services for families are available in Australia, including formal and informal parenting groups and programs. Such groups enhance parents' feelings of connection and belonging, as well as confidence and self-esteem.

Exam-style questions and sample answers

- 1 Discuss how an unhealthy relationship can affect an individual's health and wellbeing. **(3 marks)**

Sample answer: An unhealthy relationship may feature types of relationship abuse such as controlling behaviours and verbal abuse. Controlling behaviours and verbal abuse can affect the victim's self-worth, confidence and self-esteem, which can lead to lowered mental health. As a result of the abuse in the unhealthy relationship, the victim may lose confidence in their ability to interact with others, such as friends and members of the community. This can lead to isolation and not taking up opportunities to participate in social activities.

- 2 Compare factors that may influence a person's decision to become a parent. **(2 marks)**

Sample answer: An individual may choose to become a parent as they believe children will provide a sense of fulfilment and happiness in their lives. For others, there may be an expectation in their society or culture that they will have children.

Questions for you to practise

- 1 Discuss the key social and emotional changes that can take place during the transition from youth to adulthood. **(4 marks)**
- 2 Compare and contrast the types of abuse that may occur in a relationship. **(2 marks)**

Chapter 10: Supporting the optimal development of children

Key knowledge

- the role of parents, carers and/or the family environment in determining the optimal development of children through understanding of:
 - fertilisation and the stages of prenatal development
 - risk and protective factors related to prenatal development such as maternal diet and the effects of smoking and alcohol during pregnancy
 - physical, social, emotional and intellectual development in infancy and early childhood
 - the impact of early life experiences on future health and development
- the intergenerational nature of health and wellbeing.

Key skills

- explain factors that influence development during the prenatal and early childhood stages of the lifespan.
- explain health and wellbeing as an intergenerational concept.

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Key terms

artificial insemination placenta
attractor well protective factors
gestational diabetes zygote
health risk factors

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Introduction

Optimal development throughout the lifespan is development that is ideal or best for a particular individual. In the previous chapter, we considered the responsibilities of parenting. Children depend on their parents or carers, particularly in infancy and childhood, but also before they are born. During prenatal development, the behaviour of the pregnant woman can affect the development of the growing human.

Fertilisation and prenatal development

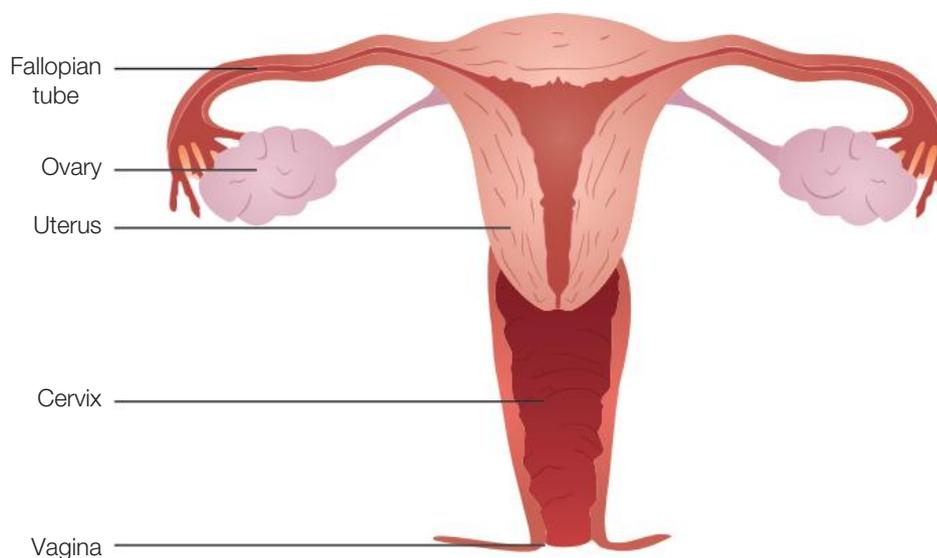
Fertilisation

Fertilisation, or conception, occurs when a woman's egg, or ovum, is fertilised with a male's sperm cell as a result of sexual intercourse or **artificial insemination**.

The process of becoming pregnant through sexual intercourse depends on the timing of a woman's ovulation cycle and the male's sperm being present in the woman's body after ejaculation.

- The first menstrual period during puberty is a sign to a female that she is now experiencing menstrual cycles. A menstrual cycle is approximately 28 days.
- During the first half of the menstrual cycle, hormones stimulate the growth of egg follicles within the female's ovaries, as well as growth of the lining of the uterus.
- An egg matures inside the follicle at around the middle of the menstrual cycle. The female's hormone levels rise and an ovum is released from a follicle in the ovary, from where it travels down the fallopian tube towards the uterus.
- The release of an ovum from the ovaries is called ovulation.

artificial insemination a method of achieving conception by inserting a sperm sample through a woman's cervix and into the uterus, immediately before ovulation



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Figure 10.1 The female reproductive system

- During the ovum's journey from the fallopian tubes to the uterus, it may come into contact with sperm ejaculated by the male into the female during sexual intercourse. Many sperm cells are released in one ejaculation, and sperm cells can live inside the female's body for up to 72 hours after sexual intercourse.
- Only one sperm cell can penetrate or enter an ovum's protective membrane. If a sperm penetrates an ovum, the egg is fertilised and other sperm are unable to enter the fertilised egg.
- The sperm cell contains the male's genetic material and the ovum contains the female's genetic material. Fertilisation combines the male's and female's genes, and cell division begins.

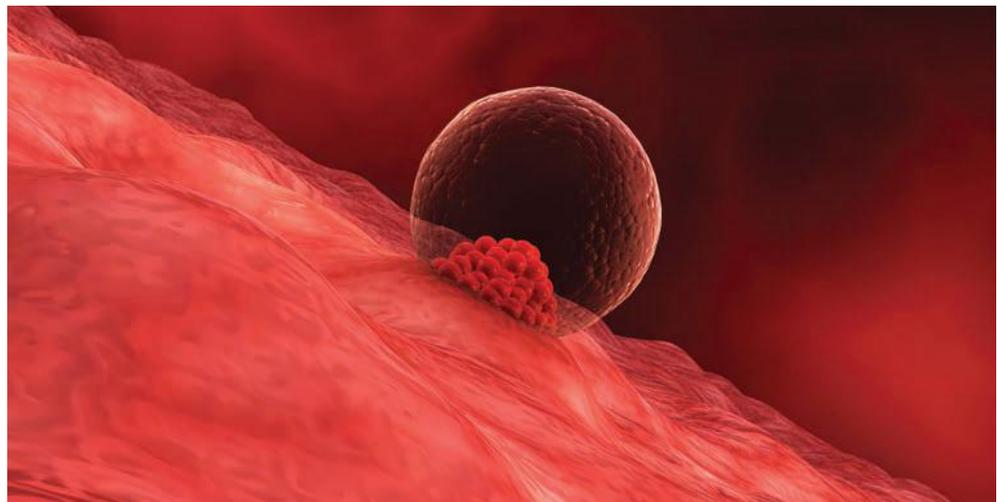


iStock.com/ugurhan

Figure 10.2 Only one sperm cell can penetrate an ovum.

zygote a fertilised egg cell, formed as a result of a sperm fusing with an ovum (egg)

- The fertilised ovum, known as a **zygote**, continues to move towards the female's uterus. In order to develop into a fully grown baby, the zygote must implant into the wall of the uterus. This usually occurs six days after fertilisation.
- If a zygote has not implanted into the lining of the uterus, menstrual bleeding (a period) takes place as usual, approximately every 28 days, and the menstrual cycle continues.



Getty Images/Stocktrek Images

Figure 10.3 When the zygote implants into the uterus wall, the development of a new human life can continue.

In-vitro fertilisation

Fertilisation can also take place outside the human body, in a process known as in-vitro fertilisation (IVF). IVF involves removing a woman's matured egg (ovum) or eggs (ova) through laparoscopy. The eggs are placed in a nutrient-rich medium, and sperm are added. The eggs are examined under a microscope to see which have been fertilised. The fertilised egg or eggs are then placed into the woman's uterus through a tube that passes through the vagina to the uterus. From there it is hoped that the fertilised egg will implant into the wall of the uterus. The eggs and sperm used during IVF are those of the people who are trying to conceive, or sourced from donors.

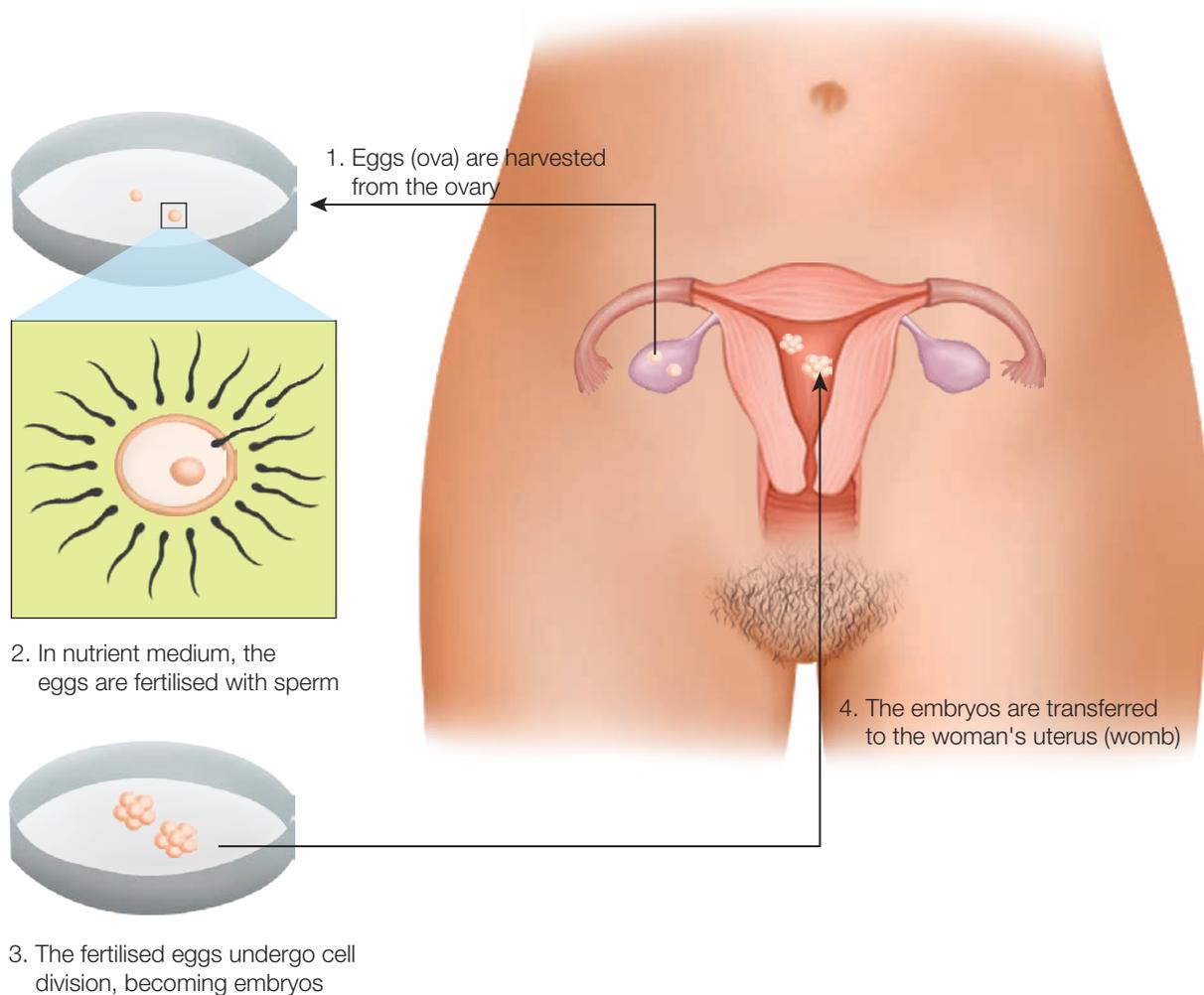


Figure 10.4 IVF is the process of fertilisation outside the human body.

Facts about fertility

Infertility is the inability to conceive a child after one year of unprotected sexual intercourse, or the inability of a female to carry a pregnancy to a live birth. According to The Fertility Society of Australia (2017):

- In Australia and New Zealand, one in six couples are unable to conceive children.
- Infertility is equally common between males and females. The reason for infertility is usually a physical problem at some stage of the reproductive process.
- Behaviours that can increase fertility include not smoking, maintaining a healthy body weight, and exercising regularly.
- Untreated sexually transmissible infections (STIs) can affect fertility.
- Fertility declines with age, in females and males. The decline accelerates for females from age 35 and for males from age 40. The risk of having a baby with chromosomal abnormalities increases for women over 40 years old.

Prenatal development

After fertilisation, a number of developmental changes occur. During pregnancy, the foetus develops inside the womb (uterus). This period of development has three phases: germinal, embryonic and foetal (see Table 10.1). A human pregnancy generally lasts for 40 weeks, but a baby can be born at any point during the pregnancy, and also after 40 weeks.

Table 10.1 Summary of the three prenatal phases

Prenatal phase	Time period	Key changes
Germinal	Conception to week 2	Fertilised ovum travels from fallopian tube to uterus. Ends when the zygote implants into the uterus and becomes an embryo.
Embryonic	Week 2 to week 8	The embryo divides into three layers of cells: <ul style="list-style-type: none"> • ectoderm – nervous system and sense organs • mesoderm – circulatory, skeletal and muscular systems • endoderm – digestive and some glandular systems. The growing embryo develops human characteristics.
Foetal	Week 9 to moment of birth	The longest period of prenatal development. Extensive growth take place. Refinement of structures such as tissues and organs, and systems.

Development milestones

Development achievements or milestones are identified at each stage of a pregnancy. Referring to the major development milestones that a foetus should be experiencing allows health care professionals to identify any problems or future complications that may need medical attention.

Germinal and embryonic development

The major milestones in the germinal and embryonic phases of development are listed in Table 10.2.

Table 10.2 Development in the germinal and embryonic period

Period after conception	Physical changes	Appearance by end of time period
0–5 weeks	<ul style="list-style-type: none"> Fertilised egg travels from fallopian tubes to uterus and attaches to uterine wall. Zygote becomes an embryo. Special cells begin to grow that will form the water sac and placenta. Organs begin to develop: heart, lungs, kidneys. Limbs begin to form. 	
5–8 weeks	<ul style="list-style-type: none"> Face and neck structures become visible. Bones and muscles provide body form. Brain growth is significant. Sex organs begin to form. 	

Getty Images/SPL/Sciepro (both)

(source: adapted from Cronin A & Mandich M 2005, *Human development and performance throughout the lifespan*. Table 6-1 Major development changes and milestones throughout gestational period. Thomson Learning, New York, p.94)

Foetal development

By the end of 8 weeks, the embryo is called a foetus. The major milestones in the foetal phase of development are listed in Table 10.3.

Table 10.3 Development in the foetal period

Period after conception	Physical changes	Size of foetus by end of time period
9–13 weeks	<ul style="list-style-type: none"> Sex organs are visible. Digestive system begins functioning. Bones, muscles and brain continue to develop. Vocal cords appear and eyelids form. 	
14–17 weeks	<ul style="list-style-type: none"> Hands and feet are well formed. Strength of arm and leg movement increases. 	Length up to 15 cm Weight almost 300 g
18–21 weeks	<ul style="list-style-type: none"> Body structures are close to their final form. Hair appears on the scalp. Movement increases, and the mother may be able to feel it. 	Length up to 19 cm Weight 460 g
22–25 weeks	<ul style="list-style-type: none"> Eyes are completely formed. Taste buds appear. Body structures become bigger. 	Length up to 24 cm long Weight 100 g
25–28 weeks	<ul style="list-style-type: none"> The cerebral (intellectual) brain structures further develop. May cry, breath, swallow and suck thumb. A foetus born at this stage may be able to survive with medical support. 	Length up to 27.5 cm Weight 1500 g
29–33 weeks	<ul style="list-style-type: none"> Fat and fatty tissue develops throughout the body. 	Length up to 30 cm Weight approx. 2500 g
33 weeks onwards	<ul style="list-style-type: none"> Foetus is fully functioning and, once born, can usually survive without intensive medical support. 	Length up to 36 cm Weight > 3500 g

Review and reflect

- 1 a Explain the process of fertilisation as a result of sexual intercourse or artificial insemination.
b How does fertilisation by IVF differ from fertilisation by sexual intercourse?
- 2 a Explain your understanding of the term 'infertility'.
b List behaviours that can increase a person's fertility.
- 3 List the three stages of prenatal development, and identify the key characteristics of each stage.
- 4 What is the term given to the developing human at the end of the first 8 weeks of development?
- 5 How does a foetus at 13 weeks of development differ from a foetus at 33 weeks of development?

Risk and protective factors in prenatal development

A number of things that a pregnant woman does can affect her developing baby. It is important for pregnant women to be educated about the stages of their pregnancy and what behaviours can promote optimal or ideal development of the growing child. Similarly, women need to be aware of behaviours that might cause harm to their child's development.

Behaviours that can enhance health are examples of **protective factors**. Protective factors during pregnancy include:

- having a nutritious diet
- seeing a health professional for regular check-ups, to monitor the baby's development.

Health risk factors are attributes, characteristics or exposures that increase the likelihood of a person developing a disease or health disorder. Behaviours that can harm health are examples of risk factors. Risk factors during pregnancy include:

- smoking
- drinking alcohol.

protective factors behaviours, resources, supports or strategies in individuals, families, communities or society in general that can enhance health or reduce the chances of health problems developing

health risk factors attributes, characteristics or exposures that increase the likelihood of a person developing a disease or health disorder

The placenta

When the zygote has implanted into the uterus wall, a structure called the **placenta** forms. The placenta's role is to link the blood supply of the foetus to the blood supply of the mother. This allows the exchange of nutrients, gases and hormones between mother and baby during the pregnancy. The placenta is unable to prevent harmful substances in the mother's blood, such as chemicals from tobacco smoke or alcohol, from reaching the developing baby.

placenta an organ that connects the developing foetus to the uterine wall of the mother to allow nutrient uptake, waste elimination and gas exchange by the foetus via the mother's blood supply

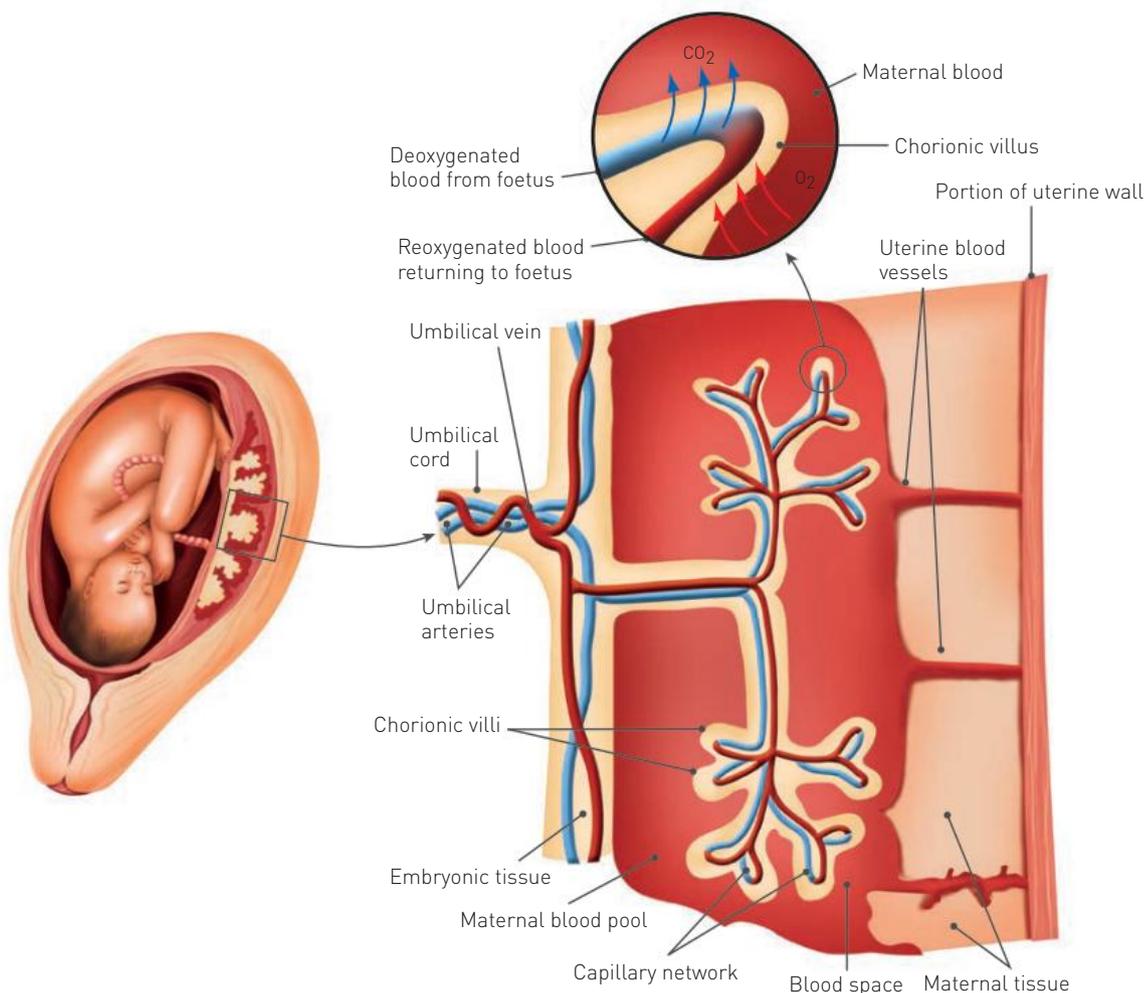


Figure 10.5 The placenta connects mother and foetus via the umbilical cord, and provides nourishment to the growing foetus.

Maternal diet

gestational diabetes a form of diabetes that occurs during pregnancy and usually goes away after the baby is born

A nutritious, balanced diet is important at any stage of life. Good nutrition assists in optimal physical development and is also a protective factor against a number of diseases and illnesses. People sometimes incorrectly think a pregnant woman should ‘eat for two’. A medical professional can advise a pregnant woman on ideal weight gain during pregnancy, in accordance with how the baby grows and develops, and how the woman’s body changes. Too much weight gain can result in **gestational diabetes**. Gestational diabetes can place the baby at risk of being overweight or developing health concerns later in life. Pregnant women are encouraged to focus on the quality of their diet rather than quantity of food, and to ensure that they eat appropriate amounts of required nutrients.

Table 10.4 Institute of Medicine (2010) recommendations for total and rate of weight gain during pregnancy, by pre-pregnancy BMI

Pre-pregnancy BMI	Total weight gain in kg	Rates of weight gain 2nd and 3rd trimester in kg/week
Underweight (< 18.5 kg/m ²)	12.5–18.0	0.51 (0.44–0.58)
Normal weight (18.5–24.9 kg/m ²)	11.5–16.0	0.42 (0.35–0.50)
Overweight (25.0–29.9 kg/m ²)	7.0–11.5	0.28 (0.23–0.33)
Obese (≥ 30.0 kg/m ²)	5.0–9.0	0.22 (0.17–0.27)

(source: Eat for health 2016, ‘Healthy eating when you’re pregnant or breastfeeding’, CC BY 4.0)

Table 10.5 Weight gain during pregnancy: recommendations for Asian women, by pre-pregnancy BMI

Pre-pregnancy BMI	Total weight gain in kg (during pregnancy)	Weight gain per week in kg (after 12 weeks)
< 18.5	12.5–18.0	0.5
18.5–22.9	11.5–16.0	0.4
23–27.5	7.0–11.5	0.3
> 27.5	≤ 7.0	

(source: Eat for health 2016, ‘Healthy eating when you’re pregnant or breastfeeding’, CC BY 4.0)

The *Australian Guide to Healthy Eating* (AGHE) was created to assist all Australians with their food choices in order to promote health. The AGHE reflects the Australian Dietary Guidelines and recommends that pregnant women continue to follow the AGHE during pregnancy. See Chapter 3, pages 74–77 for more information on these guidelines.

While pregnant women are encouraged to eat a variety of foods from the five food groups, they are also advised to avoid foods with mercury or listeria bacteria, as these could be harmful to their baby’s development. Foods containing mercury include certain fish, such as flake. Soft cheeses and cold seafood are examples of food that may contain listeria.

Pregnant women require higher amounts of specific nutrients such as folate, iron and iodine. These nutrients play a role in the physical development of the growing baby. The food sources of these nutrients are listed in Table 10.6. Through consultation with a medical professional, a woman may be advised to take nutrition supplements to assist her to safely obtain the required amount of each nutrient.

Table 10.6 Examples of specific nutrients required by pregnant women

Nutrient	Food sources	Role in foetal development
Iron	Meat: chicken, beef, kangaroo, lamb, pork, salmon Plants: rolled oats, kidney beans, chickpeas, wholemeal pasta, raw spinach, broccoli, wholegrain bread, cooked brown rice, almonds, dried apricots, tofu, green lentils	Transporting oxygen around the body
Folate	Green leafy vegetables Legumes Fruit	Prevents neural tube defects such as spina bifida
Iodine	Seafood (check mercury content) Iodised salt Bread	Normal growth and development

Dietary Guideline 3

Dietary guideline 3: Limit intake of foods and drinks containing saturated fat, added salt, added sugars and alcohol. For women who are pregnant, planning a pregnancy or breastfeeding, not drinking alcohol is the safest option.

Extract from Eat for Health 2016, 'Healthy eating when you're pregnant or breastfeeding'

Consuming large amounts of foods and drink with a high saturated fat and sugar content makes it difficult to not gain excess weight.

Dietary Guideline 4

Dietary guideline 4: Encourage and support breastfeeding.

Extract from Eat for health 2016, 'Healthy eating when you're pregnant or breastfeeding'

When the baby is born, the mother may decide to feed her child with milk from her breast. Breastfeeding provides infants with the nutrients they need for development. The World Health Organization (2017) recommends that children be exclusively breastfed until 6 months of age. After 6 months, the mother may decide to breastfeed in combination with other foods. Women who are breastfeeding should continue to eat a diet guided by the AGHE and avoid smoking and alcohol.

Breastfeeding is a personal choice, and might not be possible for all women. Other options such as infant formula can be provided to children instead of breast milk. Women can get advice and support about breastfeeding from health professionals and professional organisations.

Alcohol during pregnancy

Drinking alcohol is popular in Australian society. People drink alcohol as part of celebrations and relaxation. Alcohol is a depressant drug – it slows down the brain's ability to process, and therefore affects the way people think, feel and



iStock.com/Peter-Braakmann

Figure 10.6 It is recommended that alcohol be avoided during pregnancy.

behave. There are many different types of alcohol, and in Australia it is legal for people aged over 18 to purchase and drink alcohol. Consuming alcohol above the recommended limits can lead to numerous health issues and can affect the functioning of the organs and systems of the body.

If a pregnant woman drinks alcohol, this can place the foetus at risk of harm. The National Medical Research Council provides the following guidelines to Australians, to guide their alcohol intake in order to avoid harm. Guideline 4 is for pregnant and breastfeeding women.

Guideline 1: Reducing the risk of alcohol-related harm over a lifetime

The lifetime risk of harm from drinking alcohol increases with the amount consumed.

For healthy men and women, drinking no more than two standard drinks on any day reduces the lifetime risk of harm from alcohol-related disease or injury.

Guideline 2: Reducing the risk of injury on a single occasion of drinking

On a single occasion of drinking, the risk of alcohol-related injury increases with the amount consumed.

For healthy men and women, drinking no more than four standard drinks on a single occasion reduces the risk of alcohol-related injury arising from that occasion.

Guideline 3: Children and young people under 18 years of age

For children and young people under 18 years of age, not drinking alcohol is the safest option.

A. Parents and carers should be advised that children under 15 years of age are at the greatest risk of harm from drinking and that for this age group, not drinking alcohol is especially important.

B. For young people aged 15–17 years, the safest option is to delay the initiation of drinking for as long as possible.

Guideline 4: Pregnancy and breastfeeding

Maternal alcohol consumption can harm the developing foetus or breastfeeding baby.

A. For women who are pregnant or planning a pregnancy, not drinking is the safest option.

B. For women who are breastfeeding, not drinking is the safest option.

Extracts from NHMRC, 'The Australian Guidelines to Reduce Health Risks from Drinking Alcohol', 2009, <https://www.nhmrc.gov.au/health-topics/alcohol-guidelines>, CC BY 3.0 Au

Effects of alcohol during prenatal development

A woman drinking alcohol while pregnant or breastfeeding can place her developing baby at risk of harm. The exact amount of alcohol needed to cause harm is unknown, and all individuals can be affected differently. Not drinking alcohol while pregnant or breastfeeding is the safest option.

A person who is exposed to alcohol during their prenatal development could be affected by a *foetal alcohol spectrum disorder*. Types of foetal alcohol spectrum disorders include:

- foetal alcohol syndrome
- alcohol-related birth defects
- alcohol-related neurodevelopmental disorder.

A child who has been diagnosed with a foetal alcohol spectrum disorder could experience the symptoms listed below. Some symptoms, such as facial abnormalities, may be visible or detected at birth, but many symptoms are not noticed until school age, when learning difficulties may start to appear.

Symptoms of foetal alcohol spectrum disorder

Physical development concerns:

- facial abnormalities
- brain and organ damage, poor growth, difficulty hearing
- vision problems, birth defects, difficulty sleeping.

Social and emotional development concerns:

- social and behavioural problems
- difficulty forming and maintaining relationships
- language and speech deficits.

Intellectual development concerns:

- low intelligence measured by IQ, learning difficulties
- problems with abstract thinking, poor judgement
- difficulty remembering.

By not drinking alcohol during pregnancy, a woman can prevent her child from developing a foetal alcohol spectrum disorder. Women who have difficulty with not drinking during pregnancy should be encouraged to get support from medical professionals.

Smoking tobacco during pregnancy

Tobacco smoking is one of the leading causes of death and illness in Australia, and is largely preventable. The smoke inhaled from tobacco can contain up to 7000 chemicals, including nicotine, which is addictive, and other harmful chemicals that are known to cause various types of cancer. The 2013 National

Drug Strategy Survey report noted a reduction between 2010 and 2013 in the number of people in Australia who smoke daily: in 2010, 15.1% of Australians smoked daily, compared with 12.8% in 2013 (AIHW 2014).



Figure 10.7 Smoking tobacco leads to inhaling harmful chemicals.

Smoking tobacco does not only cause harm to the smoker. If a pregnant woman smokes tobacco, there can be immediate and long-term effects on the developing baby. Pregnant women should also be aware of the dangers of passive smoking (breathing in other people's tobacco smoke) to themselves and their unborn child.

According to the QUIT Resource Centre (2017), when a pregnant woman smokes, the immediate effects on the unborn baby include the following:

- Less oxygen reaches the baby, making it harder for the baby to breathe. The baby also moves less inside the womb, due to the lack of oxygen.
- Nicotine affects the placenta, and so it is less effective at getting oxygen and nutrients to the baby.
- The baby's lungs and brain are affected.

Smoking during pregnancy can also affect the long-term health and development of a child. Harmful effects include:

- miscarriage (sudden death of the developing baby)
- childbirth complications, including being born before 37 weeks
- low birth weight – low birth weight babies are more susceptible to infections and health problems later in life
- cleft lip or eye problems
- weak lungs, which may lead to asthma
- weakened immune system (the immune system fights illnesses and infections)
- increased risk of dying from sudden infant death syndrome (SIDS)
- increased risk of becoming overweight or obese early in life.

Female smokers who are pregnant or are planning to become pregnant can get support in giving up smoking through services such as QUIT and their local doctor.

Accessing antenatal health care

The developing foetus grows rapidly. Pregnancy is complex, and most people want to ensure that their actions promote optimal health and development of their child. But there can be times where even though the pregnant woman is eating a healthy diet, and not smoking or drinking alcohol, the foetus still has development concerns. To ensure that the foetus is developing according to the milestones for each prenatal stage and that any abnormal developments are detected quickly,

regular appointments with a medical professional, such as a doctor or a midwife, are highly recommended. These appointments are called *antenatal appointments*. The number of antenatal visits will vary from person to person, according to their pregnancy experience.

During an antenatal appointment, a doctor may:

- assess the stage of pregnancy and calculate a due date of birth
- conduct a general health check-up of the mother, including blood pressure, weight and mental health
- take measurements (the woman's waist) and listen to the baby's heartbeat
- carry out any blood or diagnostic tests, such as ultrasound
- discuss healthy eating, including essential nutrients and foods to avoid
- discuss risk factors, such as smoking, drinking alcohol or using other drugs, and provide support to quit if required
- discuss availability of social support, such as family, home environment and work
- prepare for and support the delivery of the child.



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Figure 10.8 Prenatal development can be monitored through regular appointments with a medical professional.

Review and reflect

- 1 Distinguish between risk factors and protective factors.
- 2 Eating a balanced diet and accessing health care while pregnant are examples of protective factors during pregnancy. Explain how these protective factors can promote the health and development of a baby.
- 3 Smoking and/or drinking alcohol during pregnancy are examples of risk factors. Explain how these risk factors can be harmful to the health and development of a baby.
- 4 Explain how accessing health care throughout pregnancy can be beneficial for both a child and a parent's health and development.

Apply

- 5 Create a list of support resources where people can get help and advice about pregnancy and pregnancy-related topics. In your list, include:
 - the name of the organisation
 - the services it provides
 - contact details (where it is located, phone number, website).

Development in infancy

Infancy is the period between birth and age two. It is a time of rapid growth in all areas of development. Parents, carers and family members play a crucial role in ensuring that an infant's developmental needs are met.

The neonate

For the first four weeks after birth, a baby is called a neonate. The neonate experiences an enormous transition from the world inside a woman's womb to the new external environment. The neonate's body systems are still maturing and need to respond to the demands of birth and a new way of functioning, as the baby no longer receives nutrients via the placenta. And the neonate is required to complete functions such as breathing independently. It is common for newborn babies to lose some weight in the first few days after birth, then return to birth weight by the end of the second week.

attractor well preferred patterns of movement, including reflexes, shown in new babies

The neonate's movements are influenced by **attractor wells**. Attractor wells are preferred patterns of movement, and include reflexes such as:

- suck-swallow (important in order to receive nourishment)
- palmar and plantar grasping (flexing of fingers)
- rooting reaction (infants turn their head ready for food when their cheek is stroked).

Over time the neonate will learn to coordinate their body movements. Medical professionals will test a newborn infant to assess whether the baby is displaying common reflexes.

In the first two months of life, a newborn baby will show what is called the asymmetrical tonic neck reflex (ATNR). When the baby turns their head to one side, the upper and lower limbs on the side that the baby is looking at extend, and the limbs on the other side, facing the back of the baby's head, flex (bend). The ATNR is thought to contribute to linkages between the dominant hand and the eyes, and allows for progression to more mature behaviours such as bringing the hands together at the midline, and bringing the hands to the mouth.



Figure 10.9 A neonate demonstrating the asymmetrical tonic neck reflex

A newborn infant can begin to show emotional responses, such as crying, which is the baby's primary way of communicating when they feel uncomfortable. Neonates can also show behavioural responses to the recognition of their primary caregiver's voice.

Caring for a newborn baby is a time of transition for parents and other family members. Neonates and infants are very vulnerable to illness and injury in the early stages of life, and need the care and protection of their caregivers to be safe.

The infant

Physical development

An infant's growth in the first two years is very rapid. By the end of the first year, the infant's weight has tripled since birth. In infancy, gross motor skills develop first as the infant's muscles and skeleton grow in size. Infants need to learn to coordinate and control these large muscles in order to learn how to sit, crawl and walk. At the beginning of infancy, the infant requires the support of others for experiences such as head support, whereas by the end of infancy they are walking. The infant's fine motor skills also develop, so that smaller muscles can assist in tasks such as holding objects in their hands. Infants begin to want to feed themselves, using their fingers especially, at around the age of 10–12 months. Components of the nervous system including the brain and nerve cells develop continuously, especially during infancy. This is very useful for the baby, who is surrounded with new sensory experiences. The infant's vision and hearing develop continuously.

Social development

Throughout infancy, a child forms attachments with their primary caregivers and shows increasing signs of interaction. In early infancy, the interaction can be looking attentively at their caregiver and smiling. The infant will often cry when uncomfortable, and can be soothed when held by their caregiver. Throughout infancy, the infant makes an increasing range of sounds and by the end of infancy is able to use words. Infants will identify their parents through words, and develop ways to connect and communicate with others, including attending to others through eye contact.

Emotional development

During infancy, the child displays different emotional responses. Crying remains the infant's main way of expressing when they are uncomfortable or upset. By two to three months of age the infant may smile, and this progresses to laughing.

Another key emotional development during infancy is that infants develop a form of attachment to their main caregivers. A secure attachment is present when an infant becomes upset when their main caregiver leaves their sight and is settled when the caregiver returns. The infant can appear comfortable in exploring their environment but will return to their caregiver for reassurance as required. Throughout infancy the child develops the confidence to be away from their caregiver for increasing periods of time.

Intellectual development

Within 4–6 months, infants show early signs of play behaviour. This is often combined with noises (babbling sounds), which are the beginning of speech formation. By one year the infant demonstrates language skills and often uses specific words for their main caregivers or other people they live with. Towards middle to late infancy, the infant plays games and may search for hidden objects. By the end of infancy, children have a better understanding of the concept of object permanence. Object permanence is demonstrated when a child knows an object still exists even when it cannot be seen. The game 'peekaboo' can reflect whether an infant has achieved object permanence.



Weblink

WATCH

Watch the short video, titled 'Baby development issues', on the Raising Children Network site. Visit <http://hhdvce1and2.nelsonnet.com.au> to access the weblink.

What are the key developmental milestones referred to in the video?



Getty Images/Victoria Blackie

Figure 10.10 Games such as peekaboo can display whether a child has achieved object permanence.

Development in early childhood

Physical development

In early childhood, the child's body structures continue to grow. Children gain muscle and strength, and try more complex movements such as jumping, skipping and climbing. Children improve their fine muscle control, which includes using their hands and controlling the muscles of their mouth. The brain continues to develop, particularly when it is stimulated, and vision develops continuously in the first five years of a child's life. Children begin to coordinate sensory skills, such as hand–eye coordination.

Social development

As children become increasingly skilled at walking and moving, they also become more independent in life skills related to self-care. Children seek independence by trying to do things for themselves, including eating, dressing and hygiene (such as brushing teeth). However, despite their growing independence and skills, children still require the guidance, care and supervision of their parent or

caregiver. In early childhood, levels of interaction with others can continue to increase as the child begins to enjoy the company of other children. Opportunities to play allow children to develop their motor skills and also experience fun. In addition, socialising with other children can help individuals to learn and practise skills such as 'taking turns'. These skills assist children to interact in social settings later in life. Preparation for school or 'school readiness' is a feature of early childhood. Assisting children to interact with others, follow group rules and follow instructions can make the transition to school easier for them.



Figure 10.11 A child's ability to carry out self-care increases with age.

Emotional development

In early childhood, children begin to recognise different feelings as emotions. Importantly, they learn ways to manage their feelings. This includes building a sense of self-awareness about how they are feeling, as well as appropriate ways to express those feelings through self-management.

A number of factors can influence a child's expression of emotions. These include:

- observation and experiences with key caregivers, such as parents or carers
- how effectively the child's emotional needs are usually met
- the child's temperament and personality.

As children age, they can develop confidence, so they experience less distress when away or not in sight of their parents. Children are encouraged to learn ways to handle difficulties and not give up. By learning how to keep trying, children can develop resilience. Resilience skills are valuable throughout life and include the ability to recover from life's everyday challenges.

Intellectual development

Early childhood is a time when children prepare for formal school settings, which require the ability to follow directions and work independently. Children demonstrate their intelligence and understanding through increased use of

symbols and language. Memory and attention continue to increase, and are important skills when preparing for school. As a child moves through early childhood, their play becomes more constructive and can include activities such as puzzles and art. Children in early childhood often demonstrate egocentric behaviour, which means they struggle to consider other people's viewpoints.

The role of parents, carers and family

An essential responsibility of parenting or caregiving is to meet a child's basic needs. These basic needs include food, shelter, medical care and education. A child's physical development requires regular nutritious food according to the Australian Dietary Guidelines, to ensure optimal development of the structures and systems of the body. Children need medical care not only when they experience illness. Regular health care appointments can ensure that children are developing at a level that is typical for their lifespan stage.



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Figure 10.12 Regular health monitoring can help to confirm that children are achieving their development milestones.

Parents, carers and family members can further assist a child's development through providing stimulating or interesting environments that help the child to learn and grow. An infant's brain is eager to learn and the more it is used, the more it develops. Activities such as talking and reading to a child from a young age promote brain activity and learning. Providing resources such as toys and activities that stimulate the child's sensory experiences through sight, touch and hearing assist brain development. Providing a child with love, affection and attention can enhance the child's emotional development, including attachment and confidence.

As children age they build upon previously learnt skills, and this can be enhanced through parents providing new and challenging activities. Parents, carers and families may be able to access a wider range of resources through community activities, including public playgrounds, community centres, toy libraries and community groups. These activities can also help to develop children's abilities to interact with others and increase their social skills. Social and emotional learning cannot be taught in education settings only. Key skills such as sharing, using manners and expressing emotions calmly should be reinforced in the home environment. This will give children a better chance of adjusting and participating in school and society.

Parenting is an enormous responsibility and an important role. Each parent faces their own unique set of parenting and personal challenges, and no two children develop in exactly the same way. It is normal for parents to find their role challenging and difficult at times. It would be very unusual if parenting was always easy! It is important that parents have access to support when they need it, to help them fulfil their parenting role.

The nature vs nurture debate

There is debate about whether development and behaviour are most strongly influenced by a person's genetic or inherited traits (nature), or whether the environment they are raised in (nurture) has more influence. It is generally believed that both play a role in the development of the individual. For example, a person may inherit physical traits from their parents that increase their ability to perform well in activities such as football. However, if that person does not have the opportunity to develop those skills, such as playing in the local park or joining an organised team, these skills might not be developed to their full potential.

CRITICAL FRIEND

With the person next to you, discuss an example of nature and nurture both influencing an individual's development.

The impact of early life experiences

Experiences in early life can affect a person's behaviour later in life. Early life experiences include physical development during the prenatal stage, and throughout infancy and childhood. In addition, early life experiences include the environment a person is raised in and the behaviours they witness their caregivers participating in.

The role that parents can play in enhancing their child's physical, social, emotional and intellectual development has been discussed. Children's brains are ready to learn and their bodies are ready to interact with the world.

Serious negative experiences in early childhood can affect children's development, as well as development in later stages of the lifespan. Negative experiences can include:

- inadequate care that does not meet the child's basic needs for food, shelter, medication or education
- neglect or abuse
- witnessing violence in the home or experiencing violence
- poverty or financial hardship
- alcohol or substance abuse in the home.

Children who experience unsafe or unsettled home environments can be at risk of physical harm and may also experience trauma. Trauma can affect

brain development, which is particularly dangerous for children as their brain is experiencing significant growth and change. Children who have experienced trauma may also have social, emotional and intellectual difficulties. These may include difficulty interacting with and trusting others, difficulty in forming relationships, and problems with concentration and attention.

All children observe the behaviour of those around them and will often model their own behaviour on the behaviour they see. Parents and caregivers play a role in modelling healthy behaviours, such as eating healthily, exercising regularly and visiting a doctor for routine health checks. By doing this, parents can increase the likelihood that their children will display health-promoting behaviours as they age. Other behaviours such as smoking, drinking alcohol and gambling can also be witnessed by children.

Governments and organisations recognise the importance of creating an environment for children that supports health. This is evident in:

- smoking legislation – smoking in Victoria is banned in cars with children
- alcohol and gambling education awareness programs – these highlight to parents that when children witness their parents drinking and gambling (in sport, for example), this can affect their behaviour later in life.

Case study

Smoking ban

VicHealth media release, 16 April 2015

The smoking ban which comes into force in Victoria today (13 April) will protect children from the dangers of second-hand smoke and will help ensure they do not see smoking as a normal adult habit

VicHealth CEO Jerril Rechter congratulated the State Government on introducing the smoking ban which applies to the grounds of, and within four metres of an entrance to, schools, childcare centres, kindergartens and preschools, hospitals and community health services, and many government buildings including courts, police stations and Parliament.

Ms Rechter said: 'Smoking is the leading preventable cause of death in the state and continues to kill 4,000 Victorians every year, costing the community \$2.4 billion in direct health costs and lost productivity annually.

'Today's ban will benefit everyone in the community and protect them from second-hand smoke when they go about their daily lives. In particular, it will protect schoolchildren at more than 2200 primary and secondary schools and babies and toddlers at 4200 kindergartens and pre-schools in Victoria who are returning to school this week.

'Smokefree areas are more than about protecting people from passive smoke. They're also about ensuring that children don't

view smoking as an acceptable behaviour. The more children we can discourage from taking up smoking, the more lives we will save in the future.'

Ms Rechter said the ban would also help smokers who are trying to kick the habit.

'Eight in 10 Victorian smokers have tried to quit at least once and many smokers will need multiple attempts to kick the habit. More smokefree areas will encourage people not to light up, but also means non-smokers can enjoy clean air around buildings they visit every day.

'There is strong community support for smokefree areas and I am confident smokers will act responsibly, and as with other smokefree areas that have been introduced in the past, refrain from smoking anywhere this ban applies,' Ms Rechter added.

Extract from VicHealth, media release, 'Smoking ban', 16 Apr 2015

Case study questions

- 1 In which sites and premises in Victoria does the smoking ban prohibit smoking?
- 2 With reference to the article, outline the effects of smoking on individuals and the community.
- 3 Explain how the smoking ban can affect the early life experiences of children in Victoria.

The intergenerational nature of health and wellbeing

Intergenerational means involving or affecting several generations. The level of health experienced in one generation can influence the health of future generations.

People whose early life experiences involved witnessing poor health behaviours, such as regular tobacco smoking and excessive alcohol intake, can be more likely to engage in these behaviours as adults. Their children could also witness them displaying these behaviours and grow up to also engage in smoking or drinking large amounts of alcohol. This behaviour can therefore be seen as a cycle, modelled for future children.

Individuals may also experience a genetic predisposition to a specific illness or condition. A genetic predisposition means that a person has inherited genetic material (genes) that make them more susceptible or more likely to develop a certain condition or disease. Doctors may ask a person attending a medical appointment if there is a history of certain cancers or type 2 diabetes in their family, so that early detection of any symptoms can occur. In some instances, people who have a genetic predisposition to an illness can reduce their risk of developing the illness in the future, through certain lifestyle behaviours. For example, a person with a family history of type 2 diabetes can ensure they eat a balanced diet and exercise regularly.

Children who are taught to value their health are more likely to pass the knowledge and skills they develop on to their own children in the future, such as:

- knowledge and skills about healthy behaviours, such as exercise and diet
- skills in handling life stress and emotions rather than using unhealthy coping strategies such as violence, alcohol or drugs
- accessing health care services for early detection and monitoring, and valuing good health.

Not all people who are raised in families where there are poor health behaviours and levels of ill health continue with poor behaviour or experience poor health later in life. Family is one environment where individuals learn key health skills. Other environments, including school, friends and community, can also influence a person's health knowledge and behaviour.

Review and reflect

- 1 Create a table to reflect the physical, social, emotional and intellectual development of individuals in the infancy and early childhood stages of development.
- 2 How can parents and carers assist in the development of children?
- 3 Outline the relationship between early life experiences and health outcomes for individuals.
- 4 List four examples of parent behaviours that could be viewed by their children. Identify how these behaviours may affect the health and development of the child as they age.
- 5 Outline the concept of the intergenerational nature of health and wellbeing, with reference to an example.

Chapter summary



Unit 2 Area of
Study 1 revision
cards

- Fertilisation is the process of a woman's egg cell (ovum) becoming fused with a man's sperm cell via sexual intercourse or artificial insemination.
- A woman's ovaries release a mature egg cell each month as part of her menstrual cycle. The egg travels along the fallopian tube and may come into contact with sperm cells. Only one sperm cell can fertilise the ovum. Once fertilised, the cell containing the genetic information of the male and female continues to travel towards the uterus.
- If the cell implants into the uterus lining, development of a baby can occur. Each month, the lining of the uterus is shed if a zygote has not implanted into it.
- In vitro fertilisation (IVF) involves removing mature egg cells from a woman's ovaries and fertilising them with a male's sperm cells, in a dish of nutrients. Fertilised cells are then placed inside the woman's uterus.
- Pregnancy is the period in which a new human begins and develops. Development is in three stages:
 - germinal – conception to 2 weeks, ending when the zygote implants into the uterus lining
 - embryonic – 2nd week until 8th week, where the embryo divides into three cell layers
 - foetal – the longest period of prenatal development; extensive growth takes place.
- The foetal stage consists of continuous growth milestones and can last up to 40 weeks, sometimes longer. By 33 weeks, the foetus is fully functioning and can survive without intensive medical support, once born.
- Protective factors include behaviour by the pregnant woman that promotes optimal health and development of the growing foetus, such as eating a nutritious diet, and accessing health services for regular monitoring of the pregnancy.
- Pregnant women are encouraged to eat a balanced diet aligned with Australian Guide to Healthy Eating and the five dietary guidelines. Pregnant women benefit from nutrients such as folate, iron and iodine. Pregnant women should avoid foods that may contain mercury and listeria bacteria.
- Risk factors include behaviour by the pregnant woman that reduces the optimal health and development of the growing foetus, such as smoking and drinking alcohol while pregnant.
- Smoking tobacco while pregnant can cause immediate and long-term harm to the developing foetus.
- Drinking alcohol while pregnant increases the chances of the infant suffering from foetal alcohol spectrum disorder (FASD).
- Infancy is the lifespan stage at 0–2 years. A baby in the first four weeks of life is called a neonate. A neonate must adapt to life outside the mother's womb, including functions such as breathing.
- Infancy is a time of rapid physical growth. An infant's body structures and systems develop further, allowing for gross motor movements such as sitting, pushing and pulling. Over time, fine motor control develops.
- Infants communicate with others from birth, through eye contact and crying when they are uncomfortable. Over time, infants begin to smile and make noises that eventually become speech. Infants develop attachment to their caregivers and begin to understand object permanence.
- Early childhood is the lifespan stage at 2–7 years. The body continues to develop as children in this stage expand their range of movements.
- During early childhood, children's memory and attention levels expand and they engage in more complex activities.
- Parents have a responsibility to meet a child's basic needs – food, shelter, medical attention and education. Paying attention and showing children affection assists their emotional development.
- Early life experiences can influence development later in life. Experiencing trauma at a young age can alter a child's brain development. Children observe the behaviours of their parents and can model these behaviours later in life.
- Health and wellbeing is intergenerational – the health of one generation can influence the health of future generations. People can have a genetic predisposition to disease. In some cases, behavioural factors such as diet and exercise can prevent genetically predisposed illness from occurring.

Exam-style questions and sample answers

- 1 With reference to an example, explain health and wellbeing as an intergenerational concept. **(4 marks)**

Sample answer: Intergenerational health and wellbeing refers to how the health of one generation can influence the health of future generations. Children who are raised in environments where they have had little exposure to health care settings and regular health checks to detect early signs of illness and disease can be less likely to adopt health-seeking behaviours as adults. In addition, if they go on to become parents they too may not carry out and encourage health-seeking behaviours for their children, and hence their children can go on to not experience access to regular health care.

- 2 Outline how parents/caregivers can influence the optimal development of children. **(4 marks)**

Sample answer: Parents/caregivers are responsible for providing children's basic needs of food, shelter and health care. When these essential needs are met, children have a better chance of optimal physical development. For example, good nutrition contributes to growth of strong bones and a well-functioning immune system. In addition, parents/caregivers can provide children with opportunities that enhance their social development. When children are able to meet other children, through options such as play groups and community activities, they have increased opportunities to play and interact. These experiences can enhance children's social skills (taking turns, using manners) and contribute to optimal social development. **(4 marks)**

Questions for you to practise

- 1 Pregnant women are advised not to smoke tobacco or drink alcohol while pregnant. Explain the possible effects on the foetus or child if a mother smokes tobacco or drinks alcohol while pregnant. **(3 marks)**
- 2 Discuss the impact of early life experiences in determining the optimal development of children. **(3 marks)**

Chapter 11: Health care in Australia

Key knowledge

- key aspects of Australia's health system such as Medicare, the Pharmaceutical Benefits Scheme and private health insurance
- the range of services available in the local community to support physical, social, emotional, mental and spiritual dimensions of health and wellbeing

Key skills

- describe key aspects of the health system
- research health services in the local community and explain which dimension(s) of health each one supports

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Key terms

bulk billing
community health
gap payments
health care system
Medicare Benefits Schedule
medicine
primary health care
public health
waiting period

In this chapter

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Private health insurance	page 309		

Introduction

According to the World Health Organization (WHO 2017), the main purpose of a health care system is 'to promote, restore and/or maintain health' (WHO 2017, 'Health systems strengthening glossary'). Keeping a population healthy requires a robust structure of complementary systems working together seamlessly to support the five dimensions of health: physical, social, emotional, mental and spiritual.

Australia's **health care system** is a quality, well-structured, functional system, set up to provide maximum health and wellbeing benefits for all Australians. It consists of a range of resources and entities, and caters for over 24 million people, at all stages of the lifespan, from diverse cultures and with a broad range of life experiences.

Key features of the Australian health care system, such as Medicare, the Pharmaceutical Benefits Scheme (PBS) and private health insurance (PHI), provide the foundations for primary health care, community service and public health. Immunisation is an example of these components of our health care system working together. A public health campaign to get Australians immunised can succeed because Medicare helps people to access their GP, the PBS subsidises the vaccines, and a health promotion campaign delivered via public health systems motivates individuals to make the decision to get immunised.

It is important for you as a young person, and indeed for all Australians, to know how to access health care services and support, and to develop your knowledge of health and wellbeing, so that you can be critical and discerning in using health information, and ensure that you engage in safe practices and make decisions that are best for your health and wellbeing.

health care system services and resources set up to promote, restore and/or maintain health

Key features of Australia's health care system

Australia's health care system is complex, involving all levels of government, non-government and private providers delivering health care services for the population. To function effectively, it requires:

- sustainable funding
- well-trained professionals
- reliable information from a range of sources, including government bodies, private and independent not-for-profit bodies
- safe and suitable facilities
- medicines and technologies.

Health care services can include such things as: community public health, preventative services, pharmacies, emergency health services, hospitals (both public and private), allied health, rehabilitation and palliative care. These services are provided by a range of professionals, including doctors, nurses, pharmacists and other health professionals.

Australians' life expectancy at birth is 82 years, two years more than the OECD average. This positive health measure is due to the significant contribution of our health care system to the health and wellbeing of Australians. The responsibilities of the various key stakeholders in our health care system are clearly defined, and the government, non-government and private sectors maintain good relationships, keeping the system sustainable and equitable, and providing appropriate care when Australians need it most.

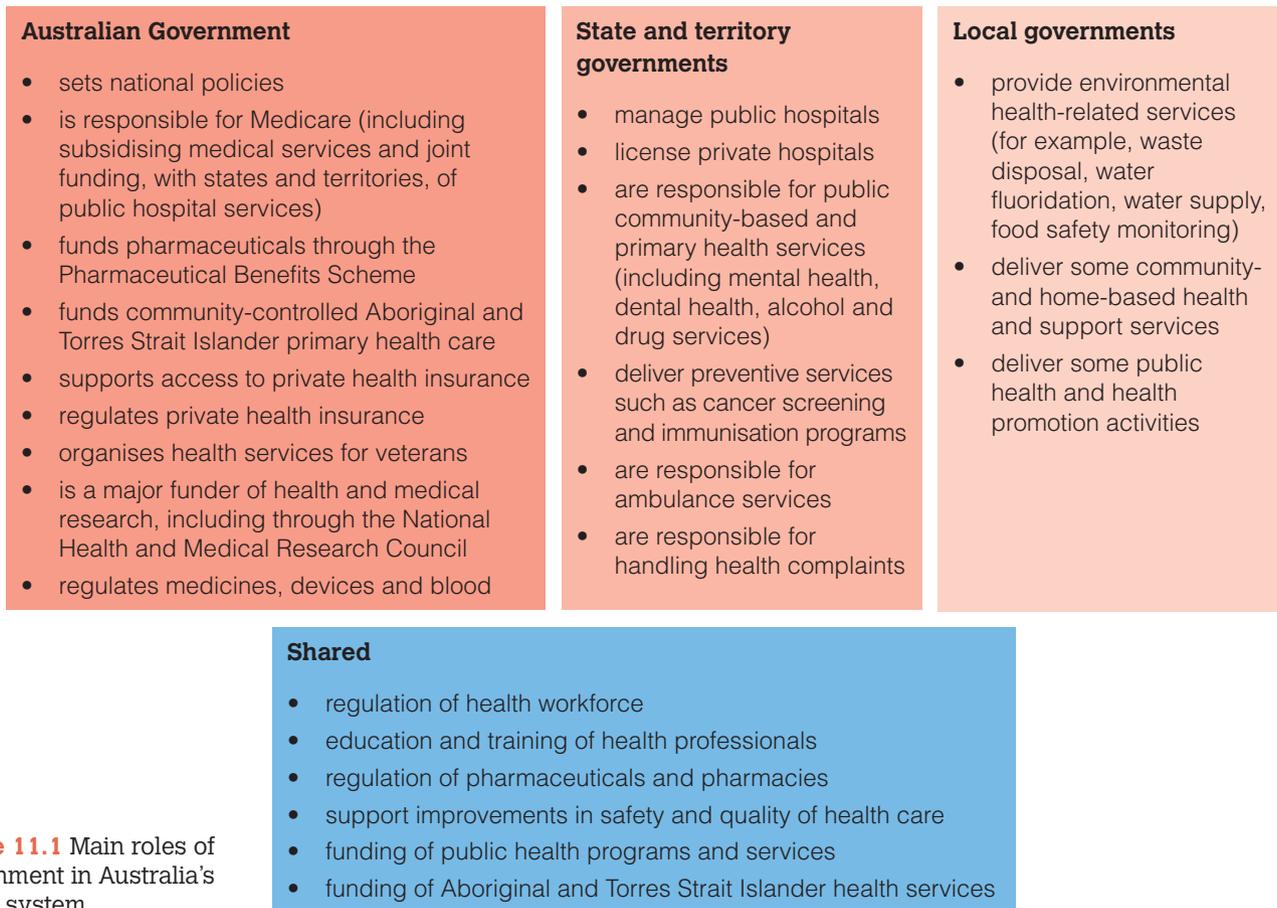


Figure 11.1 Main roles of government in Australia's health system

Source: Australian Institute of Health and Welfare. AIHW 2016 CC BY 3.0 AU
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Key aspects of Australia's health care system include Medicare, the PBS and PHI. These services require a high level of funding to ensure that the health care delivered in Australia is of high quality. In 2013–14, health expenditure was \$155 billion, and much of these funds contributed to the delivery of Medicare, the PBS and, to a lesser extent, PHI. These three components of the health system allow Australians to access health care as required. As will be discussed in this chapter, they are important in ensuring that the excellent level of health experienced by most Australians continues.

Medicare

Medicare is Australia's universal health care insurance scheme. It was implemented by the Whitlam government in 1975, as Medibank. In 1984 its name was changed to Medicare. Medicare was created to provide 'the most equitable and efficient means of providing health insurance coverage for all Australians' (Parliament of Australia 2003, 'Medicare – background brief'). Medicare ensures equity by allowing all eligible Australians to access affordable, high-quality health care. It does this by providing free or subsidised treatments by health professionals. Medicare is administered by the Department of Human Services, and benefits are paid to individuals on behalf of the Department of Health. It is the Department of Health's responsibility to develop policies and decide on the treatments and services to be included on the **Medicare Benefits Schedule** as decided by the Australian Government.

All Australian residents, individuals who hold a permanent Australian visa and visitors from countries with reciprocal rights are eligible to access Medicare and

Medicare Benefits Schedule

a list of all the services covered by Medicare (i.e. subsidised by the Australian Government)

its services. When an individual turns 15 years of age, they can apply for their own Medicare card, which gives them independence in accessing health care services and treatments. Medicare also provides extra services and assistance to Indigenous Australians, to ensure they are able to access the care they need. In some instances, Aboriginal and Torres Strait Islander people may not have suitable forms of identification to register for Medicare, and so these services help overcome this obstacle. Support and assistance is also provided to Australians from non-English-speaking backgrounds. It is through such services that Medicare attempts to ensure equity for all Australians, by ensuring that everyone, including the most vulnerable groups, has access to health services and is able to improve their health status.

Medicare promotes health by providing funding for free or subsidised medical care in hospitals, and medical services and general treatment.

Medicare hospital treatment

Hospital treatment covered by Medicare includes:

- ✓ being treated as a public patient in a public hospital by a doctor appointed by the hospital
- ✓ free treatment and accommodation in a public hospital, including consumables such as bandages.

Medicare does not cover:

- ✗ the accommodation costs of a patient who chooses to be treated in a public hospital as a private patient
- ✗ medical and hospital costs incurred overseas
- ✗ ambulance services
- ✗ medical services or surgery that are not clinically necessary, such as cosmetic procedures.

If you are a private patient in a public or private hospital, the Medicare Benefits Schedule will subsidise 75% of the services and procedures provided. This does not include benefits for hospital accommodation or items such as theatre fees or medications. In this instance, private health insurance would cover these up to the limits of the policy the patient has taken out, and the medication would be addressed by the PBS. (Private health insurance and the PBS are discussed later in this chapter.)



Getty Images/Asanka Brendon Ratnayake

Figure 11.2 Medicare does not cover the cost of ambulance services.



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Figure 11.3 Medicare covers costs for public patients in a public hospital with a doctor appointed by the hospital.

Medical services/general treatment

Medical services and treatment covered by Medicare, and those that are not covered, are listed in Table 11.1. Australians can choose to access all their health care through the Medicare program and pay out-of-pocket costs for items and services not covered, or they can use a combination of Medicare and private health insurance to pay (see ‘Combined cover’, page 309).

Table 11.1 Services and treatments covered or not covered by Medicare

Medicare covers ✓	Medicare does not cover ✗
<ul style="list-style-type: none"> • consultation fees for doctors, including specialists (100% of a GP's fee will be reimbursed and 85% for a specialist fee if the doctor bulk bills at no cost to the patient) • tests and examinations by doctors, including X-rays and pathology tests • eye tests performed by optometrists • surgical and other treatments performed by a doctor • psychological treatments • some surgical procedures performed by approved dentists • specific items under the Cleft Lip and Palate scheme, Enhanced Primary Care (EPC), and Chronic Disease Management Plan. 	<ul style="list-style-type: none"> • examinations for life insurance • superannuation and membership applications • most dental examinations • physiotherapy • occupational therapy • speech therapy • eye therapy • chiropractic • podiatry • acupuncture • glasses and contact lenses • hearing aids • home nursing.

bulk billing a system of payment for medical services, where the health professional accepts the Medicare benefit as full payment for service and does not charge any additional fees such as administration or booking fees

Medicare levy surcharge

Most working Australians contribute a 2% levy to the Medicare scheme. However, if an individual or family chooses to use only Medicare throughout their lifetime, they may be required to pay the Medicare levy surcharge (MLS), which is an additional 1–1.5% of taxable income. Table 11.3 shows the percentage of their income that Australians would be required to pay. This payment is intended to support the provision of health care services for all Australians, as it is hoped that those on higher incomes will take out private health insurance to avoid having to pay the MLS. This is intended to direct people seeking medical services into the private system, to reduce the pressure on public services. Freeing up public services in this way also supports the principle of access, by enabling those who need access to services to do so.

The safety net

Another element of the Medicare scheme is known as the *safety net*. The safety net enables people to continue to access health care when they need it, and not have to forego treatment because of the cost. An individual or family needing constant doctors' visits or diagnostic monitoring may incur a large cost over a financial year. In such situations, extra funding is available. The safety net applies when a particular threshold has been met – once a person or family has paid a certain amount of money on out-of-hospital medical fees and services, known as **gap payments**, the safety net reduces the costs of further services. The thresholds are listed in Table 11.2.

gap payments the gap amount is the difference between the schedule fee and the Medicare benefit, or between the Medicare benefit, private health insurance cover and the schedule fee; the gap amount must be paid by the individual

Table 11.2 Medicare safety net thresholds

Threshold	Threshold amount	Who it is for	How it is calculated	What the benefit is
Original	\$453.20	All Medicare cardholders	Based on gap amount	100% of schedule fee for out of hospital services
Extended Medicare Safety Net (EMSN) Concessional and FTB Part A	\$656.30	Concession cardholders and families eligible for FTB Part A	Out of pocket costs	80% of out of pocket costs or the EMSN benefit cap for out of hospital services
Extended general	\$2056.30	All Medicare cardholders	Out of pocket costs	80% of out of pocket costs or the EMSN benefit cap for out of hospital services

FTB: Family Tax Benefits

(source: Dept of Human Services, 'Medicare safety net 2017, Medicare Safety Net Thresholds' © Commonwealth of Australia CC BY 3.0 Au)

Medicare card

A Medicare card can be used to obtain discounted prescriptions through the Pharmaceutical Benefits Scheme. It also allows individuals and families to access other services, such as the Child Dental Benefits Scheme, for eligible families (those with children aged 2–17 years) and other Department of Human Services programs and support. As stated earlier, an Australian resident aged 15 years or older can apply for their own Medicare card to ensure they have access to these services.

Pharmaceutical Benefits Scheme

The Pharmaceutical Benefits Scheme includes a list of subsidised medicines, known as the Pharmaceutical Benefits Schedule (PBS), and aims to provide Australians with access to **medicines** in a timely, affordable and reliable manner. The Department of Health manages the scheme and the Department of Human Services administers it. The government funds the scheme as it is seen as a way of maintaining the health of the community and of helping to reduce the cost of the wider health system. When medicines or therapies prevent illness, or return an individual to good health, or allow them to manage an illness without needing hospital support or visits, this helps reduce demand for hospital services and the associated costs to the government in providing them, and is therefore a cost-effective measure.

Australian residents who hold a current Medicare card can receive medicines through the PBS. The government subsidises the medicine prescribed to an individual, who pays the remainder of the fee through a co-payment. As of 1 January 2017, an individual could be required to pay up to \$38.30 as a general patient and \$6.30 as a concession card holder (including pensioner, Australian senior concession card, healthcare card and Department of Veterans Affairs card holders) for their prescribed medicines, with the Australian Government subsidising the remainder of the cost.

The safety net further assists Australians in paying for medicines: in a calendar year, if payments by an individual or family reach the threshold amount, further discounts apply. For general patients who have spent \$1494.90 in a calendar year on prescribed medicines, the costs are reduced to \$6.30 per prescription; concession holders pay \$0 for the remainder of the year. In addition to this, in 2016, the Australian Government allowed pharmacists to discount a PBS item by a further \$1 for prescriptions that are not in early supply of specified medicines

medicine a substance or therapy that improves the overall functioning and wellbeing of the body or prevents a disease; it includes prescription and non-prescription medicines, including complementary health care products

(that is, medicines for which repeat prescriptions cannot be filled until the previous prescription has been used up).

Reciprocal health care agreement

The PBS can be accessed by people in Australia who are not residents. Australia has a reciprocal health care agreement (RHCA) with the United Kingdom, New Zealand, Ireland, Malta, Italy, Sweden, Netherlands, Finland, Norway, Belgium and Slovenia. Citizens of these countries can access PBS-listed medicines at subsidised prices while in Australia. Further elements of the PBS include the dental and optometric schedules, which specialists can prescribe from. These schedules don't include items from the general PBS, only items specific to their field and treatment required for the patient.

Repatriation PBS

The Repatriation PBS subsidises costs for veterans of the Australian Defence Force, including war widows and their dependants. The Department of Veterans Affairs further subsidises costs in addition to the Australian Government's subsidy. This schedule includes additional medicines and treatments, such as dressings and pharmaceuticals that are specific to veterans' needs.

Therapeutic Goods Administration

The Therapeutic Goods Administration (TGA) is responsible for approving or removing pharmaceuticals from the PBS. In 2015, the Australian Government spent approximately \$9 million on the PBS. The TGA ensures that medicines on the schedule meet certain guidelines, in order to protect and promote Australia's health, and to keep the system cost effective and sustainable. In general, the medicines on the PBS are prescribed by a doctor/specialist, dispensed by a pharmacy and used



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Figure 11.4 Most medicines on the PBS are prescribed by a doctor/specialist, dispensed by a pharmacy and used at home.

at home. However, for certain treatments this may not be possible, due to the means of administration or storage required for the medicine – this includes certain IVF medicines and procedures, chemotherapy, and so on, where a doctor or nurse is required to administer the medicine. The funding of such medicines remains, but the patient may also need to use their Medicare card and to be at a hospital or doctor's surgery to receive the medicine. If a patient requires a medicine not listed on the PBS, they will have to pay for it in full as a private prescription. In some instances, if the person has private health insurance they may be reimbursed to some extent.

Private health insurance

Private health insurance is health cover that can be purchased by an individual, couple or family to give them more options and access to health care services. Private health insurance is provided through registered organisations that meet the requirements of the *Private Health Insurance Act 2007*.

Private health insurance offers three types of cover: hospital cover, general treatment cover and combined cover.

Hospital cover

Hospital cover includes the cost of in-hospital treatment by a doctor, and hospital costs including accommodation and theatre fees. A person can choose individual, couples or family cover, and can choose to be treated as a private patient in a public or private hospital. They may also choose their own doctor and when to be admitted to hospital. When selecting hospital cover, it is important to research **waiting periods**, which limit how many times certain procedures can be accessed in a year, and may mean extra costs such as excess fees or limits to the benefits provided on certain services, within the waiting period.

Hospital cover has four general categories: top private hospital cover, medium private hospital cover, basic private hospital cover and public hospital cover.

Top cover provides all services covered by the Medicare Benefits Schedule. Exclusions and depth of coverage become less with each category – with public cover, minimal medical services and accommodation are covered in a public hospital, and the public waiting list applies.

waiting period a time that must be served when beginning or upgrading private health insurance cover; it may mean that cover is not provided for certain treatments, or that lower benefits will be paid, until the waiting period is over

General treatment cover

General treatment cover is also referred to as ancillary or extras. This cover provides benefits for services including most dental, physiotherapy, occupational therapy, speech therapy, podiatry, spectacles, home nursing and prostheses (hearing aids, hip joints, and so on.)

There are three categories of general treatment: comprehensive, medium and basic. Comprehensive cover usually offers the greatest range of services and the best benefits, and coverage becomes less with each category.

Combined cover

Under combined cover, an individual, couple or family takes out both hospital and general cover. The category of cover and supplier of the cover can be different for hospital and general cover.

Pharmaceuticals and ambulance cover can be included in a private health insurance policy, but the Australian Government regulations do not require them to be. If a policy offers benefits for pharmaceuticals, it will be for medicines not

included in the PBS, and there will generally be a limit on the amount the policy will pay out, usually leading to some payment by the policy holder. Ambulance cover varies from state to state, with only some states providing the service free for residents. It is therefore important to check your policy and understand how much, if any, of the ambulance service is covered by your policy.

Broader health care

Private health cover also includes a range of services that are clinically appropriate alternatives to hospital care – this is known as ‘broader health care’. It includes home and community health care, such as early discharge from hospital with follow-up care in homes, treatment for wound care at home, and chronic disease management programs for lifestyle-related health issues, such as weight loss management, diabetes education/management and QUIT smoking programs.

The government uses incentives and support to encourage people to take out private health insurance and maintain it. The Private Health Insurance Rebate is means tested and is in place to help PHI policy holders to pay for their premiums. Table 11.3 lists the rebates for different policy holders.

Table 11.3 Government rebates for private health insurance, and charges for the Medicare levy surcharge

	≤ \$90 000	\$90 001–105 000	\$105 001–140 000	≥ \$140 001
Singles	≤ \$90 000	\$90 001–105 000	\$105 001–140 000	≥ \$140 001
Families	≤ \$180 000	\$180 001–210 000	\$210 001–280 000	≥ \$280 001
Rebate				
	Base Tier	Tier 1	Tier 2	Tier 3
< age 65	25.934%	17.289%	8.644%	0%
Age 65–69	30.256%	21.612%	12.966%	0%
Age 70+	34.579%	25.934%	17.289%	0%
Medicare levy surcharge				
All ages	0.0%	1.0%	1.25%	1.5%

(source: Australian Government, Private Health Insurance Ombudsman, ‘Medicare Levy Surcharge’)

Lifetime health cover

The Lifetime Health Cover loading encourages people to purchase their health insurance before 30 years of age. If they purchase cover after this time, a financial loading of 2% is applied to the hospital premium for every year after 30 years of age it is purchased, and the loading remains in place for 10 years. It is removed after 10 years of continuous coverage.

Even with private health insurance coverage for hospital and/or general medical treatment, depending on the level of cover purchased and the organisation it is purchased from, you may still have to pay some out-of-pocket (gap) costs. For hospital cover, Medicare pays 75% of the hospital fee as part of the Medicare Benefits Schedule. The remaining amount can be covered in full or part by the PHI company. Some health funds have gap cover arrangements to insure against the whole cost, while others may only pay up to a certain amount, with the policy holder paying the remaining amount (gap). When taking out a private health care policy, it is important to check it thoroughly, to ensure that it meets your expectations and health care needs.

Review and reflect

Visit the website of the Australian Government Private Health Insurance Ombudsman. (Go to <http://hhdvce1and2.nelsonnet.com.au> to access the link.)



Weblinks

Click 'Private health funds and their policies' to see a list of health funds.

Use this list to answer the following questions.

- 1 How many registered private health insurer providers are recognised by the Australian Government?
- 2 Draw up a table like the one on the right. Then select two of the providers from the list and record their names at the top of your table.
- 3 Click on the links to find the information provided to the Private Health Insurance Ombudsman about the two PHI providers you have chosen to research. Use this information to fill in row 1.
- 4 Click on a link to each private health insurer's own webpage, and use the information there to complete rows 2, 3 and 4.

	Provider 1	Provider 2
1 Outline the introduction information provided by the PHI provider.		
2 Outline the various types of policy offered by the provider.		
3 List the other services/packages the health insurance provider offers in relation to health and wellbeing.		
4 Think about your family or yourself, and decide which of the two private health providers would provide the best health care coverage for your needs. Justify your choice of provider.		

Health care in the local community

So far we have looked at key aspects of Australia's health care system. Now we will look a little closer to home, at the services and programs that support the health of individuals and communities in Victoria. The state health system is overseen by the Department of Health and Human Services (DHHS), on behalf of the Victorian Government. The DHHS is responsible for service delivery, policy development, funding and regulation of health services in Victoria, for the purpose of serving and improving the health and wellbeing of Victorians. It delivers health through public health services, public hospitals and non-government, independent/private providers throughout Victoria, with the support of key aspects of the health system described earlier in this chapter.



Weblink

WATCH

Go to the Better Health Channel website. (Visit <http://hhdvce1and2.nelsonnet.com.au> to access the weblink.) Find the 'Services and support' page, and watch the short video titled, 'The Victorian health system'.

primary health care the first place people go to seek help; it acts as the foundation for the rest of the health system, by providing basic, accessible and affordable care, primarily concerned with treatment, cure and care of people with illness

Primary health care

The goal of **primary health care** is to achieve better health for all. It is the first point of call for health care, and it can look different in different locations around the state of Victoria, as it is set up to serve the needs and requirements of the community. Generally the first contact a person will make with the health care system is a general practitioner (GP), but it could also be a nurse or a pharmacist, a dentist, an allied health professional or a mental health provider. Primary health care providers such as a GP might treat the individual, or the person might be referred to more specialised services, such as a knee surgeon or a gynaecologist. Primary health care services such as GPs also act as a point of contact and coordination with other services in the community.

Primary health care links directly with people in the local community, and its purpose is the management of their wellbeing. The provision of primary health care services in each location is shaped by the needs and preferences of the community, the prevalence of chronic disease in the community, and the availability of local services and providers already present in the community. Some examples of primary health care are outlined below.

General practitioner

A general practitioner is generally the first point of health care for individuals. GPs work to develop relationships with other providers in the community and ensure the Medicare Benefits Schedule is maximised for the health and wellbeing of the individuals in their care.



Shutterstock.com/Monkey Business Images

Figure 11.5 A general practitioner is usually the first point of health care for people.

A GP is mainly concerned with supporting the patient's physical health. They will diagnose and treat the body and its systems in an attempt to return the patient to pre-illness/ailment condition. If the physical illness/injury requires specialist intervention, then the GP will provide a referral and advice as to the best service to continue to support their physical health.

A GP may also diagnose or be concerned with a patient's social, emotional and mental health. In some instances, if the GP can manage the patient's concerns, they will do so. However, in some instances they might link a patient with their local council for support with their social health, by introducing them to community groups, giving the person the chance to meet new people and possibly reduce social isolation.

Patients who exhibit emotional distress may require follow-up appointments with the GP, or they may be referred to a counsellor or psychologist, to further support their emotional health. A GP who regularly sees a patient and has a relationship with them through repeated visits may be able to recognise problems, such as loss of mental functioning in an elderly patient, and attempt to engage early intervention (for conditions such as dementia, for example). In this type of situation, the GP would link the patient and their family to community services, as well as more specialised medical services, in order to continue care.

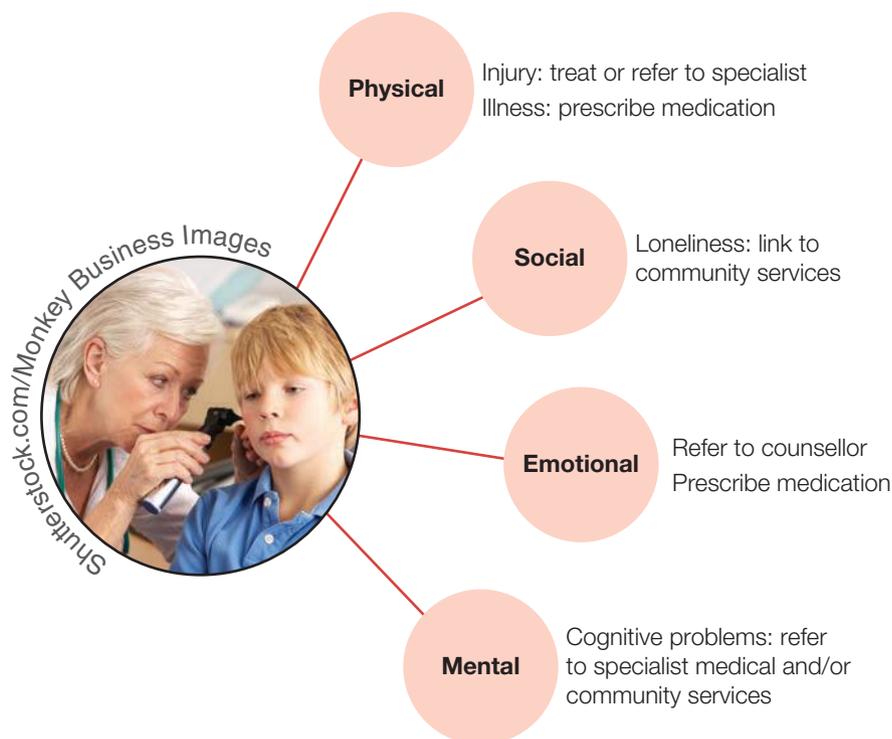


Figure 11.6 A GP provides health services and also acts as a 'hub', communicating with and referring to other services.

Supercare Pharmacies

Supercare Pharmacies are a recent addition to primary health care in Victoria. The Victorian Government committed \$28.7 million for five pharmacies to operate 24 hours a day, seven days a week in five locations around Victoria in 2016, with seven more opening in 2017 and another eight in 2018. At each pharmacy, a nurse is present each evening from 6 p.m. to 10 p.m.

The nurse can provide physical assessment, support and advice for minor illnesses and injuries, some immunisations (including influenza and whooping cough), health screenings, assessment and advice for illness prevention including blood pressure check, blood sugar and weight management, sexual health advice, basic psychological wellbeing review, and referral to a range of local services. The nurse is free and no booking or Medicare card is required.

It is hoped that providing this service locally will take pressure off other services and also encourage people to access health care before minor health complaints become major health complaints, which would need further intervention, requiring more support and time from the health care system.

The free nurse consultation also provides more face-to-face options for individuals, and enables people to access professional help outside regular operating hours for local GPs.



iStock/skynesher

Figure 11.7 The first Supercare Pharmacies opened in Victoria in 2016, and include a nurse available for consultation each evening.

The Supercare Pharmacies are particularly concerned with addressing physical health issues in a timely and efficient way. The pharmacy section can dispense prescribed medicines, and/or over-the-counter treatments for symptoms such as pain or cold and flu symptoms, or ointments for rashes or inflammation, and so on. The nurse can recognise and advise on management of conditions that people present with, and if necessary direct them to the most appropriate place to seek further assistance. As the nurse can provide a basic psychological review, they can also address the mental dimension of health.

The Supercare Pharmacies provide a service that supports local communities out of hours. They are not intended to cover all dimensions of health. Their purpose is to provide treatment or advice, to help a person manage their health problem until they can get to a GP or other health professional who can further diagnose and treat their condition.

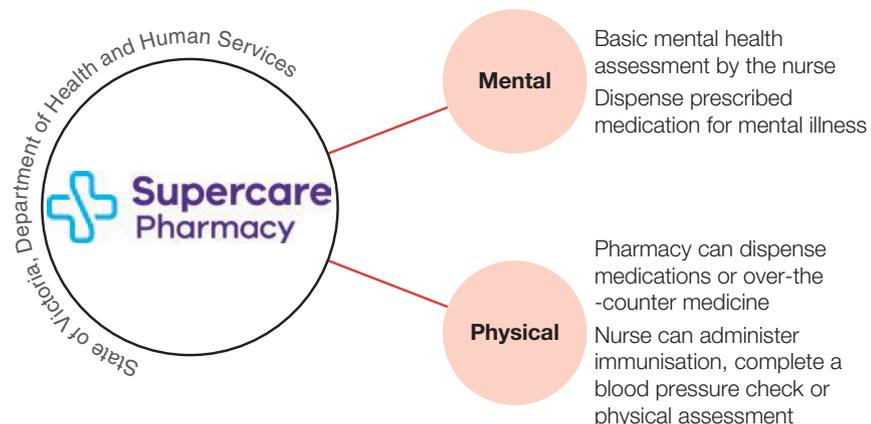


Figure 11.8 Supercare Pharmacies can address physical and mental health issues out of hours, assisting people to address their health problem until they can get to a GP or other service for further diagnosis and treatment.

Nurse on Call

Nurse on Call is a professional health telephone service that operates 24 hours a day for all Victorians. An individual who rings the service is asked some basic details, questions about the symptoms, and then provided with advice or suggestions for follow-up treatment. If a local facility is not available, this service helps individuals to make an informed decision about their current health status and to decide whether they need further investigation by a GP or at an emergency department at a local hospital.

The Nurse on Call service is provided to support Victorians to make decisions that will support their health, particularly physical health. It can also address social, emotional and mental health issues, although for these dimensions of health the likely outcome would be a referral to attend a local health clinic for a face-to-face evaluation the next day. The service is not intended for people experiencing an acute episode in regards to their emotional or mental wellbeing – in acute situations, emergency or other health services should be contacted.

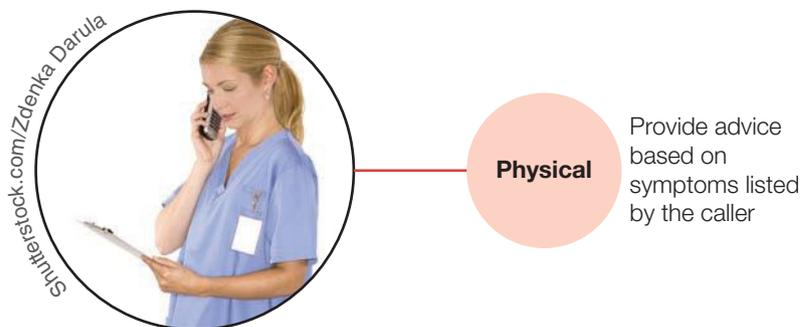


Figure 11.9 Nurse on Call is a 24/7 telephone service providing advice and suggestions about health issues.

Community health

Community health is another element of the Victorian Government's delivery of health services to people in local communities. Community health provides a range of primary health and human services based on the community's needs and requirements. There is a community health service in all municipalities across Victoria, with 32 community health services independently managed and 56 that are part of rural or metropolitan health services.

Community health is a coordinated, targeted and purposeful delivery of services to treat, manage, educate and empower locals in maintaining their health. Services at community health centres can include drug and alcohol support, dental, post-acute care, home and community care, mental health services, community rehabilitation, and GP services.

Each year, the Victorian Government's Community Health Program provides over a million hours of health care. These services are focused on more vulnerable groups within the community, such as children, vulnerable pregnant women, refugees and asylum seekers, and people suffering from chronic diseases. The program's integrated approach helps maximise health outcomes, as various services and support networks work in close proximity with each other to provide the care that is required.

Of all the local services we have discussed in this section, community health services are the most likely to address all dimensions of health. As it is an

community health a health service that is based in the community but generally offers more than medical services, referred to as community-based health services, funded largely by state governments or Aboriginal-controlled health services. Community health is concerned with the social determinants of health and empowerment of populations (Baum 2015).

integrated health service providing both primary health care and human services, community health can support the physical, social, emotional, mental and spiritual dimensions of health.

Physical health

Physical health can be addressed by the GP or various allied health services that may be present, such as a physiotherapist, osteopath or dentist. The *social dimension* can be addressed through health promotion programs that engage people in the community and introduce them to other locals. The *emotional* and *mental dimensions* of health can be supported by health promotion programs that assist with resilience strategies, and by allied health professionals consulting at the service, specifically psychologists.

Welfare services

The added support of welfare services can ensure that the emotional and social dimensions of health are also addressed. If people need counselling, emergency housing (if leaving a domestic violence situation, for example) or assistance with seeking employment, case managers can be assigned to and work with individuals and families needing these services, aiming to improve the social and emotional dimensions of their health and enhance their feelings of self-worth and identity.

Spiritual dimension

The spiritual dimension of health can be addressed through activities such as volunteering and yoga. Tai chi is offered in some community health services.

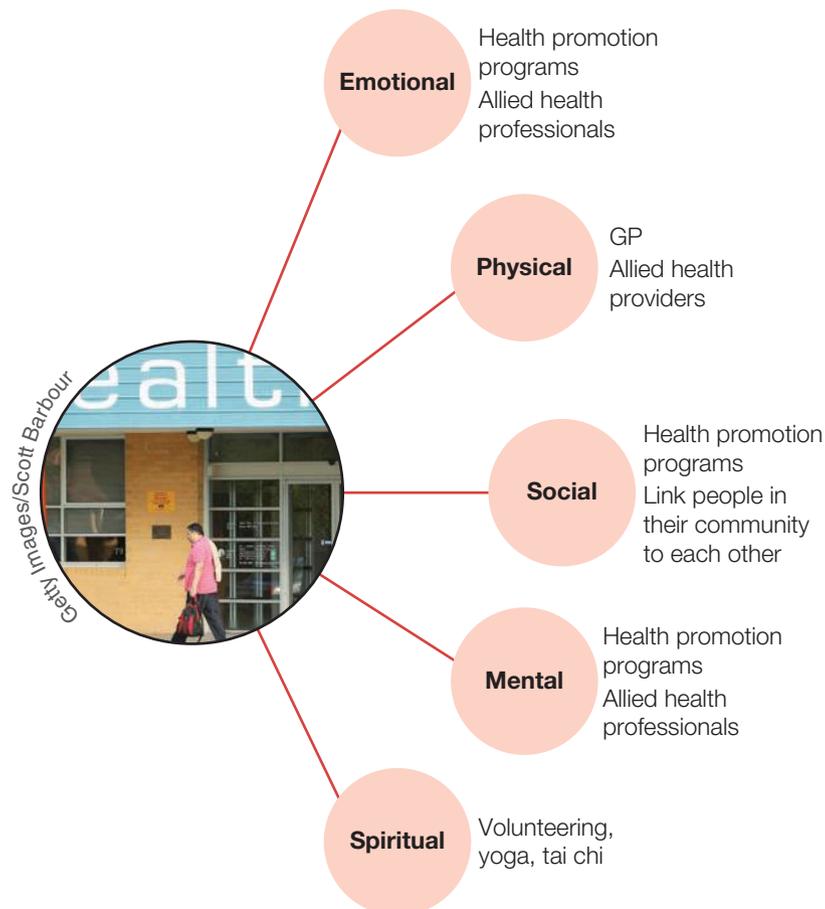


Figure 11.10 Community health services provide a range of primary health and human services, in all the dimensions of health, based on the community's needs and requirements.

Review and reflect

Go to the Victorian Government’s ‘health.vic’ website (use <http://hhdvce1and2.nelsonnet.com.au> to access the weblink).



Select ‘Primary and community health’, then ‘Community health’, then ‘Community health directory’.

Use the community health directory to identify a community health service in or near your local area. Then answer the questions below.

- 1 Summarise the services provided at the community health service.
- 2 Identify and describe two programs offered at the community health service.

- 3 Discuss how the programs you have identified in Question 2 support the five dimensions of health and wellbeing. Use a table like the one below to summarise your information.

	Provider 1	Provider 2
Physical		
Social		
Emotional		
Mental		
Spiritual		

Public health

Public health is another aspect of the Victorian Government’s responsibilities in relation to health care. Public health activities focus on addressing factors that affect the health and wellbeing of an individual or a community, and providing information and education to the public that will enable them to make better decisions about their health. The government develops and enacts legislation, policy and guidelines that promote health and wellbeing, and help prevent disease. The legislation and policies can be based on environmental health, food safety, infectious diseases, water, preventative health and population screening. Government-initiated strategies have included, for example, promoting healthier eating and active living, reducing the harm caused by smoking, alcohol and drug use, and ensuring safe environments for all Victorians by reducing the risk posed by potentially dangerous substances.

The modern view of public health is that it consists of activities that have input from the community and address the physical, social, emotional, mental and spiritual dimensions of health at a population level (rather than individual), with the aim of protecting people from disease and promoting their health and wellbeing.

The physical dimension of health is addressed through legislation and policies that ensure that primary health care services and community health services exist in the community and are funded adequately. The mental, social and emotional dimensions of health are also addressed by these services, and by targeted health promotion programs.

The Victorian Government has a range of policies, procedures and action plans in place to support these dimensions of health. It also provides support and funding to VicHealth, an independent statutory authority that provides programs supporting good health.

public health activities primarily led by governments and intended to protect people from disease and promote their health

One of VicHealth's areas of focus is mental wellbeing, including preventing violence against women, through providing health promotion messages, toolkits and short courses. Local governments also develop health promotion programs and advertising campaigns to address specific local health needs in regards to mental, social and emotional health.

The spiritual dimension of health can also be addressed by government public health activities, directly or indirectly. For example, policies and planning in relation to open spaces and parks can allow people to be present in and enjoy the environment, which can encourage members of the community to come into these spaces for quiet reflection or more organised meditation.



Figure 11.11 The Victorian Government's public health initiatives can enhance the spiritual dimension of health by providing parks and open spaces for the public to enjoy.

Case study

Public health and wellbeing plan

The State government's *Victorian public health and wellbeing plan 2015–2019* outlines how the government will address public health and wellbeing in this period.

The health and wellbeing priorities for 2015–19 are:

- healthier eating and active living
- tobacco-free living
- reducing harmful alcohol and drug use
- improving mental health
- preventing violence and injury
- improving sexual and reproductive health.

Extract from Victorian State Government, health.vic, 'Victorian public health and wellbeing plan 2015–2019'

Local municipalities usually have their own health and wellbeing plan to prioritise elements of health services and activities in their local area that will support the local community. This case study requires you to investigate the services and activities provided by your local council to promote the health and wellbeing of people in the local council area.

Case study questions

- 1 The Victorian Government has identified six priorities that address health and wellbeing. For each of these six priority areas of health, use your local council website to identify a service or program that the council offers to address that area of health. Record your results in a table like the one on page 319.





Priority area	Example of a service or program in your local area
Healthier eating and active living	
Tobacco-free living	
Reducing harmful alcohol and drug use	
Improving mental health	
Preventing violence and injury	
Improving sexual and reproductive health	

- 2 For two of the services or programs you listed for Question 1:
- a Describe the service. Include information about who the service or program targets, where it is delivered, and how is it advertised so that local people know it exists.

- b Explain why the program or service is offered in your local council area.
- 3 For the two programs you discussed in Question 2:
- a Identify which dimensions of health are being addressed by each program or service.
 - b What health outcomes can be expected for this dimension of health if a person participates in this service or program?
- 4 With regards to your local council:
- a Does the council have a health and wellbeing plan? Why or why not do you think this is the case?
 - b If the council does have a health and wellbeing plan, does the plan reflect the same priorities as those of the state government's public health and wellbeing plan?

Case study

Health education through entertainment

Public health messages have also been embedded within entertainment. This is predicated on the assumption that entertainment will attract more people than education messages, that people will understand and be receptive to educational messages within entertainment and that the heightened audience size, attention and receptivity can influence cognitive, affective and behavioural outcomes that underlie many public health problems ... Typically these techniques will use behavioural modelling. The Johns Hopkins Health Institutions in the USA developed two nationally syndicated health information series designed to pick up on issues in episodes of the popular medical drama series *ER* and *Chicago Hope*. These short programs were screened immediately after the drama episodes and gained national audiences of around 4 million viewers. The programs were linked to interactive websites and phone advice lines ... An evaluation study found that the drama tie-in enhanced the attention and satisfaction of viewers.

Soul City, a South African initiative, has used a soap opera to tackle controversial issues such as condom use and domestic

violence, supported by other interventions including community education and print material. The most recent evaluation ... found that Soul City had been successful in increasing condom use (21 per cent increase), increasing testing for HIV (5–8 per cent increase), reducing stigma (2–8 per cent reduction) and increase willingness to care for someone with HIV (19 per cent increase).

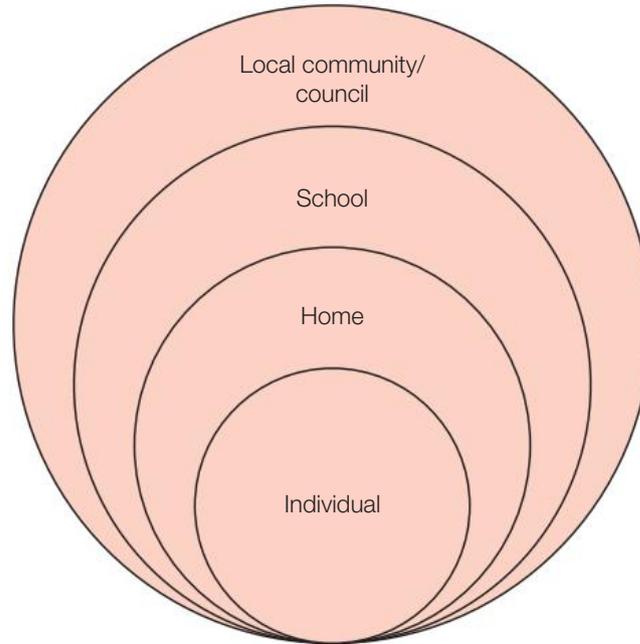
Extract adapted from Baum F. 2015, *The new public health*, 4th edn, Melbourne: Oxford University Press, p. 514

Case study questions

- 1 Describe your understanding of the term 'public health'.
- 2 Describe how public health initiatives have encouraged people in the USA and South Africa to seek out local health services.
- 3 List and describe the dimensions of health that have been addressed and supported by the Soul City initiative. Use examples from the case study to support your answer.

Review and reflect

- 1 Brainstorm and construct a chart showing the places you can visit and the people you can ask for health information and care. The chart below is provided as a suggestion, to help you get started.



- 2 Compare your chart with that of another person in your class. What differences are there between your answers? What similarities?
- 3 Explain how the Federal Government can assist an individual to access the health and wellbeing services in their area.
- 4 'Australia's health system is one of the best in the world.' Discuss whether you agree or disagree with this statement.
- 5
 - a List all the health and wellbeing services that exist in the area between your home and your school.
 - b For each service you listed in part a, identify which dimension of health and wellbeing it addresses.
 - c Are there services that focus more on one dimension of health rather than others? Explain why you think this is the case.

Chapter summary

Medicare

- Australia's universal health care scheme. It provides free or subsidised health care to all eligible Australians.
- Covers the costs of in-hospital accommodation and treatment as a public patient in a public hospital, and treatment by a hospital-appointed doctor
- If you are a private patient in a public or private hospital, the Medicare Benefits Schedule will subsidise 75% of the service or procedure performed.
- General treatment – Medicare covers GP consultation fees (100%) and specialist fees (85%) when bulk billed, tests and examinations by doctors, eye tests performed by an optometrist and some other services.
- The Medicare levy is paid by most Australians to fund the Medicare system.
- The Medicare Safety Net helps vulnerable families or individuals to continue to access health care when out-of-pocket costs reach a threshold amount – beyond the threshold amount, charges are reduced.

Pharmaceutical Benefits Scheme

- Prescribed medicines listed on the PBS are subsidised by the government.
- Patients contribute with co-payment per prescription. The amount co-paid depends on whether the person is a general patient (\$38.30) or a concession card holder (\$6.30).
- The PBS has a safety net: when out-of-pocket costs for medication reach a threshold amount, the co-payments are reduced.

Private health insurance

- Private health insurance provides cover for those services not covered by Medicare. This gives individuals who have private health insurance a wider choice of health care services.
- There are three types of private cover: hospital, general (ancillary or extras) and combined. The level of cover offered can be comprehensive (top cover), medium or basic.

- Individuals with PHI can be eligible for the private health rebate, depending on their income level. If they do not purchase PHI before turning 30, they will have to pay lifetime health cover loading.

Services available in the local community

Primary health

- For most people, primary health (PH) is their first point of contact with the health care system.
- PH links with communities and is committed to their wellbeing.
- Examples of primary health care in the local community include GPs, nurses, dentists, pharmacists and other allied health professionals. In Victoria, PH services also include Supercare pharmacies and Nurse on Call.
- PH provides support primarily for the physical, mental and social dimensions of health, and to a lesser extent the emotional and spiritual dimensions.

Community health

- Community health (CH) services are a coordinated, targeted approach to health care in the local community.
- CH services include primary health services (e.g. GP, nurse), with other allied health professionals present. They can also include health promotion programs and support for drug and alcohol rehabilitation and mental health.
- CH services support the physical, social, emotional, mental and spiritual dimensions of health.

Public health

- Public health (PH) involves strategies and initiatives for health at the population level. PH legislation, policy and guidelines can be at a national, state or local level.
- PH initiatives support the physical, social, emotional, mental and spiritual dimensions of health. Some initiatives may target only one specific dimension, while others may address all dimensions.

Exam-style questions and sample answers

Read the following case study, then answer the questions that follow.

Mary is a 65-year-old woman. Recently she has had trouble walking, and has been experiencing chronic pain in her hip joint. She has been on medication to manage the pain and has been advised to see a specialist for a potential hip replacement.

- 1** Describe two key services of Australia's health care system that Mary could utilise. **(4 marks)**

Sample answer: Medicare could be used to access a GP consultation for a diagnosis and potential referral to a hip specialist **(1 mark)**. Medicare would pay in full for the doctor consultation if the doctor bulk bills, or up to 75% of the scheduled fee **(1 mark)**.

The PBS could be used to access the prescribed medication needed to manage the pain **(1 mark)**. The PBS provides subsidies on medication so people can access medications that can improve their condition to a pre-illness state **(1 mark)**.

- 2 a** Outline two dimensions of health and wellbeing that Mary may need support with at this time in her life. **(2 marks)**

Sample answer: 1 The physical dimension of health and wellbeing, as her physical functioning has been compromised by the chronic pain in her hip and may mean she moves less **(1 mark)**. 2 The social dimension of health and wellbeing, because with compromised mobility, Mary may not be able to leave the house regularly to socialise with friends and get into the community to complete regular chores such as grocery shopping and so on **(1 mark)**.

- b** List and briefly describe a possible local community service that could address one of the dimensions of health you outlined in Question 2a. **(2 marks)**

Sample answer: GP **(1 mark)**: could provide diagnosis and strategies to manage the hip pain. If Mary is experiencing social isolation, the GP could also refer her to local council services that address social interactions, such as home visits **(1 mark)**.

Questions for you to practise

- 1** Briefly outline the services provided by Medicare. **(3 marks)**
- 2** List two dimensions of health and wellbeing, and describe the benefits of the PBS in terms of the two dimensions you selected. **(4 marks)**
- 3** Tony has recently retired from full-time work. He is in good health and has remained active during his life. He has joined a local bike riding group that ride weekly along the local council bicycle paths.
- a** List two dimensions of health and wellbeing (different from those you selected in Question 2) that are enhanced as a result of Tony participating in the bike riding group. **(2 marks)**
- b** Justify your selection of the two dimensions you listed in Question 3a, using information from this case study to support your answer. **(4 marks)**
- c** If Tony was injured while bike riding and didn't have private health insurance, outline his options for treatment within Australia's health care system. **(3 marks)**

Chapter 12: Access to health services in a modern world

Key knowledge

- factors affecting access to health services and information
- rights and responsibilities associated with accessing health services, including privacy and confidentiality relating to the storage, use and sharing of personal health information and data
- opportunities and challenges presented by digital media in the provision of health and wellbeing information, for example websites, online practitioners and digital health apps
- issues such as ethics, equity of access, privacy, invasiveness and freedom of choice relating to the use of new and emerging health procedures and technologies

- options for consumer complaint and redress within the health system.

Key skills

- identify and explain factors that affect people's ability to access health services and information, including digital media, in Australia
- discuss rights and responsibilities of access to health services
- analyse issues such as ethics, equity of access, privacy, invasiveness and freedom of choice associated with the use of new and emerging health procedures and technologies
- explain the options for consumer complaint and redress within the health system.

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Key terms

eHealth

ethics

stem cell

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Introduction

As the world evolves, so too must health care. In the previous chapter we looked at the key elements of Australia's health care system, and local community health care services. It is important for health care consumers to know where and how to access health care, as well as their rights and responsibilities in using these services. While Australia has an exceptional health care system, not all people have the same experience in accessing its services. In this chapter we look at the factors that affect access to health care, and how health care is developing in a modern world. While new technologies are providing innovations in medical procedures, others are helping to improve equity and access to health care. These changes and innovations in technology and health consumer rights and responsibilities are carefully monitored, to ensure safe and ethical provision and consumption of health services, so that Australians continue to experience a high quality of health care.

Digital health care

The development of digital technologies has created new possibilities for health care in Australia and around the world. Young people are growing up in a world where technology is an integral part of life, and expect to be able to access digital forms of information and health care services.

eHealth health services, information and data delivered via the Internet or other IT-based methods

Digital health, including **eHealth**, is the use of information and communication technology in health care. All the sources of health information and points of health care are connected, so up-to-date information can be shared by patients and health service providers. Digital health information systems can give people greater control and access to their own personal health information, while also allowing service providers to access current patient information.

digital literacy the ability to access, process and communicate information in digital form

To be able to use such information and services effectively requires **digital literacy**, which has three elements:

- *technical literacy* – the technical skills to use computers and digital devices such as phones and tablets, and to navigate the software
- *media literacy* – awareness of the platforms available and the ability to judge the quality and reliability of the information they provide
- *social literacy* – understanding of the social norms that apply in online settings.

Together these three elements enable a person to navigate technology to gain access to information, and to assess and understand the health messages they find.

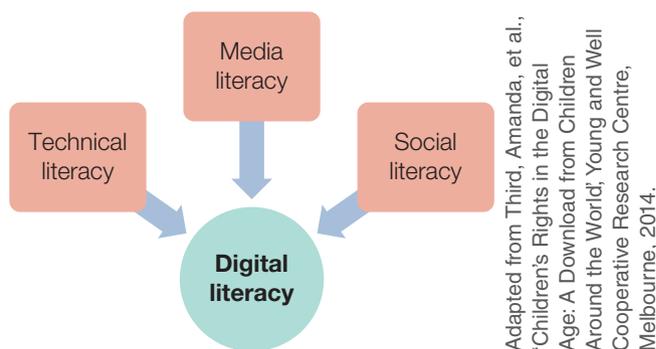


Figure 12.1 Digital literacy has three elements.

Australian Digital Health Agency

The Australian Government is aware of the importance of engaging in digital form with individuals and communities about health care. In 2016 it established the Australian Digital Health Agency to manage all things technical in the health arena, including implementing the National Digital Health Strategy and leading the development of digital health information systems in Australia. The development of the agency is an important step, as Australia works to maintain its modern health system in an evolving digital world.

The agency complements the Health Department's work in the everyday running of health care in Australia (Medicare, the PBS and responding to emerging health issues). It aims to improve the health of all Australians, by ensuring the optimal use of data and technology, as well as innovation, quality and safety, in delivering national digital health services and systems.

My Health Record

As digital technology has become central to our lives, the government and other health agencies are increasingly providing health information and services in digital form, encompassing a range of delivery and access options for individuals and health service providers. Traditionally, patients' health records have been spread over the various locations where they have had tests or received treatment, such as their GP clinic, hospitals and specialist clinics. The My Health Record system is a way of integrating patient records in digital form. A patient's My Health Record contains all the person's health information and can be accessed quickly and easily by health professionals.

The **My Health Record** system will give patients:

- 24/7 access to a summary of their health information, from anywhere in Australia.
- The ability to keep track of their medications, immunisations and allergies.
- More understanding of their health status, and more involvement in the healthcare decisions affecting them.
- The ability to share their important health information with all healthcare providers involved in their care. ...

Benefits of digital health to providers may include:

- More time with patients – less time chasing clinical information and investigations, resending or chasing referrals, scanning, printing, filing and posting
- Better information sharing between different sources, for example between GPs and Hospitals

- Important patient information being available to you quickly and exactly when needed
- Helping your patients, including those with chronic and complex conditions, to better manage their health
- Increased efficiencies may help reduce the number of unnecessary repeat tests, hospitalisations and follow-up specialist visits
- Confidential patient correspondence only seen by treating clinicians (no scanning necessary)

Extract from Australian Digital Health Agency, 'Get started with digital health. Benefits'



Weblink

WATCH

Go to the Australian Digital Health Agency website. (Visit <http://hhdvce1and2.nelsonnet.com.au> to access the weblink.) Go to 'About the Agency' and select 'Digital health space blogs'. Click on the clip, 'Is the My Health Record system safe and secure?'.

The privacy and security of patients' files is important, and the security of the My Health Records system is considered equivalent to that of banks.

People aged 14 years or over can register for their own My Health Record, with the assistance of their service provider. For younger people, the person charged with parental responsibilities must register for a My Health Record on their behalf. People can also register at a Medicare Service Centre, online or by phone.

Among the advantages of a paperless system is the ease and timeliness of access to records by all who need it. In a paper-based system, information can go missing or not be received in time, or the patient might visit multiple practices, which can result in consulting medical professionals not having a complete picture of the health status of the patient. My Health Record is working towards improving access to health care and ensuring accurate and reliable medical files.

However, access to the Internet requires resources such as a computer and an Internet provider, which require money – there is concern that vulnerable groups in the community will miss out on the digital health revolution, because 'although social media has an increasingly wide reach, some groups are digitally excluded for reasons of cost, lack of skills and opportunities to acquire the skills' (Baum 2015, p. 514).



Weblink

INVESTIGATE

Go to the Australian Digital Health Agency website. (Visit <http://hhdvce1and2.nelsonnet.com.au> to access the weblink.) Go to 'About the Agency' and select 'Digital health space blogs'. Scroll down to the video 'Why I'm behind digital health'.

Watch the video and then answer the following questions.

- 1 What do Australians want from digital technology in regards to health care?
- 2 How will digital health support service providers in delivering health care to Australians?
- 3 Imagine what health care will be like in 2040. Draw or develop a mind map of how you imagine it will be. Who will be involved? How will it be delivered?

Case study

Telehealth in Australia

Media Release, Northern Territory Department of Health

Telehealth to expand services in Central Australia

9 March 2017

The Central Australia Health Service is once again working closely with the Australian Digital Health Agency (ADHA) to improve Telehealth service delivery in remote Australia.

Representatives from ADHA, headed by the Chief Executive Officer Mr Tim Kelsey, are in Central Australia this week to meet with relevant health professionals and agencies to develop strategies that will see Telehealth opening up further specialities in the region and enhance IT systems to incorporate TeleHealth appointments.

'The National Telehealth Connection Service has recently been deployed in the Northern Territory to expand the footprint for health service delivery, enabling connections with nongovernment agencies, such as Aboriginal Medical Services, and interstate tertiary hospitals, such as Royal Adelaide Hospital,' said Mr Stephen Moo, Chief Information Officer for the Department of Health.

The benefits of the National Telehealth Connection Service are to promote clinical collaboration across jurisdictional boundaries for health service providers, improve access to health services, better manage costs and optimise resources, increase information exchange within and between jurisdictions and establish a Telehealth scheduling system.

'This collaboration between the Australian Digital Health Agency and the Northern Territory Government will build on the success of the earlier project,' he said.

In December 2009 the Northern Territory was successful in a bid for the Digital Regions Initiative for

implementing Telehealth across regional and remote Northern Territory.

'This laid the foundation for Telehealth NT and as a result there are now more than 50 Telehealth enabled centres in major cities and towns, regional areas and remote locations,' Mr Moo said.

The focus of this visit will be to encourage understanding of the context of providing health services within a challenging environment and to share emerging themes from recent ADHA national consultations.

'This can only be of benefit to people living in the Northern Territory, most particularly those people in remote communities who rely on Telehealth for treatment of chronic disease so they can live on their own country,' Mr Moo said.

'Telehealth has already delivered savings to government of more than \$1.1 million and the number of regional and remote Territorians being seen by a doctor using TeleHealth has risen from approximately 200 per year to more than 1000 per year,' he said.

Extract from Northern Territory Government, Media release, 9 Mar 2017, 'Telehealth to expand services in Central Australia'

Case study questions

- 1 Describe what 'digital health' means to you.
- 2 Explain the purpose of the Australian Digital Health Agency.
- 3 Describe your understanding of Telehealth.
- 4 What are the benefits of digital health for the people of Central Australia?
- 5 What might be a problem or concern associated with Telehealth?

Websites for health

In addition to improving access to and maintenance of medical records for patients and their health service providers, information technology is a convenient way for people to access general health information and support. There are many health information websites, and people with digital literacy will be able to navigate these websites, assess the information offered, and recognise sites that are reputable and factual. A good place to begin is government health websites, such as the Australian Department of Health or the Victorian Department of Health. Beyond this, it is good to go to sites that are partnered with government health sites, or reputable non-government and private providers. Some examples are outlined on the following pages.

Better Health Channel

The Better Health Channel is funded by the Victorian Government and is available to the public. Health and medical information is provided in an attempt to improve the health and wellbeing of people and the communities they live in. The information provided on the site has been through a quality assurance process to ensure its accuracy and relevance. Before being posted on the site, the information is developed and reviewed by experts in their field of health and wellbeing in both medical and academic organisations.

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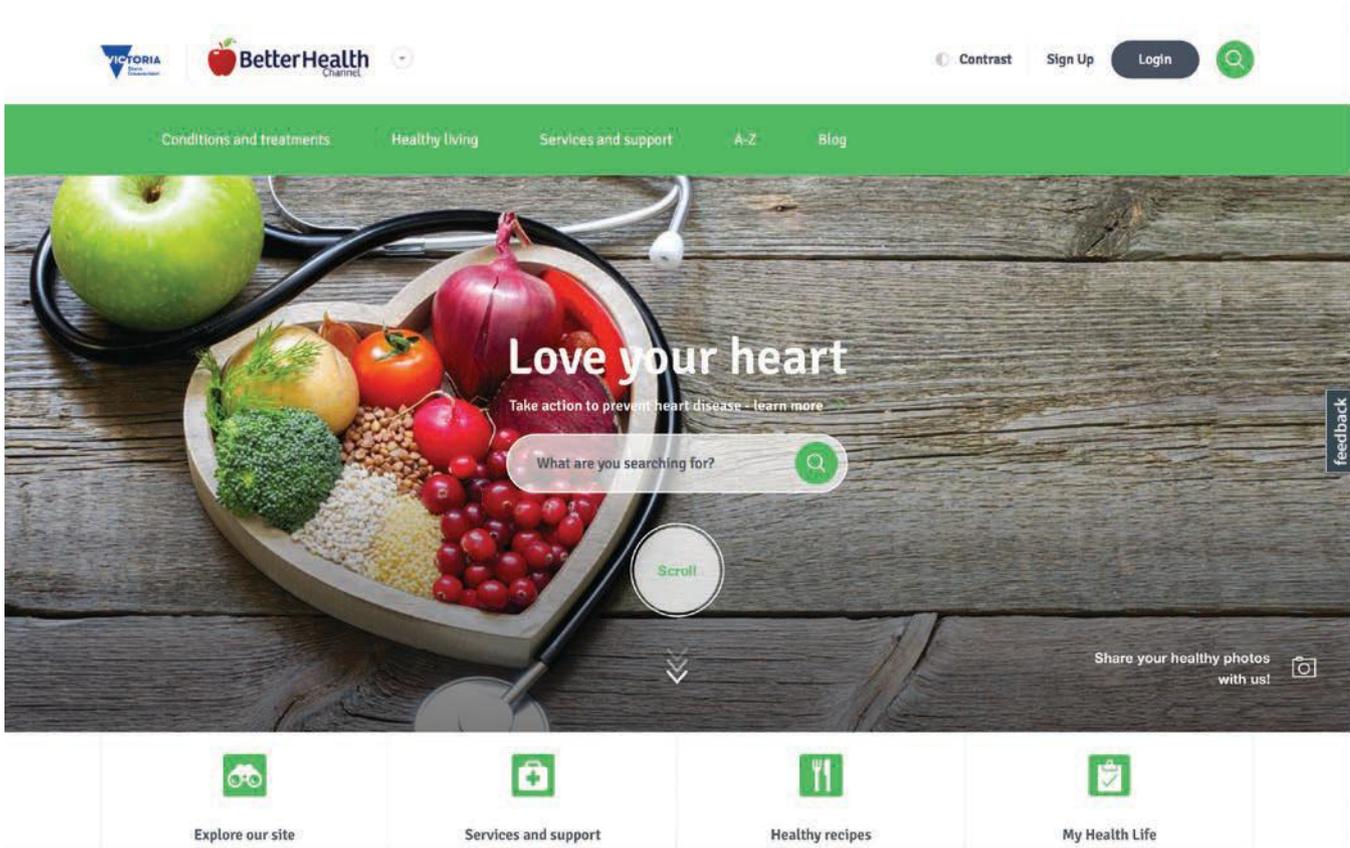


Figure 12.2 The Better Health Channel website is a government website and its information is reviewed by health experts before being posted.

The information on the Better Health Channel website 'aims to help people understand and manage their health and medical conditions' (State of Victoria 2017). It includes fact sheets, information and links to other reputable health websites that address health issues, medical research and practices that can help keep health consumers informed and up to date with health news. The site helps inform people about health and wellbeing and address issues that are relevant to the individual. The site has links to other sites where service providers can assist further, if a person needs the help of a medical practitioner or other qualified health professional.

The website makes provision for people who face language barriers or have vision impairment or motor neuron conditions. Advice is provided on tools that can

help someone wishing to access the site and navigate more easily. It also provides links to supports that can be accessed to allow the person to use the site. The site has video footage, but is not as interactive as some other sites.

ABC Health & Wellbeing

The ABC Health & Wellbeing website was developed in 2002 by the Australian Broadcasting Corporation. The aim of the site is to inspire, inform and entertain. The site provides evidence-based feature articles, fact files, consumer guides, audio and video segments, podcasts and quizzes. The information is organised in topics, and there are quick links to information organised by stage of the lifespan and population group. The site is complemented by ABC TV and ABC Radio, with segments from *The Health Report* available.

The information is developed by health experts and journalists who have researched the topics. The website provides reliable, reputable health and wellbeing information in an interactive form. It does not give service provider information, so if someone uses the site for information and determines that they need further assistance with a medical issue from a medical professional, they will have to do their own research about where to get support, diagnosis and/or treatment.

VicHealth

VicHealth, otherwise known as the Victorian Health Promotion Foundation, is an independent statutory authority. It is funded mainly by the Victorian Department of Health but works with all levels of government to deliver health promotion messages. It is one of the original public health initiatives in Australia delivering quality health information. The VicHealth website provides information about health promotion programs and initiatives currently available in the community, as well as its own strategic objectives and organisational operations. Health topics covered include physical activity, tobacco prevention, healthy eating, mental wellbeing, alcohol harm prevention, health equity, arts and social connection, preventing violence against women, reducing racial discrimination, research and innovation.

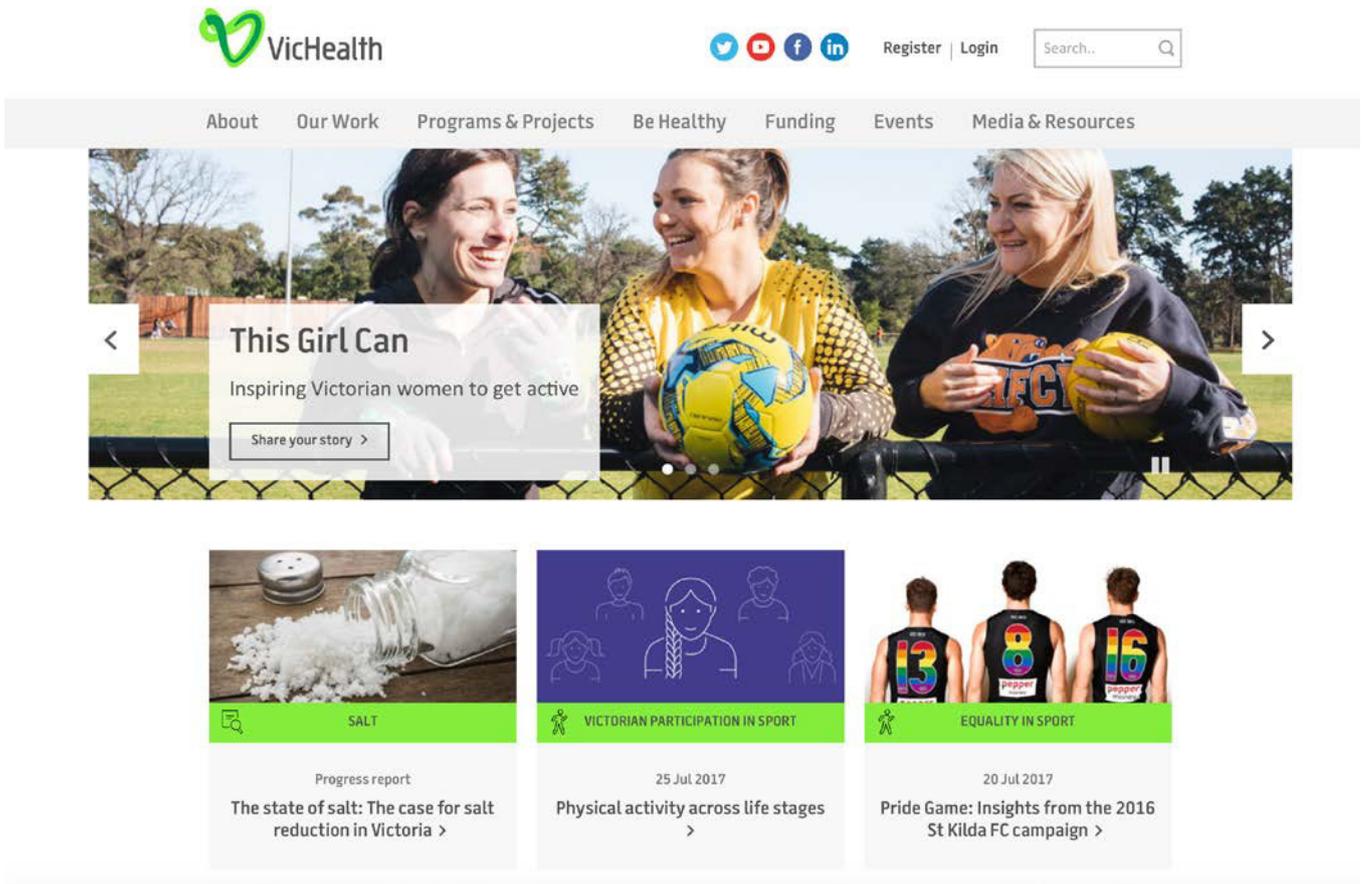
The website can be used by individuals to explore and understand programs and initiatives that are currently being delivered to local communities to address health and wellbeing and health behaviours. The website's readership could also include, for example, local councils that are deciding on health-based programs or initiatives to set up in their local area and looking for something similar already done by other councils.

A potential limitation of the website is that some of the initiatives described might only relate to a specific council area, or might only have received funding for the initial pilot project.

Other websites

Other websites that provide useful information about health and wellbeing, for individuals or community providers, include those of:

- local councils
- not-for-profit organisations, such as Cancer Council Victoria
- other major health bodies, such as the Australian Medical Association (AMA), the National Health and Medical Research Council (NHMRC) and the Australian Institute of Health and Welfare (AIHW).



© Victorian Health Promotion Foundation (VicHealth). Source material available at www.vichealth.vic.gov.au

Figure 12.3 The VicHealth website provides information about health-based initiatives available in the community.

GP2U

In addition to websites that provide health information, such as the ones described above, websites such as GP2U provide access to online practitioners and allow individuals to book an online video appointment with a GP. The GP2U online medical practice commenced in 2011 and aims to deliver health care at a time and place that suits the patient.

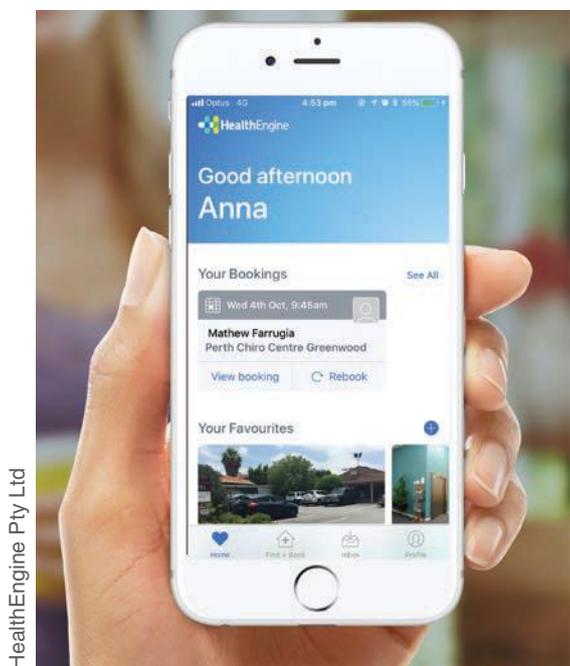
The GP2U 'software facilitates secure video based consultations and is deeply integrated into the Australian healthcare system allowing [GP2U] to deliver prescriptions, pathology requests, specialist referrals and secure provider to provider messaging' (GP2U 2017).

HealthEngine

HealthEngine is changing the way patients access health care in Australia. Accessible via website or smartphone app, it helps patients find and book health care appointments online. It also provides practitioners with the technology to connect with their patients in new ways and improve the patient's health care journey.

GP2U Telehealth

Figure 12.4 GP2U is an online medical practice.



HealthEngine Pty Ltd

Figure 12.5 The HealthEngine website allows people to book an appointment with a health care professional, such as a GP.

Digital health apps

Websites have been around for many years, and now apps offer additional options. As noted earlier in relation to websites, digital literacy enables health consumers to select suitable apps, and identify apps that are not factually correct or not set up to enhance and support good health and wellbeing. Many organisations supplement their website with apps providing information, reminders or services quickly and efficiently. Some examples (SunSmart, Express Plus Medicare and Smiling Mind) are discussed below, and there are many others available to health consumers, depending on their needs and price range. The VicHealth website provides a comprehensive list of health apps.

SunSmart

The SunSmart app is an extension of the information provided on the Cancer Council Australia website and the SunSmart website. It provides users with information about the times when 'sun smart' behaviours need to be observed. The app sends notifications to users each day to remind them of sun smart behaviour, and can be tailored to your specific location. It also provides recommendations for the amount of sunscreen required by an individual. It acknowledges the importance of getting sufficient vitamin D, and so it asks for information about time spent outdoors, to support individuals in practising sun smart behaviour. The app informs users about factors existing on a particular day that could affect their physical health, in the immediate future (helping avoid sunburn) and in the long term (potentially helping avoid skin cancer).



Figure 12.6 The SunSmart app gives information about the day's level of sunburn risk and sun smart behaviour to help reduce that risk.

Express Plus Medicare

The Express Plus Medicare app is like a digital Medicare card – it allows individuals to access their health service history, make claims, and check their Medicare safety net balance and immunisation history statement. The app complements the Medicare website, and is useful for people who cannot make it to a Medicare office. To use the app, you need to be registered for a Medicare online account.



Department of Human Services

Figure 12.7 The Express Plus Medicare app allows people to make claims and access their health service history.

Smiling Mind

The Smiling Mind app provides mindfulness-based meditation techniques, to promote spiritual, mental and social health and wellbeing. People are often too busy with day-to day life to visit centres dedicated to this type of service. The target audience of the app is individuals, but it also supports teachers and schools by providing lessons on meditation. The app also keeps track of what you have used the app for, and it has links to service providers for those who require more support.

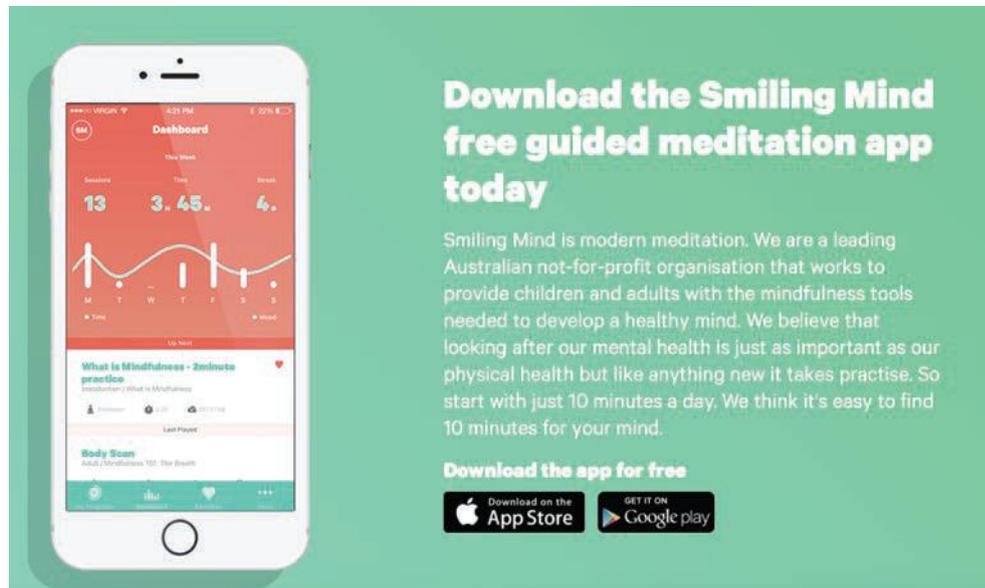


Figure 12.8 The Smiling Mind app provides mindfulness meditation techniques.

Social media

In addition to having websites and apps, most major health agencies connect with the community via social media. Platforms such as Facebook, Instagram and Twitter allow agencies to connect with health consumers, and to provide health promotion messages and engage with health consumers in a forum that is comfortable for younger people in particular, who might not be contactable by other means.



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As with all digital technologies, the biggest challenge is access. As will be discussed in the next section, sometimes the people who are most vulnerable and could benefit most from health-based forums and platforms are least able to access them. If a person cannot afford a phone, a computer or the Internet data downloads required to access health services and information, it will be much harder for them to benefit from the knowledge and empowerment that accessing health information can provide.

Case study

Online mental health treatments are proven to reduce depression

By Kim Arlington, *Sydney Morning Herald*,
26 March 2017

It was an illness that almost claimed her life. There were days when she couldn't leave the house, or even get out of bed.

But for years after she was diagnosed, Shannai Pearce was too afraid to get help.

'I was scared I was going to be put in a box and labelled as nuts, and that was going to be it for the rest of my life,' Ms Pearce said.

Like one in 13 Australian children aged 11 to 17, Ms Pearce suffered from major depression. Yet up to 70 per cent of people reporting symptoms of depression will not seek treatment, a factor contributing to Australia's rising suicide rate.



Courtesy Shannai Pearce,
Black Dog Institute,
photographer Dean Winder

Figure 12.9 Shannai Pearce, who runs the online youth mental health site BiteBack, says e-mental health programs are 'a really good solution'.

The stigma that persists around mental illness, the cost and availability of services, and difficulty scheduling appointments around busy lives can be barriers to getting the necessary treatment.

And, as Ms Pearce said, 'the symptoms of mental health issues also generally restrict people from seeking the help they need'.

That's why smartphones, laptops and tablets can be a lifeline, with a new study providing evidence that clinically developed online psychological therapy is effective in treating depression.

The international meta-analysis, published in *JAMA Psychiatry*, examined more than a dozen trials involving almost 3900 participants, finding self-guided online cognitive behavioural therapy 'can provide treatment access at low cost to large numbers of individuals worldwide'.

Professor Helen Christensen, director of the Black Dog Institute and a co-author of the study, said the findings could not be ignored by health bodies.

'Our government and clinical organisations urgently need to start recommending these programs, and providing them with the same support and infrastructure as other medical treatments,' Professor Christensen said.

'People think you have to do things face to face in order for it to be an effective outcome. This research clearly shows that self-guided, online psychological therapy is effective for most people experiencing depression, regardless of severity or background.'

Ms Pearce was diagnosed with depression after attempting suicide at 14. She received no follow-up from health services and was out of her teens before she sought treatment with the help of friends and GPs. She now runs BiteBack, the Black Dog Institute's positive psychology website, where adolescents can share their experiences and seek advice.

'I was so eager to get better but I was so fearful about using face-to-face services,' Ms Pearce said.

She said myCompass, a personalised online self-help program, helped her manage her anxiety, 'which prepared me better for actually seeking a health professional's assistance. It's a really good solution for people who aren't ready or able to go to face-to-face therapy.'

The easy access and privacy of e-mental health services make them particularly valuable for groups that may otherwise be unwilling or unable to seek treatment, such as young people, men, and those living in rural and regional areas.

'They can undertake treatment where and when they feel most comfortable, and programs can be easily supported by a local GP as well as mental health practitioners,' Professor Christensen said. 'Consumers like the choice of being able to help themselves.'

The national depression initiative *beyondblue*, which has just named former prime minister Julia Gillard as its next chair, wants e-mental health to become a core component of Australia's mental health service system.

Professor Christensen said e-mental health programs were 'widely available and have been proven to significantly reduce depression and anxiety symptoms,' but the health system was not designed to cater for them.

'Changing the structure of how they are offered within general practice, so it's built into the workflow of the organisation, is a key element,' she said.

Extract from Arlington K, 'Online mental health treatments are proven to reduce depression', *Sydney Morning Herald*, 26 March 2017

Case study questions

- 1 What have been the benefits of eHealth for Shannai?
- 2 Explain how Shannai used the services of eHealth.
- 3 What impact has the eHealth service had on Shannai's dimensions of health and her wellbeing?
- 4 Identify and discuss the challenges that may be experienced by people using this type of eHealth.

Factors affecting access to health services and information

In Chapter 2 you were introduced to the term 'sociocultural factors', discussed in relation to youth. In this chapter we look at how sociocultural factors affect a person's access to health services and information. Adequate access to health services enables individuals and communities to optimise their health and wellbeing. Accessing accurate, reliable information provided by trusted sources can further empower individuals to take care of their health.

Figure 12.10 shows the sociocultural factors that can affect a person's access to health services.

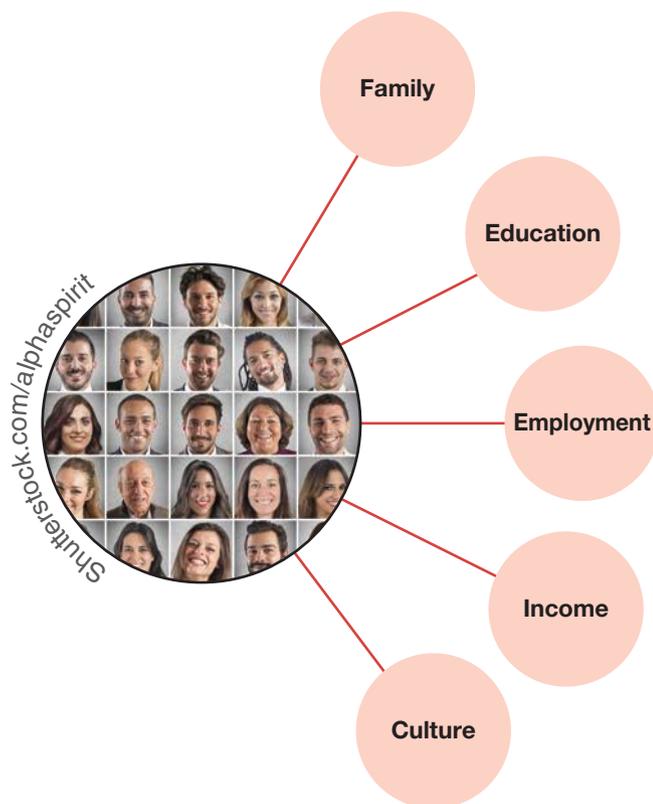


Figure 12.10 Sociocultural factors that affect access to health services

To a lesser extent, access to health care and information is also influenced by environmental factors (discussed later in this chapter).

Family

The family unit has a strong influence on the ability of family members to access health services. In a family environment where health and wellbeing are valued, family members will attempt to maintain good health and will recognise changes in behaviour or health status that may require them to access local support services. If members of a family care for and support each other, they are more likely to have the confidence to seek help and assistance from local health services when they need it, as the quality of relationships an individual has with their community, other family members, and themselves, has been favourably

role modelled to them. If family violence or drug and alcohol abuse are part of a family environment, members of the family might be reluctant to access support services, as relationships within that family could be problematic, and the person needing services or information might not receive support from their family in seeking them.

Education

As you are reading this information, you are using your education to increase your knowledge and understanding of health. This information provides you with the ability to begin making informed decisions about your health. Individuals who don't study health but still participate in compulsory education are able to read and write, which gives them skills and tools to enable them to find health information if they need it, and to understand where they can go to access health services. This education also provides the person with the opportunity to be discerning about the health information available in the media, especially social media. There are many 'wellness blogs' and apps with health information (as discussed earlier in this chapter), and formal education helps individuals to be able to process information and critically determine whether it is reliable information from trusted sources or people blogging their own personal views on health, which might not be based on research or have been checked for accuracy.

Individuals with limited or no formal education are at risk of missing vital information that can enhance their health and wellbeing. Being able to read labels on food products and medicines can enable a person to make healthy choices. Without strong reading skills, an individual may make poorer choices related to their health, because they don't understand the information presented to them. As will be discussed in the next section, education is strongly linked to employment potential, and therefore adequate income, and this has an impact on access to health services and information and, ultimately, health outcomes.

Education + Employment + Income = Improved access to health services and information

Employment

Employment allows a person to gain an income, and this provides the means to access and pay for health services when and where the person needs them most. In employment, individuals are participating in their community, engaging with people, and this helps them gain an awareness of services that are available in the community. Many workplaces have programs to optimise health and wellbeing – simple initiatives such as workplace health checks and access to influenza immunisation can allow an individual to access health services and information they may not have otherwise acquired.

Lack of employment can isolate a person from their community, reducing their access to knowledge and information in general, and regarding health in particular.

Income

A good income allows people to pay for health-enhancing services, treatment, equipment and medicine. Having sufficient income provides the financial independence to pay for and access health services and treatment as they

are required, without being put on a waiting list or unable to afford essential medicines. As already discussed, Australia's health care system includes provision for government assistance to people on low incomes, but there may still be times when a person must decide whether they can afford to access health care services and information.

Culture

People's attitudes and cultural practices may affect the extent to which they access health services, or their willingness to undergo certain health procedures. A person's religious beliefs might require them to avoid certain procedures (e.g. blood transfusion), which would limit their treatment options. Likewise, if a person's culture dictates their beliefs about the place of males and females in their community, they might feel uncomfortable or unwilling to let a doctor or a nurse of a certain gender attend to them.

Case study

How to make hospitals work for Aboriginal people

For many Aboriginal people being in a sterile hospital environment conjures up memories of racism and mistreatment. Many Aboriginal people have a lot of mistrust towards the existing health system due to the history of mainstream services in their lives.

Some fear they will never leave a hospital alive. 'For many Aboriginal people in the bush, hospital is code word for "the place you go to die," says a resident from Mataranka in the Northern Territory. 'People are used to seeing friends and relatives go off to hospital but never coming home. For them it seems that agreeing to go to hospital means agreeing their life is over. They won't do it while they are conscious.'

Many members of the Stolen Generations choose not to see a white doctor or only when their condition has severely deteriorated. For example, only 67 Aboriginal adult health checks were performed in an area in Queensland with more than 12 000 Aboriginal residents. Less than 0.6% had their health checks done.

Alice Smith, a Punjima woman from Western Australia, remembers: 'I didn't want to have my kids in hospital because the doctor is a man. Out in the bush you don't have anyone. The mother got to sit down by herself, and a woman is there just to help... None of the women used to go to the hospital. I used to have bush medicine all the time. If they get sick we know what tree to get, and to boil it or whatever we needed to do... I grew up in the bush and never had a tablet to fix me.'

Extract adapted from Creative Spirits website 2016, 'Hospitals, doctors, health & Aboriginal people. How to make hospitals work for Aboriginal people'

Case study questions

- 1 Explain how culture influences Aboriginal people's access to health care.
- 2 What other sociocultural factors aside from culture could also affect Aboriginal people's access to health care? Explain why you have chosen these factors.

Environment

As mentioned earlier, the environment in which an individual or community lives can also influence their access to health services and information (Figure 12.11). When people live in a house that is safe and has utilities including electricity and Internet cabling, they are better able to stay in contact with others, through social media or by telephone, if not face to face. Having the means to communicate with others is important, as someone with a chronic illness might need to contact home help or an ambulance – without such resources, an individual is vulnerable.

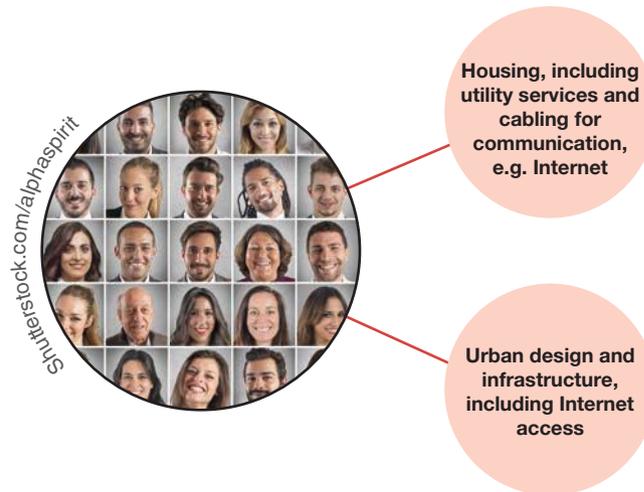


Figure 12.11 Environmental factors that affect access to health services

Suitable urban design and infrastructure are also important in enabling people to access health care services and information. For example, the planning of new towns needs to ensure that services and facilities are included that will optimise the health and wellbeing of the community – open recreational spaces, for example, and hospitals and other health care services. For people living in more remote locations, access to telephone and the Internet can help ensure that they still have access to services, particularly online services such as Nurse On Call and online GP consultations, and can communicate with health service providers.

Rights and responsibilities when accessing health services

Access to health care is not just important, it is a human right. The Australian Government and other government, non-government and private bodies work to provide equity of access to health care services in Australia.

Rights

The Australian Commission on Safety and Quality in Health Care has developed a list of the rights of all Australians when visiting any health care service in the country. This list of rights is known as the *Australian Charter of Healthcare Rights* (Figure 12.13). While all seven elements on the list are important, the emergence of digital health care has made maintaining the privacy of personal information while sharing the information for health care benefits a changing landscape. As noted earlier, the security measures used for eHealth records are considered equal to those used by banks. Although the charter of rights was developed in 2007–08, before digital health services were as advanced as they are now, it is still relevant as it also covers non-digital forms of communication, such as face-to-face and telehealth consultations. Each individual has the right to participate in decision making about their health, and to access their health records and health services.

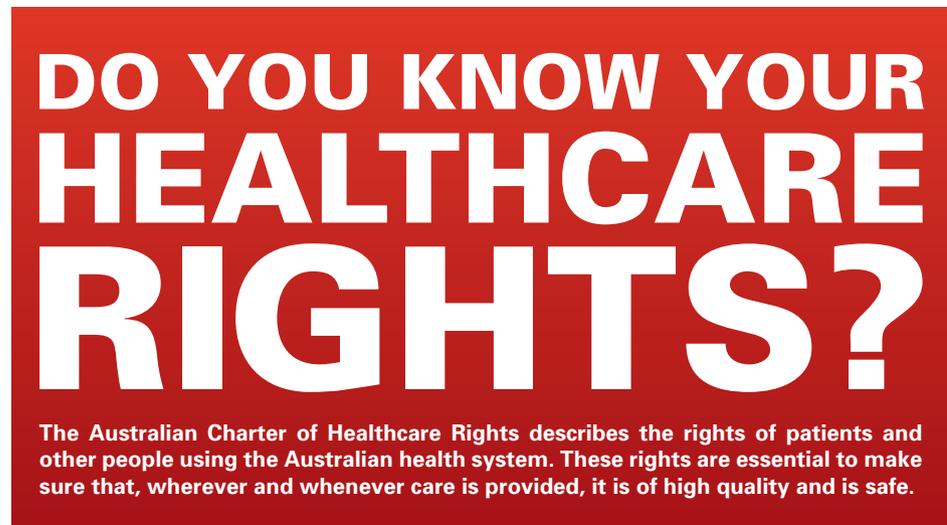
What can I expect from the Australian health system?	
MY RIGHTS	WHAT THIS MEANS
Access	
I have a right to health care.	I can access services to address my healthcare needs.
Safety	
I have a right to receive safe and high quality care.	I receive safe and high quality health services, provided with professional care, skill and competence.
Respect	
I have a right to be shown respect, dignity and consideration.	The care provided shows respect to me and my culture, beliefs, values and personal characteristics.
Communication	
I have a right to be informed about services, treatment, options and costs in a clear and open way.	I receive open, timely and appropriate communication about my health care in a way I can understand.
Participation	
I have a right to be included in decisions and choices about my care.	I may join in making decisions and choices about my care and about health service planning.
Privacy	
I have a right to privacy and confidentiality of my personal information.	My personal privacy is maintained and proper handling of my personal health and other information is assured.
Comment	
I have a right to comment on my care and to have my concerns addressed.	I can comment on or complain about my care and have my concerns dealt with properly and promptly.

Extract from Australian Commission on Safety and Quality in Health Care. Australian Charter of Healthcare Rights. Sydney: ACSQHC; 2012. Reproduced with permission of the Australian Commission on Safety and Quality in Health Care.

Figure 12.12 The Australian Charter of Healthcare Rights.

Confidentiality

The only element of the rights charter that is not always guaranteed is confidentiality. If a health care professional believes a person (child or adult) is at risk of harming (or killing) themselves, or at risk of being harmed by another person, or at risk of harming someone else, then confidentiality may be broken to notify police or acute health services, such as a crisis assessment team that deals with acute cases of mental ill health. Other situations in which confidentiality would not be honoured are: if a court required a medical professional to give evidence in a case; and if there was a statutory requirement for child protection services. These are more extreme situations, however. For your regular consultations, confidentiality must be honoured by health professionals, as it is a legal requirement.



DO YOU KNOW YOUR HEALTHCARE RIGHTS?

The Australian Charter of Healthcare Rights describes the rights of patients and other people using the Australian health system. These rights are essential to make sure that, wherever and whenever care is provided, it is of high quality and is safe.

ACCESS

You have a right to health care.

SAFETY

You have a right to safe and high quality care.

RESPECT

You have a right to respect, dignity and consideration.

COMMUNICATION

You have a right to be informed about services, treatment, options and costs in a clear and open way.

PARTICIPATION

You have a right to be included in decisions and choices about your care.

PRIVACY

You have a right to privacy and confidentiality of your personal information.

COMMENT

You have a right to comment on your care and to have your concerns addressed.



Figure 12.13 All Australians have certain rights when accessing health care services.

For more information on the Charter ask for a flier on the Australian Charter of Healthcare Rights, or visit www.safetyandquality.gov.au



Quality in Health Care: Australian Charter of Healthcare Rights. Sydney: ACSQHC; 2012. Reproduced with permission of the Australian Commission on Safety and Quality in Health Care.

Responsibilities

With rights come responsibilities. While it is important for an individual to know what they are entitled to and can expect from their health care experience, they are also obliged to deliver on a number of elements. Examples of your responsibilities when accessing health care include:

- going to appointments and telling services when [you] can't
- answering questions and giving information about [your] health in an open and honest way
- letting health professionals know about changed circumstances that might put [your] health care at risk
- letting health professionals know if [you decide] to change or stop treatment
- respecting health care staff and other people using services, and thinking about other people's rights and needs
- taking an active part in [your] health care decisions and asking questions if [you're] not sure about what's happening to [you]
- speaking up when [you are] not happy about the care [you're] getting so that issues can be dealt with quickly and fairly.

Extract adapted from raisingchildren.net.au, 'Teenage health care: your child's rights and responsibilities'

Ethics, access and new technologies

eHealth is a new way to access health care, and is still developing as digital technology develops. New technologies bring new opportunities, including the potential to cure diseases and treat chronic ailments. They also require us to reflect on the challenges and **ethics** of using such treatments, including how best to integrate them into health care while also respecting each person's right to a safe and reliable health system. Some examples of new technologies being researched and experimented with in health care are discussed below, including the ethical and access issues they raise.

Many new and innovative technologies are available or in development. To maintain the high standard of health care that exists in Australia, standards and safeguards need to be in place to ensure the safety and reliability of new treatments. While treatments developed using new technology show great promise, it is important to consider their effects on not just the physical dimension of health but also the social, emotional, mental and spiritual dimensions.

ethics a system of moral principles or standards of conduct for an individual or a group with respect to specific situations; the principles used to judge right from wrong

Reproductive technologies

Reproductive technologies are being refined and researched constantly, to assist people who are dealing with infertility. There are a number of techniques (Figure 12.14), and all aim to enable a woman to become pregnant, while taking into account her medical needs and/or her partner's. When choosing a treatment, there are many factors to consider, such as the parents' ethical and religious values, the legal rights of the child, any physical/medical limitations, and surrogacy as a possible alternative method.

There are laws in place to ensure that the procedures are carried out in a safe and considered manner, although in Australia these laws can vary between states, particularly in regards to surrogacy and care for tissue. The NHMRC provides guidelines to support the legislation, to ensure responsible use of assisted reproduction technologies. The ethical considerations, such as the examples outlined below, are for individuals to consider and decide upon according to their belief system, provided they abide by the law.

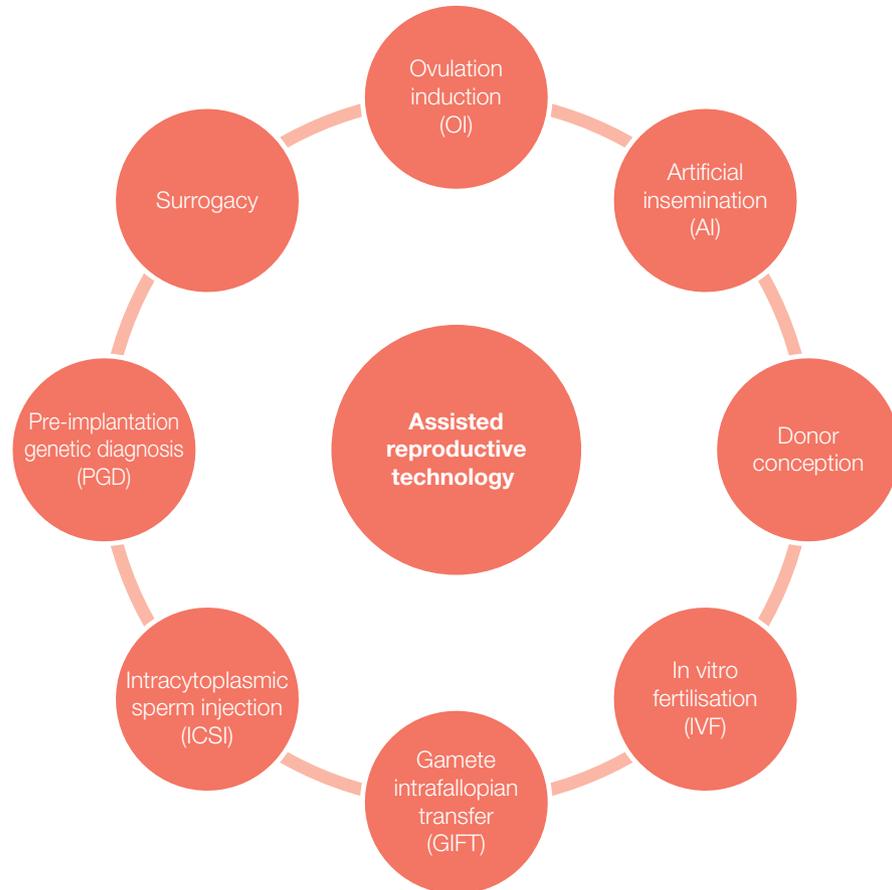


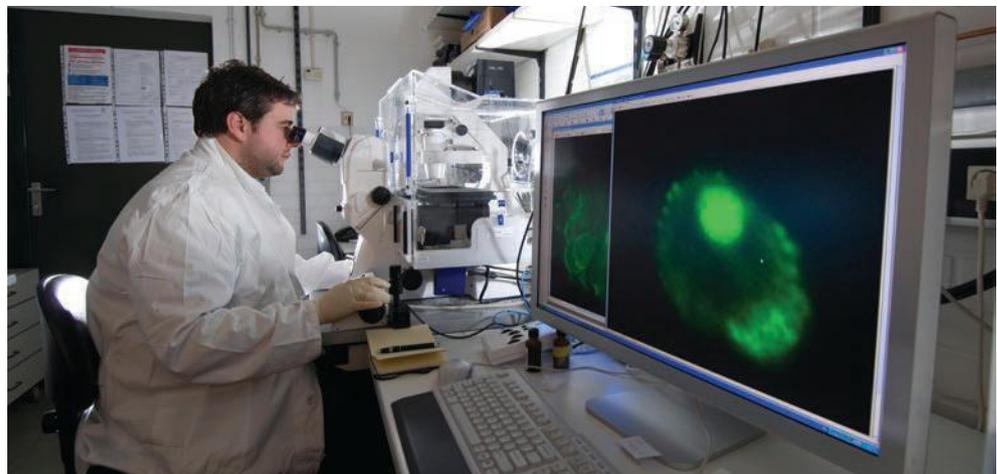
Figure 12.14 Assisted reproduction techniques



Weblink

WATCH

Go to the IVF Australia website (visit <http://hhdvce1and2.nelsonnet.com.au> to access the weblink). Select 'Watch a video about the IVF process', and view the video.



Alamy Stock Photo/imageBROKER

Figure 12.15 New technologies allow new methods of reproduction of plants and animals.

GIFT vs IVF

The difference between GIFT and IVF is that, with GIFT, the woman's eggs are removed, mixed with sperm and immediately placed into the fallopian tube (rather than allowing the initial development of the zygote/embryo in the laboratory). This might make GIFT more acceptable to people for whom IVF goes against their religious beliefs.

Excess embryos

Ethical concerns include the question of what to do with unused embryos after a couple have completed their treatment. For example, should the embryos be donated to science, donated to another couple who are unable to conceive, or destroyed?

The child's right to know

The question of whether a child conceived using sperm or egg from a donor has the right to know the identity of both parents, versus the donor's right to anonymity, has been debated for some time by governments and law makers. In Victoria, the law is that the donor's identity is to be disclosed to the recipient of the donation. This allows people who were born through such treatments to know their genetics, identity and medical history. However, people who donated prior to this law coming into effect must now be prepared to lose the guarantee of privacy, to allow donors to find out their identity. Is this fair – whose rights are more important?

Surrogacy

Surrogacy is a way to have a child without the need for IVF, GIFT or other technological methods. Surrogacy involves a female carrying the biological child of another woman, and handing the child over after birth. Laws are in place in Australia to ensure that payment cannot be received by a surrogate mother for carrying a child, although costs incurred by the surrogate through being pregnant can be paid for by the couple for whom she is carrying the child.



Alamy Stock Photo/Deco

Figure 12.16 Reproductive technologies assist the fertilisation process.

Artificial intelligence and robotics

Artificial intelligence (AI) is a huge business, not just in health care but in economies and commercial businesses around the world. Major companies such as IBM and Microsoft are working hard in the health sector to develop algorithm-based technologies that medical professionals can use to predict illnesses before they even present. AI is seen as having the potential to reduce human error in diagnosis and treatment, and to speed up diagnoses by analysing information more quickly and efficiently. There are already apps available that can be used by medical professionals to analyse symptoms and provide a diagnosis.

In addition to AI, robots are already assisting doctors by providing great precision in surgery, including the extra visual support of 3D cameras. The Epworth Hospital in Victoria has an extensive robotic surgery program, including the use of computers and robotic arms (controlled by the surgeon) to guide miniature instruments inside the human body. The robots cannot operate independently – the surgery cannot be performed without the knowledge and decision making of the doctors.

The benefits of robotic surgery include:

- Quicker return to normal activity
- Shorter hospital stay
- Less blood loss
- Less scarring than other traditional open surgery
- Lower blood transfusion rates
- Reduced surgical complications
- Lower risk of infection

Extract from Epworth Hospital, 'About robotic surgery'



Getty Images/Dana Neely

Figure 12.17 Robotic surgery – the robotic arms that carry out the surgery are controlled by the surgeon.

Although AI and robotics address the physical dimension of health, they lack the human connection – they do not address the social and emotional dimensions of health in the way that visiting a trusted doctor and engaging in conversation does. And they are expensive. If practices can't deliver robotics procedures, patients may be left without access to the most innovative procedures.

Case study

Robots in health care could lead to a doctorless hospital

9 February 2016

Imagine your child requires a life-saving operation. You enter the hospital and are confronted with a stark choice.

Do you take the traditional path with human medical staff, including doctors and nurses, where long-term trials have shown a 90% chance that they will save your child's life?

Or do you choose the robotic track, in the factory-like wing of the hospital, tended to by technical specialists and an array of robots, but where similar long-term trials have shown that your child has a 95% chance of survival?

Most rational people would opt for the course of action that is more likely to save their child. But are we really ready to let machines take over from a human in delivering patient care?

Of course, machines will not always get it right. But like autopilots in aircraft, and the driverless cars that are just around the corner, medical robots do not need to be perfect, they just have to be better than humans.

So how long before robots are shown to perform better than humans at surgery and other patient care? It may be sooner, or it may be later, but it will happen one day.

But what does this mean for our hospitals? Are the new hospitals being built now ready for a robotic future? Are we planning for large-scale role changes for the humans in our future robotic factory-like hospitals?

Our future hospitals

Hospitals globally have been slow to adopt robotics and artificial intelligence into patient care, although both have been widely used and tested in other industries.

Medicine has traditionally been slow to change, as safety is at its core. Financial pressures will inevitably force industry and governments to recognise that when robots can do something better and for the same price as humans, the robot way will be the only way.

What some hospitals have done in the past 10 years is recognise the potential to be more factory-like, and hence more efficient. The term 'focused factories' has been used to describe some of these new hospitals that specialise in a few key procedures and that organise the workflow in a more streamlined and industrial way.

They have even tried 'lean processing' methods borrowed from the car manufacturing industry. One idea is to free up the humans in hospitals so that they can carry out more complex cases.

Some people are nervous about turning hospitals into factories. There are fears that 'lean' means cutting money and hence employment. But if the motivation for going lean is to do more with the same, then it is likely that employment will change rather than reduce.

Medicine has long been segmented into many specialised fields but the doctor has been expected to travel with the patient through the full treatment pathway.

A surgeon, for example, is expected to be compassionate, and good at many tasks, such as diagnosing, interpreting tests, such as X-rays and MRIs, performing a procedure and post-operative care.

As in numerous other industries, new technology will be one of the drivers that will change this traditional method of delivery. We can see that one day, each of the stages of care through the hospital could be largely achieved by a computer, machine or robot.

Some senior doctors are already seeing a change and they are worried about the de-humanising of medicine but this is a change for the better.

Safety first but some AI already here

Our future robot-factory hospital example is the end game, but many of its components already exist. We are simply waiting for them to be tested enough to satisfy us all that they can be used safely.

There are programs to make diagnoses based on a series of questions, and algorithms inform many treatments used now by doctors.

Surgeons are already using robots in the operating theatre to assist with surgery. Currently, the surgeon remains in control with the machine being more of a slave than a master. As the machines improve, it will be possible for a trained technician to oversee the surgery and ultimately for the robot to be fully in charge.

Hospitals will be very different places in 20 years. Beds will be able to move autonomously transporting patients from the emergency room to the operating theatre, via X-ray if needed.





Triage will be done with the assistance of an AI device. Many decisions on treatment will be made with the assistance of, or by, intelligent machines.

Your medical information, including medications, will be read from a chip under your skin or in your phone. No more waiting for medical records or chasing information when an unconscious patient presents to the emergency room.

Robots will be able to dispense medication safely and rehabilitation will be robotically assisted. Only our imaginations can limit how health care will be delivered.

Who is responsible when things go wrong?

The hospital of the future may not require many doctors, but the numbers employed are unlikely to change at first.

Doctors in the near future are going to need many different skills than the doctors of today. An understanding of technology will be imperative. They will need to learn programming and computer skills well before the start of medical school. Programming will become the fourth literacy along with reading, writing (which may vanish) and arithmetic.

But who will people sue if something goes wrong? This is, sadly, one of the first questions many people ask.

Robots will be performing tasks and many of the diagnoses will be made by a machine, but at least in the near future there will be a human involved in the decision-making process.

Insurance costs and litigation will hopefully reduce as machines perform procedures more precisely and with fewer complications. But who do you sue if your medical treatment goes tragically wrong and no human has touched you? That's a question that still needs to be answered.

So too is the question of whether people will really trust a machine to make a diagnosis, give out tablets or do an operation?

Perhaps we have to accept that humans are far from perfect and mistakes are inevitable in health care, just as they are when we put humans behind the wheel of a car. So if driverless cars are going to reduce traffic accidents and congestion then maybe doctorless hospitals will one day save more lives and reduce the cost of health care?

Extract from The Conversation, 'Robots in health care could lead to a doctorless hospital', 9 February 2016, CC BY-ND 4.0

Case study questions

- 1 Outline the key features of artificial intelligence and robotics in health care.
- 2 Discuss the benefits of artificial intelligence and robotics in providing health care in Australia.
- 3 Identify and discuss the ethical dilemmas presented by robotics and artificial intelligence in health care.

Nanotechnology

Nanotechnology is the use of engineering technology at a molecular scale, and its use in medicine is known as nanomedicine. The materials and devices used in nanotechnology are in general less than 100 nanometres (one ten-thousandth of a millimetre) long – smaller than some bacterial cells or viruses. Nanomedicine can be used to diagnose, monitor, treat and prevent disease, including cardiovascular disease, cancer, musculoskeletal disease, neuromuscular disease, psychiatric conditions, diabetes and infections. The many potential uses of nanotechnology include carrying out procedures with high precision, delivering drugs to specific parts of the body, and providing detailed imaging from inside the body. The advantages of nanomedicine include earlier diagnosis, more accurate delivery of drugs, implants and tissue engineering.

While nanomedicine has the potential to reduce the need for invasive surgery, extensive research and testing are required to ensure the technology doesn't compromise other body systems. Other ethical issues include the potential for things to go wrong, and the possibility that the expense of such techniques will exclude those who can't afford to pay for them.

Case study

Australian nanotechnology is revolutionary

By Liza Kappelle, *Sydney Morning Herald*,
1 May 2013

Australian researchers have made a new material that could revolutionise the electronics market with thinner, faster and lighter gadgets.

Others are using nano-inspired technology to detect cancers, deliver drugs into the bloodstream, explore for oil and gas in an environmentally friendly way, enhance security, purify water and make prosthetics.

Who knows what they could do next?

Australian researchers want to remain among the world leaders of innovation and to snare a hefty share of the global nanotechnology product market that's tipped to be worth \$3 trillion by 2020.

Nanotechnology has become a priority area for development and funding in many nations, including China.

And the sector appears to offer endless opportunities for different fields to team up to exploit the fact that seemingly stable materials develop weird and wonderful properties in the nano form.

Gold, for example, has scientists excited and not for its more than \$US1600 an ounce price tag.

RMIT University's Deputy Pro Vice-Chancellor (International) Suresh Bhargava says for centuries gold has been defined as a noble metal, or a stable one that's resistant to corrosion and oxidation.

'But the same metal, when it comes to nano forms, is full of fantastic properties,' Professor Bhargava says.

Nano sizes can be easier to comprehend when people realise a human hair is about 80 000 times bigger than a nano particle, the molecular biologist says.

One of Prof Bhargava's projects is using nano-engineered flecks of gold in a sensor to attract and measure one of the world's most poisonous air pollution substances, mercury.

'Mercury is a very toxic element. Sixty thousand babies in the US alone are born each year with mercury-related diseases,' he says.

The sensor is almost ready for commercialisation and they are also working on ways to remove the toxic element from the air.

'It is not far away,' he told AAP this week.

Australian researchers are also making waves in electronics.

They announced on Friday, in the journal *Advanced Materials*, they had developed a new two-dimensional material made up of layers of crystal known as molybdenum oxides, with properties that encourage the free flow of electrons at ultra-high speeds.

This could boost speed of communication and capacitance – the ability to store an electrical charge in a small chip.

One of the team, CSIRO's Serge Zhuiykov, says the importance of the new discovery will mean they'll be able to transfer data more quickly, and the functionality of devices will improve.

'At the moment it is beyond our imagination where this new material could be applied, but it could be employed to create thinner mobile phones, new types of flexible electronics or lighter laptops,' he said.

Prof Bhargava says nanotechnology is being exploited by a raft of industries including oil and gas exploration, where a lot of sensors are required.

'It can become more cost effective, more environmentally friendly, it is 21st century exploration,' he said.

But one of the biggest hurdles to making the most of innovation in nanotechnology in Australia is getting support for multidisciplinary research through project funding, resourced networking and research infrastructure.

Vipul Bansal, of RMIT's School of Applied Sciences, is working on a nanochip biosensor for malaria and other diseases.

He is also using nanoparticles as drug delivery vehicles and working with cancer researchers to improve detection imaging.

'The biggest challenge is lack of opportunity for biological scientists and material scientists to work together,' Dr Bansal said.

People who work on the interface of medical and material sciences can't have research funded by the two main commonwealth funding bodies – the Australian Research Council and the National Health and Medical Research Council, he said.

'Commonwealth money is used but they don't work together, which is a shame,' he said.

Prof Bhargava says competition for funding can impede co-operation.

'Instead of competing in the same area, when the market and the funding is getting very short, do it in a complementary way,' he says.

Late last year the Australian Academy of Science's National Nanotechnology Research Strategy was launched with a warning that economies and industries that failed to invest in nano-inspired technology could be left behind as products with improved or new functionality replaced the old.

The national strategy called for industry, academia and government to form an alliance to maximise the potential economic, social and environmental gains made possible through nanotechnology.

Extract from Kappelle L, 'Australian nanotechnology is revolutionary', *Sydney Morning Herald*, 1 May 2013



➤ **Case study questions**

- 1 What is meant by the term 'nanotechnology'?
- 2 What dimensions of health benefit from developments in nanotechnology?

Extension

- 3 **a** How many people die from malaria each year?
b Explain why innovations in nanomedicine could be important in the treatment of malaria.

3D printing: implants and bioprinting

Surgeons already use 3D printing implants. In Australia in 2016, surgeons removed a cancer-affected vertebra from a man's neck and replaced it with a 3D-printed vertebra made of titanium. To create a 3D body part, an image of the missing or injured/compromised body part is provided, and computers are used to develop a model to replace it. The 3D printer then creates the replacement part to be inserted into the body. The part must be compatible with human blood vessels and surrounding tissue. Potential ethical issues include the possibility of people using the system to improve body parts deemed to be inferior for 'beauty' or other non-medical reasons.

3D bioprinting uses a person's own cells and special biodegradable products to create the scaffolds. WFIRM has successfully implanted tissues and organs that were handmade in the lab into patients, and have proven that 3D-printed bone, muscle and cartilage structures, when implanted in animals, can develop a system of nerves and blood vessels, thereby integrating with the body. WFIRM is working with the regulatory process to conduct human clinical trials to test its methods. Thus, the safety and reliability of 3D printing of body parts is still in the testing phase. Further research is needed.



Figure 12.18 A 3D-printed human ear

Stem cells

Stem cell technology is an exciting and innovative field of health care. Researchers and doctors are trying to understand and unlock the potential of stem cells to benefit the health and wellbeing of humans. As humans are born and grow, our cells become differentiated (have a specific job in the body) and can only regenerate in that role. The exception to this is **stem cells**, which are

stem cell an unspecialised or undifferentiated cell with the ability to self-renew, and to differentiate into specialised cell types in the body

undifferentiated (unspecialised) cells that can become any other type of cell, and therefore have great potential for helping to cure many diseases, as they can help to repair tissue. Stem cell research includes research into the use of stem cells to treat diseases and conditions such as cerebral palsy, heart disease, spinal cord injury, blindness, stroke, diabetes and multiple sclerosis.

Stem cells are found in three- to five-day-old embryos and the umbilical cord, as well as in adults (in bone marrow, for example). The harvesting of stem cells from embryos raises ethical issues, however, and is controversial.

Within Australia the only proven treatments available involving stem cells are corneal and skin grafting, and blood stem cell transplants for the treatment of some blood, inherited immune and metabolic disorders, cancer and autoimmune diseases. There are many other potential treatments, but these are still in the research phase or in clinical trials, and are yet to be proven safe and effective.

Extract from National Stem Foundation of Australia 2015, 'The Australian stem cell handbook', p. 6

Support and consumer options in Australia's health system

In the earlier discussion of rights and responsibilities in accessing health care, one of the rights identified in the *Australian Charter of Healthcare Rights* was the right of patients to comment on their health care and to have their concerns addressed. It is an important element of good health care delivery that service providers review and reflect on their performance and continue to strive for the best quality care. It is also important that individuals who practise and provide health services are accountable for their actions, and that individuals are aware of their right to raise a concern and have it properly investigated.

A number of avenues exist for people to express concern and make a formal complaint about their health care. Two are described below: the Health Complaints Commissioner and the Australian Health Practitioner Regulation Agency (AHPRA), each of which has its own procedures for investigating complaints.

Health Complaints Commissioner

In Victoria, the Health Complaints Commissioner investigates concerns and complaints about health care by organisations and practices. The commission manages complaints relating to:

- access to services
- quality and safety
- care and attention
- respect, dignity and consideration
- communication about treatment, options and costs
- level of involvement in health care decisions
- access, privacy and confidentiality of personal health information
- complaint handling by the health service provider.

The Commission investigates and responds to complaints about health providers, such as GP clinics and community health centres, and public and private hospitals. The Commission investigates complaints about both registered

and non-registered practitioners, although these can also be investigated by the Australian Health Practitioner Regulation Agency.

Australian Health Practitioner Regulation Agency

The Australian Health Practitioner Regulation Agency (AHPRA) investigates complaints about registered and non-registered health practitioners.

Registered health practitioners

Registered health practitioners include doctors, dentists, nurses, surgeons, midwives, physiotherapists, chiropractors, psychologists, pharmacists, Chinese herbalists, occupational therapists, optometrists, osteopaths, podiatrists, radiographers and Aboriginal health practitioners.

Non-registered health practitioners

Non-registered health practitioners include audiologists, naturopaths, dietitians, speech pathologists, homeopaths, counsellors, paramedics, masseurs, alternative therapists and other providers of general health services.

The agency investigates individual health practitioners, and if it finds that a practitioner has not met professional standards, it can recommend to the Australian Medical Association that the practitioner's registration to practise be removed.

Review and reflect

- 1 Rank the new technologies discussed in this chapter from most important to least important. Justify your selection.
- 2 For each new technology discussed in this chapter, provide two positives and two concerns for the Australian community.

Chapter summary



Unit 2 Area of Study 2 revision cards

- Digital health, or eHealth, is the use of information and communication technology in health care.
- Digital literacy enables an individual to access, process and communicate information in digital form. It has three elements: technical, media and social literacy.
- The Australian Digital Health Agency develops and oversees digital health on behalf of Australia's Department of Health.
- The My Health Record system is a national system for managing patient records in digital form.
- The benefits of digital health for the patient include: greater access to their own health information to keep track of their medications and treatments, and greater ability to be involved in decision making about their health.
- The benefits of digital health for the practitioner include efficient and effective information sharing between medical professionals caring for a patient.
- Websites for health provide information and knowledge to health consumers. Examples of health websites are: Better Health Channel, ABC Health & Wellbeing, VicHealth, AMA, NHMRC and AIHW, GP2U and HealthEngine.
- Apps provide additional options for digital communication between providers and consumers. Examples of health apps are: SunSmart, Express Plus Medicare and Smiling Mind.
- Social media platforms such as Facebook, Twitter and Instagram are also used by health agencies to communicate with consumers.
- Sociocultural factors that affect access to health care include: family, education, employment, income and culture.
- Environmental factors include: housing (utility services) and environmental planning and infrastructure.
- The *Australian Charter of Healthcare Rights* lists seven rights that people have when they access health care services: access, safety, respect, communication, participation, privacy and consent.
- A patient's confidentiality might not be honoured in certain circumstances – for example, if they are at risk of harming themselves or others and police or acute health services need to be notified; or if a court requires evidence from a health professional.
- When people access health care services, they also have responsibilities, such as: meeting appointments, answering questions and giving information honestly, respecting health care staff, taking an active part in making health care decisions, asking questions, and speaking up if they have concerns.
- New technologies, including assisted reproduction methods, artificial intelligence and robotics, nanomedicine, 3D printing of body parts and stem cells, are improving the physical health of people, but also raise ethical issues.
- Two formal channels for Australians to lodge a complaint about health care delivery by an organisation or individual health care professional are the Health Complaints Commissioner in Victoria and the Australian Health Practitioner Regulation Agency.

Exam-style questions and sample answers

- 1 Explain your understanding of the term 'digital health'. **(1 mark)**
Sample answer: Digital health, including eHealth, is the information and communication technology used in health care. **(1 mark)**
- 2 List and explain two factors that could impact on an individual's access to digital health services in Australia. **(4 marks)**
Sample answer: Employment is important, as it makes it more likely that a person will be able to afford the digital devices to utilise the health service available in Australia **(2 marks)**.
Education allows people to be aware of health promoting messages. The literacy skills developed in gaining an education enable them to engage with the community and be open to health promotion messages. Emerging technologies that can assist individuals to access suitable health care options **(2 marks)**.
- 3 If an individual has a concern about their treatment or care during a health consultation, what options are available to that person to address the problem within Australia's health care system? Provide a brief description of these options. **(3 marks)**
Sample answer: An individual could raise their concern with the Health Complaints Commissioner or the Australian Health Practitioners Regulation Agency **(1 mark)**. These bodies handle complaints and investigate the issues surrounding the complaint **(1 mark)**. They respond to the person making the complaint and, if they find breaches of practice or policy, can take further action, such as recommending to the AMA that a practitioner be suspended **(1 mark)**.

Questions for you to practise

Read the following information, then answer the questions that follow.

Connected care making a difference

An Aboriginal Health Service in South Australia is seeing better outcomes for remote patients with the use of digital health.

Living an hour outside of Kingston, a small town in South Australia, Ken¹ has a range of chronic conditions and sees a number of different doctors and specialists. When the My Health Record system commenced operation, Ken was very quick to register for a My Health Record having become frustrated that his health information was kept by different people and unable to be shared resulting in, among other things, repeating tests. He has struggled to remember all the details himself and is concerned his care is being affected.

Ken requires a monthly medication check-up from a GP. The Aboriginal Health Service, operating with fly-in GPs, is only able to send a GP to him once every three months, with a Registered Nurse visiting at other times.

A representative from the service contacted the local practice at Kingston to discuss Ken's care and was pleased to find that the practice was using digital health.

Ken provided his consent over the phone to the Aboriginal Health Service to upload a Shared Health Summary. The Kingston practice committed to uploading an Event Summary whenever Ken visits for his check up, and the registered nurse will do the same on her monthly visits.

Ken is now confident that all the people involved in his care will have the information they need to make the best healthcare decisions for him.

¹ Not the patient's real name

Extract from Australian Government, Australian Digital Health Agency, n/d, 'Connected care making a difference'

Questions

- 1 Identify and explain one factor that has impacted on Ken's ability to access health care prior to signing up for 'My Health Record'. **(2 marks)**
- 2 Describe two health and wellbeing benefits that Ken has experienced as a result of using the digital health platform 'My Health Record'. **(4 marks)**
- 3 Using the information provided about Ken, describe in detail an emerging technology that you have learnt about that could enhance Ken's health and wellbeing. **(4 marks)**

Glossary

abuse any action that intentionally harms or injures another person; in relationships, abuse can be in many forms including physical, verbal, emotional, financial or sexual

adaptive cognition the ability to adjust one's knowledge and thinking adequately or appropriately to the environment or situation

advertising a form of marketing that aims to sell a product

advocacy actions taken to promote the rights of specific groups of people

anaemia a condition where the body is deprived of oxygen because of a lack of red blood cells or haemoglobin

anorexia nervosa an eating disorder characterised by extremely low weight, fear of gaining weight and a strong desire to be thin

artificial insemination a method of achieving conception by inserting a sperm sample through a woman's cervix and into the uterus, immediately before ovulation

attractor well preferred patterns of movement, including reflexes, shown in new babies

bulk billing a system of payment for medical services, where the health professional accepts the Medicare benefit as full payment for service and does not charge any additional fees such as administration or booking fees

burden of disease a measure of the gap between a population's actual health, and an ideal level of health in the given year (i.e. with every individual living in full health to the theoretical maximum lifespan)

community expectations the types of behaviour that are expected of people within a community

community health a health service that is based in the community but generally offers more than medical services, referred to as community-based health services, funded largely by state governments or Aboriginal-controlled health services. Community health is concerned with the social determinants of health and empowerment of populations (Baum 2015).

community values collective beliefs about what constitutes good behaviour and the things that are important within a community

comorbidity having more than one diagnosed illness at a time

core activity limitation (CAL) an indicator that measures the extent to which individuals in a population are limited in undertaking activities or participating in the core life areas of self-care, mobility and communication

cultural factors aspects of culture and the cultural environment that affect health, such as customs, beliefs, practices and religion

culture the set of distinctive spiritual, material, intellectual and emotional features of society or a social group, [which] encompasses, in addition to art and literature, lifestyles, ways of living together, value systems, traditions and beliefs (UNESCO, Universal Declaration on Cultural Diversity, 2001)

DALY (disability-adjusted life year) the total number of years of life lost (YLL) to a condition and the total years of disability (YLD); the higher the number of DALYs attributed to a condition, the greater the impact on a population

dental caries tooth decay; breakdown of the substance that makes up the tooth

digital literacy the ability to access, process and communicate information in digital form

eHealth health services, information and data delivered via the Internet or other IT-based methods

emotional development the growing ability to express appropriately, understand and regulate one's emotions

emotional dimension an element of health and wellbeing that consists of our emotional and psychological functioning

ethics a system of moral principles or standards of conduct for an individual or a group with respect to specific situations; the principles used to judge right from wrong

fertility the natural ability to produce offspring; a fertile male can father children, a fertile female can become pregnant and carry a baby to full term (9 months after conception)

food function the impact that consuming a particular food has on the body

food insecurity limited or uncertain availability of nutritionally adequate and safe foods, or limited ability to acquire foods in socially acceptable ways

food security continuous access to adequate, safe, nutritious food to maintain a healthy and active life

food selection model a recommendation by a particular organisation or government regarding how people should structure their daily food intake

food sources foods that contain a particular nutrient

fortified describes a food product that has had a nutrient added, to increase its nutritional value

gap payments the gap amount is the difference between the schedule fee and the Medicare benefit, or between the Medicare benefit, private health insurance cover and the schedule fee; the gap amount must be paid by the individual

gender socially constructed norms, roles and expectations that shape our understanding of what it means to be a man or a woman; traditionally viewed as binary (man or woman); however, it is now understood that there are various ways in which gender can be identified and expressed

gestational diabetes a form of diabetes that occurs during pregnancy and usually goes away after the baby is born

glycaemic index (GI) a method of ranking carbohydrate-rich foods according to how much they affect the body's blood glucose level

haemoglobin a molecule in red blood cells that contains iron and carries oxygen

health a state of physical, mental and social wellbeing; a resource for everyday living; often considered together with wellbeing as a single concept

health care system services and resources set up to promote, restore and/or maintain health

- health risk factors** attributes, characteristics or exposures that increase the likelihood of a person developing a disease or health disorder
- health status** the level of health experienced by an individual or a population at a particular time
- housing** the building, shelter or accommodation in which people live, which can influence the health and wellbeing of individuals and populations
- illness** the experience of being in a state of ill or poor health, usually the result of the presence of a disease or injury
- incidence** the number of new cases of a condition that occur in a population in a given period of time
- indicator** a statistical measure used to provide information about a particular aspect of the health status of a population
- intellectual development** growth and change in the brain's mental functions, influencing the ability to think, reason, learn and understand
- kilojoule** the unit used to measure energy expenditure or intake; abbreviation is kJ
- life expectancy** how long a person can expect to live; the number of years of life remaining to a person at a particular age if death rates do not change
- lifespan** the number of years between birth and death of an organism
- macronutrients** nutrients that are required in large amounts in the diet, e.g. carbohydrates, protein, fat
- malnutrition** a condition in which a person's nutritional requirements are not met
- maturation** the process of growth over time to reach full functioning
- Medicare Benefits Schedule** a list of all the services covered by Medicare (i.e. subsidised by the Australian Government)
- medicine** a substance or therapy that improves the overall functioning and wellbeing of the body or prevents a disease; it includes prescription and non-prescription medicines, including complementary health care products
- mental dimension** an element of health and wellbeing that consists of our mind's cognitive functioning (i.e. thinking, learning, processing information, using memory and logic, and decision-making)
- mental health** a state of wellbeing, where the person feels that they can cope with the normal stresses of life
- mental illness** a health problem that significantly affects how a person thinks, feels, behaves and interacts with others
- micronutrients** nutrients that are required in small amounts in the diet – vitamins and minerals
- morbidity** the level of ill health in a population
- mortality rate** the number of deaths in a population in a given period
- nutrient** a substance that provides nourishment to the body, enabling it to live and grow
- nutritional (dietary) imbalance** when a person has too little or too much of a particular nutrient in their diet
- ossification** the formation of bones
- peak bone mass** the maximum mass and strength of bone in a person's body
- peer pressure** the influence of others on an individual's decisions
- perpetrator** a person who has committed a crime or a violent or harmful act
- physical development** the way a person's body grows, changes and develops throughout their lifetime
- physical dimension** an element of health and wellbeing that consists of the functioning of the body and its systems
- placenta** an organ that connects the developing foetus to the uterine wall of the mother to allow nutrient uptake, waste elimination and gas exchange by the foetus via the mother's blood supply
- political factors** aspects of the political environment that affect health, such as legislation, policy and political party affiliation
- polyamorous family** a romantic relationship in which the individuals may have more than one partner, with the knowledge and consent of all partners
- prevalence** the number of cases of a condition that occur within a population in a given time period
- primary health care** the first place people go to seek help; it acts as the foundation for the rest of the health system, by providing basic, accessible and affordable care, primarily concerned with treatment, cure and care of people with illness
- protective factors** behaviours, resources, supports or strategies in individuals, families, communities or society in general that can enhance health or reduce the chances of health problems developing
- psychological distress** an indicator that measures the mental health and wellbeing of a population (e.g. the levels of nervousness and agitation)
- puberty** a series of physical changes that occur in the body that enable sexual reproduction; the changes mark the transition from child to adult
- public health** activities primarily led by governments and intended to protect people from disease and promote their health
- rates of hospitalisation** an indicator that provides a measure of the occurrence in a population of serious conditions requiring inpatient treatment
- relationship** the way in which two or more people or groups regard and behave towards each other
- religion** a set of shared spiritual beliefs and practices
- resilience** the ability to recover quickly from difficulties
- risk factor** something that increases the likelihood of poor mental health
- self-assessed health status** provides an overall measure of a population's health status based on individuals' perceptions of their own health and wellbeing
- sex** biological differences, such as chromosomes, hormones, internal and external sex organs, that determine whether someone is biologically male or female
- social development** learning and acquiring the values, knowledge and skills that enable people to interact with others effectively and to contribute in positive ways to society
- social dimension** an element of health and wellbeing that consists of how we interact with and relate to others

Glossary

social factors aspects of society and the social environment that affect health, such as poverty, early life experiences, social networks and support

social inequality the existence of unequal opportunities, conditions and rewards for people of different social position or status within a group or society

social media technology-mediated activities that allow the creation and sharing of information and ideas

sociocultural factors broader factors relating to society and culture that can affect the health of individuals and populations

socioeconomic status a person's or group's economic and social standing relative to others, based on income, education and occupation

spiritual dimension an element of health and wellbeing that consists of our sense of meaning and purpose in life

stem cell an unspecialised or undifferentiated cell with the ability to self-renew, and to differentiate into specialised cell types in the body

transition a process of changing from one state or condition to another

trend a general direction in which something is going or changing

unemployment being out of work, actively looking for work, and available to start work, but unable to find a position

valid legally sound or well founded

victim a person who is harmed, injured or killed as a result of a crime, accident or other event or action

waiting period a time that must be served when beginning or upgrading private health insurance cover; it may mean that cover is not provided for certain treatments, or that lower benefits will be paid, until the waiting period is over

wellbeing a complex combination of all dimensions of health, characterised by an equilibrium in which the individual feels healthy, capable and engaged (VCAA study design 2018–2022, p. 5)

YLD (years lived with a disability) the number of years spent with disability or ill health; the non-fatal measure of burden of disease

YLL (years of life lost) the number of years of life that are lost due to premature mortality; measures the fatal burden of disease

zygote a fertilised egg cell, formed as a result of a sperm fusing with an ovum (egg)

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