ANDREW BEAUMONT | MEREDITH FETTLING | FIONA ALDERSON
LISA O'HALLORAN | KIM WESTON

JACARANDA KEY CONCEPTS IN VCE

HEALTH & HUMAN DEVELOPMENT

FIFTH EDITION | UNITS

1&2

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• ABC: **29–30/***Giant tent for Aboriginal health*, The World Today - Tuesday, 29 October , 2002, Nance Haxton, http://www.abc.net.au/worldtoday/stories/s713937.htm; **141/***One quarter of Australia's teenagers are overweight or obese, new health survey reveals*, Rachael Brown. http://www.abc.net.au/news/2015-02-19/a-quarter-of-australias-teenagers-are-overweight-or-obese/6144806; **155/**ABC article "Public vending machines to improve Gippsland youth sexual health", Zoe Ferguson, 10 August 2015 http://www.abc.net.au/local/stories/2015/08/10/4290201.htm?site=gippsland; **174–175/***Young people with anxiety helped by Queensland-developed Brave Program*, Andrew Kos. http://www.abc.net.au/news/2016-07-15/young-people-using-online-program-to-overcome-severe-anxiety/7484474; **293/***Breast cancer drug Tamoxifen listed on Pharmaceutical Benefits Scheme from today*, Lee Brooks. http://www.abc.net.au/news/2016-10-01/breast-cancer-prevention-drug-tamoxifen-listed-on-pbs/7895378 • Australian Commission on Safety and Quality in Health Care: **305/**Australian Commission on Safety and Quality in Health Care, *What can I expect from the Australian health system?* Sydney: ACSQHC, 2008 • Copyright Agency Limited: **180/**Monash Council and Link Health and Community to keep fighting for a mental health service for young people, Jesse Wray-McCann; **307/**Smartphones raise privacy issue in healthcare, Amy Corderoy, *The Sydney Morning Herald*; **326/**news.com.au, Stocken S., *The ultimate test: Dr Google vs an actual doctor*, 2016 http://www.news.com.au/lifestyle/health/health-problems/the-ultimate-test-dr-google-vs-an-actual-doctor/news-story/1e05a315e31093fdcaa7c2b30539c4df; **333–334/***Doctors use 3D printer to save cancer sufferers foot in world-first procedure*, Grant McArthur, Herald Sun • Creative Commons: **10/**© 2015 Trampe et al. This is an open access article distributed under the terms of the Creative Commons Attribution License, which permits unrestricted use, distribution, and reproduction in any medium, provided the original author and source are credited. http://journals.plos.org/plosone/article?id=10.1371/journal.pone.0145450; **24**, **42**, **51**, **137**, **138**, **319/**© Australian Institute of Health and Welfare 2017; **40**, **60/**Australian Bureau of Statistics; **119–120**, **200–201**, **202–204**, **240–241/**© 2010–2017, The Conversation Media Group Ltd • Department of Health: **58** • Institute for Health Metrics and Evaluation: **47**, **48**, **48** • Mission Australia: **157** • Tribune Media Services: **195–196/**© 2005 Reed Business Information-UK. All rights reserved. Distributed by Tribune Content Agency. "Bedtimes could pinpoint the end of adolescence", Andy Coghlan, New Scientist, 08/01/2005 • Selected extracts from the VCE Health and Human Development Study Design are copyright Victorian Curriculum and Assessment Authority (VCAA), reproduced by permission. VCE® is a registered trademark of the VCAA. The VCAA does not endorse this product and makes no warranties regarding the correctness or accuracy of its content. To the extent permitted by law, the VCAA excludes all liability for any loss or damage suffered or incurred as a result of accessing, using or relying on the content. Current VCE Study Designs and related content can be accessed directly at www.vcaa.vic.edu.au. Teachers are advised to check the VCAA Bulletin for updates.

UNIT 1 UNDERSTANDING HEALTH AND WELLBEING

AREA OF STUDY 1

Health perspectives and influences

OUTCOME 1

Explain multiple dimensions of health and wellbeing, explain indicators used to measure health status and analyse factors that contribute to variations in health status of youth

AREA OF STUDY 2

Health and nutrition

OUTCOME 2

Apply nutrition knowledge and tools to the selection of food and the evaluation of nutrition information

AREA OF STUDY 3

Youth health and wellbeing

OUTCOME 3

Interpret data to identify key areas for improving youth health and wellbeing, and plan for action by analysing one particular area in detail

TOPIC 1
Concepts of health and wellbeing

1.1 Overview

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

FIGURE 1.1 Health and wellbeing includes physical, social, emotional, mental and spiritual dimensions.

KEY TERMS

Acupuncture a form of alternative medicine in which thin needles are inserted into the body. It is a key component of traditional Chinese medicine.
Ayurveda holistic Hindu science of health and medicine which sees physical wellbeing as being intertwined with emotional and spiritual wellbeing as well as the universe as a whole. Treatments include yoga, meditation, diet and herbal medicines.
Cognitive the mental action or process of acquiring knowledge and understanding through thought, experience and the senses
Dynamic a state characterised by constant change, activity and progress
Emotional health and wellbeing the ability to recognise, understand and effectively manage and express emotions as well as the ability to display resilience
Emotional intelligence the individual's capability to recognise and respond to either their own or others' emotions
Health a state of complete physical, mental and social wellbeing; it is not merely the absence of disease or infirmity.
Health and wellbeing the state of a person's physical, social, emotional, mental and spiritual existence and is characterised by an equilibrium in which the individual feels happy, healthy, capable and engaged
Infirmity the quality or state of being weak or ill; often associated with old age
Karma the spiritual principle of cause and effect whereby the intent and actions of an individual (cause) influence the future of that individual (effect)
Mental health and wellbeing relates to the state of a person's mind or brain and the ability to think and process information. Optimal mental health and wellbeing enables an individual to positively form opinions, make decisions and use logic.
Nirvana a place of peace and happiness, where suffering is removed. In Buddhism nirvana means the cycle of rebirth has ceased, whereas in Hinduism, the soul has been absorbed into the higher power of Brahman.
Physical health and wellbeing relates to the functioning of the body and its systems; it includes the physical capacity to perform daily activities or tasks
Self-disclosure the process of communication by which one person reveals information about himself or herself to another. This can be in the form of feelings, thoughts, fears, likes and dislikes.
Self-esteem reflects a person's overall subjective emotional evaluation of his or her own worth. It is a judgement of oneself as well as an attitude toward the self.
Social health and wellbeing the ability to form meaningful and satisfying relationships with others and the ability to manage or adapt appropriately to different social situations
Spiritual health and wellbeing relates to ideas, beliefs, values and ethics that arise in the mind and conscience of human beings. It includes the concepts of hope, peace, a guiding sense of meaning or value, and reflection on a person's place in the world. Spiritual health and wellbeing can also relate to organised religion, a higher power and prayer, values, a sense of purpose in life, connection or belonging.
Subjective wellbeing refers to how people experience the quality of their lives and includes both how they feel about their lives and what they think about their own personal circumstances
Supernatural phenomena includes all that cannot be explained by science or the laws of nature, including things characteristic of or relating to gods, ghosts or other supernatural beings, or to things beyond nature
Wellbeing a complex combination of all dimensions of health, characterised by an equilibrium in which the individual feels happy, healthy, capable and engaged

1.2 Health and wellbeing

KEY CONCEPT Understanding the concepts and definitions of health and wellbeing

Understanding the concept of **health and wellbeing** is important for gaining an accurate knowledge of Australians' level of health and wellbeing. This understanding allows areas for improvement to be identified and targeted. A deeper understanding of health and wellbeing also allows us to make predictions about the likely effect that introduced strategies will have on the health and wellbeing of individuals.

1.2.1 Defining health and wellbeing

Health and wellbeing, although two separate terms, are now more commonly considered together as one concept. Their individual definitions are explored in this section, and will help explain the overall meaning of the terms when used together.

There has been ongoing debate about the meaning of the word **health** since the first commonly accepted definition was released by the World Health Organization (WHO) in 1946. It states that 'health is a state of complete physical, mental and social wellbeing and not merely the absence of disease or infirmity'.

This definition is the one most commonly used by health professionals to define health. The 1946 WHO definition was the first to consider health as being more than just the physical aspects, and recognises the other dimensions of health — social and mental. Using such a broad definition to make a judgement about whether a person is healthy or not can be difficult (see figure 1.3). Although it has moved beyond disease and **infirmity**, it does not give everyone the opportunity to be considered healthy. For example, trying to achieve 'complete' wellbeing in even one of the dimensions identified is difficult. Some have argued that this definition makes good health unattainable for most people.

FIGURE 1.2 Yoga is an activity that combines all dimensions of health and wellbeing, including the emotional and spiritual dimensions.

FIGURE 1.3 Would this man be considered healthy using the 1946 WHO definition?

In 1986, the WHO clarified this definition of health as 'a resource for everyday life, not the objective of living. Health is a positive concept emphasising social and personal resources, as well as physical capacities'. With this in mind, the definition of health becomes more inclusive and more achievable. The focus on personal resources and physical capacities means that health is dependent on an individual's own situation. A person can be considered healthy even if they do not have 'complete' wellbeing in the dimensions of physical, social and mental health.

The WHO definition of health makes reference to the concept of **wellbeing**. Wellbeing and health are related, and are often described as how well an individual is living. Wellbeing is strongly linked to all the dimensions of health.

As health and wellbeing are related concepts, they will be considered together as one concept in this topic and throughout this book. Health and wellbeing relates to the state of a person's physical, social, emotional, mental and spiritual wellbeing and is characterised by an equilibrium in which the individual feels happy, healthy, capable and engaged.

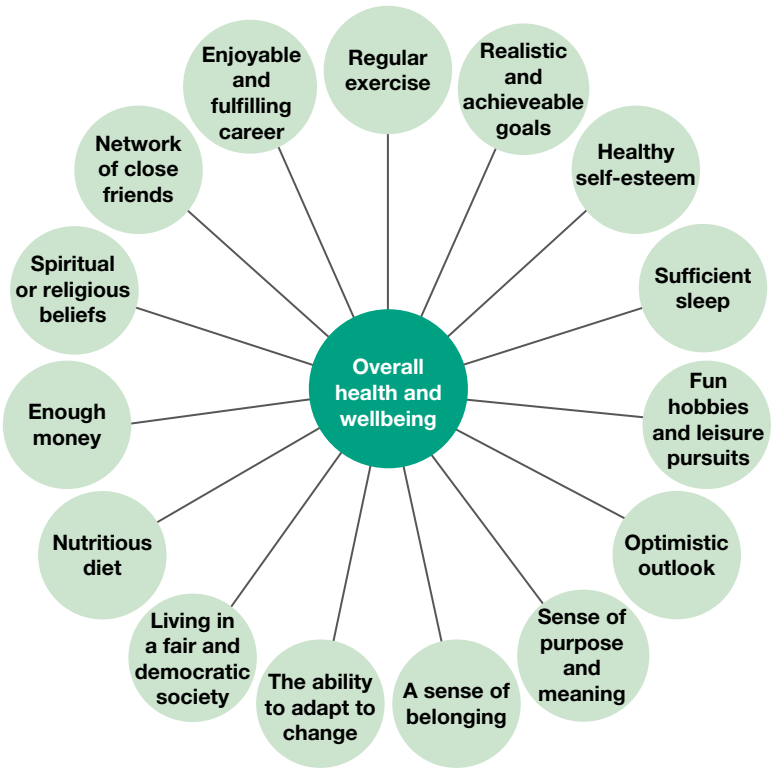
An individual's health and wellbeing is constantly changing; therefore, the WHO has used the term 'state' when defining health. Health and wellbeing can be optimal one moment, and then events, such as

accidents, illness, relationship breakdowns and stressful incidents, can change a person's state of health and wellbeing quickly. Health and wellbeing can also improve quickly. For example, a person suffering from a migraine can be described as experiencing poor health and wellbeing. However, resting and taking medication may soon restore their health and wellbeing.

There are five different dimensions of health and wellbeing: physical, social, emotional, mental and spiritual. These will be discussed in detail in subsequent sections. However, when people discuss health and wellbeing they are often referring to **physical health and wellbeing** or physical ill health. Although some information is available about social and mental health and wellbeing, physical ill health is generally easier to measure, and has become the main focus of many health and wellbeing statistics. Although the physical aspect of health and wellbeing is important, the other four dimensions should be recognised as equally important aspects of overall health and wellbeing. The Victorian government's Better Health Channel has identified a range of factors that have a major influence on an individual's overall level of health and wellbeing, and which can be seen in figure 1.5 below.

FIGURE 1.4 Overall health and wellbeing includes the five dimensions of health as well as how a person feels about their life.

FIGURE 1.5 The 15 factors that influence overall health and wellbeing



1.2 Activities

Test your knowledge

1. (a) What is the 1946 WHO definition of health?
   (b) What are the limitiations of this definition?
2. (a) How did the WHO clarify this definition in 1986?
   (b) How did this change the way we view health?
3. Briefly explain what is meant by the term 'wellbeing'.
4. Briefly explain what is meant by the term 'health and wellbeing'.
5. Identify the five dimensions of health and wellbeing.

Apply your knowledge

6. Devise your own definition of health and wellbeing. Share your answer with a partner.
7. Select four of the factors identified in figure 1.5. and identify ways in which they could affect overall health and wellbeing.
8. There are 15 factors identified in figure 1.5 as being important to health and wellbeing. Choose eight that you believe are most important to your health and wellbeing.
9. Using an example, demonstrate how health and wellbeing is constantly changing.
10. Think of a person whom you believe has good health and wellbeing. Justify why you chose this person in light of your understanding of health and wellbeing.

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Health and wellbeing Summary screens and practice questions

1.3 Dimensions of health and wellbeing

KEY CONCEPT Understanding the concepts and definitions of physical, social, mental, emotional and spiritual health and wellbeing

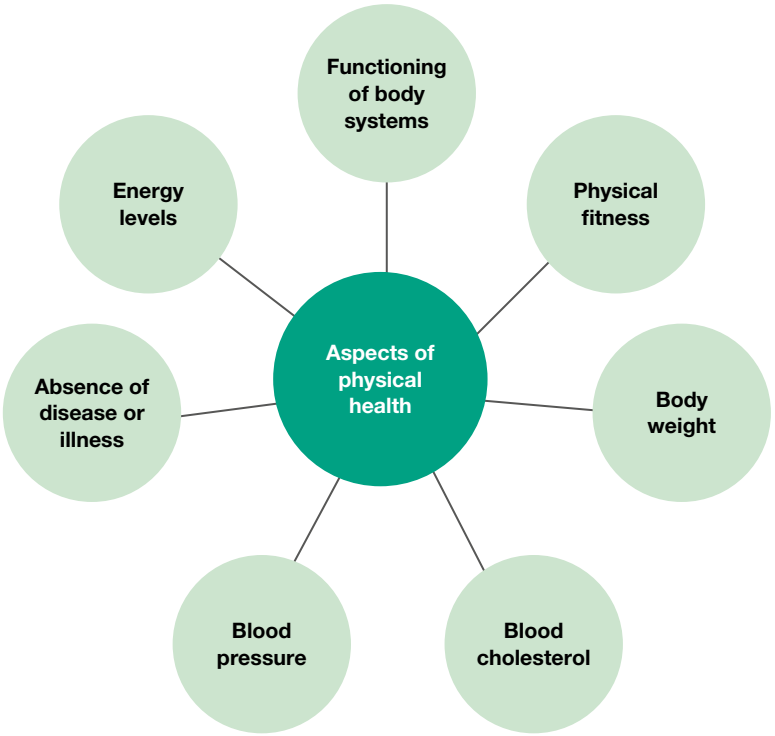
1.3.1 Physical health and wellbeing

Physical health and wellbeing is a state of physical wellbeing that relates to the functioning of the body and its systems, and in which a person is able to perform their daily tasks without physical restriction. Most aspects of physical health and wellbeing can be readily observed or measured.

Physical health and wellbeing can be measured using indicators such as:

- *physical fitness.* Physical fitness means being able to complete activities such as daily chores, exercise and incidental physical activity, such as walking or riding to school without exhaustion or extreme fatigue.
- *body weight.* A person who is physically healthy is an appropriate weight for their height, and is not carrying excess weight.
- *blood cholesterol levels.* High blood cholesterol can increase the risk of cardiovascular disease (sometimes called heart disease). Elevated blood cholesterol levels may indicate that the intake of saturated and trans fats is excessive.
- *blood pressure.* Blood pressure is the pressure of your blood on the walls of your arteries as your heart pumps it around the body. High blood pressure is a major risk factor for cardiovascular disease.

FIGURE 1.6 The characteristics of physical health and wellbeing



- *the absence of disease or illness.* A person who is physically healthy will have an immune system that is functioning adequately and capable of resisting infection and disease.

Aspects of physical health and wellbeing that cannot typically be measured include:

- *energy levels.* Physical health and wellbeing includes having enough energy to adequately carry out daily tasks, which might include school activities, socialising and a part-time job. Lack of energy usually means that the individual's body systems are not functioning adequately. This could be a result of many factors, including food intake, exercise levels, illness and stress levels.

FIGURE 1.7 Physical fitness is an aspect of physical health and wellbeing.

- *functioning of body systems.* Physical health and wellbeing is ultimately reliant on the functioning of the body's systems. If the systems are functioning adequately, the person will usually display other characteristics of physical health and wellbeing (such as physical fitness, normal blood pressure, blood cholesterol and energy levels, and freedom from disease).

There are many factors that can influence physical health and wellbeing, such as food intake, sleep patterns, exercise levels and genetics. Although these factors contribute to health and wellbeing, it is the overall physical state that they result in — such as a healthy immune system or a healthy body weight — that is considered to be a physical aspect of health and wellbeing.

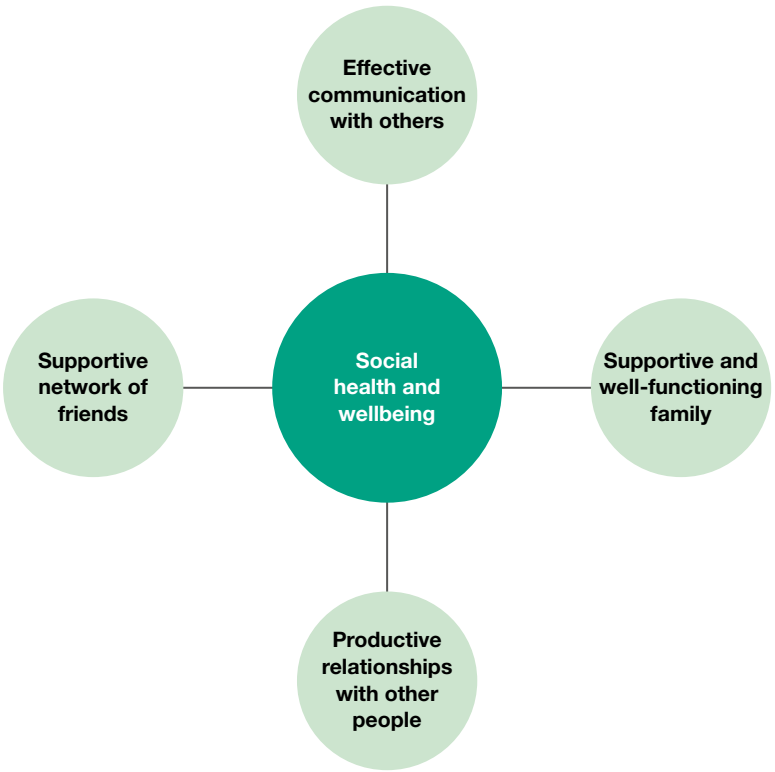
1.3.2 Social health and wellbeing

Interacting with other people is an essential part of being human. **Social health and wellbeing** is concerned with the ability to form meaningful and satisfying relationships with others as well as the ability to manage or adapt appropriately to different social situations. Someone who is experiencing a good level of social health and wellbeing typically has a good network of friends, and a supportive and understanding family.

FIGURE 1.8 University provides a wide variety of new social connections.

Like all dimensions of health and wellbeing, social health and wellbeing is **dynamic**. An individual can have a network of friends and a supportive family until they move away from home. In a new environment, those interactions can become more difficult, and their social health and wellbeing can suffer. However, making friends in their new environment can restore the individual's social health and wellbeing.

FIGURE 1.9 The characteristics of social health and wellbeing



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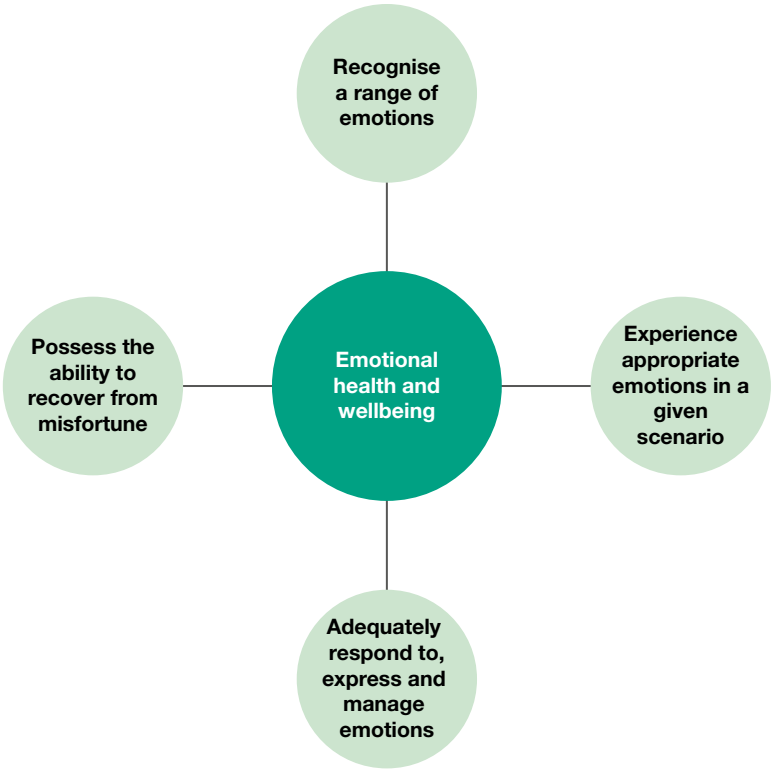
Social health and wellbeing Summary screens and practice questions

1.3.3 Emotional health and wellbeing

Emotional health and wellbeing is defined as the ability to recognise, understand and effectively manage and express emotions as well as the ability to display resilience. People who have positive emotional health and wellbeing are usually resilient, and have the ability to recover from events such as illness, change or misfortune. The indicators of emotional health and wellbeing are shown in figure 1.10.

FIGURE 1.10 Characteristics of emotional health and wellbeing



Researchers have found that people experience many emotions in their daily lives, and at least one emotion 90 per cent of the time. In a recent study of 11 000 people, which used a smartphone application to track real time emotions, joy was found to be the most frequent emotion experienced. Participants recorded love and anxiety as the next top two emotions (see figure 1.11).

According to the study, participants experienced positive emotions 2.5 times more often than negative emotions. Often, emotions are connected. The research found that 33 per cent of the time people experienced multiple emotions

FIGURE 1.11 The top emotions experienced by the study participants

Emotion	Percentage
Joy	35
Love	30
Anxiety	29
Satisfaction	27
Alertness	24
Hope	22
Sadness	20
Amusement	16

(*Continued*)

Emotion	Percentage
Pride	13
Disgust	11
Anger	10
Gratitude	9
Guilt	5
Fear	5
Awe	5
Offense	5
Embarrassment	5
Contempt	1
Positive emotion only	41
Negative emotion only	16
Mixed emotion	33
ANY EMOTION	90%

Source: Trampe D, Quoidbach J, Taquet M 2015, 'Emotions in everyday life', *PLoS ONE 10*(12): e0145450. doi:10.1371/journal.pone.0145450.

at the same time. For example, the event of moving house may evoke feelings of both excitement and anxiety. According to research, embarrassment was one of the few emotions that people often experienced in isolation.

Emotional intelligence is also an important aspect of emotional health and wellbeing; it is an individual's capacity to recognise and respond to either their own or others' emotions. They use this information to guide their thinking and behaviour, and then act according to their environment or the situation around them. The case study about Bob and Brian below will help explain this concept.

Apart from emotional intelligence, other examples of emotional health and wellbeing include the ability to recover from misfortune and experiencing appropriate emotions in a given scenario (see figure 1.10). Everyone experiences grief and sadness throughout life; however, those people who manage to recover from grief or misfortune and continue on with their lives can be regarded as experiencing positive emotional health and wellbeing.

Different situations lead to different emotions. For example, the emotions experienced when attending a wedding are very different from those experienced when attending a funeral. A person who is able to experience the emotions appropriate to each situation is considered to be emotionally healthy.

Both Brian and Bob had a bad day at work today. They both had an argument with their boss, which left them feeling frustrated and angry.

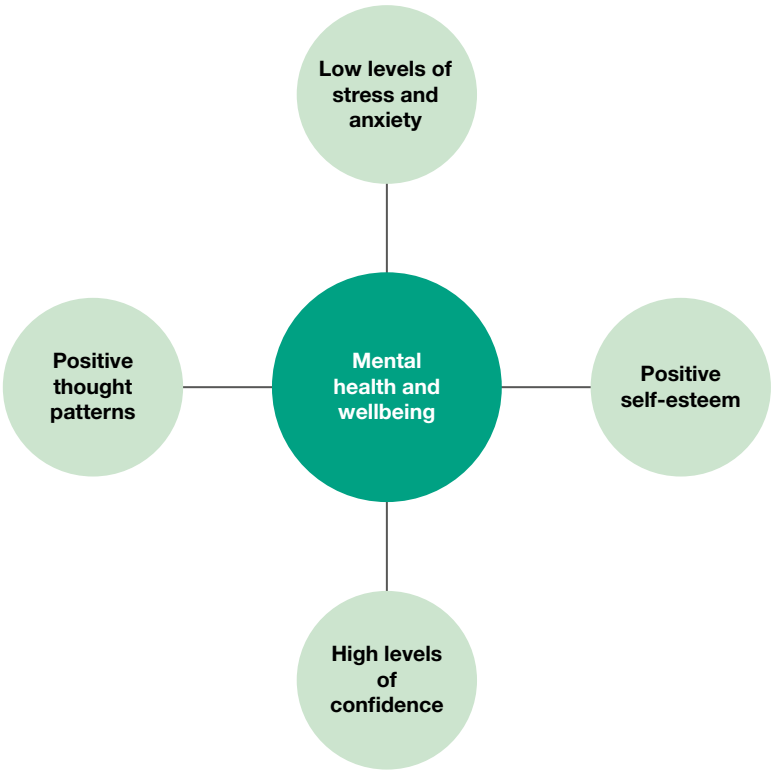
When Brian, who is not very emotionally intelligent, returned home from work with the argument still playing in his head, he immediately yelled at his children who were shouting and running through the house.

When Bob arrived home his kids were arguing over the Lego. Before reacting to how his children were behaving, Bob took a moment to reflect on his own feelings and recognised that it wasn't his kids that had put him in a bad mood but rather his boss. Bob recognised his emotions, thought about them, then acted in an emotionally intelligent way by not taking his bad mood out on his children.

1.3.4 Mental health and wellbeing

Mental health and wellbeing refers to the state of a person's mind or brain and relates to the ability to think and process information. Optimal mental health and wellbeing enables an individual to positively form opinions, make decisions and use logic. Positive mental health and wellbeing might include managing day-to-day activities with low levels of stress, having positive thought patterns and high levels of confidence and self-esteem (see figure 1.12).

FIGURE 1.12 The characteristics of positive mental health and wellbeing



If a person is feeling stressed, their mental health and wellbeing may be compromised. This dimension of health and wellbeing also includes **self-esteem** and confidence. Self-esteem refers to how people feel about themselves. A person with positive self-esteem feels good about themselves. Self-esteem influences behaviour, as people with positive self-esteem are more likely to speak their minds and behave assertively.

Positive thought patterns are also important to achieving mental health and wellbeing. This does not mean looking for the positive in every situation, but instead involves maintaining a realistic, optimistic mindset in the face of challenges. Research has shown that optimistic and hopeful people are mentally and physically healthier than those who have a more pessimistic outlook.

Confidence can be defined as believing in one's own worth and ability to succeed. Having confidence helps people to accept challenges, such as volunteering to give a speech, and increases their chances of success because they are not concentrating on failure. Individuals may have different levels of confidence in different aspects of their lives. Although it is based on past experiences, confidence can be affected by factors such as personal appearance or comments made by others.

Mental health and wellbeing is *not* the opposite of mental illness. Mental illness refers to specific, diagnosable mental disorders that only affect some people. Every person, on the other hand, experiences a level of mental health and wellbeing that can vary from day to day. Mental health and wellbeing can be affected by life events, such as breaking up with a partner, experiencing a death in the family or being dropped from a sports team.

FIGURE 1.13 Relationship break-ups can be detrimental to mental health and wellbeing.

WHAT IS THE DIFFERENCE BETWEEN MENTAL AND EMOTIONAL HEALTH AND WELLBEING?

Mental and emotional health and wellbeing are interrelated; however, they are not the same. Mental health and wellbeing is the ability to think and process information. It also relates to how an individual expresses their thoughts and responds to situations. Emotional health and wellbeing relates to how we express and manage our emotions. Emotional health and wellbeing is different for all people — for example, a two-year-old child might express a number of different emotions in a very short period. This would be normal for them, but would be totally inappropriate for an adult.

Exams can be a stressful time for students, and can affect their mental health and wellbeing as a result. How each student manages their emotions can influence the levels of stress they feel. An emotionally healthy student is able to recognise emotions that contribute to stress, such as fear and anxiety, and plan accordingly; whereas a student who is emotionally unhealthy might be unable to manage their emotions and remain in a state of ongoing distress throughout the entire exam period.

studyon

Unit 1 > AOS 1 > Topic 1 > Concept 5

Mental health and wellbeing Summary screens and practice questions

1.3.5 Spiritual health and wellbeing

Spiritual health and wellbeing can be defined as ideas, beliefs, values and ethics that arise in the mind and conscience of human beings. It includes the concepts of hope, peace, a guiding sense of meaning or value, and reflection on a person's place in the world. Spiritual health and wellbeing can also relate to organised religion, a higher power and prayer, values, a sense of purpose in life, connection or belonging (see figure 1.14).

A positive sense of belonging is an important human need. When a person has a positive sense of belonging they feel part of the society in which they live. Through this sense of belonging, people can realise their own self-worth and are therefore more likely to have positive self-esteem (which relates to mental health and wellbeing). When an individual feels they belong, they are more likely to find support in challenging times and often are able to view such challenges in a positive rather than a negative light. People may belong to many different types of groups, such as sporting, friendship, workplace, school, religious and, of course, family groups. Through these groups people feel connected to their community. Having a feeling of belonging through being connected to others in either formal or informal groups can be a protective factor against mental disorders.

FIGURE 1.14 Characteristics of spiritual health and wellbeing

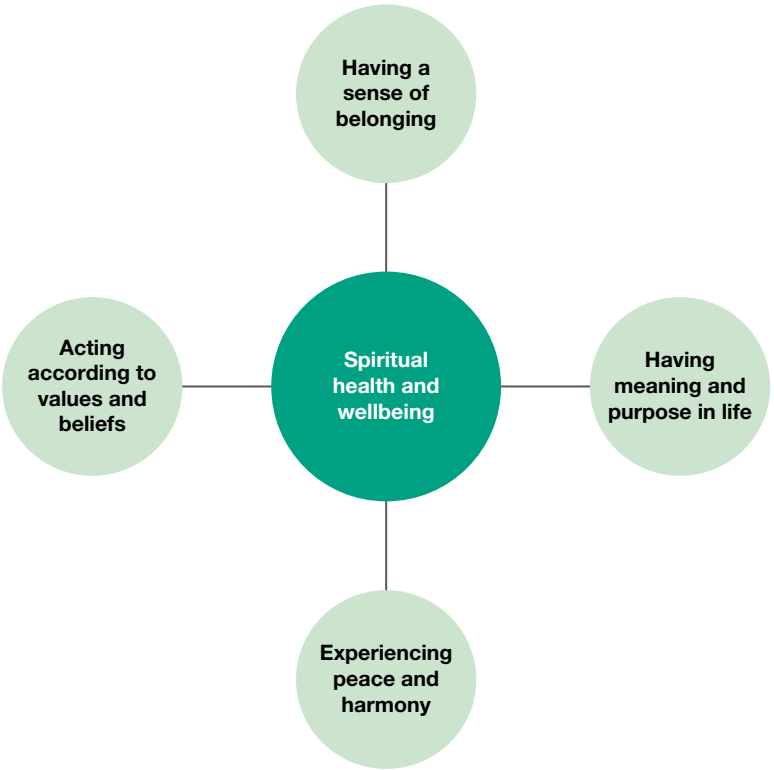
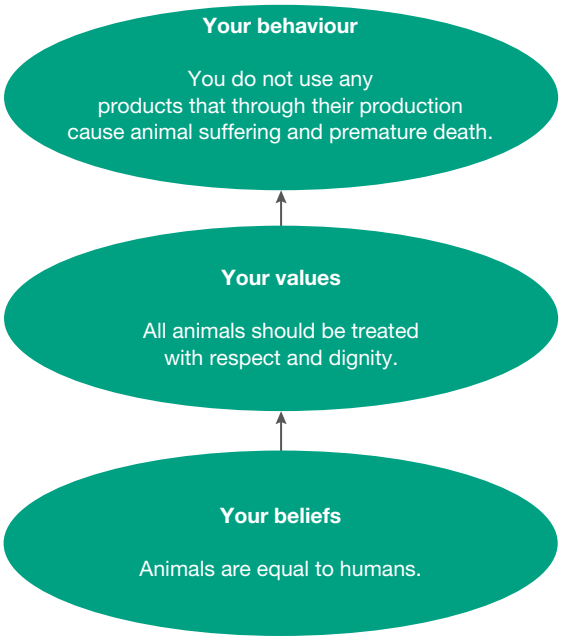


FIGURE 1.15 Beliefs form a person's values and values inform behaviours.



Values and beliefs start to be developed during childhood, and are shaped initially by an individual's parents. Values relate to what a person thinks is important in life and are used to justify their actions. Beliefs refer to what an individual believes to be true and right, and are often derived from their experiences. Beliefs change as new experiences arise and challenge existing beliefs.

Both values and beliefs influence an individual's behaviours and choices. For example, a person who is a strong advocate of animal rights and the environment may choose to become a vegetarian, and an individual who values physical fitness will be less inclined to misuse drugs and alcohol. Refer to figure 1.15 to see an example of how beliefs influence values and values influence behaviours.

Finding meaning and purpose in life is a key aspect to achieving spiritual health and wellbeing. A person who lives their life according to their values and beliefs can be said to be experiencing a meaningful life. People can often find meaning in life when they have a strong sense of belonging and feel they are contributing positively to society. This can be through relationships with family and friends, or through work or other community activities, such as volunteering.

FIGURE 1.16 Meditation promotes peace and harmony and, therefore, spiritual health and wellbeing.

Many people associate spiritual health and wellbeing with religion and prayer, as it provides an organised form of spirituality. However, those people who are not connected to any particular religion can experience spirituality through different experiences, such as through affirmations, yoga and meditation. People can experience a state of peace and harmony when they experience positive spiritual health and wellbeing. An example is when we realise that we cannot control everything that happens in our lives, and look for the positive aspects in difficult situations.

CASE STUDY

Conflict

Tom is a year 11 student who enjoys playing football and socialising with friends in his spare time. He has a part-time job that allows him to earn enough money to fund his social life and to save money for a car. In the past few months, Tom has been trying to convince his parents to allow him to leave school and get a job as an apprentice plumber. Tom's parents have been trying to persuade him to finish year 11 and then try to get an apprenticeship. This issue has caused a lot of conflict within the household. Tom has been feeling stressed about being at home and is therefore avoiding the house as much as possible. In the past week, he has been sleeping at a friend's house and has not been doing the things that he normally does, including going to work and playing football.

Case study review

1. How has Tom's health and wellbeing been affected by the conflict with his parents?
2. Identify examples from the case study that represent, physical, social, mental and emotional health and wellbeing. Justify your choice.
3. Suggest two different strategies that Tom could use that would potentially improve his health and wellbeing in some of the dimensions mentioned in question 2.

1.3 Activities

Test your knowledge

1. Define the five dimensions of health and wellbeing and give two characteristics that relate to each.
2. Classify the following as examples of physical, social, emotional, mental or spiritual health and wellbeing.
   (a) Having a sense of belonging
   (b) Having good fitness levels
   (c) Displaying positive thought patterns
   (d) Experiencing appropriate emotions in a given scenario
   (e) Having a supportive network of friends
   (f) Demonstrating high levels of confidence
   (g) Engaging in effective communication with others
   (h) Acting according to values and beliefs
   (i) Maintaining a healthy body weight
   (j) Managing emotions appropriately
3. Explain the term 'emotional intelligence'.
4. According to the information shown in figure 1.11, what are the three most common emotions experienced?
5. Apart from practising a religion, what are some other ways that people can develop their spiritual health and wellbeing?
6. Which dimension of health and wellbeing is usually the focus of health statistics? Explain why.

Apply your knowledge

7. Explain how you think effective communication with others, and a supportive network of friends and family, contributes to social health and wellbeing.
8. Using examples, explain the difference between emotional and mental health and wellbeing.
9. How does emotional intelligence influence a person's emotional health and wellbeing?
10. Can a person still experience spiritual health and wellbeing if they are not religious? Explain.
11. Identify the top ten characteristics across all five dimensions that are important to your health and wellbeing.

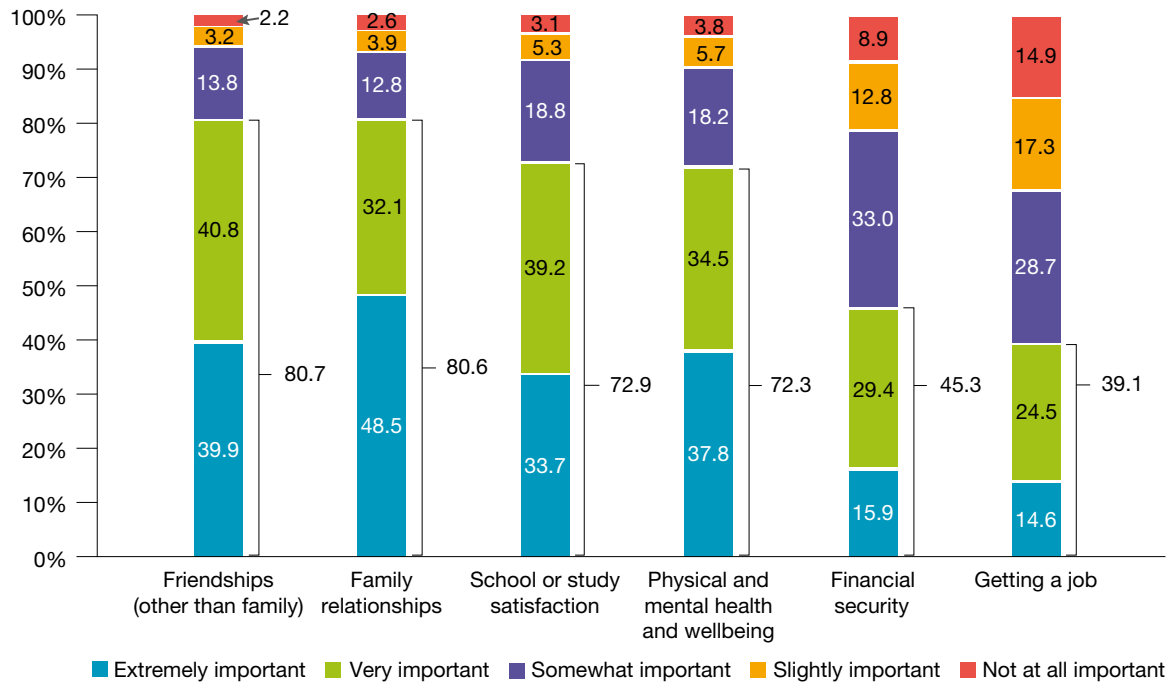
1.4 Youth perspectives on the meaning of health and wellbeing

KEY CONCEPT Understanding the different perspectives on the meaning and importance of health and wellbeing

The concept of health and wellbeing means different things to people depending on their stage of life. Within a particular age group there can be many similarities in how people rate aspects of health and wellbeing. When young people were asked how much they valued family relationships, financial security, friendship, getting a job, and physical and mental health and wellbeing, family and friendship relationships were the two most highly valued aspects (see figure 1.17). This highlights the importance young people place on social health and wellbeing and a sense of belonging.

However, even within an age group, such as young people (aged 12–25), perspectives on health and wellbeing can vary significantly. Research undertaken by Mission Australia in 2015 with almost 19 000 participants identified many of these differences. When young people were questioned on their perspectives

FIGURE 1.17 What young people value



Note: Items were ranked by summing the responses for *Extremely important* and *Very important* for each item.

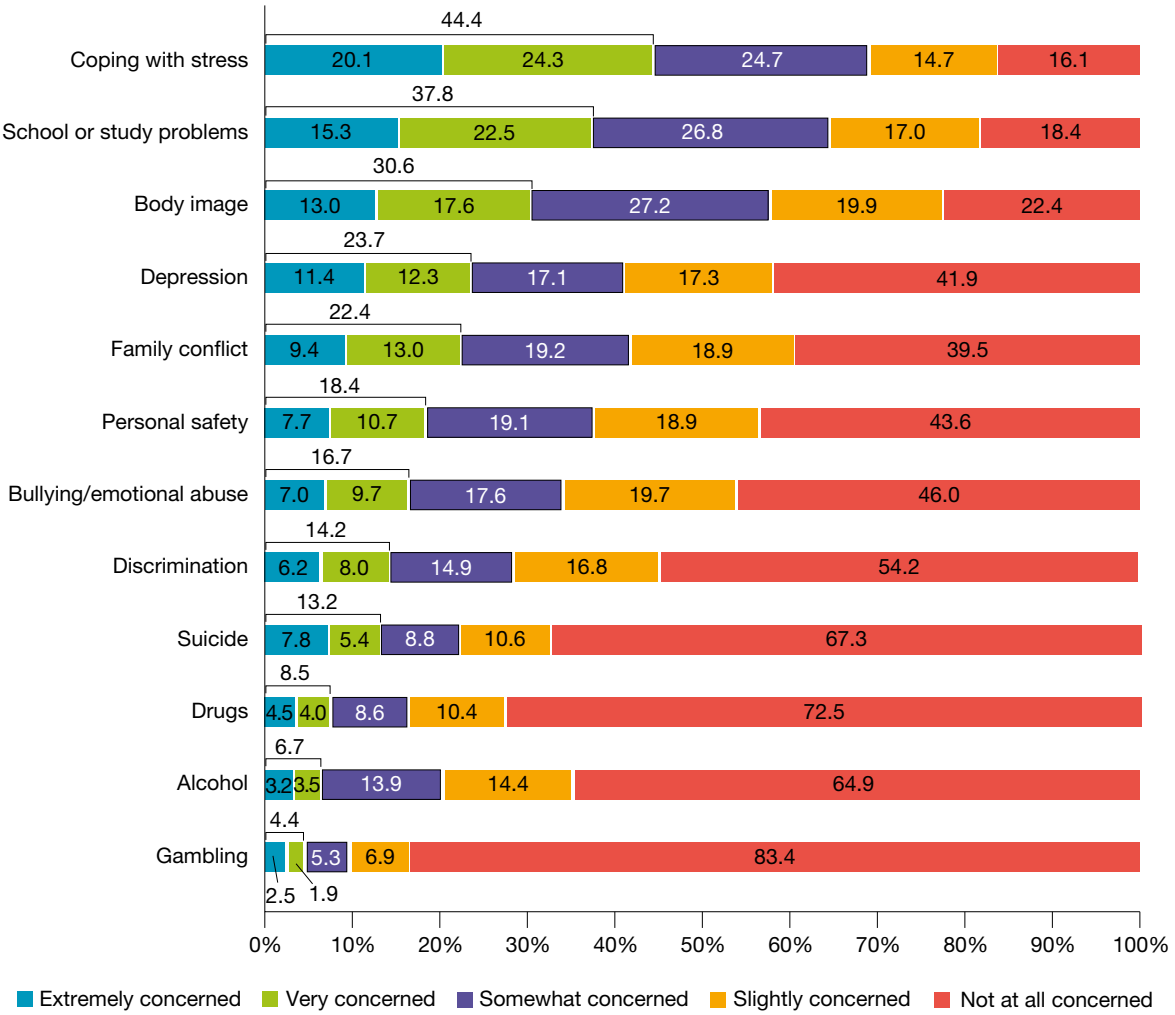
of health and wellbeing and what it meant to them, younger participants' thoughts were that 'health was maintained by a good diet — one that included daily servings of fresh fruit, vegetables and little junk food'. In contrast, the participants aged over 16 mentioned not only aspects from the physical dimension, including physical exercise, but also the social dimension of health and wellbeing. In particular, they mentioned that 'social relationships with their family and friends made them feel good and gave them a sense of wellbeing'. This demonstrates that as young people's life experience grows, they start to have a more holistic view of health and wellbeing, rather than a one-dimensional view.

Mission Australia also asked the participants to write down how concerned they were about a number of different personal issues. As you can see from figure 1.18, the issues of most concern to young people related to the mental dimension of health and wellbeing, such as coping with stress, school and study problems, body image and depression. Youth and early adulthood are complex stages of life, with many young people experiencing pressures relating to study, work and relationships, which can culminate in high levels of stress during these years.

Body image issues can have a significant impact on youth health and wellbeing. In a period when young people need to feel a sense of belonging and acceptance from their peers, body image becomes very important. When young people strive for an (often unrealistic) ideal body shape, it is often their mental health and wellbeing that suffers.

Depression was the fourth most common issue identified as a concern of young people in the survey. Depression rates in young people have skyrocketed over the past decade. This could be partly because

FIGURE 1.18 Issues of personal concern for young people

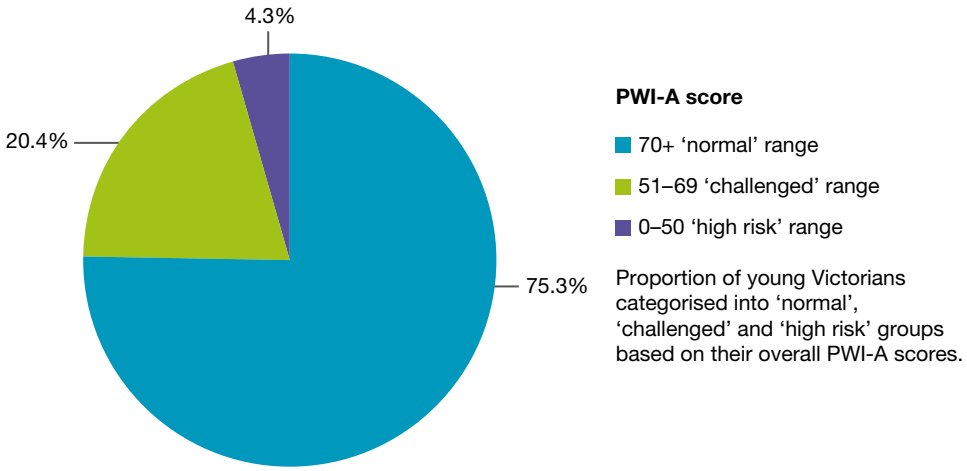


there is much greater awareness and less stigma surrounding depression, making it easier for youth to acknowledge if they have a problem. However, it also could be due to the emergence of new technologies. Cyberbullying and worries about body image have risen at the same time as the 'selfie culture' has gained momentum. Such technologies can appear to amplify young people's anxieties about self-worth and body image. For further information about mental health and wellbeing and young people, refer to the **Youthbeyondblue** and **ReachOut** weblinks in the Resources tab in your eBookPLUS.

Overall physical health and wellbeing (fitness, body weight, reductions in ill health) is usually good in this age group when compared with older age cohorts. Mental and emotional health and wellbeing are the leading causes of concern. Mental and emotional health and wellbeing largely relies on the nature of social networks, family, friends, school, work and other relationships during youth.

VicHealth, which is Victoria's leading health promotion agency, also conducted a survey to measure wellbeing and resilience in young Victorians aged 16–25. This survey took into consideration **subjective wellbeing**, which is an indication of how people feel and what they think about their own lives and personal circumstances. One thousand young Victorians participated in the telephone-based survey, which focused on seven key areas: standard of living, health, safety, future security, relationships, community connections and achievement in life. These results were formulated into a Personal Wellbeing Index (PWI) score. The study's key findings can be seen in figure 1.19.

FIGURE 1.19 Proportion of young Victorians categorised by Personal Wellbeing Index score



Based on these results, the majority of young people interviewed were in the normal range for the Personal Wellbeing Index. VicHealth has also identified factors associated with young people who have above average health and wellbeing. Findings suggest that these factors fit into the following categories: participation in sport and recreation, access to social support and a higher socioeconomic status background. These are compared with young people with a below average PWI, who are more likely to have limited access to social support, be unemployed, come from lower income households and live alone. The survey also found that females were 50 per cent more likely than males to be at high risk for depression.

1.4 Activities

Test your knowledge

1. Use figure 1.17 to identify the top three things that young people valued from the list of six options.
2. (a) Use figure 1.18 to identify the top four causes of concern for young people.
   (b) Based on the data in figure 1.18 what are the three issues that young people are less concerned about?
3. What does the term 'subjective wellbeing' mean?
4. Figure 1.19 identifies that 75.3 per cent of young people were in the normal range for PWI. What does this mean?

Apply your knowledge

5. Complete the following two questions then share your results with the class. Are your results similar or different to the Mission Australia Survey?
   (a) Rank the following values from 1–5, with 5 being the most important in terms of the value that you place on each one.
   - Family
   - Financial security
   - Friendship
   - Getting a job
   - Physical and mental health and wellbeing

   (b) There are five different dimensions of health and wellbeing. (Physical, social, mental, emotional, and spiritual). Place them in order of importance from one to five, with number five being the place for the most important dimension in your life.
6. In small groups, design and conduct a survey to find out about youth perspectives on health and wellbeing in your area. Collate the results and present to the class.

eBook*plus* RESOURCES

Explore more with this weblink: Youthbeyondblue

Explore more with this weblink: ReachOut

study on

Unit 1 > AOS 1 > Topic 2 > Concept 1

Youth perspectives Summary screens and practice questions

1.5 Variations in health perspectives and priorities according to age, culture, religion, gender and socioeconomic status

KEY CONCEPT Understanding the different perspectives on the meaning and importance of health and wellbeing

1.5.1 Age

Perspectives and health priorities vary and change across different age groups. Health and wellbeing perspectives increase in complexity as we age. Early primary-school-aged (prep to grade 4) children's understanding about health stems from the knowledge of what makes a healthy body, with the focus on growing up and being safe. Learning how to identify and control their emotional responses is also an important aspect of learning about health and wellbeing for this age group.

When young people aged between 8 and 15 were asked in the 2014 *National Health Survey* (undertaken by the Australian Bureau of Statistics) what the term 'health' meant to them they listed diet, nutrition,

weight, healthy food and junk food. Sports, fitness and personal hygiene were also mentioned, together with mental health concerns, depression and anxiety.

The 15- to 24-year-old age group has similar perspectives on health and wellbeing to the younger group. Physical health and wellbeing is seen as being a priority — for example, weight control, fitness, diet and nutrition are regarded as important aspects. However, the importance of relationships and peer acceptance in this age group is also of high priority. Along with peer acceptance comes the added pressure of risk-taking behaviour; when questioned about health and wellbeing, many young people viewed an absence of harmful practices, such as drug and alcohol abuse, dangerous driving and unsafe sexual practices, as important to maintaining health and wellbeing.

FIGURE 1.20 Physical aspects, such as fitness, predominantly make up a young person's understanding of the term health and wellbeing.

Young people in this age group (15–24) also have greater independence, and are responsible for making many of their own decisions. It is therefore not surprising that injury is the second highest contributor (18 per cent) to the burden of disease for this age group. Mental disorders are the highest contributor to the overall burden of disease for young people (50 per cent). Good mental health and wellbeing is a priority for this age group. Depression and anxiety are the leading causes of poor mental health and wellbeing among this age group, with the major causes being stress, school and study, and body image.

FIGURE 1.21 Early adulthood is a stage of great change, including marriage.

Early adulthood (25–39 years) is when the body is at its physical peak, so fitness is very important during this stage. Other aspects apart from fitness, such as weight control and body image, are also health and wellbeing priorities. This is because a priority for this age group is forming relationships and intimacy. Social and emotional health and wellbeing become particularly important for people in this age group. Aspects of emotional health and wellbeing, such as managing emotions, become a priority because early adulthood is a time when people usually secure their first full-time job, buy a house, marry and have children. With so many changes, this period can produce many emotions which can contribute to stress if not managed effectively.

FIGURE 1.22 Later adulthood encompasses becoming grandparents, which involves all the dimensions of health and wellbeing.

Middle adulthood (40–64 years) perspectives on health and wellbeing are largely associated with illness prevention, as this is the time when chronic diseases, such as cardiovascular disease and cancers, will often present themselves. So when asked their perspectives on health and wellbeing, responses from people in

this age group included mainly being free from illness and disease. Accepting and adjusting to physiological changes, such as menopause, can be a challenge for females in particular during this stage in life.

People in later adulthood (65+) have similar health and wellbeing perspectives to those in middle adulthood, in terms that illness prevention is a priority. Health and wellbeing also becomes about a person's ability to live independently and with a degree of mobility. Mental stimulation and mental health and wellbeing become a priority as people have often entered into retirement and want to maintain cognitive functioning. Social health and wellbeing is also prioritised — family relationships take on different meanings as many become grandparents. Grandparenting provides another opportunity for mental, emotional and physical health and wellbeing to be enhanced.

As discussed, health and wellbeing perspectives and priorities can have different meanings across the lifespan. However, in every stage there is strong emphasis on valuing physical health and wellbeing. The social, mental and emotional health and wellbeing dimensions are also important at different life stages; however, spiritual health and wellbeing is often a dimension that is overlooked. Its meaning can be connected with some aspects of emotional and mental wellbeing, but it may be overlooked if people do not fully understand the meaning of spiritual health and wellbeing. If a person does not practise a religion they may immediately discount this dimension from their lives. Many people in later adulthood devote time to volunteer work, as it can provide meaning and purpose. This is an aspect of spiritual health and wellbeing; however, people may instead view this as an aspect of social health and wellbeing.

1.5.2 Self-assessed data

Self-assessed data also changes with age. Self-assessed health status reflects a person's perception of his or her own overall health and wellbeing at a given point in time. It is a useful measure of a person's current health status, and provides a broad picture of a population's overall health and wellbeing. According to the Australian Bureau of statistics, in 2014–15 over half (56.2 per cent) of all Australians aged 15 years and over considered themselves to have excellent or very good health status, while 14.8 per cent rated their health status as fair or poor. Younger Australians generally rate themselves as having better health status than older people, with 63.4 per cent of 15- to 24-years-olds rating their health status as being excellent or very good in 2014–15, compared with 34.5 per cent of people aged 75 years and over.

FIGURE 1.23 Pregnancy is a common reason why females present more to healthcare centres compared with males.

1.5.3 Gender

Men and women generally assess their overall health status similarly (54.8 per cent of men and 57.6 per cent of women rated their health status as being excellent or very good in 2014–15). The major gender differences, according to research, is that females are typically more health conscious than males and have more of a holistic view of their health and wellbeing, which encompasses all dimensions; whereas males' concept of health and wellbeing is often associated with the physical dimension with a focus on physical fitness.

Research has shown that males and females have different perspectives on what constitute health behaviours. Men are less likely than women to perceive themselves as being at risk of illness or injury and other health problems, and they are less accurate in reporting their levels of being overweight. Young men tend to connect health and wellbeing with fitness, with fitness being linked to the ability to participate in their chosen sport at a higher level. Young women viewed their health and wellbeing in a more complex manner, maintaining diet, exercise routines, appropriate body shape and a positive mental state. The health and wellbeing perspectives and priorities of young males appear to be changing. This in part can be attributed to the increased role of social media and the desire to present themselves as physically attractive to their peers.

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Gender Summary screens and practice questions

1.5.4 Culture

Different cultures have different views and perspectives on health and wellbeing. Western cultures, such as Australia, generally view health and wellbeing within the context of professional medical practice and intervention. Some other cultures, such as traditional Vietnamese, for example, believe that health and wellbeing and ill health may be a result of **supernatural phenomena**, and promote prayer or other spiritual or cultural interventions.

In many cultures, especially some Asian groups, decisions about health and wellbeing are made by the eldest male member of the family. The health and wellbeing of the family is more important than that of the individual. In cultures where an individual's behaviour reflects upon the family, mental disorders are often associated with shame and failure. Individuals from this type of culture may therefore be reluctant to discuss mental disorders let alone accept assistance from health professionals, as receiving help involves **self-disclosure**.

Traditional Chinese medicine holds a holistic view of the body; each part is seen as being interconnected. Chinese medicine focuses on restoring harmony, which encompasses health and wellbeing, good weather and good fortune. Doctors use **acupuncture**, herbs and food to recover and sustain health and wellbeing, rather than prescription medication.

In Indian culture, many believe in a traditional medicine called **Ayurveda** (Ayu, meaning *life,* and veda, meaning *knowledge of*). This practice relates to the human being in all its dimensions, and treatment aims to achieve balance in all these areas. Ayurvedic practice involves balancing the three doshas (dynamic energies) that exist within each person's body and mind. These doshas are known as Vata, Pitta and Kapha. When one dosha becomes too predominant, Ayurvedic practitioners prescribe specific nutritional and lifestyle changes to restore balance. Herbal supplements may also be prescribed to assist in the healing process. Many bodily symptoms can reflect a predominance of one dosha (see figure 1.25).

FIGURE 1.24 Chinese medicine uses herbs to help restore harmony in the body.

FIGURE 1.25 Some symptoms of imbalance within Indian Ayurvedic practice

vata	pitta	kapha
Dry skin	Stomach ache	Asthma
Insomnia	Burning eyes	Sinus congestion
Constipation	Anger	Apathy
Anxiety	Diarrhoea	Depression
Headaches	Manipulative behaviour	Possessive behaviours

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Culture Summary screens and practice questions

1.5.5 Socioeconomic status

There are many variations in perceptions and priorities relating to health and wellbeing when comparing people from different socioeconomic groups. Socioeconomic status (SES) is a measure of a person's social and economic position based on income, education and occupation.

For people from the most disadvantaged socioeconomic groups, health and wellbeing is not often viewed as a major priority. They have other needs that must be prioritised, such as shelter, food, education for their children, and finding and maintaining employment. Taking care of their health and wellbeing becomes a secondary matter, and is a major reason why the most socioeconomically disadvantaged people scored poorly on all indicators relating to health and wellbeing outcomes and associated risk factors in the National Health Survey.

According to the National Health Survey those people with a lower socioeconomic status rated their own health status negatively, with higher rates of illness and disease. People in this group are less likely to use preventative healthcare and often wait until diseases have progressed before seeking treatment, contributing to this difference. This may also be a result of lower levels of education and health literacy. From the age of 14, people in lower socioeconomic groups are more likely to smoke daily (20 per cent, compared with 6.7 per cent in higher socioeconomic status areas). This is despite the widespread knowledge among the Australian population of the dangers of tobacco smoking. Another reason smoking rates are higher among this group is because of increased levels of stress. Stress is a major reason why people are likely to undertake unhealthy behaviours, such as tobacco smoking, drinking and illicit drug taking. To further investigate the link between increased levels of risky behaviours and low socioeconomic status, refer to the **Big Issue** weblink in the Resources tab in your eBookPLUS for stories about *The Big Issue* vendors. *The Big Issue* is a magazine that is sold by socioeconomically disadvantaged Australians.

People with a higher socioeconomic status were more likely to spend money on their health and well-being, as seen by the increase in number of people who have private health insurance (61 per cent in highest SES groups compared to 24 per cent in the lowest SES groups). Dental visits vary also, as this is not a service that is covered by Medicare, and can be too expensive for people on low incomes to access.

TABLE 1.1 Inequalities in selected health risk factors for the lowest and highest socioeconomic groups

	Year	Lowest socioeconomic group (%)	Highest socioeconomic group (%)	Rate ratio: lowest/highest socioeconomic group
Low birth weight	2013	7.5	5.6	1.3
Daily smoking	2013	20.0	6.7	3.0
Inactive or insufficiently active	2014–15	76.0	56.0	1.4
Lifetime risky drinking	2013	16.4	18.5	0.9
Overweight or obese	2014–15	66.0	58.0	1.1
High blood pressure	2014–15	26.0	21.0	1.2
Participation of women aged 20–69 in cervical screening	2012–13	52.0	64.0	0.8

Sources: ABS 2015; AIHW 2014a, 2015a, 2015b.

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Socioeconomic status Summary screens and practice questions

1.5.6 Religion

There are many different religions practised throughout the world and within Australia. Each has different priorities and practices relating to health and wellbeing. In this section Buddhism, Hinduism, Islam and Christianity will be discussed.

FIGURE 1.26 Spiritual health and wellbeing is the most important aspect of the Buddhist religion.

Buddhism

Buddhism is the fourth largest religion in the world, and is mainly practised in southeast Asia; however, many people from western cultures have also adopted these practices. Many Buddhist practices are aimed at achieving clarity of the mind. Both mental and physical health and

wellbeing are important. Buddhists strive to achieve a balance between mind and body. Breathing, physical postures and mindfulness are important aspects of Buddhist practices.

Spiritual health is what Buddhists believe is the key to promoting overall health and wellbeing. Buddhists aim to follow the Noble Eightfold Path using the practices of meditation, study of scriptures and rituals. These help the individual to work towards the enlightened state of **Nirvana**, which is the state in which suffering comes to an end.

Some other Buddhist practices and beliefs that influence health and wellbeing include the following:

- Some Buddhists believe that you will not become ill if you are a spiritually focused person; cures can be obtained by changing the mindset and using herbs.
- Birth is an especially precious time, as conception is seen as the beginning of life; contraception is acceptable.
- End of life practices are guided by having an alert mind and not being in excessive pain. Medication is allowed, although not if it dulls the consciousness.
- Dietary practices involve abstaining from alcohol and drugs as they impair the clarity of the mind; many Buddhists are also vegetarians.
- Western medicine is often avoided, including intensive care units, as they do not value peace and quiet. Some eastern medical practices that use animal products are also shunned.
- Organ donation is acceptable, and blood donation is considered honourable.

Hinduism

Hinduism is one of the world's oldest religions and is practised by 13 per cent of the world's population, most of whom live in India. There is great variance within Hindu thought and practice, and thus a diversity of perspectives on spirituality and physical health and wellbeing. Physical health and wellbeing is thought to be nurtured through Ayurveda. Similar to Buddhism, spiritual health and wellbeing is an essential part of Hinduism. Community worship, helping the needy and the welfare of society is seen as more important than the individual's needs and welfare.

Some other Hindu practices and beliefs that influence health and wellbeing include the following:

- Sickness and injury are thought to be caused by **karma**.
- Vegetarianism is common, and often non-vegetarians avoid consuming beef and pork. Fasting is also practised as it is seen as purifying the body.
- Birth control is acceptable, and there is preference for a son over a daughter. Many women continue to have children until they have a son.
- Artificial life support is discouraged as it interferes with karma.
- Treatment by a medical practitioner of the same sex is preferred, and women will often look to their husbands for advice on medical issues.

Islam

The Islamic faith is the second largest religion in the world, with over 1 billion believers. They believe in one God, Allah, and have a commitment to the five pillars of Islam:

1. Bearing witness to the existence of one God and the prophethood of Muhammad
2. Praying five times a day
3. Giving alms to the poor
4. Fasting during the month of Ramadan
5. Performing a pilgrimage to Mecca, for those who are able

It is through a commitment to the five pillars that belief and faith are maintained, as well as social support and the ability to lead a healthy and productive life.

Some other Muslim practices and beliefs that influence health and wellbeing include the following:

- For every illness there is a cure, except for ageing and dying.

- Fasting during the daylight hours is practised during Ramadan. Ramadan is a month of intense prayer, from dawn to dusk. It is intended to bring the faithful closer to Allah, remind them of the less fortunate and develop self-control.
- Traditional medicines are often called 'medicine of the prophet' and are an alternative to modern medicine. For example, black seed (black caraway) is seen to cure every ailment except death; honey is listed in the Quran as source of healing; olive oil is seen as useful for coronary health; and dates are used to break the fast during Ramadan.
- Life is sacred, specifically:
  - birth control is allowed
  - abortion is not allowed, unless there is a risk of maternal mortality.
- Male circumcision is encouraged but not enforced.
- Alcohol consumption is forbidden.
- The consumption of pork is forbidden.
- Treatment by a medical practitioner of the same sex is preferred.

Christianity

The Christian faith encourages a person to take care of their health and wellbeing. The church teaches that life and physical health and wellbeing are precious gifts from God. There are many Christian denominations. Catholicism is the world's largest Christian denomination. The customs and restrictions listed below apply to Catholics.

- There are no particular dietary restrictions, although Catholics are encouraged to abstain from meat on Fridays during Lent. Fasting is expected on Ash Wednesday and Good Friday.
- Sexual activity is approved by God within marriage with the sole focus on procreation. Contraception is forbidden.
- Baptism is very important, especially for a baby experiencing poor health, and administering the last rites (one of the sacraments) prior to death is very important.

1.5 Activities

Test your knowledge

1. (a) Outline children's perspectives on health and wellbeing during early primary school.
   (b) How does this perspective change when children reach youth?
2. Explain why people from low socioeconomic groups do not always make health and wellbeing a priority.
3. How is traditional Chinese medicine different to Western medicine?
4. Explain the traditional practice of Ayurveda.
5. What is Ramadan?

Apply your knowledge

6. Briefly explain how health and wellbeing priorities change across the three adult lifespan stages.
7. Explain the differences in the way females and males typically prioritise and perceive their health and wellbeing. How is this changing?
8. Identify two cultural factors or beliefs about health and wellbeing that are different to your own perception of health and wellbeing.
9. Use figure 1.25 to decide which dosha most applies to your bodily symptoms. Score 3, 2, 1, for each dosha in order of relevance.
10. Identify the similarities between the Buddhist and Hindu perspectives on health and wellbeing.
11. Do you believe there could be any implications for health and wellbeing for Muslims during Ramadan? Discuss.

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Religion Summary screens and practice questions

1.6 Aboriginal and Torres Strait Islander perspectives on health and wellbeing

KEY CONCEPT Analyse various meanings of health and wellbeing

Aboriginal and Torres Strait Islander people view health and wellbeing in a holistic manner as reflected in this definition outlined in the National Aboriginal Health Strategy (1998).

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

This understanding of health and wellbeing is different to the definition we explored at the start of this topic, as culture has been added as a component of wellbeing. The significance of culture to Aboriginal and Torres Strait Islander people is demonstrated by the use of traditional knowledge and practices of traditional healers, which are often used alongside western medicine.

1.6.1 The importance of culture

Culture influences Aboriginal and Torres Strait islander people in many ways. These include their reasons for using health services, the acceptance of treatment and the likelihood that they will adhere to treatment. Culture also has an impact on the how effective health promotion strategies are in reaching Aboriginal people.

FIGURE 1.27 Culture is a very important component of Aboriginal and Torres Strait Islander health and wellbeing.

According to the Closing the Gap campaign, Aboriginal and Torres Strait Islander people with a strong attachment to culture have significantly better self-assessed health status. Aboriginal and Torres Strait Islander people who speak Indigenous languages and participate in cultural activities also have better physical and mental health and wellbeing. The National Aboriginal and Torres Strait Islander Health Plan 2013–2023 identifies the importance of the link to culture in improving health and wellbeing. It states that being connected to culture, family and land contributes to significantly lower morbidity and mortality in remote communities. The plan also states that residents of communities in which traditional languages and cultural practices are valued and maintained are less likely to be obese, less likely to have diabetes and less prone to cardiovascular disease than Aboriginal people across the rest of the Northern Territory.

1.6.2 Connection to the land

Along with culture, land is fundamental to the health and wellbeing of Aboriginal and Torres Strait Islander people. The land is the core of their existence; it is their connection and spiritual relationship to 'country'

which explains their identity. Land is central to health and wellbeing and when the harmony of this relationship is disrupted, Aboriginal and Torres Strait Islander ill health may occur. The following examples help to explain the connection to the land and link to improved health outcomes for Aboriginal and Torres Strait Islander people.

Aboriginal law and life originates in and is governed by the land. The connection to land gives Aboriginal and Torres Strait Islander people their identity and a sense of belonging.

> In the Murray River area, the Aboriginal people felt an affinity from the poor health of the Murray River to parts of their own health and wellbeing — both physical and mental. Aboriginal people had not been able to pass on traditional knowledge about the river, or undertake traditional activities that created a connection between them and the river. The impact on this was negative self-assessed physical and mental health and wellbeing.
>
> Everything the local people did every day was related to being around the river. Consequently, moving further and further away from these locations and activities can be seen as harmful; and the impact is on both physical and mental health.
>
> The land is my backbone… I only stand straight, happy, proud and not ashamed about my colour because I still have land… I think of land as the history of my nation. *Galarrwuy Yunipingu, Aboriginal musician*
>
> In white society, a person's home is a structure made of bricks or timber, but to our people our home was the land that we hunted and gathered on and held ceremony and gatherings. *Nala Mansell-McKenna, Youth Worker, Tasmanian Aboriginal Centre*

As seen from the above examples the land or 'country' is the soul of Aboriginal and Torres Strait Islander people. It has also been referred to as their 'second skin'. Aboriginal and Torres Strait Islander people believe it is their duty to care for the land, and in caring for the land they are strengthening their culture and health and wellbeing. According to the Stolen Generations report, *Bringing Them Home*, many Aboriginal people get sick when they are removed from their traditional land. Research increasingly confirms the strong link between Aboriginal health and wellbeing and land management. It is through land management practices that Aboriginal and Torres Strait Islander people feel empowered, which leads to lower stress levels and improved mental health and wellbeing. To further investigate the importance of Aboriginal and Torres Strait Islander people's connection to the land, go to the **Creative Spirits** weblink in the Resources tab in your eBookPLUS to learn how land management improves health and wellbeing.

1.6.3 Social and emotional health and wellbeing

Social and emotional health and wellbeing is a holistic concept that recognises the importance of connection to land, culture, spirituality, ancestry, family and community, and how these affect the individual. Social and emotional health and wellbeing are the foundations of Aboriginal and Torres Strait Islander peoples' physical and mental health and wellbeing. Relationships between the individual, their family and their community greatly influence overall physical and mental health and wellbeing, as shown in figure 1.28. Positive family and community relationships affect social and emotional health and wellbeing, which is essential for Aboriginal and Torres Strait Islander people to lead successful and fulfilling lives. This conception of self is grounded within a collective perspective that views the self as inseparable from, and embedded within, family and community.

FIGURE 1.28 Social and emotional health and wellbeing from an Aboriginal and Torres Strait Islander perspective

CASE STUDY

Giant tent for Aboriginal health

ELEANOR HALL: Let's go now to Broken Hill in the far west of New South Wales, where health professionals are trialling an innovative approach to indigenous healthcare.

Aware that many Aboriginal people are put off coming into imposing hospital buildings for their healthcare, the Aboriginal health service at Broken Hill has decided to build a giant tent and take its services out to the people.

The Maari Ma service pitches its tent at river banks and meeting places within remote Aboriginal communities, so that family groups can come to health clinics and not feel threatened by the traditional western approach of white walls and hospital corridors.

From Broken Hill, Nance Haxton reports.

NANCE HAXTON: The mobile marquee is the first project of its type in Australia, replacing hospitals and mobile caravans with a far more flexible approach to Aboriginal healthcare.

The main difficulty in providing medical services to remote Aboriginal communities has not been a lack of care available, but providing it in a way that is culturally appropriate and accessible.

Maari Ma Health regional director, Richard Western, says the marquee has overcome that hurdle. The tent can be easily transported to all of the remote communities that Maari Ma services, from Tiboburra in the north to Balranald in the south.

And Mr Western hopes it will ultimately turn around the 20-year life expectancy gap between Aboriginal people and the rest of the Australian population as they seek help for chronic illnesses before they become life-threatening.

RICHARD WESTERN: We've often gone out to meetings in Aboriginal communities and, you know, we end up in the local hall or the local club. You know, there's limitations on who can attend. We often have to do it during working hours. There's very limited facilities for mums and babies, or mums and kids.

So we wanted to get out of the pubs and the clubs and the halls and back onto the river banks and under the shades of the, of you know, the eucalyptus trees and back into doing business in an Aboriginal way.

NANCE HAXTON: Because from what I can gather if I'm correct, sometimes Aboriginal people have been unwilling to go to hospitals because it's really seen as a place of death?

RICHARD WESTERN: Yes, I think there is still a bit of, a bit of that, that Aboriginal people see hospitals as the place where people go to die because that, that is generally what has happened. And really the reason for that thinking comes about by Aboriginal people really accessing hospital or emergency services when, when they are critically ill from an illness and you know, we're working with our partners to change that.

NANCE HAXTON: Broken Hill-based Aboriginal health worker, Nola Wyman, says she has already seen the difference with more Aboriginal people going to the health service in the marquee's first six weeks of operation as they feel less threatened walking into a large open space than an imposing building such as a hospital.

She says she hopes this is just the beginning of a wider network of tents that will take health services to Aboriginal people in isolated areas around the country on a regular basis.

NOLA WYMAN: You can't move a building to, for example, the river is important to Bakandji people. If you have a marquee, then you can, with health service staff, health workers, you can say, 'Hey come to where what's important to us'. And this will give you an idea along with the information we give why it's important.

NANCE HAXTON: So it makes the health services less confronting?

NOLA WYMAN: It certainly does and it makes things like, if the tent is used for GP services for example, it's in an area where people, it's more accessible to Aboriginal people. And that is very important because there are so many barriers for Aboriginal people to access mainstream health services. This is just one of the ways that we can overcome those barriers.

Source: Haxton, N 2002, 'Giant tent for Aboriginal health', *The World Today*, 29 October, http://www.abc.net.au/worldtoday/stories/s713937.htm.

Case study review

1. Why are some Aboriginal people putting off attending the health services in Broken Hill?
2. How is the marquee health service culturally appropriate to Aboriginal people?
3. Why do Aboriginal people associate healthcare with death?
4. What other ways could the service be made more culturally appropriate for Aboriginal people?

1.6 Activities

Test your knowledge

1. How is the Indigenous definition of health and wellbeing different to the WHO definition of health and wellbeing?
2. Why do you think many Aboriginal and Torres Strait Islander people may be unwilling to attend healthcare centres?
3. How does a strong cultural connection improve the health and wellbeing of Aboriginal and Torres Strait Islander people?
4. Explain the term 'second skin' when referring to the connection Aboriginal and Torres Strait Islander people feel with the land.
5. How do you believe relationships between the individual and the community improve physical and mental health and wellbeing for Aboriginal and Torres Strait Islander people?

Apply your knowledge

6. Briefly explain the importance of the land to the health and wellbeing of Aboriginal and Torres Strait Islander people.
7. How is the practice of land management having a positive impact on the health and wellbeing of Aboriginal people?
8. As a class research the Stolen Generations. In your opinion how do you think this has affected the physical, social, emotional, mental and spiritual health and wellbeing of Aboriginal and Torres Strait Islander people?

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Aboriginal and Torres Strait Islander Summary screens and practice questions

1.7 Topic 1 review

1.7.1 Key skills

KEY SKILL Describe different dimensions of health and wellbeing

For this key skill a description of the meaning of the term health and wellbeing, including the five different dimensions: physical, social, emotional, mental and spiritual is essential. In order to provide an adequate explanation, an understanding of the definition is required.

When describing the term health and wellbeing, it is important that all the aspects of the concept are included. For example, health and wellbeing encompasses a range of aspects including the following:

- Health and wellbeing is constantly changing.
- Health and wellbeing is made up of five different dimensions.
- Wellbeing is about how you feel about your life across all five dimensions.

Below is an example of the description of health and wellbeing.

Health and wellbeing relates to the state of a person's physical, social, emotional, mental and spiritual existence; it is characterised by an equilibrium in which the individual feels happy, healthy, capable and engaged.

You will also need to be able to describe each dimension of health and wellbeing. When describing the dimension you need to include aspects of the definition as well as characteristics of the dimension. For example social health and wellbeing relates to the ability to form meaningful and satisfying relationships with others and the ability to manage or adapt appropriately to different social situations.[1] It includes having productive relationships with others, and displaying effective communication skills.[2]

1 A definition of social health and wellbeing is included in the description.

2 An example of factors that relate to social health and wellbeing are identified. You do not need to include all of the examples as seen in the text.

Practise the key skill

1. Outline the difference between emotional and mental health and wellbeing.
2. Read the case study below and answer the following questions.
   (a) List the five dimensions of health and wellbeing and briefly explain what is meant by each one.
   (b) Suggest ways that Anissah's not getting into the school band could affect the five dimensions of her health.
   (c) What dimension of health do you think Anissah's story is focused on? Explain.

Anissah is in year 10 at school. She loves school and is involved in many extracurricular activities, including the annual drama production, the netball team and the school band. She has played clarinet in the school band since year 7, and has many friends in the band. Last week, Anissah auditioned for the band, but missed out on a place as she had not had time to practise the prescribed piece before the audition. She feels devastated about not getting into the band, and has not wanted to attend school at all. Her mother has let her stay home for a few days while she tries to come to terms with her disappointment. Anissah has also withdrawn from her other usual activities as she tries to accept not being part of the band for this year.

KEY SKILL Analyse various meanings of health and wellbeing

As explored in this topic different groups of people have different perspectives on the meaning of health and wellbeing. An understanding of the different definitions is required to address this key skill adequately. When analysing these different meanings you will be looking for the reasons behind their variance. For example, in the first WHO definition *health is a state of complete physical, mental and social wellbeing and not merely*

the absence of disease or infirmity.[3] This definition of health was first used by health professionals, yet seemed to be very difficult to achieve. If we were to analyse this meaning of health you were either considered healthy or unhealthy if any of these dimensions were not at an optimal state[4]. WHO since has provided clarification on this meaning to say that 'health is a resource for everyday life, not the objective of living. Health is a positive concept emphasising social and personal resources, as well as physical capacities'.[5] This explanation appears to be more inclusive and attainable, while also being dependent on individual situations, as it includes the resources that an individual has access to.[6]

3 WHO definition of health is defined.
4 Brief analysis of the meaning of the WHO definition.
5 Updated explanation of the WHO definition of health is provided
6 Updated WHO definition is then analysed explaining the change and meaning.
7 Explain why cultural wellbeing is so important to Aboriginal people, when analysing this definition.
8 The Aboriginal definition includes the wellbeing of the community, whereas the WHO definition is more concerned about the individual.

Aboriginal and Torres Strait Islander people have a different meaning of health and wellbeing to the WHO definition discussed above. *Aboriginal and Torres Strait Islander health and wellbeing means not just the physical health and wellbeing of an individual but refers to the social, emotional and cultural health and wellbeing*[7] *of the whole community in which each individual is able to achieve their full potential as a human being; this brings about the total health and wellbeing of their community.*[8] *It is a whole-of-life view and includes the cyclical concept of life–death–life.*

Practise the key skill

3. Analyse the meaning of health and wellbeing to Aboriginal and Torres Strait Islander people.
4. How is this definition different to the WHO definition of health?

KEY SKILL Collect and analyse data relating to variations in youth attitudes and priorities regarding health and wellbeing.

This skill is about collecting data and analysing the results in relation to youth attitudes and priorities surrounding health and wellbeing. The best place to start would be your own classroom. Use the information that you have recorded from the questions below:

Complete the following two questions individually, then collate results as a class group. Are your results similar or different to the Mission Australia survey?

(a) Rank the following values from 1 to 5, with 5 being the most important in terms of the value that you place on each one: family, financial security, friendship, getting a job and physical and mental health and wellbeing.

(b) There are five different dimensions of health and wellbeing. Place them in order of importance from 1 to 5, with 5 being the most important dimension in your life.

Once you have collected the data you can create a table showing class members' priorities in relation to health and wellbeing and analyse the findings; for example, a class of 25 year 11 students may have the following results when asked to rank the importance of the dimensions of health and wellbeing to them.

Ranking	Physical health and wellbeing	Mental health and wellbeing	Social health and wellbeing	Emotional health and wellbeing	Spiritual health and wellbeing
5 (most important)	8	9	10	6	0
4	8	10	7	5	0
3	5	3	6	7	1
2	3	2	2	4	4
1 (least important)	1	1	0	3	20

9 For this example only the data for the top three priorities has been analysed, to see what the students valued the most.

Adding up the data for just the top three priorities the dimensions in order of importance for the class would be as follows:

1. Social health and wellbeing 23
2. Mental health and wellbeing 22
3. Physical health and wellbeing 21
4. Emotional health and wellbeing 18
5. Spiritual health and wellbeing 1

Using this information, we can see that this particular class ranks social health and wellbeing as being the most important to their health and wellbeing at this particular time. Mental health and wellbeing is the second most important followed closely by physical health and wellbeing.

Why do you think that social health and wellbeing was seen as the most important dimension of health and wellbeing for this class?

A sense of belonging is very important to young people, and they achieve this is through their relationships with their peers. Great importance is placed on friendships within and outside of the school environment. It is through the support of friendship that other dimensions of health and wellbeing are developed. For example, friends often encourage us to participate in sports, which in turn improves our physical fitness and, therefore, our physical health and wellbeing.[10]

10 The text provides an analysis of the results from the class survey, explaining why social health and wellbeing has been chosen as the most important priority for their health.

Practise the key skill

5. Why do you believe that young people in the example provided above placed very little priority on spiritual health and wellbeing?
6. Health and wellbeing is constantly changing, so on any given day the results collected above could be quite different. Identify three different scenarios that could occur throughout year 11 that may alter the results above.

KEY SKILL Describe a range of influences on the perspectives and priorities of health and wellbeing

This skill requires an understanding of a range of influences on how different people may perceive and prioritise health and wellbeing. To be able to do this, knowledge of each of the focus areas of age, gender, socioeconomic status, religion and culture are required.

When looking at a person's age, an understanding of what is occurring at the stages of the lifespan is important, to then be able to describe the differences of ageing on health and wellbeing priorities and perspectives. For example in early adulthood, a time of many changes including new job, relationships, marriage and children,[11] the health focus may shift from prioritising physical health and wellbeing to social and emotional health and wellbeing as building long-term relationships becomes more important.[12] In later adulthood, when the body is slowing down, being in good health and wellbeing can often be seen as being free from disease or illness and maintaining mobility and independence. All dimensions of health and wellbeing are seen as important; however, individual people may prioritise the dimensions of health and wellbeing differently.

11 Acknowledging what is occurring at the life span stage is important to understand different perspectives of age.

12 Influence of early adulthood on health and wellbeing is explained

Other factors such as culture and religion have different perspectives on health and wellbeing, which can be seen in both Buddhist and Hindu religious practices. Spiritual health and wellbeing is seen as the most important dimension in relation to religion, as it is through this dimension that clarity of mind and body can be

13 A brief understanding of the religious practices of Buddhists and Hindus can help describe how they perceive and prioritise health and wellbeing.

found. The spiritual practices of meditation, yoga, mindfulness and, in the case of Hindusim, the practice of Ayurveda all interconnect with the other four dimensions of health and wellbeing.[13]

Practise the key skill

7. Describe how people in the lowest socioeconomic groups may have different perspectives and priorities on health and wellbeing compared to those in the highest socioeconomic groups.
8. Male perspectives on health and wellbeing are slightly different to female perspectives on health and wellbeing. Describe these differences.

1.7.2 Topic summary

- Health and wellbeing relates to the state of a person's physical, social, emotional, mental and spiritual existence and is characterised by an equilibrium in which the individual feels happy, healthy, capable and engaged.
- Health and wellbeing is a dynamic concept and is always changing.
- Health and wellbeing is viewed in many different ways and is therefore said to be subjective.
- There are five dimensions of health and wellbeing: physical, social, emotional, mental and spiritual.
- A range of factors influence how an individual views health and wellbeing, including age, gender, socio-economic status, culture and religion.
- Physical health and wellbeing is defined as the functioning of the body and its systems; it includes the physical capacity to perform daily activities or tasks. Characteristics that relate to physical health and wellbeing include fitness levels, body weight, energy levels, cholesterol levels, blood pressure, and the absence or presence of disease.
- Social health and wellbeing is defined as the ability to form meaningful and satisfying relationships with others and the ability to manage or adapt appropriately to different social situations. Characteristics that relate to social health and wellbeing include a supportive network of friends, effective communication and productive relationships with other people.
- Emotional health and wellbeing is defined as being able to recognise, understand and effectively manage and express emotions as well as the ability to display resilience. Characteristics include the ability to recognise and express a range of emotions, adequately respond to and manage emotions, and the ability to recover from misfortune.
- Mental health and wellbeing refers to the state of a person's mind or brain, and relates to the ability to think and process information. Optimal mental health and wellbeing enables an individual to positively form opinions, make decisions and use logic. Characteristics of good mental health and wellbeing include positive thought patterns, low stress levels, high self-esteem and self-confidence.
- Spiritual health and wellbeing can be defined as ideas, beliefs, values and ethics that arise in the mind and conscience of human beings. It includes the concepts of hope, peace, a guiding sense of meaning or value and reflection on a person's place in the world. Spiritual health and wellbeing can also relate to organised religion, a sense of purpose in life, connection or belonging.
- Aboriginal and Torres Strait Islander people have a different perspective on health and wellbeing, which includes an emphasis on the importance of culture.
- Aboriginal health and wellbeing means not just the physical health and wellbeing of an individual, but refers to the social, emotional and cultural health and wellbeing of the whole community in which each individual is able to achieve their full potential as a human being, thereby contributing to the overall health and wellbeing of their community. It is a whole-of-life view and includes the cyclical concept of life–death–life.
- A connection with the land is essential to Aboriginal people and is seen as a major contributor to good health and wellbeing.

1.7.3 Exam preparation

Question 1

Commencing secondary school is a major milestone in a young person's life.

(a) Explain, using examples from your own experience, how the transition to secondary schooling can have an impact on young people's mental and social health and wellbeing. (**4 marks**)

(b) What opportunities does secondary school provide to enhance your physical health and wellbeing? (**2 marks**)

(c) How can young people's spiritual health and wellbeing be developed at a school that is not religious? (**2 marks**)

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Sit Topic Test

TOPIC 2 Measurements and indicators of health status

2.1 Overview

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

Key skills

- Analyse the extent to which health status data reflects concepts of health and wellbeing
- Draw conclusions from health data about the health status of youth in Australia

FIGURE 2.1 The health status of Australia's youth is generally good.

KEY TERMS

Burden of disease a measure of the impact of diseases and injuries; specifically it measures the gap between current health status and an ideal situation where everyone lives to an old age free of disease and disability. Burden of disease is measured in a unit called the DALY. (VCAA)
Chronic conditions any disease or condition that lasts a long time (usually longer than six months). It usually can't be cured and therefore requires ongoing treatment and management. Examples include arthritis and asthma.
Core activities relate to three main areas of life: self-care, mobility and communication
Core activity limitation when an individual has difficulty, or requires assistance with any of the three core activities
Disability adjusted life years (DALY) a measure of burden of disease. One DALY equals one year of healthy life lost due to premature death and time lived with illness, disease or injury. (VCAA)
Health indicators standard statistics that are used to measure and compare health status (e.g. life expectancy, mortality rates, morbidity rates)
Health status an individual's or a population's overall health (and wellbeing), taking into account various aspects such as life expectancy, amount of disability and levels of disease risk factors (AIHW, 2008)
Hospital separations episodes of hospital care that start with admission and end at transfer, discharge or death
Incidence refers to the number (or rate) of new cases of a disease/condition in a population during a given period
Kessler Psychological Distress Scale (K10) a scale of psychological distress based on the answers to ten questions about negative emotional and mental states in the four weeks prior to the interview. This system classifies psychological distress as low, moderate, high and very high.
Life expectancy an indication of how long a person can expect to live if current death rates do not change
Morbidity refers to ill-health in an individual and the levels of ill-health in a population or group (AIHW, 2008)
Mortality refers to death, particularly at a population level
Prevalence the number or proportion of cases of a particular disease or condition present in a population at a given time (AIHW, 2008)
Psychological distress relates to unpleasant feelings and emotions that affect an individual's level of functioning
Years lost due to disability (YLD) a measure of how many healthy years of life are lost due to illness, injury or disability
Years of life lost (YLL) a measure of how many years of expected life are lost due to premature death

2.2 The health status of Australia's youth — self-assessed health status and life expectancy

KEY CONCEPT Exploring the self-assessed health status and life expectancy of Australian youth

2.2.1 What is health status?

So far, the concept of health and wellbeing, and the five dimensions that contribute to health and wellbeing, have been examined. As well as exploring physical, social, emotional, mental and spiritual health and wellbeing, it is useful to be able to measure the level of health and wellbeing that individuals, groups or whole populations are experiencing. Measurable aspects of health and wellbeing provide an ability to make judgements relating to the **health status** of individuals, groups or populations.

2.2.2 Measuring health status

Measuring health status is useful for a number of purposes. As already mentioned, it allows judgements to be made about the health and wellbeing of individuals, groups or populations. With this information,

government and non-government organisations can take action to improve health and wellbeing in areas that need it. It also allows trends to be identified in health status over time. This can provide valuable feedback on actions that have already been implemented. Such information can further guide interventions aimed at improving health and wellbeing.

There are a number of ways of measuring health status and these measures are collectively known as **health indicators**. Each health indicator provides specific information relating to the health status experienced. By examining a range of health indicators, a more complete assessment of health status can be made. Health indicators include:

- self-assessed health status
- life expectancy
- mortality
- morbidity (including incidence and prevalence of health conditions)
- burden of disease
- rates of hospitalisation
- core activity limitation
- psychological distress.

Each of these will be explored in the coming sections.

It can take some time for health statistics to become public — often around three years before data can be accurately collated and released. Some statistics are released only every two years (biannually) or less often. As a result, some statistics quoted in this book may date back to the mid 2000s, yet they represent the most recent statistics available. Generally speaking, the rates and ratios derived from statistics change slowly over time, so even older statistics are relevant to what is happening today. Further, many statistics are available only for set age groups (often 12–24). When these statistics are used, it is important to remember that they include a proportion of those in the early adulthood stage.

Australia is one of the healthiest countries in the world and Australia's youth (those aged 12–18) are among the healthiest individuals in the country. There have been constant improvements over time in most aspects of health and wellbeing. In order to adequately assess the health and wellbeing of Australia's youth, it is important to understand the methods used for reporting health status.

FIGURE 2.2 The youth stage of the lifespan is generally characterised by good health and wellbeing.

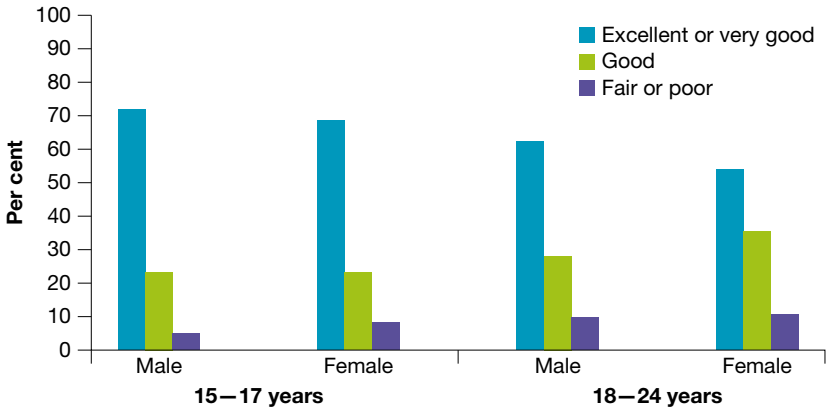
Self-assessed health status

Self-assessed health status is based on an individual's own perception of their health and wellbeing. People are asked to rate their level of health and wellbeing. Responses range from excellent, very good, good, fair and poor. Young Australians generally rate their health status positively. Figure 2.3 shows the self-assessed health status of young Australians at selected ages.

Life expectancy

Life expectancy is one of the most common methods used to measure health status. It gives an indication of how long a person can expect to live if the current death rates stay the same. Unless stated otherwise, life expectancy data relate to a person born in the years provided. Table 2.1 shows life expectancy data for people of different ages in Australia.

FIGURE 2.3 Self-assessed health status of young people aged 15–24 years, 2011–12



Source: Adapted from ABS, *Australian Health Survey: Updated Results*, 2011–12.

TABLE 2.1 Life expectancy at different ages, 1901–10 and 2013–15

	Males		Females	
Age	1901–1910	2013–2015	1901–1910	2013–2015
Birth	55.2	80.4	58.8	84.5
30	66.5	81.3	69.3	85.1
65	76.3	84.5	77.9	87.3
85	87.7	91.2	89.2	92.2

Source: Adapted from ABS and AIHW data, 2017.

According to the Australian Bureau of Statistics data shown in table 2.1, the life expectancy of a child born in 2015 was 80.4 years for a male and 84.5 years for a female. Compare this to a life expectancy of 55.2 years for males and 58.8 years for females born between 1901 and 1910. This represents an increase in life expectancy of more than 25 years over the past century. The life expectancy of Australians is constantly improving while death rates are decreasing.

The life expectancy for Australia's youth reflects the high figures experienced by all age groups in this country. According to table 2.2, a male aged 12 could expect to live to 80.8 years and a male aged 21 could expect to live to 81 years. As life expectancy is based on averages, it increases as people get older. Some individuals will not survive infancy or childhood, and this brings the average down for life expectancy at birth. Once an individual survives these stages, the likelihood that they will live beyond the life expectancy at birth increases.

TABLE 2.2 Life expectancy for Australia's youth and early adults at different ages

Age	Males	Females
12	80.8	84.9
13	80.8	84.9
14	80.8	84.9
15	80.8	84.9
16	80.8	84.9
17	80.8	84.9
18	80.9	84.9
19	80.9	85
20	80.9	85
21	81	85
22	81	85
23	81	85
24	81.1	85
25	81.1	85.1

Source: Adapted from ABS, *Life Tables, States, Territories and Australia*, *2013–2015*, ABS cat. No. 3302.0.55.001.

2.2 Activities

Test your knowledge

1. Define health status.
2. Why is it useful to be able to measure health status?
3. (a) What is meant by health indicators?
   (b) Why is it beneficial to use a range of health indicators when exploring health status?
   (c) Identify four health indicators that can be used to measure health status.
4. Explain the following health status indicators:
   - self-assessed health status
   - life expectancy.
5. What percentage of 15- to 24-year-olds assessed their health status as excellent or very good in 2011–12, according to figure 2.3?
6. Using table 2.1, explain how life expectancy changed from 1901–10 and 2013–15 for:
   (a) males at birth
   (b) females at birth.

Apply your knowledge

7. (a) Outline the proportion of 15- to 24-year-olds assessing their health status as good and fair or poor.
   (b) Brainstorm reasons that may account for youth assessing their health status as good or fair or poor.
8. (a) Using table 2.2, explain what happens to life expectancy as individuals move through youth and into the early adulthood stage of the lifespan.
   (b) Suggest reasons that account for this change.
9. Access the **Life expectancy** weblink and worksheet in the Resources tab in your eBookPLUS then complete the worksheet.

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Explore more with this weblink: Life expectancy

Complete this digital doc: Life expectancy worksheet
Searchlight ID: doc-22655

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Health status measures Summary screens and practice questions

2.3 The health status of Australia's youth — mortality

KEY CONCEPT Exploring mortality among Australian youth

Mortality refers to death, particularly at a population level. The mortality rate is therefore an indication of how many deaths occurred in a population in a given period for a specific cause/all causes. Mortality rates are usually presented per 100 000 population in a 12-month period. Some mortality rates are shown in table 2.3.

TABLE 2.3 Mortality rates by age group and sex, per 100 000, 2013

	Males	Females	Persons	Male:female ratio
0–4	91.0	81.5	86.3	1.1
5–9	10.3	8.3	9.3	1.2
10–14	11.3	8.1	9.7	1.4
15–19	41.1	21.5	31.6	1.9
20–24	57.1	24.7	41.2	2.3
25–29	65.9	26.5	46.4	2.5
30–34	78.4	40.4	59.5	1.9
35–39	106.5	58.0	82.2	1.8
40–44	146.8	88.8	117.5	1.7
45–49	228.6	139.4	183.6	1.6
50–54	328.5	203.0	265.1	1.6
55–59	497.6	306.1	400.7	1.6
60–64	757.7	471.2	613.0	1.6
65–69	1245.2	714.7	977.9	1.7
70–74	1999.8	1201.9	1593.1	1.7
75–79	3431.3	2180.8	2768.9	1.6
80–84	6321.7	4321.6	5191.3	1.5
85+	14 411.1	12 360.5	13 088.3	1.2

Source: Adapted from ABS data.

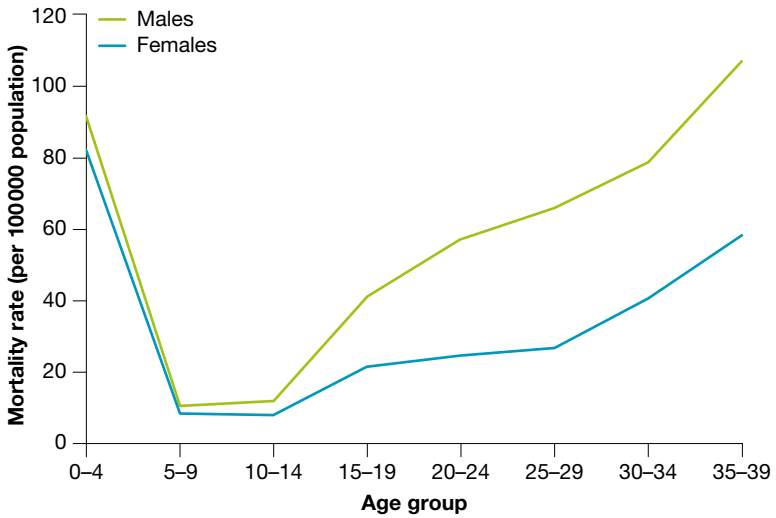
A mortality rate of 21.5 per 100 000 means that, on average, 21.5 females in every 100 000 died in 2013 in this age group. According to the ABS, there were 742 013 females in this age group in 2011, which equals 160 deaths.

The male:female ratio means that in 2013 an average of 1.9 males died in this age group for every female that died in this age group.

Youth has among the lowest mortality rates of all lifespan stages, second only to childhood mortality rates (see figure 2.4).

Mortality rates have also decreased significantly over time among youth (figure 2.5). In 1970, mortality rates were around 105 per 100 000 people aged 15–19 and around 35 per 100 000 people aged 10–14. These figures had decreased in 2013 to around 30 deaths per 100 000 and 10 deaths per 100 000 for those aged 15–19 and 10–14 respectively. Advances in technology, education and medical treatment were largely responsible for these decreases.

FIGURE 2.4 Death rates for infants, children, youths and early adults, 2013

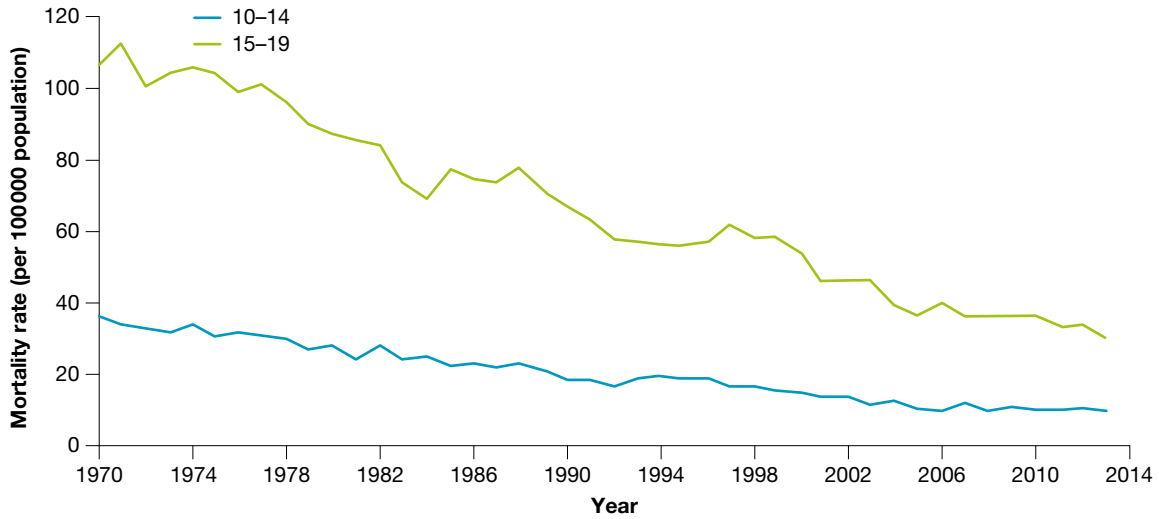


Source: Adapted from AIHW data.

TRENDS

A trend is a general movement or pattern. Sometimes trend data is valuable because it tells us what has been happening to the data over a period of time. For example, the death rate for those aged 15–19 in 2013 was around 30 per 100 000. This figure may seem high considering that youth is one of the healthiest stages of the lifespan. Yet when we see the trend data, it shows that the rates have actually decreased significantly compared to years gone by (see figure 2.5).

FIGURE 2.5 Death rates for Australians aged 10–14 and 15–19, 1970–2013

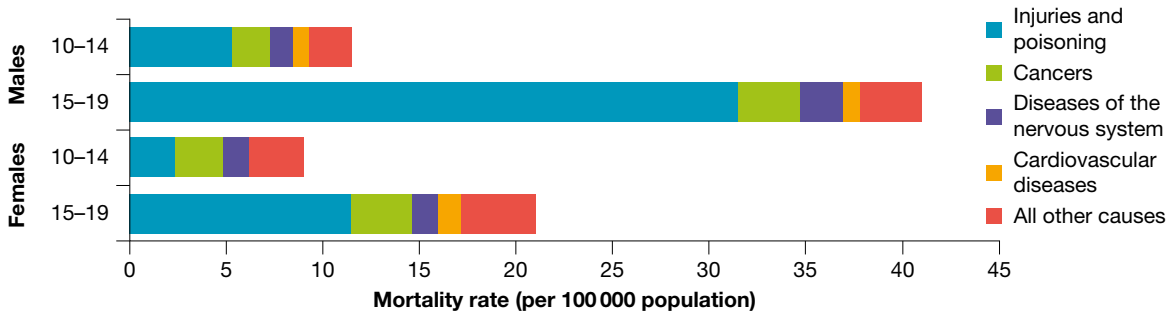


Source: Adapted from AIHW data.

Death rates are low during youth because they have survived childhood, where factors associated with childbirth and genetic abnormalities are the leading causes of death, and lifestyle factors such as food intake, alcohol consumption and physical activity levels have generally not had time to have an impact on the body to the point of causing premature death.

The leading contributors to death among youth are shown in figure 2.6.

FIGURE 2.6 Mortality rates due to selected causes for those aged 10–19 according to sex, 2013



Source: Adapted from AIHW, *GRIM* (General record of incidence of mortality) *Books*, 2017.

Deaths from accidental causes such as car accidents and drowning contribute significantly to mortality rates during the youth stage. Such causes are classified as 'injuries'. Specifically, injuries include road accidents, intentional self-harm, poisoning, drowning and violence.

Although the mortality rate associated with cancer is relatively low among youth compared to other lifespan stages, it is still the second leading cause of mortality among youth. Cancer is characterised by the uncontrolled growth of abnormal cells. These cells can interfere with healthy cells and prevent them from carrying out their normal functions.

Among youth, the most common cancers include:

- melanoma — cancer of the melanocytes, a type of skin cell
- Hodgkin lymphoma — a form of blood cancer
- testicular cancer — cancer of the testicles, therefore affecting only males.

Diseases of the nervous system were the third most common cause of death among youth. The nervous system is made up of the brain, spinal cord and nerves. Diseases affecting these structures in youth include:

- cerebral palsy — a condition caused by damage to the brain that occurs either during pregnancy or shortly after birth
- epilepsy — a brain condition characterised by recurrent seizures
- muscular dystrophy — a range of related conditions that cause progressive weakness and loss of muscle mass.

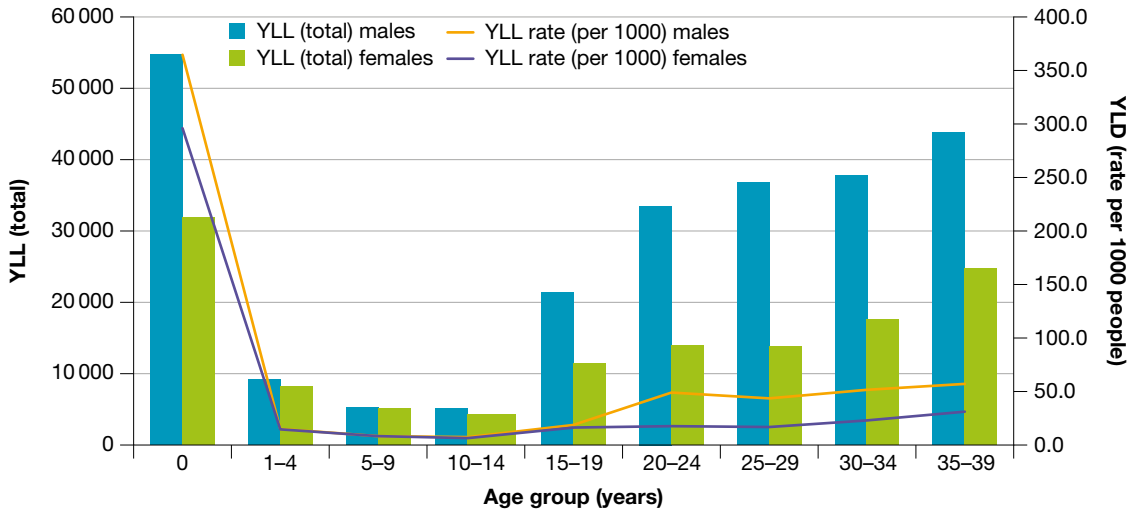
Cardiovascular disease refers to diseases of the heart and blood vessels. This cause of death is not common in young people, and when cardiovascular-related deaths do occur in youth they usually arise from heart defects and genetic conditions.

2.3.1 Years of life lost (YLL)

Years of life lost (YLL) due to premature death is another way of measuring and comparing mortality. If a person dies from a given condition 30 years before the predicted life expectancy for their age, then they have contributed 30 YLL to that particular cause of death. For example, if a 14-year-old female dies in a car crash, and life expectancy for females that age is 84, then 70 years have been added to the YLL for injuries.

Figure 2.7 shows the total YLL and rate of YLL per 1000 people for both males and females in different age groups in 2011. Compared to other age groups, 10- to 19-year-olds experience relatively few YLL.

FIGURE 2.7 YLL number and rate for males and females by age group, 2011

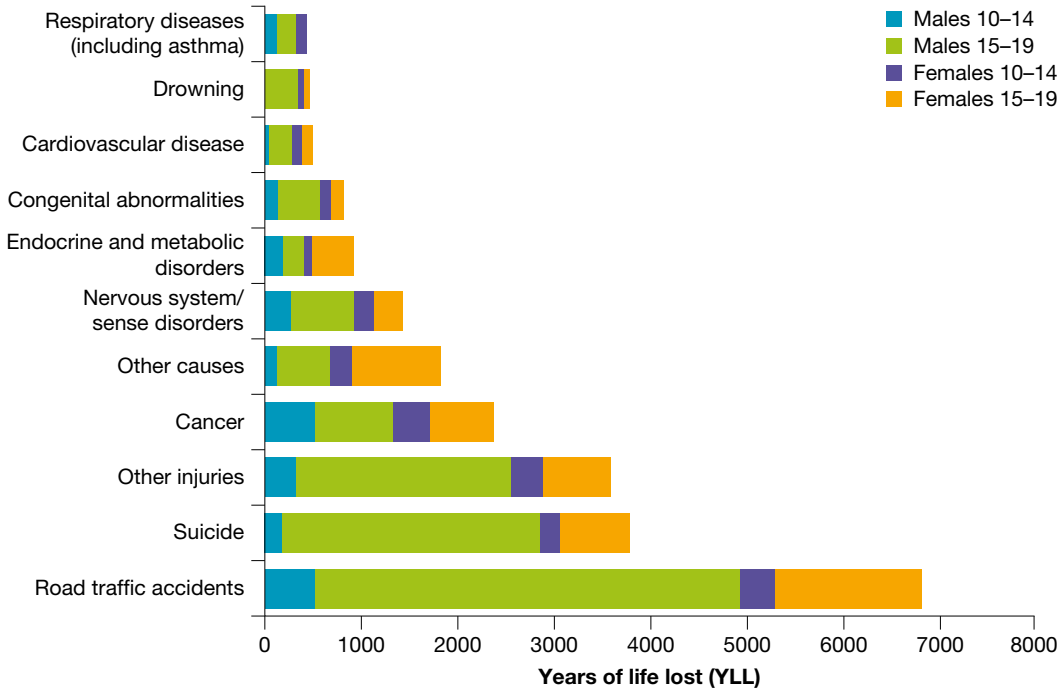


Source: Adapted from AIHW, *Australian Burden of Disease Study*, 2016.

The YLL that were caused by a range of conditions among young Australians are shown in figure 2.8.

For Australia's youth, road traffic accidents are the leading specific cause of years of life lost, and injury-related deaths account for the top three specific causes of YLL. Cancer is the leading non-injury related cause of death, followed by nervous system and sense disorders that include epilepsy and muscular dystrophy. Note that 'other causes' is not considered to be a leading cause of death because it encompasses a range of conditions, each of which on its own contributes very few YLL.

FIGURE 2.8 Years of life lost (YLL) for selected conditions by sex and age group



Source: Adapted from AIHW data.

2.3 Activities

Test your knowledge

1. What is mortality?
2. Examine table 2.3 and answer the following questions:
   (a) Which age group has the greatest male: female ratio for mortality?
   (b) What does this number (ratio) mean?
   (c) Discuss reasons that may account for the ratio identified in part (a).
3. (a) According to figure 2.4, how do death rates change for 10- to 14-year-olds compared with 15- to 19-year-olds?
   (b) Suggest reasons for this change.
4. (a) Describe the trend in death rates as shown in figure 2.5.
   (b) What factors may have led to this trend?
5. (a) What are the top three broad causes of death for males and females according to figure 2.6?
   (b) For each broad cause of death identified in part (a), list the specific diseases or conditions that are most likely to have caused these deaths.
6. (a) Explain how mortality rate due to injuries changes for those aged 15–19 compared to those aged 10–14 as shown in figure 2.6.
   (b) Discuss possible reasons for these changes.
7. (a) State what the acronym 'YLL' stands for and explain what it means.
   (b) Outline how YLL are calculated.
8. (a) Which sex contributes more YLL according to figure 2.8?
   (b) Suggest reasons for this.

Apply your knowledge

9. Discuss why death rates might be a more useful statistic than the total number of deaths.
10. Examine table 2.3 and complete the following:
    (a) Graph the male:female mortality ratio across the lifespan.
    (b) Using data, describe the pattern with regard to male: female mortality rates across the lifespan.
11. Explain why mortality data is useful in addition to life expectancy data in analysing health status.
12. Redraw figure 2.8 showing the three leading causes of YLL for youth. In your graph, use one colour for males aged 10–19 and a different colour for females aged 10–19 to indicate the overall proportion contributed by both males and females.
13. Access the **Injury** weblink and worksheet in the Resources tab in your eBookPLUS then complete the worksheet.

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Youth health status — mortality Summary screens and practice questions

2.4 The health status of Australia's youth — morbidity and burden of disease

KEY CONCEPT Exploring morbidity and burden of disease among Australian youth

2.4.1 Morbidity

Not all conditions end in death, so it is useful to examine the effect that non-fatal conditions have on a population. This is where morbidity data is useful. **Morbidity** refers to ill-health — including disease, injury and disability — in an individual, and the level of ill-health in a population. The morbidity rate therefore refers to the rate of ill-health in a population in a given period. There are two ways of considering morbidity:

- the number or rate of people reporting a condition (often represented as a percentage of a population, or the incidence and prevalence rates)
- the **years lost due to disability (YLD)**, where one YLD is equal to one 'healthy' year of life lost due to time lived with illness, injury or disability.

FIGURE 2.9 Many conditions do not end in death but still affect the health status of youth.

By using two methods, it is possible to examine which conditions are the most common and which conditions have the biggest impact on health and wellbeing.

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Youth health status — morbidity Summary screens and practice questions

2.4.2 Incidence and prevalence of health conditions

Incidence and prevalence are two measures used to present morbidity data. **Incidence** refers to the number of new cases of a condition in a given period (usually 12 months) and **prevalence** refers to the total number of cases of a condition at a given time. Both incidence and prevalence data can be shown as the total number or the rate (often per 1000 or per 100 000 population).

Incidence data is useful for identifying which conditions are increasing in diagnosis and which ones are decreasing. This can assist the government and health organisations in allocating resources and taking action to improve the health status of Australia's youth.

Table 2.4 shows the estimated incidence rates (per 1000) for selected age groups and conditions in 2015.

TABLE 2.4 Estimated incidence rates for selected conditions, per 1000 population, 2015

	Males		Females	
	10–14	15–19	10–14	15–19
Asthma	16.6	10.0	27.6	19.9
Chlamydia	0.8	32.5	4.4	70.1
Migraine	27.2	14.5	38.9	42.6
Anxiety and depression	25.2	58.5	36.0	94.9
Eating disorders	1.9	3.2	1.8	4.1
Back and neck pain	19.6	37.8	24.2	48.4
Sight disorders	11.5	13.3	13.0	17.1
Dental caries	157.7	226.1	178.3	257.3

Source: Institute for Health Metrics and Evaluation (IHME). Global Burden of Disease Study 2015 (GBD 2015) Results. Seattle, United States: Institute for Health Metrics and Evaluation (IHME), 2016.

As can be seen from table 2.4, the incidence rate for asthma was 16.6 for every 1000 males in the 10–14 age bracket. If the size of the population in this age group is known, the total number of cases can be calculated (see box below).

CALCULATING THE TOTAL NUMBER OF NEW CASES OF A DISEASE

In 2015, there were approximately 725 300 males in this age group. To calculate the total number of new cases, multiply the rate per 1000 by 725.3 (as there are 725.3 groups of 1000 in 725 300) to get the total number of new cases in 2015:

$725.3 \times 16.6 = 12\,040$

So in 2015 there were approximately 12 040 new cases of asthma among males in the 10–14 years age group.

The prevalence, or total cases, of selected conditions is shown in table 2.5. Statistics on prevalence can be useful for comparing the number of individuals suffering from certain conditions during a specified period. As with incidence, information about prevalence can assist with allocating resources and planning for the future. It also ensures that trends can be identified over time so that the health system can adapt to cater for the changing needs of Australia's youth.

TABLE 2.5 Prevalence (total number) of selected conditions, 2015

	Males		Females	
	10–14	15–19	10–14	15–19
Asthma	107 065	90 128	100 725	116 250
Anxiety and depression	12 159	33 429	16 092	48 591
Migraine	90 303	102 780	101 677	177 484
Alcohol use disorder	1645	11 494	907	5238
Eating disorders	294	818	1129	5467
Back and neck pain	16 394	36 387	19 074	44 888
Sight disorders	35 268	44 403	36 126	47 073
Dental caries	76 913	100 245	89 291	111 983

Source: Institute for Health Metrics and Evaluation (IHME). Global Burden of Disease Study 2015 (GBD 2015) Results. Seattle, United States: Institute for Health Metrics and Evaluation (IHME), 2016.

Data in table 2.5 are presented as the total number of people in each age group experiencing each condition in Australia, but the rate of prevalence for each condition can be calculated if the approximate size of the population is known (see box below).

CALCULATING THE RATE OF TOTAL CASES OF A DISEASE

First, divide the population number by 1000 (or 100 000 if you want to display the rate per 100 000).

For example, in 2015 there were approximately 689 200 females in the 10–14 age group:

689 200 ÷ 1000 = 689.2

In other words, there were 689.2 groups of 1000.

To calculate the rate, divide the number of individuals suffering from the condition by 689.2. For asthma (table 2.5), there were 100 725 females in this age group suffering from asthma:

100 725 ÷ 689.2 = 146.1 cases per 1000 females in this age group.

Table 2.6 shows prevalence data for the same conditions as table 2.5, expressed per 1000 population.

TABLE 2.6 Prevalence (per 1000) of selected conditions, 2015

	Males		Females	
	10–14	15–19	10–14	15–19
Asthma	147.6	107.1	146.1	147.6
Anxiety and depression	16.8	39.7	23.3	61.7
Migraine	124.5	122.1	147.5	225.3
Alcohol use disorder	2.3	13.7	1.3	6.6
Eating disorders	0.4	1.0	1.6	6.9
Back and neck pain	22.6	43.2	27.7	57.0
Sight disorders	48.6	52.7	52.4	59.8
Dental caries	106.0	119.1	129.5	142.1

Source: Institute for Health Metrics and Evaluation (IHME). Global Burden of Disease Study 2015 (GBD 2015) Results. Seattle, United States: Institute for Health Metrics and Evaluation (IHME), 2016.

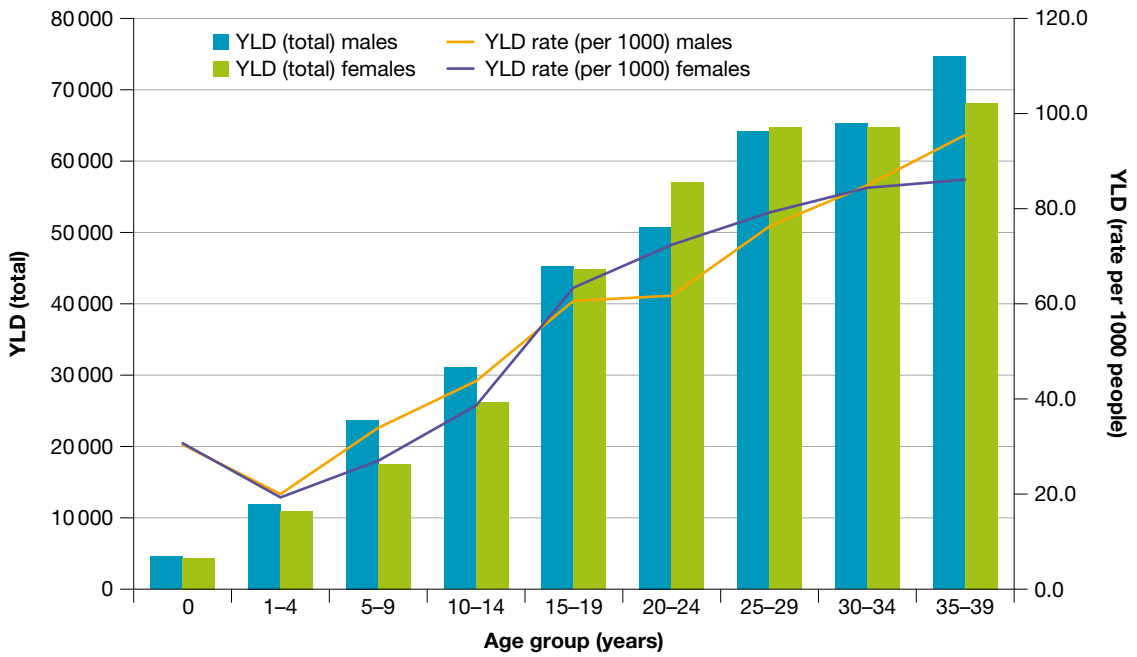
2.4.3 Years lost due to disability (YLD)

Years lost due to disability (YLD) is a measure of the impact of morbidity on a group or population. YLL and YLD are equal in value, in that one YLL and one YLD are each equal to one healthy year of life lost. The difference is that YLL is caused by premature death and YLD is caused by losing healthy years of life because of living with illness, disease or disability.

It would be difficult to compare the effect of asthma on an individual with the effect of losing a leg in a car crash. They are very different conditions and would impact on an individual in different ways. In order to address this issue, the World Health Organization (WHO) has given the most common conditions a disability weight, which is an indication of the severity of the condition and how much it interferes with normal life. The disability weights are incorporated into the YLD formula, so all YLD are relative and different conditions can be compared fairly. For example, even though headaches are more common among youth than asthma, they are considered to be less severe and this contributes to asthma contributing more YLD. As asthma contributes more YLD than headaches, it is considered to have a greater impact and be a greater concern.

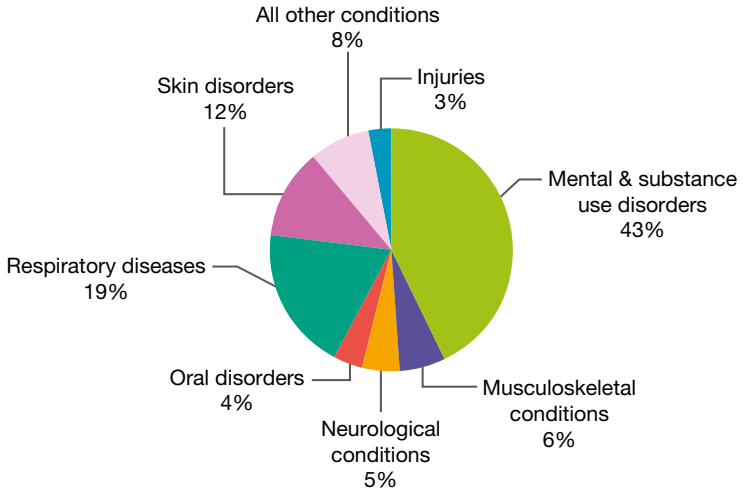
Figure 2.10 shows the number and rate of YLD from age 0 to 39. Males experience a greater number of YLD in both the 10–14 and 15–19 age groups and a higher rate of YLD in the 10–14 age group. Females experience a slightly greater rate of YLD in the 15–19 age group compared to males and the increase in mental disorders among females in this age group is largely responsible for this change. Figures 2.11 and 2.12 on the next page show the breakdown of YLD for 10- to 14-year-olds and 15- to 19-year-olds according to cause in 2011.

FIGURE 2.10 YLD number and rate for males and females by age group, 2011



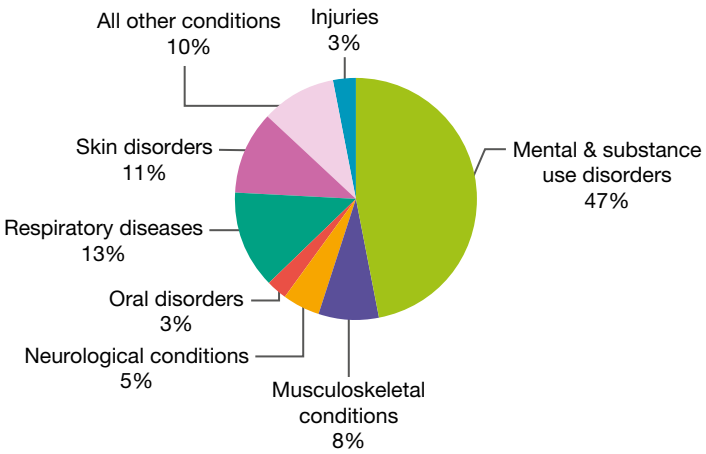
Source: Adapted from AIHW, *Australian Burden of Disease Study 2011*, 2016.

FIGURE 2.11 Proportion of total YLD for 10- to 14-year-olds due to selected conditions, 2011



Source: Adapted from AIHW, *Australian Burden of Disease Study*, 2016.

FIGURE 2.12 Proportion of total YLD for 15- to 19-year-olds due to selected conditions, 2011



Source: Adapted from AIHW, *Australian Burden of Disease Study*, 2016.

Mental and substance use disorders common among youth include depression, anxiety and eating disorders. Mental and substance use disorders are the largest contributor to YLD among youth and are therefore deemed to have the greatest non-fatal impact on health status. Mental and substance use disorders are common among youth and can be quite severe, which contributes to the high rate of YLD attributed to them.

Asthma and bronchitis account for the majority of YLD due to respiratory conditions among youth. Although more youth experience asthma than mental and substance use disorders, asthma is not considered to be as severe as mental and substance use disorders and therefore contributes fewer YLD.

Skin conditions are the third leading contributor to YLD among youth and include acne, eczema, psoriasis and other forms of dermatitis.

2.4.4 Burden of disease

Burden of disease is a concept that combines mortality data with morbidity data so that conditions that contribute differently to death and illness can be compared. For example, cancer causes a lot of death and

illness while a chronic, or long-term, condition such as asthma causes a lot of illness but much less death. In the past, it was hard to compare these two conditions and decide where valuable funding should go. Burden of disease data was created to help overcome this problem.

Burden of disease is measured in **disability adjusted life years** (or **DALY**, pronounced 'dally'), where 1 DALY equals one year of healthy life lost due to premature death and time lived with illness, disease or injury. Using DALY, it is possible to compare the impact of different conditions equally — those that cause death, those that cause disability and illness, and those that cause both (table 2.7). A person who has lived a healthy life but dies suddenly 30 years earlier than the current life expectancy of their age has contributed 30 DALY. In contrast, a person who is still alive but has spent their last 10 years at only 'half health' has contributed five DALY.

TABLE 2.7 Ten leading causes of burden of disease and injury for 10- to 19-year-olds in Australia, 2011

	10–14 years		15–19 years	
Disease group	Number of DALY	Proportion of total DALY (%)	Number of DALY	Proportion of total DALY (%)
Mental & substance use disorders	24 808	37.1	42 603	34.6
Injuries	5871	8.8	24 707	20.1
Respiratory diseases (including asthma)	11 339	17.0	12 232	9.9
Skin disorders	6624	9.9	10 195	8.3
Musculoskeletal conditions	3630	5.4	6829	5.6
Neurological conditions	3387	5.1	5810	4.7
Oral disorders	2387	3.6	2976	2.4
Infant & congenital conditions	2128	3.2	3331	2.7
Cancer & other neoplasms	1833	2.7	2844	2.3
Infectious diseases	1051	1.6	1649	1.3
All other conditions	3772	5.6	9818	8.1

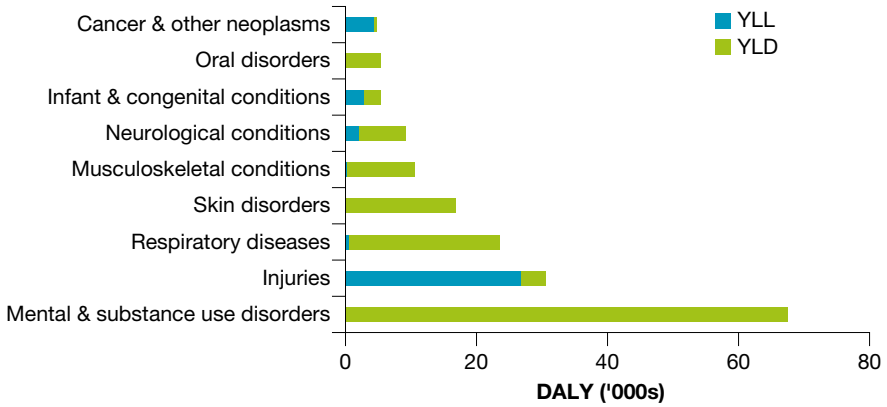
Source: Adapted from AIHW, *Australian Burden of Disease Study* 2011, 2015.

DALY are calculated by adding YLL (years of life lost) and YLD (years lost due to disability), as shown in figure 2.13.

Australia's youth experience a significantly greater number of YLD than YLL. According to data from the Australian Institute of Health and Welfare, in 2011 those aged between 10 and 19 had 147 300 YLD compared to 42 525 YLL, giving a total of 189 825 DALY. The top causes of DALY (with a breakdown of YLL and YLD) for this age group is shown in figure 2.14.

FIGURE 2.13 The equation for DALY

FIGURE 2.14 Burden (YLL, YLD and total DALY) for the top causes of DALY for 10- to 19-year-olds, 2011



Source: Adapted from AIHW, *Australian Burden of Disease Study*, 2016.

2.4 Activities

Test your knowledge

1. (a) What is meant by the term morbidity?
   (b) Explain why it is useful to examine morbidity data in addition to mortality data.
2. Outline the difference between incidence and prevalence.
3. State what the acronym 'YLD' stands for and explain what it means.
4. (a) Describe the change in rate of YLD for males and females according to figure 2.10.
   (b) Approximately, how many YLD were contributed by males and females aged 10–14 and 15–19?
5. What are the top three causes of YLD for young Australians according to figure 2.11 and 2.12?
6. (a) What is meant by 'burden of disease?
   (b) How is it measured?
7. What is the benefit of using DALY instead of morbidity or mortality data?

Apply your knowledge

8. If the incidence for a condition drops to 0 per 100 000 population, does this also mean the prevalence will be 0? Explain.
9. Explain how asthma can have the highest prevalence among youth, but does not have the highest incidence.
10. (a) Which three conditions led to the most burden of disease as shown in table 2.7?
    (b) For each of the three conditions, explain whether you think most DALY would be attributable to mortality or morbidity.
11. Explain how anxiety and depression can be the leading burden of disease (DALY) for young Australians when these conditions cause relatively few deaths.
12. Why might it be useful to look at the total number of people suffering from a condition as well as YLD contributed by each condition?
13. Access the **Burden of disease** weblink and worksheet in the Resources tab in your eBookPLUS then complete the worksheet.

eBookplus RESOURCES

Explore more with this weblink: Burden of disease

Complete this digital doc: Burden of disease worksheet
Searchlight ID: doc-22657

2.5 The health status of Australia's youth — hospitalisation, core activity limitation and psychological distress

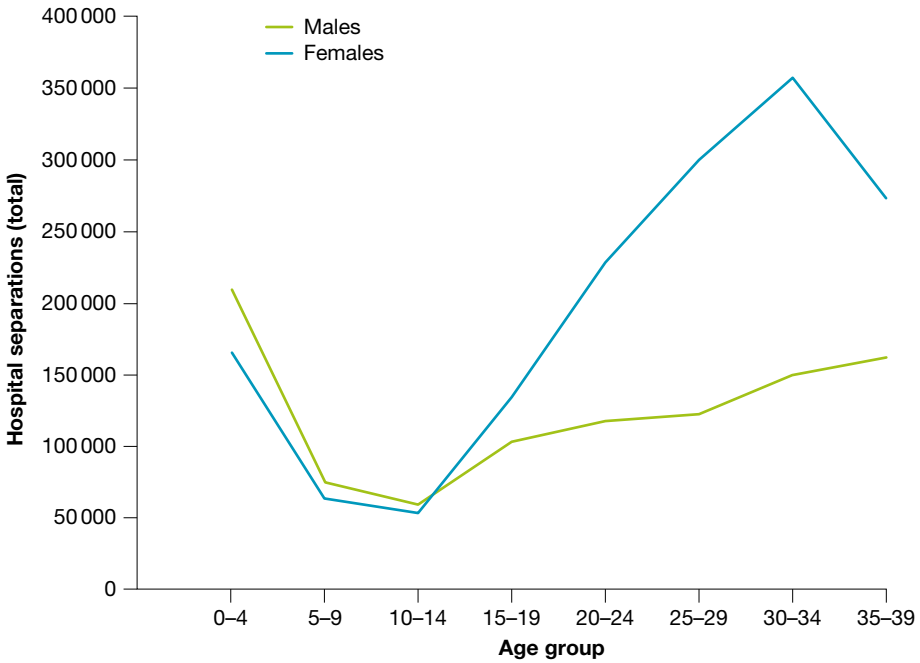
KEY CONCEPT Exploring hospitalisation, core activity limitation and psychological distress among Australian youth

2.5.1 Rate of hospitalisation

Exploring the rate of hospitalisation among youth provides an indication of levels of ill-health that require medical treatment. Hospitalisation can occur as the result of requiring care for **chronic conditions**, where the patient is admitted to receive treatment, and emergency care that involves unforeseen events that end up requiring medical care, such as car accidents and sporting accidents. Overall, the youth stage of the lifespan is characterised by relatively low levels of hospitalisations compared to other lifespan stages (figure 2.16).

FIGURE 2.15 Rates of hospitalisation provide important data relating to the health status of youth

FIGURE 2.16 Total hospital separations by age group and sex, 2014–15.



Source: Australian Institute of Health and Welfare 2016. *Admitted Patient Care 2014–15: Australian Hospital Statistics*. Health services series no. 68. Cat. no. HSE 172. Canberra: AIHW.

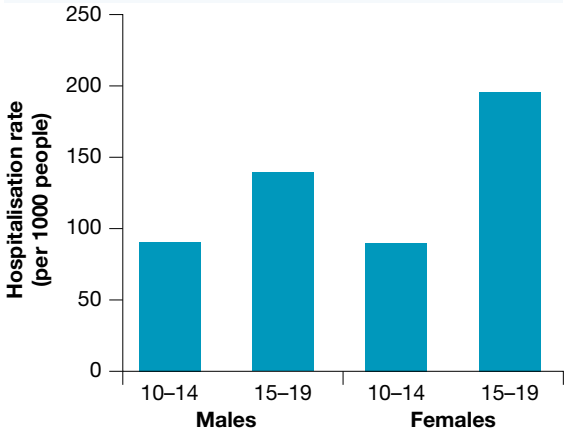
In 2014–15, there were a total of 360 521 **hospital separations** for those aged 10–19, with the majority occurring for those aged 15–19 (240 640 compared to 119 881 for those aged 10–14).

Males aged 10–14 experienced a higher rate of hospitalisation than females in the same age group. Females aged 15–19 experienced a significantly higher rate of hospitalisation than males in the same age group, largely as the result of:

- pregnancy and childbirth — there are over 20 000 hospitalisations across Australia each year due to pregnancy in the 15–19 years age group.
- higher rates of mental and behavioural disorders, including eating disorders, which are significantly more common among females.

Overall, females in the 10–19 years age group were more likely to be hospitalised than males (194 558 and 165 888 separations respectively). The overall rate (per 1000) for hospitalisations are shown in figure 2.17.

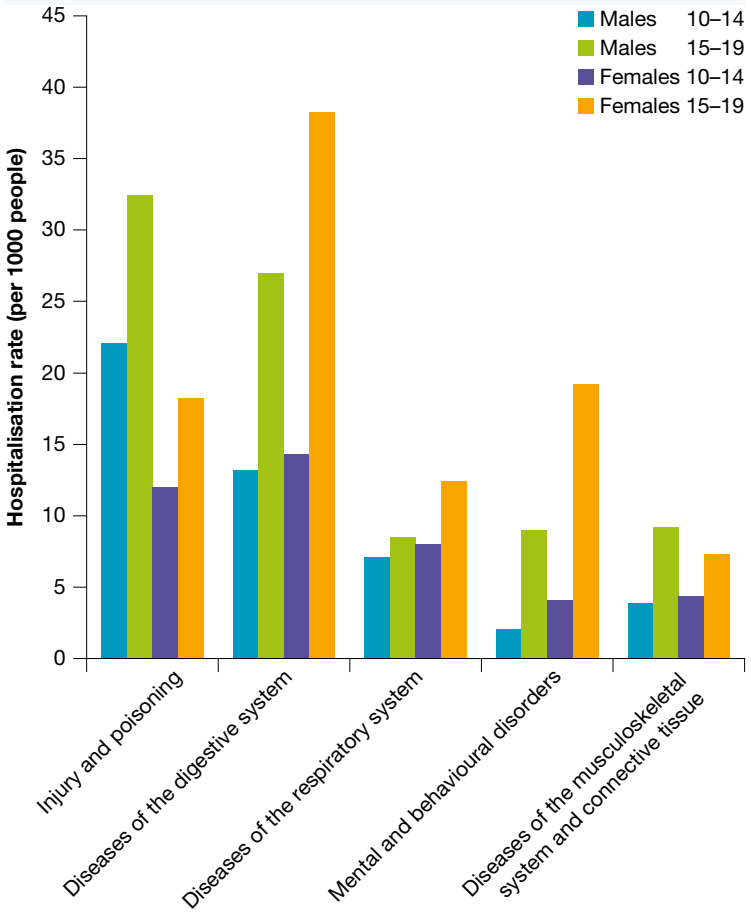
FIGURE 2.17 Hospitalisation rates for males and females aged 10–14 and 15–19



Source: AIHW, 2017.

The five leading causes of hospitalisation for those aged 10–19 are shown in figure 2.18.

FIGURE 2.18 Top five causes of hospitalisation for those aged 10–14 and 15–19, top five causes, 2011



Source: AIHW, 2017.

Injury and poisoning are the leading cause of hospitalisation in the youth stage of the lifespan. Youth is a time of increasing independence and young people often have greater access to a range of settings that may be unsupervised, such as school, sporting grounds, streets and neighbourhoods. Youth is also characterised by an increase in risk-taking behaviours, particularly among boys. The peer group becomes increasingly important during this stage and risk-taking behaviour may be motivated by friends. The part of the brain that controls decision making is still developing during the youth stage. Valuing short term gain over long term consequences can lead to risky behaviours. As young people age, they often have more exposure to motorised transport, employment, alcohol and drugs which also contribute to this trend. The most common forms of injury requiring hospitalisation among youth are fractures and superficial wounds such as cuts and lacerations.

Diseases of the digestive system were the second most common cause of hospitalisation for 10- to 19-year-olds. The most common examples of these conditions include appendicitis (which requires the removal of the appendix) and dental surgery (including the extraction of wisdom teeth). Wisdom teeth are

more likely to erupt during the later stage of youth.

Respiratory diseases were the third most common reason for hospitalisation and include conditions such as asthma and bronchitis.

Mental and behavioural problems were the fourth most common cause of hospitalisation for youth and include depression, anxiety, eating disorders and drug-induced mental disorders.

Diseases of the musculoskeletal system and connective tissues were the fifth most common cause of hospitalisation among youth and include muscle, joint and bone problems such as back and disc conditions, joint reconstruction surgery and treatment for arthritis.

FIGURE 2.19 Dental surgery is a leading cause of hospitalisation among youth.

2.5.2 Core activity limitation

Core activities relate to three main areas of life and can be seen in table 2.8. If an individual has difficulty in any of the three core activities, they may have a **core activity limitation**. Core activity limitations can occur as the result of injury, developmental problems and chronic illness.

TABLE 2.8 The three core activities and examples relating to each

Core activity	Examples relating to the core activity
Self-care	• Bathing/showering • Dressing/undressing • Eating/feeding • Going to the toilet • Bladder/bowel control
Mobility	• Moving around away from home • Moving around at home • Getting in or out of bed or chair
Communication in own language	• Understanding/being understood by strangers, friends or family, including use of sign language/lip reading

Surveys relating to core activities ask respondents whether they have difficulty or require assistance from another person or an aid (such as a wheelchair) to carry out the three core activities. Core activity limitations are classified based on whether, and how often, a person needs help, has difficulty, or uses aids or equipment with any core activities. A person's overall level of core activity limitation is determined by their highest level of limitation in any of the three core activities.

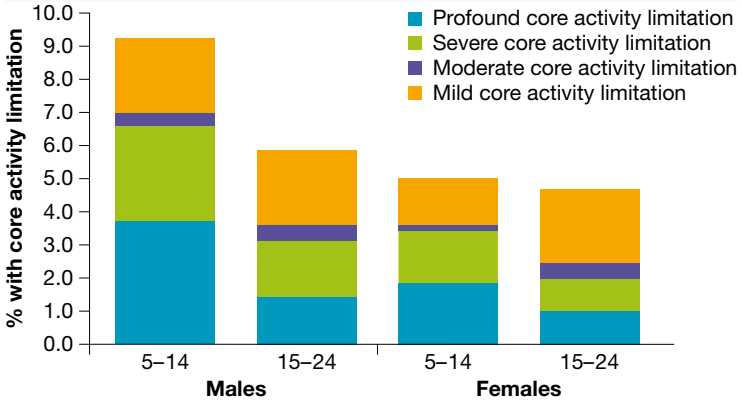
According to the Australian Institute of Health and Welfare there are four main levels of core activity limitation:

- *Profound* — those who answered yes to always needing help are classified as having a 'profound core activity limitation'
- *Severe* — those who don't always need help, but may require help at times, are classified as having a 'severe core activity limitation'
- *Moderate* — those who have difficulty with the tasks are classified as having a 'moderate core activity limitation'
- *Mild* — those who simply require aids to undertake the task are classified as having a 'mild core activity limitation'.

The proportion and level of core activity limitations among young people are shown in figure 2.21. Note that the data available relate to those aged 5–24 and therefore include people in the childhood and adulthood stages of the lifespan. Although other lifespan stages are included, these data provide a reflection of the level of core activity limitation experienced by youth in Australia.

FIGURE 2.20 If an individual requires assistance from people or equipment, they may have a core activity limitation.

FIGURE 2.21 Proportion of males and females with a core activity imitation for those aged 5–24, by type of limitation, 2014–15.



Source: Adapted from ABS, 4430.0 *Disability, Ageing and Carers, Australia: Summary of Findings*, 2015.

Males experience higher rates of core activity limitation than females in both age groups. Males in the 5–14 age group experience the overall highest rate of core activity limitations and the highest level of profound limitation.

2.5.3 Psychological distress

Psychological distress relates to unpleasant feelings and emotions that have an impact on an individual's level of functioning. Measuring psychological distress can provide information about the level of mental and emotional health and wellbeing experienced.

The proportion of individuals with very high levels of psychological distress can be measured using the **Kessler Psychological Distress Scale (K10)**. The K10 is a scale of psychological distress based on the answers to ten questions about negative emotional and mental states in the four weeks prior to the interview:

1. During the last 30 days, about how often did you feel tired out for no good reason?
2. During the last 30 days, about how often did you feel nervous?
3. During the last 30 days, about how often did you feel so nervous that nothing could calm you down?
4. During the last 30 days, about how often did you feel hopeless?
5. During the last 30 days, about how often did you feel restless or fidgety?
6. During the last 30 days, about how often did you feel so restless you could not sit still?
7. During the last 30 days, about how often did you feel depressed?

FIGURE 2.22 Psychological distress reflects mental and emotional health and wellbeing.

8. During the last 30 days, about how often did you feel that everything was an effort?
9. During the last 30 days, about how often did you feel so sad that nothing could cheer you up?
10. During the last 30 days, about how often did you feel worthless?

The overall score is calculated by adding up the scores for each question which results in a score from 0 (the lowest possible score) to 40 (the highest possible score). Respondents can answer:

1. None of the time (0 point)
2. A little of the time (1 point)
3. Some of the time (2 points)
4. Most of the time (3 points)
5. All of the time (4 points).

For the data provided in this section, the overall score was used to classify the level of psychological distress according to the values shown in table 2.9.

TABLE 2.9 The classifications of psychological distress

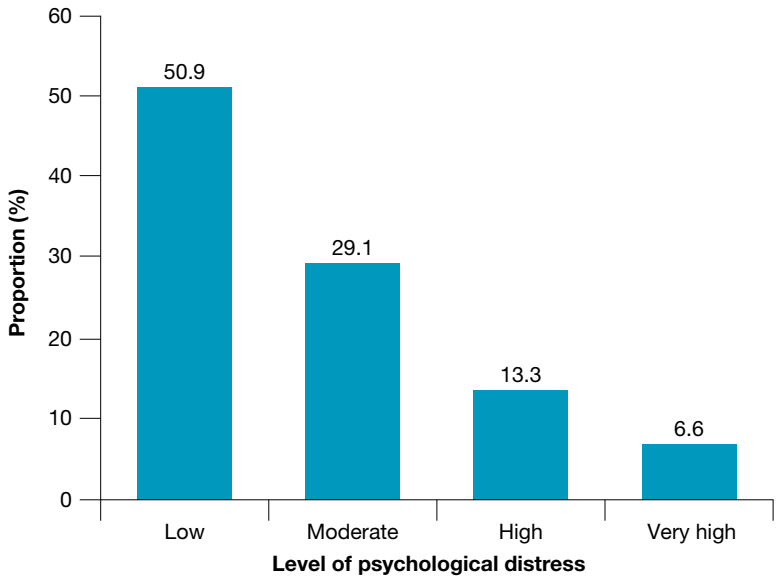
K10 total score levels	Score
0–5	Low
6–11	Moderate
12–19	High
20–40	Very high

Note that the Kessler Psychological Distress Scale is not a diagnosis, but an indication of the level of psychological distress experienced. While high levels of distress are often associated with mental illness, it is not uncommon for some people to experience psychological distress, but not meet criteria for a mental disorder. A diagnosis of a mental disorder can only be made by a medical doctor.

In 2013–14, one in five (19.9 per cent) youth aged 11–17 years had very high or high levels of psychological distress, at 6.6 per cent and 13.3 per cent respectively (figure 2.23).

The proportion of those experiencing very high or high levels of psychological distress was higher for females aged 11–15 and 16–17 than males of the same age (9.5 per cent and 16.4 per cent compared with 4 per cent and 10.4 per cent respectively). A higher proportion of 16- to 17-year-olds had very high and high levels of psychological distress compared to those aged 11–15 (11 per cent and 16.2 per cent of 16- to 17-year-olds compared with 4.8 per cent and 12.2 per cent of 11- to 15-year-olds), shown in table 2.10.

FIGURE 2.23 Psychological distress levels in 11- to 17-year-olds, 2013–14



Source: Lawrence D, Johnson S, Hafekost J, Boterhoven De Haan K, Sawyer M, Ainley J, Zubrick SR 2015, *The Mental Health of Children and Adolescents: Report on the second Australian Child and Adolescent Survey of Mental Health and Wellbeing,* Department of Health, Canberra.

TABLE 2.10 Kessler 10 level of psychological distress among 11- to 17-year-olds by sex and age group

Sex	Age group	Low (%)	Moderate (%)	High (%)	Very high (%)
Males	11–15 years	57.6	29.2	9.9	3.3
	16–17 years	53.0	29.4	11.8	5.8
	11–17 years	**56.3**	**29.3**	**10.4**	**4.0**
Females	11–15 years	49.8	28.9	14.7	6.6
	16–17 years	34.8	29.0	20.3	15.9
	11–17 years	**45.1**	**29.0**	**16.4**	**9.5**
Persons	11–15 years	53.9	29.1	12.2	4.8
	16–17 years	43.6	29.2	16.2	11.0
	11–17 years	**50.9**	**29.1**	**13.3**	**6.6**

Source: Lawrence D, Johnson S, Hafekost J, Boterhoven De Haan K, Sawyer M, Ainley J, Zubrick SR 2015, *The Mental Health of Children and Adolescents: Report on the second Australian Child and Adolescent Survey of Mental Health and Wellbeing,* Department of Health, Canberra.

2.5 Activities

Test your knowledge

1. Explain what is meant by:
   (a) hospital separations
   (b) chronic conditions
   (c) core activity
   (d) core activity limitation
   (e) psychological distress.
2. Outline the different classifications of core activity limitation.
3. According to figure 2.21, approximately what proportion of the population experienced a core activity limitation in each of the following groups?
   (a) Males aged 5–14
   (b) Males aged 15–24
   (c) Females aged 5–14
   (d) Females aged 15–24
4. Briefly explain how psychological distress is measured.

Apply your knowledge

5. (a) Outline the change in the total number of hospitalisations between the ages of 0 and 39 as shown in figure 2.16.
   (b) Suggest possible reasons for the changes outlined in part a.
6. (a) Outline the difference in the overall hospitalisation rate for males and females aged 10–14 and 15–19.
   (b) Suggest possible reasons for the differences outlined in part a.
7. (a) Outline one similarity and one difference between males and females as shown in figure 2.17.
   (b) Suggest possible reasons for the similarity and difference outlined in part a.
8. Which age groups (11–15 or 16–17) were most likely to experience high or very high psychological distress?
9. (a) What proportion of the age group identified in part a experienced high or very high psychological distress for the following groups?
      (i) Males
      (ii) Females
      (iii) Persons
   (b) In pairs, brainstorm reasons why youth may experience psychological distress.
10. Using data to support your response, write a paragraph discussing the health status of Australian youth.

2.6 Topic 2 review

2.6.1 Key skills

KEY SKILL Analyse the extent to which health status data reflect concepts of health and wellbeing

For this key skill, a sound understanding of the concepts of health and wellbeing is essential, including knowledge of the five dimensions and examples that relate to each. Health status data can relate to any of the indicators discussed in this topic. To varying degrees, health indicators reflect various aspects of health and wellbeing. For this key skill, indicators and related data can be analysed to explain the extent that it relates to health and wellbeing. For example, life expectancy data provides an indication of how long an individual can expect to live, if mortality or death rates do not change. This reflects one aspect of the physical dimension of health and wellbeing, as it relates to the length of time the average individual can expect to live, but does not provide information relating to other aspects of physical health and wellbeing or the quality of life experienced in the other four dimensions.

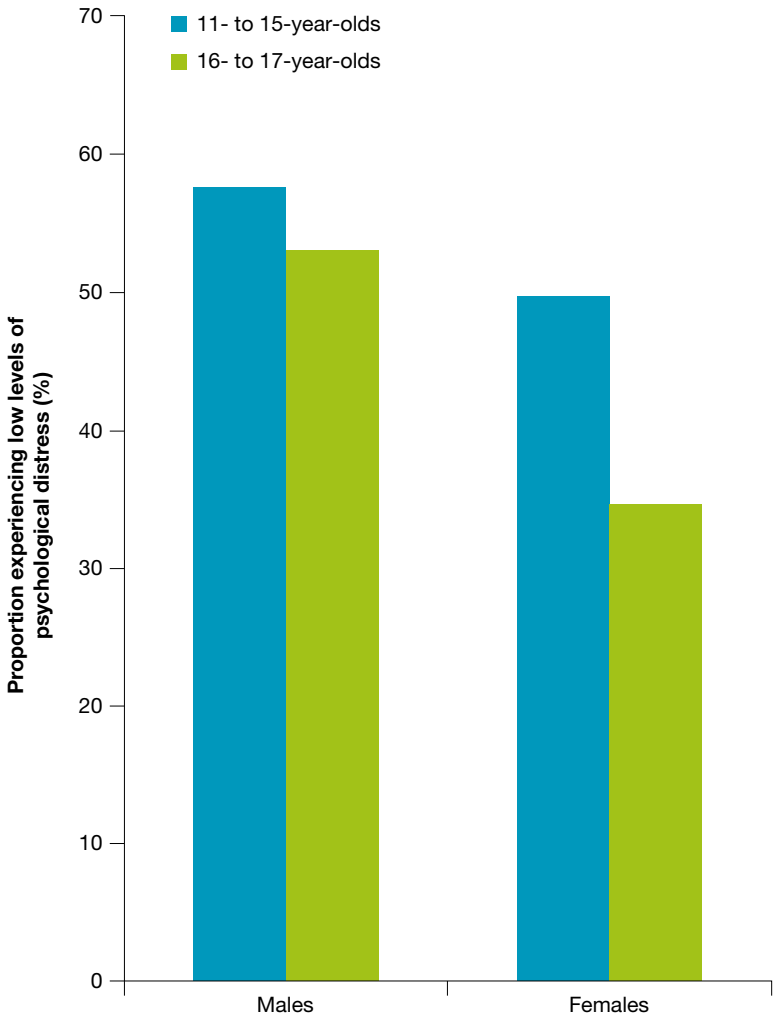
The following steps can be taken to ensure an appropriate analysis of the extent to which health status data reflect concepts of health and wellbeing:

1. determine which health status indicator/s are evident in the data
2. consider which concepts of health and wellbeing are reflected by the indicator and associated data
3. identify the dimension/s of health and wellbeing that are reflected by the health indicator evident in table/graph and justify your choice
4. identify the dimension/s of health and wellbeing that are not reflected by the health indicator evident in table/graph.

In the following example, rates of low levels of psychological distress are analysed in relation to the extent that they reflect the concepts of health and wellbeing.

Psychological distress relates to unpleasant feelings and emotions that have an impact on an individual's level of functioning.[1] Psychological distress can be measured using the Kessler Psychological Distress Scale which is

FIGURE 2.24 Proportion of 11- to 15-year-olds and 16- to 17-year-olds classified as experiencing low levels of psychological distress, according to sex



Source: Lawrence D, Johnson S, Hafekost J, Boterhoven De Haan K, Sawyer M, Ainley J, Zubrick SR 2015, *The Mental Health of Children and Adolescents: Report on the second Australian Child and Adolescent Survey of Mental Health and Wellbeing,* Department of Health, Canberra.

based on ten questions that relate to various feelings and emotions and reflect aspects of emotional and mental health and wellbeing. The questions ask about feeling depressed which is an aspect of mental health and wellbeing. Although most people feel sad from time to time, if these feelings are experienced most, or all of the time, it can indicate that emotional health and wellbeing is not optimal.[2]

Although psychological distress data provides an indication of emotional and mental health and wellbeing, it does not reflect every aspect of these dimensions. It also does not provide any specific reflection on physical, social and spiritual health and wellbeing.[3]

The graph shows that males have higher rates of low levels of psychological distress than females for both age groups which may indicate a higher level of emotional and mental health and wellbeing for the areas addressed in the Kessler Psychological Distress Scale.[4]

1 An understanding of psychological distress and how it is measured is shown.

2 Aspects of psychological distress as a health status indicator are linked to the concept of health and wellbeing.

3 Aspects of psychological distress as a health status indicator are linked to the concept of health and wellbeing.

4 Data from the graph is referred to and linked to the concept of health and wellbeing.

Practise the key skill

1. Table 2.11 shows the proportion of 15- to 17-year-olds who assessed their health status as fair or poor. Using data from the table, discuss the extent to which self-assessed health status reflects the concept of health and wellbeing.
2. Discuss the extent to which rates of hospitalisation reflect the concept of health and wellbeing.

TABLE 2.11 Proportion of 15- to 17-year-olds who assessed their health as fair or poor, 2011–12

	Fair or poor self-assessed health status (%)
Males	4.9
Females	8.3

Source: ABS, *Australian Health Survey: Updated Results*, 2011–12.

KEY SKILL Draw conclusions from health data about the health status of youth in Australia

This key skill relates to the interpretation and analysis of data. Data concerning health status are presented using a range of different measurements and an understanding of the measures commonly used will assist in developing this skill.

Measures used to present data relating to health status include:

- self-assessed health status
- life expectancy
- mortality
- morbidity (including incidence and prevalence of health conditions)
- burden of disease
- rates of hospitalisation
- core activity limitation
- psychological distress.

To become proficient at data analysis, it is necessary to be able to interpret data available in the form of graphs, tables and charts. A range of activities in this topic provides the opportunity to practise this skill.

The following steps offer a systematic approach to interpreting graphs and tables:

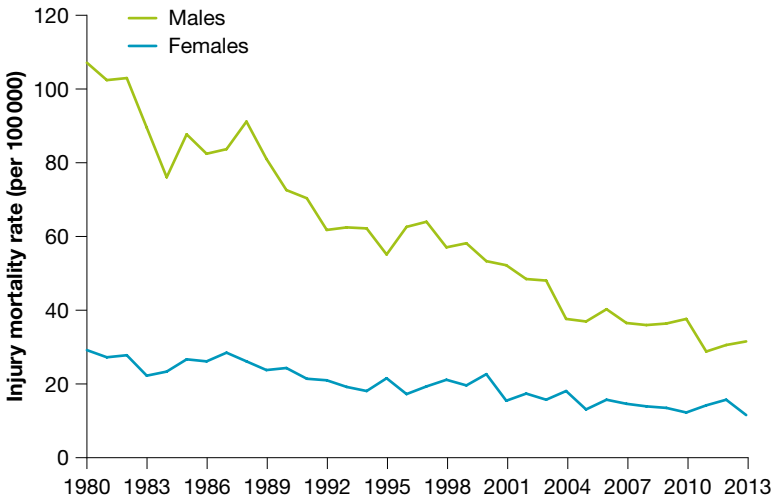
1. Read the title of the graph or table — the title usually gives an indication about what information is presented in the graph. It may be located at the top of the graph or next to the figure number.
2. Read the horizontal and vertical axes (for a bar graph) and look at the units (e.g. is it percentage, year, number, rate, proportion, $, etc.).
3. Look at the key if there is one — this helps identify various elements of the data.

4. Read any notes that relate to the data — there may be additional written information at the bottom of the graph explaining various elements of the graph. An element of the data that may not make sense may become clear after reading these notes.
5. Look for trends, similarities and differences between the data. This will enable a better understanding of the data that the graph is actually presenting.

Figure 2.25 shows the injury death rate over time for males and females aged 15–19.

A response to the task 'Draw two conclusions relating to injury death rates according to figure 2.25' might include the following points.

FIGURE 2.25 Injury death rate over time for males and females aged 15–19



Source: Adapted from AIHW, *GRIM Books*, 2017.

- Males experienced poorer health status than females relating to injury death rates. According to the data, males consistently had higher death rates due to injuries between 1980 and 2013. In 2013, the rate for females was around 15 per 100 000 and for males at the same time was around 30 per 100 000.[5]
- The death rate for males decreased more than the death rate for females due to injuries between 1980 and 2013.[6] The male death rate decreased by around 80 per 100 000 (approximately 110 per 100 000 in 1980 down to 30 per 100 000 in 2013). The death rate for females decreased by around 15 per 100 000 (down from around 30 per 100 000 in 1980 to around 15 per 100 000 in 2013).[7]

5 A conclusion must be drawn to ensure the questions is answered.

6 Use information from the graph, such as dates, to substantiate your answer.

7 Using figures from the graph shows an ability to interpret the data and draw conclusions from it.

Practise the key skill

3. Using data from figure 2.7 (in subtopic 2.3), draw conclusions relating to health status for 10- to 14- year-olds and 15- to 19-year-olds compared with other age groups.
4. Using data from figure 2.10 (in subtopic 2.4), draw conclusions relating to health status for 10- to 14- year-olds and 15-to 19-year-olds compared with other age groups.

2.6.2 Topic summary

- Health status is an individual's or a population's overall health (and wellbeing), taking into account various aspects such as life expectancy, amount of disability and levels of disease risk factors (AIHW, 2008).
- Australia's youth generally experience excellent health status.
- Self-assessed health status, life expectancy, mortality, morbidity (including incidence and prevalence of health conditions), burden of disease, rates of hospitalisation, core activity limitation and psychological distress are all used to assess health status.
- Self-assessed health status is based on an individual's own perception of their health and wellbeing. Most youth in Australia assess their health status as excellent or very good.
- Life expectancy is an indication of how long a person can expect to live; it is the number of years of life remaining to a person at a particular age if death rates do not change (AIHW, 2008).
- For a male born in 2015, the life expectancy was 80.4 years and for a female it was 84.5 years.
- Life expectancy and death rates are continually improving for Australia's youth.
- Mortality refers to death, particularly at a population level. The mortality rates for Australia's youth are among the lowest when compared to other lifespan stages.
- The leading cause of death and YLL among youth is injury and poisoning, and males are more likely to experience mortality during the youth stage than females.
- Morbidity can be measured using YLD, incidence and prevalence.
- Mental and substance use disorders, respiratory disease and skin conditions are the leading contributors to YLD among youth in Australia.
- DALY are used to measure burden of disease and are calculated by adding YLL and YLD.
- Mental and substance use disorders contribute most to the overall burden of disease for youth.
- Hospitalisation rates of youth provide an indication of levels of ill-health that require medical treatment.
- Youth experience low levels of hospitalisation compared to other lifespan stages.
- The leading causes are injury and poisoning, diseases of the digestive system and diseases of the respiratory systems.
- A core activity limitation exists when an individual sometimes or always requires assistance in one or more of three areas of life: self-care, mobility and communication.
- Over 4 per cent of youth experience a core activity limitation.
- Psychological distress relates to unpleasant feelings and emotions that have an impact on an individual's level of functioning.
- Females and older youth are more likely to experience psychological distress.

2.6.3 Exam preparation

Question 1

Figure 2.26 shows the rate of DALY (per 1000 people) from conditions causing death for those aged 10–14 and 15–19 in 2010. DALY is a measure of health status.

(a) Identify what DALY stands for. (**1 mark**)

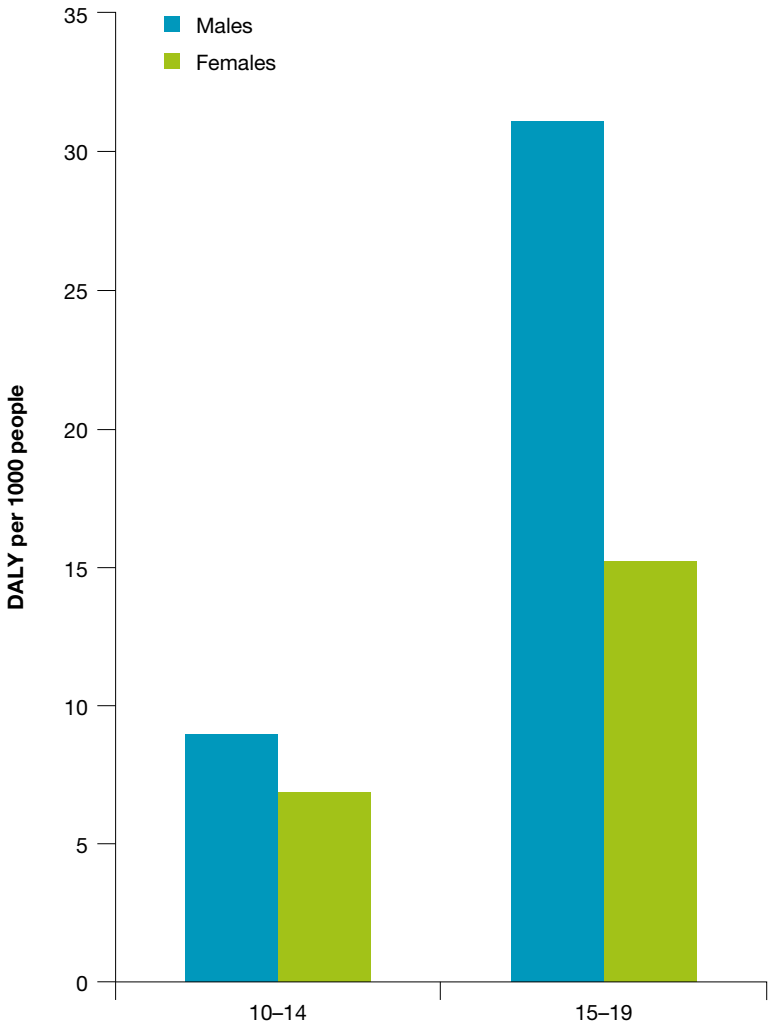
(b) What does one DALY equal? (**1 mark**)

(c) Explain what is meant by health status. (**1 mark**)

(d) Using data from the graph, draw a conclusion relating to the health status of those aged 10–14 compared with those aged 15–19. (**2 marks**)

(e) Discuss how DALY reflects the concept of health and wellbeing. (**3 marks**)

FIGURE 2.26 The rate of DALY (per 1000 people) from conditions causing death for those aged 10–14 and 15–19 in 2010



Source: AIHW, *Australian Burden of Disease Study*: Fatal Burden of Disease, 2010.

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Try out this interactivity: Definitions
Searchlight ID: doc-6873

studyon

Sit Topic Test

TOPIC 3 Sociocultural factors affecting health status

3.1 Overview

Key knowledge

- 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

- Explain a range of sociocultural factors that contribute to variations in the health status and health behaviours of Australia's youth

FIGURE 3.1 Friendship groups often have a positive impact on an individual's health status.

KEY TERMS

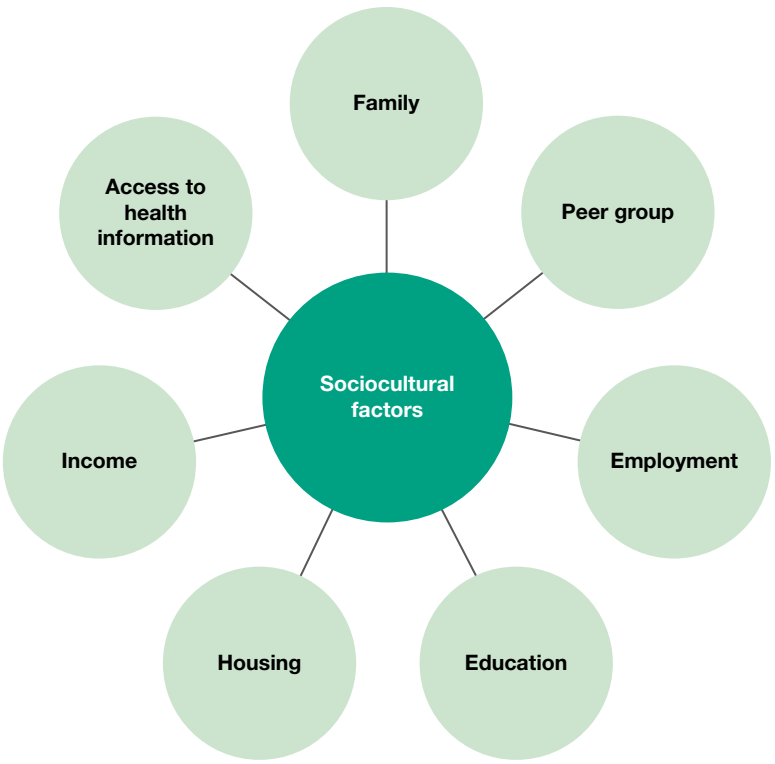
Blended family a family consisting of a couple, the children they have had together and their children from previous relationships
Indoor air pollution when the air inside a house or building contains pollutants, such as fine particles and carbon monoxide. It is often caused by inefficient cooking and heating practices.
Peer influence the social influence a peer group exerts on its members, as each member attempts to conform to the expectations of the group
Sociocultural factors the social and cultural conditions into which people are born, grow, live, work and age. These include socioeconomic status, social connections, family and cultural influences, food security, early life experiences, and access to affordable, culturally appropriate healthcare.
Step family a family formed after the remarriage of a divorced or widowed person that includes a child or children

3.2 Sociocultural factors that contribute to health behaviours and health status for youth: family, peer group, employment and housing

KEY CONCEPT Explain a range of different sociocultural factors, such as family and peer group, and how they can have an impact on the health behaviours and health status for youth

Sociocultural factors help determine an individual's or population's health and wellbeing, and are considered to be anything related to the social and cultural conditions into which people are born, grow, live, work and age that work to raise or lower the health status experienced. According to data from the Australian Institute of Health and Welfare (AIHW), sociocultural factors help to explain or predict trends in health status and why some groups are better or worse off than others. The sociocultural factors that will be discussed are shown in figure 3.2.

FIGURE 3.2 Sociocultural factors that have an impact on youth health behaviours and health status



3.2.1 Family

The family has a crucial role to play in the lives of most young people, as it provides the environment in which young people are raised. Through daily interactions, family members can have an important influence on young people's health behaviours and the choices that they make as they transition into adulthood. The family is also the main provider for many resources, such as shelter, food, clothing, emotional support and educational opportunities.

A favourable family environment, featuring close family relationships, good communication and strong parenting skills, is associated with positive health status. In recent times, social changes have resulted in a more diverse range of family structures. Social and cultural changes have also seen an increase in the number of single-parent families and same-sex families. People are more likely to be divorced or separated and, therefore, many young people are being raised in two different home environments. These may include a **step family** or a **blended family**. These changes can have significant effects on young people. The conflicts and stressors a young person may be exposed to can lead to negative effects on their emotional health and wellbeing and can lead to poorer overall self-assessed health status.

FIGURE 3.3 Family cohesiveness can have a positive impact on young people's health and wellbeing.

When young people have an unsettled family home, without strong parental influences, they may also be more likely to engage in unhealthy behaviour, such as unsafe sexual practices, tobacco use and experimenting with illicit drugs. An unsettled family home can also have an impact on their mental health and wellbeing, due to increases in levels of stress and anxiety. However, changes in family struture do not always have negative effects on young people; they can often be associated with building resilience, inner strength and determination, all factors that are associated with a positive transition into independent adult life and a reduced risk of a range of health concerns including mental disorders.

Topic 4 discusses the influence of the family on the consumption of nutritious foods and how the family can either act as an enabler or barrier to healthy eating. When a family encourages the consumption of nutritious foods, positive physical health and wellbeing impacts will occur in both the short and long term. These positive impacts include weight management, increases in bone strength and density, the provision of adequate energy to decrease the risk of anaemia and improved overall health status. For more information on the effects and causes of anaemia, visit the **Anaemia** weblink in the Resources tab in your eBookPLUS.

A young person's involvement in physical activity is also often influenced and encouraged by their family. Regular exercise and participation in either recreational or sporting groups is linked to improvements in all dimensions of health and wellbeing and health status, such as weight management, increased confidence and self-esteem, and lower levels of stress and anxiety. When young people engage in regular exercise they are more likely to continue this behaviour in later life. This can have the long-term effects of decreasing the risk of lifestyle diesases, such as as obesity, cardiovascular disease and type 2 diabetes, while also increasing life expectancy.

eBookplus RESOURCES

Explore more with this weblink: Anaemia

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Unit 1 > AOS 1 > Topic 4 > Concept 2

Family Summary screens and practice questions

3.2.2 Peer group

The peer group is increasingly influential during youth. Young people often turn to their friends first for support and advice, instead of family members. Teenagers are frequently influenced by their peers when making decisions about particular health behaviours. **Peer influence** can have a positive impact on health behaviour; for example, a group of friends who love playing soccer will influence participation in exercise, which will promote physical health and wellbeing and reduce the risk of conditions such as obesity and depression.

FIGURE 3.4 Smoking in young people is usually a result of peer influence.

Friendships are particularly important for young people, as they are often faced with uncertainties during this stage in their lives; it is their friends who can provide a constant source of support. It is not uncommon for young people to have a wide network of friends. For emotional support, however, having a number of close friends is important. Postive and respectful friendships enhance youth mental health and wellbeing, instilling confidence and self-esteem and reducing the risk of depression and mental disorders. Social health and wellbeing is also developed through increasing networks and forming new relationships. Peers can also influence physical health and wellbeing through the encouragement of healthy behaviours, such as participation in regular physical exercise and consumption of nutritious foods. Both these factors assist in the management of weight and reduce the risk of obesity and other chronic conditions, thereby improving health status.

Peer pressure, or peer influence, can have significant impact on young people's health status. As youth is often a stage of experimenting and taking risks, peer pressure may lead young people to take health risks and therefore decrease their health status. Binge drinking, illict drug use and drink driving are often some of the negative health behaviours that people engage in when encouraged by their peers. Accidents are the greatest cause of youth death, with car accidents representing 45 per cent of those who are killed.

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Unit 1 > AOS 1 > Topic 4 > Concept 1

Peer group Summary screens and practice questions

3.2.3 Employment

According to the Australian Bureau of Statistics, as of December 2014 the number of young people aged 15–24 who were involved in part-time work (45 per cent) was higher than those in engaged in full-time

work (43 per cent) (see figure 3.5). This has changed dramatically since 1990, when the rates of young people in full-time work were three times higher than those in part-time work. The major reason for this trend is due to the higher rates of young people staying at school to complete year 12, and increased numbers of young people undertaking further study after high school.

Many young people will take on a part-time job for the first time while at school, or will leave school to enter full-time employment. Employment allows the individual to earn his or her own income and develop new skills. Through employment young people may learn general skills, such as cooking, cleaning, how to cooperate with others and assume responsibility, as well learning job-specific skills. Being employed is an integral component of maintaining the physical, social, emotional and mental dimensions of health and well-being, and promotes health status.

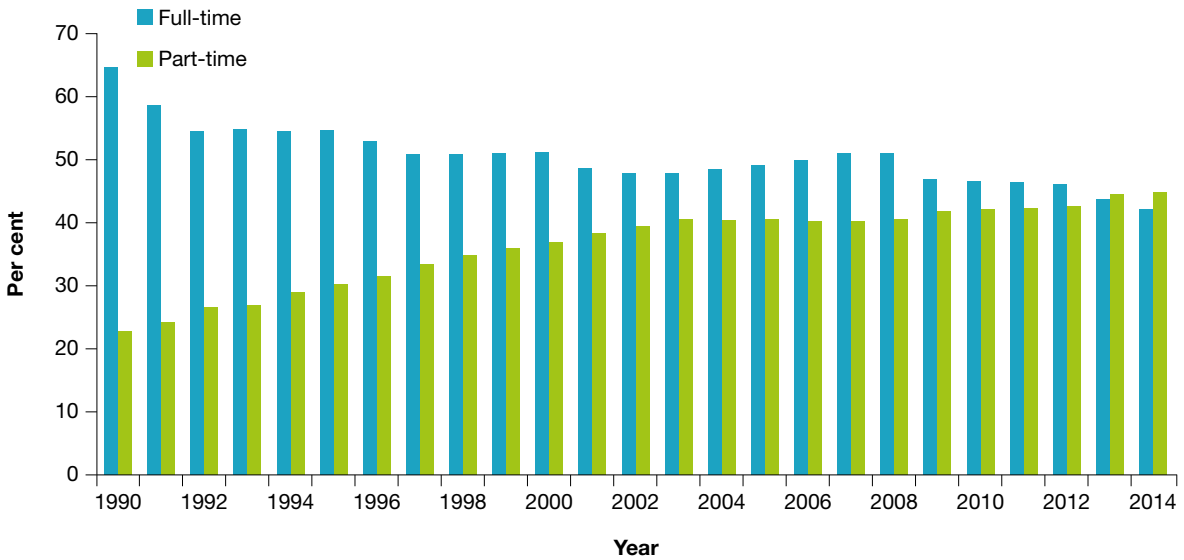
The working conditions a person experiences can have either a positive or negative impact on the health status of youth. Occupational health and safety laws in Australia are designed to ensure that employers provide a safe environment for all their employees, including young people. These laws relate to physical space, as well as machinery, training and supervision. They are intended to promote the health and well-being of Australian workers.

The physical space in which a young person works can have an impact on their physical health and well-being. Working outdoors, for instance, can leave them exposed to UV radiation and other elements such as heat and cold. The tools and instruments that young people use at work can lead to injuries such as strains and cuts. Young people may be required to stack shelves, which can increase strength, but also the likelihood of back injury. Many young people work in fast-food outlets or other commercial kitchens. Facilities within these environments pose particular risks, including:

- burns from hot water, deep fryers, ovens and other appliances
- falls and injuries caused by slippery floors
- cuts and lacerations from sharp objects.

Working conditions must abide by Occupational Health and Safety laws to protect workers from harm. For more information on these laws go to the **WorkSafe Victoria** weblink in the Resources tab in your eBookPLUS. Unpleasant or unfavourable working conditions can also influence young people's mental health and wellbeing by affecting their self-esteem and contributing to feelings of depression.

FIGURE 3.5 Participation in full- or part-time employment among young people aged 15–24, 1990 to 2014



Note: Data are annual averages of monthly employment labour force figures (based on ABS 'original series' estimates), using the labour force population aged 15–24 as the denominator.

Source: AIHW analysis of ABS data 2015.

Apart from some of the potential negative health effects of employment, there are many benefits to health status and health and well-being associated with part-time or full-time work. Positive workplace environments provide opportunites for increased social interactions. Young people develop communication skills and build productive relationships, which enhance their social health and wellbeing. Mental health and wellbeing can also be enhanced, as the workplace can teach young people new skills, which in turn develops their self-esteem and confidence. Many workplaces can be physically challenging, such as undertaking a trade apprenticeship, allowing the individual to increase strength and physical endurance, and therefore improve fitness and physical health and wellbeing.

FIGURE 3.6 Many young people experience feelings of boredom or dissatisfaction at work, which can have an impact on their confidence and self-esteem.

eBook*plus* RESOURCES

Explore more with this weblink: WorkSafe Victoria

study on

Unit 1 > AOS 1 > Topic 4 > Concept 5

Employment Summary screens and practice questions

3.2.4 Housing

Young people generally spend a lot of time at home. The environment a young person lives in can affect their health status.

Some of the aspects of the household environment that can affect health status include the following:

- ***Indoor air pollution***. Dust and tobacco smoke, for example, can cause asthma and other respiratory conditions. This may reduce the individual's capacity for physical activity, which can contribute to increased rates of depression and obesity.
- *Kitchen facilities.* Youth is a period of rapid growth and development. Specific nutrients are required to optimise this stage of development. If kitchen facilities are inadequate the availability of nutritious meals may be affected and result in an inability to consume the required levels of essential nutrients.
- *Overcrowding.* Young people living in overcrowded housing experience increased mental health issues, as it is difficult for them to find their own space. Overcrowded conditions also place an added strain on

FIGURE 3.7 Having adequate cooking facilities is essential for preparing nutritious meals.

bathroom, kitchen and laundry facilities, which can lead to unsanitary conditions and increase the risk of infectious diseases, which have an impact on physical health and wellbeing. According to AIHW data, 12 per cent of Indigenous Australians were living in overcrowded households in 2011, compared with 3.4 per cent of non-Indigenous Australians. They also experienced poorer health status, with greater rates of infectious disease, such as tuberculosis and hepatitis, than non-Indigenous Australians.

- *Drinking water quality.* Ground water naturally contains flouride; however, in Australia just over 70 per cent of the population has access to artificially fluoridated water, which aims to prevent tooth decay and cavities. Whether or not an individual has access to fluoridated water can affect their health status. Just like folate is added to breakfast foods, fluoride is added to water to improve the dental health of Australians.
- *Housing safety.* An unsafe housing environment can cause a number of preventable accidents. The most common accidents include falling from unmaintained stairs, swimming pool accidents and electrocution from household electrical faults.
- *Household location.* The location of the family home will have a great influence on a young person's health and wellbeing. If they live in a suburb that has plenty of opportunities for physical activity (such as parks and other recreational settings) they will be more likely to participate in physical activity. Physical activity improves not only their physical health and wellbeing through improved fitness levels, but also their self-esteem. If they live in an area that has a large number of fast-food outlets they may be more likely to eat this kind of food, which can lead to weight gain and associated conditions. If a young person lives close to public transport they may have the opportunity to become more independent, which can have a positive impact on both social and mental health and wellbeing. Easy access to public transport provides increased opportunities for young people to attend social events, which maintains their sense of belonging.

3.2 Activities

Test your knowledge

1. Outline three ways in which the family group can influence positive health behaviours during youth.
2. Describe an example when the family group can act as a stressor to a young person.
3. What is the difference between a blended family and a step family?
4. Explain what is meant by the term 'peer influence'.
5. Describe how employment could have a negative and positive influence on health status.
6. Identify three aspects of the housing environment that can act as enablers or barriers to healthy behaviours and, therefore, affect a young person's health status.

Apply your knowledge

7. How can the peer group lead to variations in health status? (*Tip:* When linking to health status refer to morbidity, mortality, life expectancy.)
8. Explain why full-time youth employment has decreased and part-time youth employment has increased since 1990.
9. Explain, using two different examples, how a young person's work environment can have both a positive and negative impact on their health status.

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Unit 1 > AOS 1 > Topic 4 > Concept 3

Housing Summary screens and practice questions

3.3 Sociocultural factors that contribute to health behaviours and health status for youth: education, income, access to health information and support services

KEY CONCEPT Explain a range of different sociocultural factors, such as education and income, and how they can have an impact on the health behaviours and health status for youth

3.3.1 Education

FIGURE 3.8 Educational opportunities will have a great impact on a young person's health and wellbeing.

Young people spend the bulk of their time being educated. Through education in schools and higher education institutions, such as universities and TAFE colleges, young people are provided with the opportunities to gain knowledge and skills and be prepared to enter the workforce. Educational institutions are also places where young people can form relationships and challenge themselves, which can lead to enhanced social, emotional and mental health and wellbeing. The quality of education a young person receives can be affected by the amount of resources an educational institution has at its disposal. For example, having access to advanced digital technology resources, such as 3D printing or classes in coding, can increase the opportunities available to young people in the future.

Education is also linked with better health status. Those with higher levels of education report fewer physical health concerns and better mental health and wellbeing than those with lower levels of education. Education can promote awareness of healthy behaviours, such as not smoking tobacco and maintaining adequate levels of physical activity, and can therefore have a positive impact on physical and mental health and wellbeing, and health status. People with higher levels of education are also more likely to secure better paid jobs, which can lead to lower levels of stress and more income to pay for private health insurance and nutritious food.

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Unit 1 > AOS 1 > Topic 4 > Concept 4

Education Summary screens and practice questions

3.3.2 Income

When discussing the impact of income on young people we need to include family income, as this has the most influence over the money available to young people. Family income determines the type of neighbourhood in which a young person grows up and the kind of school they attend. The quality of these settings is an important factor in determining healthy behaviours and young people's health status.

For young people living in the family home and undertaking full-time education, parental income is often directly related to the amount of money they have to spend on essentials, such as food, education, transport

and healthcare, as well as recreation, including dining out, music lessons and an internet connection. These resources can assist people in maintaining a healthy body weight, staying socially connected and accessing healthcare when required, which can improve health status by reducing morbidity and mortality rates.

Having adequate access to resources for life's essentials and recreation promotes the dimensions of social and mental health and wellbeing. Feeling a sense of belonging is very important to young people, and often this involves attending different social events that require a financial commitment. Belonging to sports clubs can often be expensive, and it is the family income that is likely to determine in which activities young people are able to participate.

FIGURE 3.9 Skiing and snowboarding are popular sports that are expensive, and may not be available to young people from a low-income family.

The type of neighbourhood in which a young person grows up is also often determined by a family's income. Compared with low-poverty neighbourhoods, high-poverty neighbourhoods have fewer high-quality public and private services, such as community centres, schools, healthcare providers and support services. High-poverty neighbourhoods are also more likely to have more crime and street violence, and a greater exposure to negative peer influences. These characteristics can significantly affect youth health and wellbeing. For example, social health and wellbeing is influenced by the types of relationship a young person forms. These relationships can have either a positive or a negative impact on a young person depending on the values of their peer group. Productive relationships lead to increased confidence and self-esteem and, therefore, positive mental health and wellbeing outcomes; however, the opposite can also occur.

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Unit 1 > AOS 1 > Topic 4 > Concept 6

Income Summary screens and practice questions

3.3.3 Access to health information (including through digital technologies)

In order to ensure young people are equipped with the knowledge and skills they need to make informed decisions about their health and wellbeing, access to health information is critical. Formal health education in the school setting is a safe place where young people can explore issues relating to healthy decision making and consequences. Health education in the school setting is an important source of information; however, young people often require specific information targeting their own health concerns.

A study conducted in 2013 into young people's experiences with health services found that there were a number of barriers that prevented young people from accessing information. These included concerns about confidentiality, fear of not being treated respectfully, location of services, inflexible opening hours, high cost and inadequate transport access. Not having their own Medicare card was also a significant barrier to young people accessing health services independently. The study found that if these barriers could be overcome, many more young people would be encouraged to access health services. This would allow a more preventative approach to young people's healthcare, which could improve health status.

When a young person does not have access to healthcare services, or is too embarrassed or ashamed to ask their friends or parents about a health concern, they are likely to consult the internet. The internet immediately addresses the barriers of location, embarrassment and confidentiality, and therefore has become an increasingly popular avenue for young people to access health information. Even if a young person does consult a GP, they often also check for side effects of medications and get second opinions from online reviews or forums. A popular example is ReachOut.com, which is a well-known youth mental health website where young people can access mental health information, share positive stories, and experiences about overcoming mental health difficulties.

Young people often use the internet to discuss topics they find difficult to talk about in person, especially if they feel marginalised and isolated. Issues around sexuality and identity are among popular topics discussed in online forums. Online forums may enable young people to feel empowered as they gain knowledge and insight in relation to their individual health concerns. This may lead to improvements not only in their physical health and wellbeing through illness prevention, but also to improvements in their mental health and wellbeing, as levels of stress and anxiety may be reduced. When used appropriately, the internet is a great source of health information for young people. However, it is important that young people also feel supported in accessing mainstream health services such as GPs and specialists. See the **Be the Hero** weblink in the Resources tab in your eBookPLUS: this is a VicHealth-funded initiative which further identifies 15 other websites to assist young people in accessing information surrounding youth health issues.

3.3 Activities

Test your knowledge

1. In what ways are young people using digital technologies to access health information?
2. Explain the link between level of education and health status.
3. What is the relationship between income and health status?
4. How does the neighbourhood in which you live affect your health behaviours and health status?
5. What are some known barriers to young people accessing health information?

Apply your knowledge

6. Describe two different ways in which healthy behaviour is promoted at your school.
7. Explain how the internet can break down barriers for youth when accessing health information.
8. Emma is a year 11 student. Most students in her year level are going on the school trip to central Australia in term 3. Emma had been looking forward to attending this trip; however, her father has just been made redundant, and is now unemployed. She is now unable to attend because the family cannot afford it. Explain how family income can affect health status in relation to this example.
9. Access the **ReachOut** weblink and worksheet in the Resources tab in your eBookPLUS then complete the worksheet.

eBook*plus* RESOURCES

Explore more with this weblink: ReachOut

Complete this digital doc: ReachOut worksheet
Searchlight ID: doc-24136

Explore more with this weblink: Be the Hero

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Unit 1 > AOS 1 > Topic 4 > Concept 7

Access to health information and support services Summary screens and practice questions

3.4 Topic 3 review

3.4.1 Key skills

KEY SKILL Explain a range of sociocultural factors that contribute to variations in the health status and health behaviours of Australia's youth

This key skill requires an explanation of the sociocultural factors that have an impact on youth health behaviours and health status. The focus is on the following factors: peer group, family, housing, education, employment, income and access to health information and support services.

When addressing the key skill it is important to link examples back to health status, which is, 'an individual or population's overall level of health (and wellbeing) taking into account various aspects such as life expectancy, amount of disability and levels of disease risk factors' (AIHW 2008). Therefore, when linking health status to housing, you need to explain how housing could influence the impact of diseases or life expectancy. If the question asks how it can affect health and wellbeing, a link to a dimension of health and wellbeing should be made.

A house that is unsafe may not have a fence surrounding the backyard pool, which may lead to differences in life expectancy due to accidents such as drowning. Or when a young person is exposed to overcrowded housing conditions, they may suffer from higher levels of anxiety and stress, or potentially even increase their risk of infection due to lack of hygiene, caused by high demand for bathrooms and kitchen facilities.

When explaining variations in health status you must be able to explain ways in which the impact of sociocultural factors will differ among individuals depending on the environment in which they have grown up. For example, a young person who has grown up in a high-income family will often have greater opportunities to enhance their health status than a young person raised in a low-income environment. They will most likely have access to private health insurance, while another family may have to rely solely on Medicare, which has limitations in some aspects of health coverage. For example, dental health can often be overlooked for those who do not have private health insurance, as it is extremely costly and could lead to differences in health status between the two groups.

A young person from a high-income family may also have greater exposure to different recreational and sporting activities, whereas a young person from a low-income family may have less access, decreasing their overall access to participation in physical activity. This may lead to weight gain and a higher risk of overweight and obesity compared to those who have greater access to physical activity opportunities.

Consider the following example:

Michael is 17 years old and in year 11 at school. Michael loves playing soccer with his friends at lunchtime and after school at the oval next to his house. He is also a passionate Melbourne Victory supporter, and attends matches with his father and sister on weekends. Michael plays competition soccer on Sunday mornings and also helps coach his younger sister's team. Michael is a member of the local gym, where he regularly works out with his best friend. Michael works midweek at the local supermarket and has recently been promoted to the check outs. He is happy about this promotion as he now also receives a higher hourly wage. Overall Michael is a very happy and confident 17-year-old boy.

(a) Identify three sociocultural factors that you believe would have a significant impact on Michael's health and wellbeing and health status.

Family, Peer Group, Education[1]

(b) Select one of these and explain how they may affect Michael's social health and wellbeing. (3 marks)

Family[2] has had an impact on Michael's health and wellbeing by sharing his passion for soccer. His father

1 Three sociocultural factors are identified.

2 Family group is identified as the sociocultural factor.

supports him by taking him to watch soccer games, which enhances his social health and wellbeing, as he is increasing his friendship networks by socialising with other Victory supporters and strengthening his relationship with his family.[3]

(c) Using the example provided in part b, explain two ways in which this sociocultural factor may affect Michael's health status.

With his family's encouragement he plays in a regular competition, which has increased his physical fitness and strength and assisted with weight management. Michael's high levels of fitness also put him at a reduced risk of obesity and related conditions, addressing health status. Through family connections he has also been offered the assistant coach role for his sister's team, which has increased his confidence and self-esteem, thus promoting positive mental health and wellbeing and reducing the risk of depression and anxiety.[4]

3 The link to social health and wellbeing is outlined clearly and two examples of social health and wellbeing are also provided.

4 The second part of the question focuses on health status, so the relationship with disease, obesity and other related conditions as well as mental health issues such as anxiety and depression are discussed.

Practise the key skill

1. Complete a summary table of how sociocultural factors can have an impact on young people.

Sociocultural factor	Impact on youth health behaviours	Impact on health status
Peer group		
Family		
Education		
Employment		
Income		
Access to health information		
Housing		

2. Jenny has been suffering from nausea and vomiting, muscle aches and pain while going to the toilet. She has been researching her symptoms on the internet and believes she may have a urinary tract infection. Jenny is extremely self-conscious and embarrassed and does not want to visit a GP. What advice would you give Jenny in this situation, and how do you think your advice would lead to an improvement in Jenny's health status?

3.4.2 Topic summary

- Sociocultural factors can either raise or lower the health status of an individual or population.
- The sociocultural factors discussed in this topic are peer group, family, housing, education, employment, income and access to health information.
- The family is initially the most important influence on youth health behaviours and health status, influencing many aspects such as education, healthy eating and the importance of exercise.
- Peer groups become more influential on health behaviours as young people transition from childhood to adulthood.
- The educational opportunities presented to young people can have various influences on health behaviours. Availability of resources at schools and increased opportunities enhance learning experiences. The higher the person's educational achievement, the higher their health status.
- Many young people start employment, and the work environment can present many challenges and opportunities for health and wellbeing and health status.
- Employment can affect health status due to the physical environment of the workplace, the social interactions available, and the gaining of knowledge and skills. These can all affect physical and mental health and wellbeing and health status.
- Employment can also lead to increased stress and anxiety in young people, especially when they are starting out in the workforce.
- Income can either act as an enabler to health behaviours, and therefore health status, or a barrier to health behaviours and health status.
- Income provides essential resources such as adequate housing, food, clothing, educational opportunities and access to health services.
- Housing can lead to variations in health status due to factors such as safety, overcrowding, kitchen facilities, indoor air pollution and location. Injuries and mental health issues are among the most common concerns related to inadequate housing.
- Young people are more often using the internet for health-related information, especially if it relates to health topics about which they are embarrassed.
- Health professionals are a valuable resource for helping young people to maintain a positive health status, yet many are reluctant to seek help from them.

3.4.3 Exam preparation

Question 1

Danny is 15 and left school around the same time he was kicked out of home by his stepfather. He has been hanging out with a group of older people on the streets and they have introduced him to drugs. One night Danny was out with his friends and he decided to try ecstasy. After two hours he began hallucinating and started thinking his friends were out to get him. He could not control his thoughts and by the next day was in a psychiatric hospital having been diagnosed with drug-induced psychosis (a condition whereby the perception of reality is altered and people see, hear, smell and touch things that are not there). Psychosis can be treated, but many individuals may experience further episodes of psychosis in the future.

(a) Identify three examples of sociocultural factors from the case study that have affected Danny's health status. **(3 marks)**

(b) Select one of these and explain how they have affected Danny's health status. **(2 marks)**

(c) Discuss ways that Danny's illness may have an impact on his future:
- social health and wellbeing
- physical health and wellbeing. **(4 marks)**

(d) Explain how Danny's family situation may affect his recovery. **(3 marks)**

Question 2

Socioeconomic status includes factors such as education, income and employment. Explain, using an example, how all three factors are interrelated and can affect young people's health behaviours. **(4 marks)**

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Try out this interactivity: Crossword
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Try out this interactivity: Definitions
Searchlight ID: int-6850

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Sit Topic Test

TOPIC 4
Nutrition and youth health and wellbeing

4.1 Overview

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
- 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

- 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
- 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

FIGURE 4.1 Young people's eating habits are often influenced by social media.

KEY TERMS

Anaemia a condition characterised by a reduced ability of the body to deliver enough oxygen to the cells due to a lack of healthy red blood cells
Cartilage connective tissue that protects and cushions the joints, and provides structure and support to various body tissues
Cell membrane the outer layer of a cell that provides the structural support for the cell and allows nutrients, gases and waste into and out of the cell
Cholesterol a type of fat required for optimal functioning of the body that in excess can lead to a range of health concerns including the blocking of the arteries (atherosclerosis). Can be 'bad' low-density lipoprotein (LDL) or 'good' high density lipoprotein (HDL).
Cultural factors the set of beliefs, moral values, traditions, language and laws (or rules of behaviour) held in common by a nation, a community or other defined group of people
Dental caries decay of teeth caused by a breakdown in the tissues that make up the tooth
Discretionary foods foods and drinks not necessary to provide the nutrients the body needs, but that may add variety. However, many of these foods are high in saturated fats, sugars, salt and/or alcohol, and are therefore described as energy dense.
Food security the state in which all people obtain nutritionally adequate, culturally appropriate, safe food regularly through local non-emergency sources
Fortified when a nutrient has been artificially added to food to increase its nutritional value
Glycaemic Index (GI) a scale from 0–100 indicating the effect on blood glucose of foods containing carbohydrates
Halal permissable by Muslim law, particularly in relation to how meat is slaughtered
Hard tissue tissue in the body that forms hard substances such as bones, teeth and cartilage
Kosher food (or premises in which food is sold, cooked, or eaten) satisfying the requirements of Jewish law
Kilojoule (kJ) a unit for measuring energy intake or expenditure
Macronutrient nutrient that is required by the body in large amounts (e.g. protein, carbohydrates, fats)
Metabolism a collection of chemical reactions that takes place in the body's cells. Metabolism converts the fuel in the food we eat into energy.
Micronutrient nutrient that is required by the body in small amounts (e.g. minerals and vitamins)
Peak bone mass the maximum bone mass (i.e. density and strength) reached in early adulthood
Pasteurisation a process that kills microbes (mainly bacteria) in food and drink, such as milk, juice and canned food
Orthorexia eating disorder characterised by an excessive preoccupation with eating 'healthy' food
Osteoporosis a condition characterised by a reduction in bone mass that makes bones more likely to break and fracture
Political factors the decisions and actions taken by government and non-government agencies on issues relating to healthcare, health policies and health funding
Protective nutrient any nutrient that acts to protect a person from a certain condition
Risk nutrient any nutrient that increases the chances of developing a certain condition
Role model a person whose behaviour can be emulated by others, especially by younger people
Sterilisation the procedure of making an object free of live bacteria or other microorganisms
Social factors aspects of society and the social environment that impact on health and wellbeing
Soft tissue organs and tissues in the body that connect, support or surround other structures. They include skin, muscles, tendons, ligaments, collagen and organs.
Stevia a shrub native to tropical and subtropical America, the leaves of which may be used as a calorie-free substitute for sugar
Vegan a type of vegetarianism that excludes foods of animal origin, including eggs and dairy

4.2 Introduction to the nutrients required during youth: carbohydrates, protein and fats

KEY CONCEPT Understanding the major nutrients required during youth

Nutrients are substances that provide nourishment essential for the maintenance of life and for growth. When we eat, foods are broken down in the process of digestion to release nutrients. The body then uses these nutrients for many functions related to health and wellbeing, including the efficient functioning of the body

and its systems, and the prevention of many diet-related diseases, which you will learn about in this topic.

Some foods have more nutrients in them than others, and some have nutrients that other foods may not have at all. The best way to maintain a balanced diet is to eat a wide variety of foods (see figure 4.2). The six categories of nutrients needed for optimal health and wellbeing include:

- carbohydrates (including fibre)
- protein
- fats
- vitamins, such as vitamin D and B-group vitamins
- minerals, such as calcium, sodium and iron
- water.

FIGURE 4.2 The five food groups

Carbohydrates, protein and fats are needed by the body in large amounts and are often called **macronutrients**; vitamins and minerals are called **micronutrients** because they are needed in only very small quantities. Regardless of the quantity needed by the body, each nutrient has a different role to play and all are important for health and wellbeing. Carbohydrates, fats and proteins contain significant amounts of **kilojoules (kJ)**, which can be converted into energy to be used by the body; however, carbohydrates are the body's preferred source of energy.

FIGURE 4.3 Energy contribution for carbohydrates, fats and protein

Carbohydrates 16kJ per gram

Fats 37kJ per gram

Protein 17kJ per gram

4.2.1 Carbohydrates

The main function of carbohydrates is to provide fuel for the body. As young people are growing at a rapid rate, a lot of energy is required for **metabolism** and growth. Glucose is the preferred fuel for energy in the human body and carbohydrates are rich in glucose. As a result, carbohydrates should provide the majority of a young person's energy needs.

Carbohydrates are broken down and the glucose molecules are absorbed into the bloodstream. Cells take the molecules from the bloodstream and store them, ready for use. In terms of energy production, one gram of carbohydrate will produce about 16 kJ of energy.

Glucose that is not used by the body is stored as adipose (or fat) tissue. Therefore, if a person eats too many carbohydrates, they can gain weight because of the increase in the amount of glucose being converted to fat. This process can be reversed if glucose is needed by the body.

CASE STUDY

Do sports drinks fuel or fool young athletes?

One only has to look around at any local sports grounds on the weekend to see children and adolescents gulping down either a Powerade or a Gatorade as their drink of choice. These commercial drinks were initially designed for athletes who train and sweat vigorously for prolonged periods of time, therefore significantly depleting their bodies and not only requiring rehydration but also fuel replenishment. Companies have since expanded their target market to include all children who play sports and their parents who believe that after a one-hour game recharging with a sports drink is necessary.

Research from the American Academy of Paediatrics has shown that routine ingestion of carbohydrate-containing sports drinks by children and adolescents should be avoided or restricted and water should be the number one source of hydration.

It is very rare that children and adolescents lose enough electrolytes during their athletic efforts to require replenishment. Sodium is the most common electrolyte lost in sweat, but most people consume enough sodium in their daily diet. Sports drinks also contain the equivalent, if not more, added sugars than soft drinks.

The best choice for replenishment of energy afte exercise is water and a banana or orange. These fruits have natural sugars that enter the bloodstream at a steady rate, unlike the sports drink that is not only an artificial sweetener, but also causes blood sugar and insulin levels to spike.

Source: Adapted from Seidenberg, C 2016, 'Do sports drinks fuel or fool young athletes', *Sydney Morning Herald*, 28 July.

FIGURE 4.4 A child fills up her Gatorade bottle during a sports session

Case study review

1. Why were sports drinks first designed?
2. Why should children and adolescents avoid or restrict sports drinks?
3. Why is water and a banana/orange considered a better choice?

4.2.2 Food sources of carbohydrates

Most carbohydrates are found in foods of plant origin, and these are the body's preferred source of energy. However, carbohydrates are also found in sugar and foods containing added sugar, such as sports drinks, soft drinks and lollies. These foods contain fewer nutrients but contribute large amounts of energy, and so are not considered to be good food sources of carbohydrate.

FIGURE 4.5 Carbohydrates can be sourced from a wide variety of foods.

Major food sources of carbohydrates include:

- vegetables
- rice
- bread
- pasta
- cereals
- fruits (such as oranges, grapes and bananas).

4.2.3 Fibre

Fibre is a type of carbohydrate that is required for the optimal health and wellbeing of young people. Found in all foods of plant origin, fibre is not absorbed by the body. Rather, it travels through the digestive system, acting like a cleaner as it moves. The benefits of fibre in the diet are numerous.

FIGURE 4.6 A selection of grains and seeds, which are high in fibre

Fibre slows glucose absorption from the small intestine into the blood, therefore providing a feeling of fullness (satiety). This decreases the amount of surplus energy consumed from **discretionary foods**. Both of these characteristics of fibre assist in weight maintenance.

Fibre reduces the amount of cholesterol absorbed by the body, which reduces the risk of cardiovascular disease later in life. Fibre absorbs water, which adds bulk to the faeces. This assists in regular bowel movements, which decreases the likelihood of constipation. However, as fibre absorbs water, increased fibre intake should be accompanied by increased water consumption.

Food sources of fibre include:

- bran
- wholemeal bread
- grains and seeds
- fruit and vegetables (excellent sources include raspberries, apples, bananas, oranges, potatoes, broccoli and corn).

4.2.4 Protein

Protein has two main functions in the body. Its main function (and probably the most important for youth development) is to build, maintain and repair body cells. The second function of protein is to act as a fuel for producing energy. If a person does not have enough glucose (from carbohydrates) to use for energy production, protein can be used as a secondary source of energy. In times of starvation, muscle and other body cells may be broken down in order for the protein contained within them to be used for energy production. Protein yields about 17 kJ per gram when being used for energy. If eaten in excess, protein may be stored as adipose or fat tissue and can contribute to obesity in the long term.

Protein is made up of smaller building blocks called amino acids. There are 20 different types of amino acids that humans need to function properly. Eleven of these, called the non-essential amino acids, can be synthesised (or made) in the body from other amino acids. The other nine, called essential amino acids, cannot be synthesised in the body and must therefore be consumed (see figure 4.7). To ensure that all amino acids are being consumed regularly, protein from a range of different sources should be eaten. Many people get much of their protein requirements from meat, which is often rich in essential amino acids. Vegetarians must ensure they consume a large variety of non-meat protein sources to ensure that their nutritional needs are being met. These foods include nuts, beans, lentils and tofu.

Some food sources are termed 'complete proteins' because they contain all the essential amino acids in the quantities required for growth, repair and replacement of body cells. They are usually found in vast amounts in animal products (see figure 4.8). Some proteins can also be found in many foods of plant origin (see figure 4.9). These are usually incomplete proteins, and need to be eaten with other protein sources to ensure that all required amino acids are consumed.

FIGURE 4.7 Proteins can be classified as essential and non-essential amino acids.

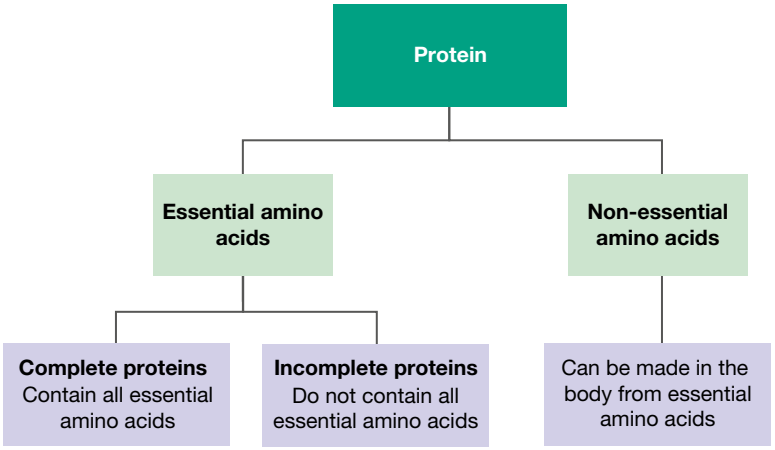


FIGURE 4.8 The protein content of selected foods of animal origin

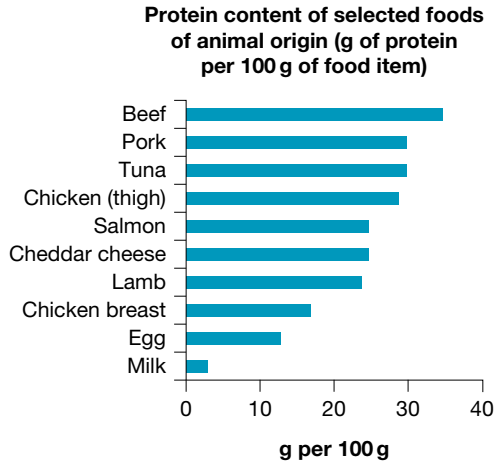
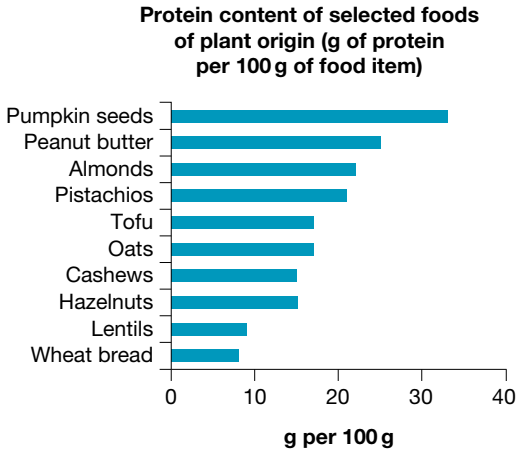


FIGURE 4.9 The protein content of selected foods of plant origin



Some rich animal sources of protein include:

- eggs
- milk, cheese and other dairy products (except cream)
- beef
- chicken and other poultry
- fish and seafood.

Some rich plant sources of protein include:

- soy products (tofu and soy milk)
- legumes
- nuts
- wholegrain cereals
- brown rice.

FIGURE 4.10 Rich food sources of protein

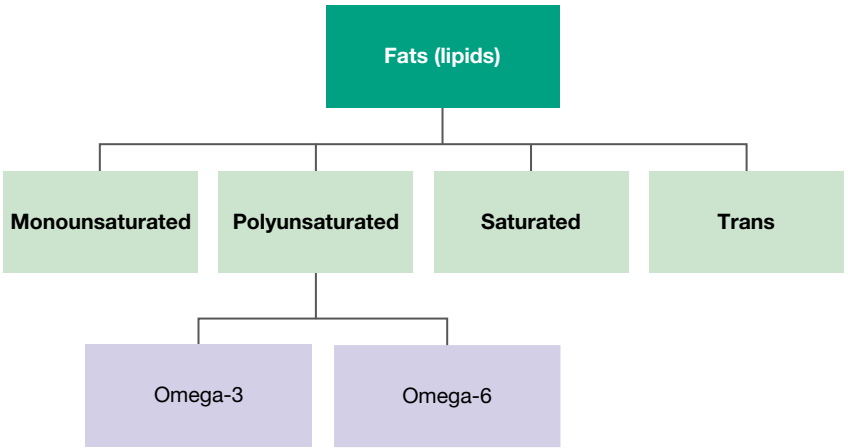
4.2.5 Fats

Fats (sometimes referred to as lipids) play a number of roles in health and wellbeing. Although fats are often associated with negative effects on the body, they are required for adequate health and development throughout the lifespan and are an essential part of a balanced food intake.

Like carbohydrates, the main function of fats is to act as a fuel for energy. Fats are a richer source of energy than carbohydrates and protein, yielding approximately 37 kJ per gram. This is why foods packed with fat but little else are referred to as 'energy dense' foods. How much fat to include in the diet should be determined by the amount of energy required by the individual. Balance is the key here — remember that most of an individual's energy should come from carbohydrates.

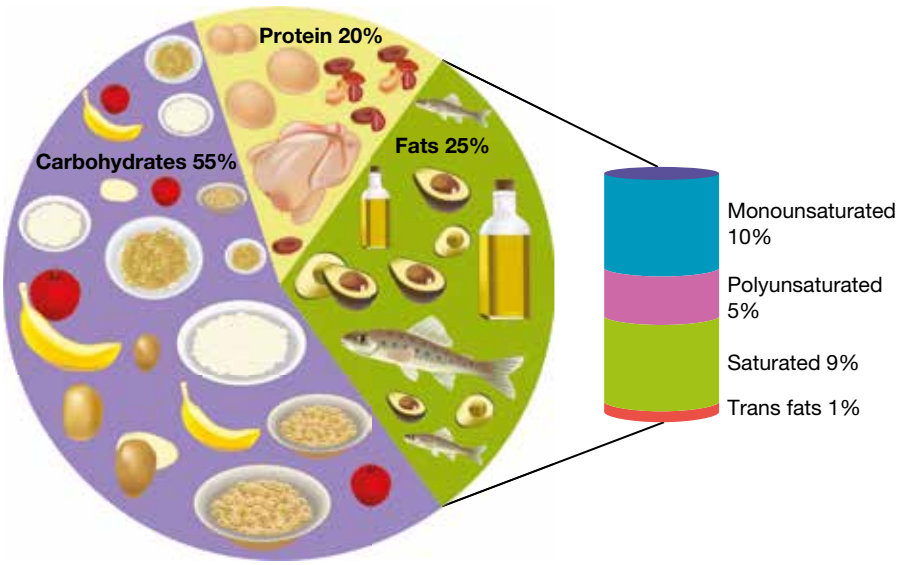
Fats are required for a number of other processes, including the development and maintenance of **cell membranes**. Cell membranes form an important component of body cells. They are responsible for maintaining the structure of cells and allowing the transport of nutrients, gases and waste into and out of cells. Fats are a key component of the cell membrane and are required throughout life for adequate cell function. Fats are an important part of a balanced diet for young people — but there are different types of fats, and some are healthier than others (see figure 4.11). Some fats can actually lead to poor health and wellbeing and should be kept to a minimum in the diet.

FIGURE 4.11 There are four different types of fats.



Fats can be classified into four broad categories based on their chemical makeup: monounsaturated, polyunsaturated, saturated and trans fats. Total fat intake should account for around 25 per cent of the total energy requirement (with carbohydrates and protein making up the other 75 per cent). Of this 25 per cent, the majority should come from monounsaturated fats. Approximate recommended percentages of total energy intake from the different types of macronutrients are shown in figure 4.12.

FIGURE 4.12 A breakdown of the macronutrients and the average percentage of total energy intake that should come from each group



Monounsaturated and polyunsaturated fats

FIGURE 4.13 Nuts are a great source of the 'good fats'.

Monounsaturated and polyunsaturated fats are considered the 'good fats'. They carry out the necessary functions of fats and also have some benefits for health and wellbeing, such as reducing levels of **cholesterol** and promoting the health of the heart and blood vessels. The greatest health and wellbeing gains for youth can be achieved by replacing saturated and trans fats with monounsaturated and polyunsaturated fats. This can help reduce the risk of diet-related diseases later in life, such as heart disease. Because all fats contain approximately 37 kJ of energy per gram, the total fat intake should not increase, because all types will lead to weight gain and the associated ill effects on health and wellbeing, if eaten in excess.

Monounsaturated fats are liquid at room temperature and begin to solidify if placed in the refrigerator. Monounsaturated fats are considered one of the healthier types of fats, because they assist in lowering low density lipoproteins (LDL 'the bad cholesterol) and therefore decrease the risk of atherosclerosis, (the deposition of fatty material on the inner walls of the arteries) and cardiovascular disease. Foods rich in monounsaturated fats include olive oil, avocado, canola oil and canola-based margarine, nuts such as peanuts, hazelnuts, cashews and almonds, peanut butter and other nut butters.

Polyunsaturated fats are also considered one of the healthy types of fats. There are two main categories of polyunsaturated fats: omega-3 and omega-6. Polyunsaturated fats are generally liquid at room temperature and when refrigerated. Both omega 3 and omega 6 fats act to lower LDL cholesterol in the blood stream and increase HDL (good cholesterol), therefore reducing the risk of cardiovascular disease. Omega 3 polyunsaturated fats also promote the elasticity of the blood vessels and prevent blood clots, which can decrease the risk of heart attack and stroke. Many people in western countries consume too many omega-6 fats which, like all fats, can increase the risk of obesity and associated conditions including heart disease.

Food sources of polyunsaturated fats include:

- omega-3 — fish particularly oily fish such as mackerel, trout, sardines, tuna and salmon; canola and soy oils, and canola-based margarines
- omega-6 — mainly nuts such as walnuts and Brazil nuts, seeds and oil made from corn, safflower and soy.

Saturated and trans fats

Saturated and trans fats are sometimes known as bad fats, because they increase cholesterol levels in the blood and can therefore contribute to cardiovascular disease in the long term. Although consuming saturated and trans fats will satisfy energy and other requirements, they should be replaced by monounsaturated and polyunsaturated fats where possible.

Saturated fats are generally found in foods of animal origin (see figure 4.14), and are often solid at room temperature. You can see saturated fat in fatty cuts of meat in the marbling throughout the meat or the fat that forms along the ends of cuts of red meat. Other foods containing high levels of saturated fat include full-cream milk, cream and cheese, some fried takeaway food, and most commercially baked goods, such as pastries and biscuits.

Although small amounts of trans fats are found naturally in certain foods, most trans fats are created when liquid oil is converted into solid fat by a process called hydrogenation. For this reason, they are generally found in processed foods such as pies, pastries and cakes (see figure 4.15). Margarines and solid spreads produced for cooking are sometimes high in trans fats, as are the products made from them.

Trans fats, along with increasing the risk of cardiovascular disease, can also interfere with cell membranes and contribute to high blood glucose levels. This can contribute to impaired glucose regulation and potentially lead to diabetes mellitus (especially type 2).

FIGURE 4.14 Meat can be high in saturated fat.

FIGURE 4.15 Trans fats are often present in baked goods such as cakes and biscuits.

eBook*plus* RESOURCES

Try out this interactivity: Time Out: 'Which fat?'
Searchlight ID: int-6851

4.2 Activities

Test your knowledge

1. Explain what is meant by the term:
   (a) nutrient.
   (b) macronutrient.
   (c) micronutrient.
2. What are the six categories of nutrients?

3. (a) What is the main function of carbohydrates?
   (b) How much energy does one gram of carbohydrate produce?
4. (a) What is the function of fibre?
   (b) List four foods that are a major source of fibre.
5. (a) What is the main function of protein?
   (b) How much energy does one gram of protein provide?
   (c) List four food sources of protein.
6. (a) Explain two functions of fats in the body.
   (b) Outline the four different types of fat and a food source for each.
   (c) Which fats are considered the 'good fats'? Why?
   (d) Which fats are considered the 'bad fats'? Why?

Apply your knowledge

7. Explain why most of our energy needs should come from carbohydrates instead of fats.
8. Discuss the possible short- and long-term effects on youth who do not consume adequate amounts of fibre.
9. Discuss the possible short- and long-term consequences for youth who overconsume fats.
10. Draw up a table summarising the macronutrients, their function, energy per gram and two food sources.

Macronutrient	Function	Kilojoules per gram	Food sources
Carbohydrates			
Fibre			
Protein			
Fat			

studyon

Unit 1 > AOS 2 > Topic 1 > Concept 1

Macronutrients Summary screens and practice questions

4.3 Introduction to the nutrients required during youth: water, and the minerals calcium, sodium and iron

KEY CONCEPT Understanding major nutrients required during youth

4.3.1 Water

The human body can last several weeks without food, but only days without water. The body is made up of 50 to 75 per cent water. Water forms the basis of blood, digestive juices, urine and perspiration, and is contained in lean muscle, fat and bones. As the body can't store water, we need fresh supplies every day to make up for losses from the lungs, skin, urine and faeces. The amount we need depends on our body size, metabolism, the weather, the food we eat and our activity levels.

Adult women should consume around two litres (eight cups) and adult men 2.6 litres (about 10 cups) of fluids a day to prevent dehydration. Water is required for a number of bodily functions including the following:

- as a medium for all chemical reactions required to provide energy
- as a key component of many cells, tissues, blood and systems.

Water is the body's preferred source of hydration, and can also assist in weight management, especially when consumed instead of sugary drinks. As water contains no kilojoules, choosing to drink water instead of sugary drinks reduces the risk of obesity, cardiovascular disease and type 2 diabetes.

4.3.2 Sources of water

Water in its purest form is the best source, as many other drinks such as soft drinks and sports drinks often contain high amounts of sugar and additives, and therefore should be limited. Tea and coffee are also drinks that contain water. Water is also found in foods such as fruits and vegetables — some have higher water content than others.

FIGURE 4.16 Foods such as fruits and vegetables have a high water content, but water should also be consumed in its pure form.

Food sources of water include fruits such as:

- watermelon
- apple
- orange
- tomato and pineapple.

And vegetables, such as:

- celery
- lettuce
- cucumber
- carrot.

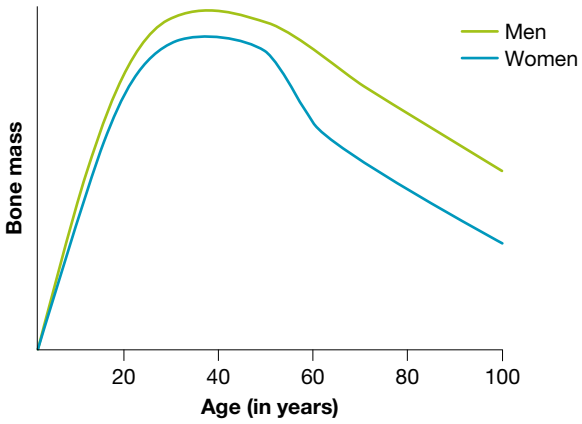
4.3.3 Minerals: calcium, sodium and iron

Calcium

Calcium is one of the key nutrients required for the building of bone and other **hard tissues** (such as teeth and **cartilage**) and is therefore extremely important during periods of rapid growth, such as during youth.

The youth stage signifies the greatest increase in bone density and contributes significantly to achieving optimal **peak bone mass**. It is therefore vital that youth get enough calcium during these years to build as much bone density as possible. The greater the bone density during this stage, the less chance the individual will have of developing **osteoporosis** later in life (see figure 4.17).

FIGURE 4.17 Changes in bone mass with age



Food sources of calcium include:

- most dairy products, milk, cheese and yoghurt
- sardines, salmon (with bones)

- green leafy vegetables (broccoli, spinach)
- **fortified** soy milk
- tofu made with calcium sulfate
- fortified orange juice.

Oxalic acid is present in spinach and binds to the calcium molecules, preventing all of the calcium from being absorbed. In fact, if oxalic acid is present when calcium is eaten, only 5 per cent of the available calcium may be absorbed. For this reason, it is important to obtain calcium from other sources as well, such as dairy (which does not contain oxalic acid).

FIGURE 4.18 Yoghurt is an excellent source of calcium; however, flavoured yoghurt can also be high in sugar.

Sodium

Sodium is an important mineral for the human body. It plays a role in the regulation of fluids from the body, including water and blood. Fluid is drawn to sodium, so the amount of sodium in the blood influences the amount of fluid that stays in the cells. Through this mechanism, sodium regulates the balance between fluid in the cells (intracellular fluid) and the fluid outside the cells (extra cellular fluid).

Most Australians get more than enough sodium in their diet. According to the Better Health Channel, the average Australian consumes eight to nine times the amount of sodium they need for good health and wellbeing. High levels of sodium in the body can draw excess fluid out of the cells. This increases blood volume and contributes to hypertension, (high blood pressure). Other effects linked to excess sodium include:

FIGURE 4.19 Excess sodium increases blood volume, which contributes to hypertension.

- *heart failure.* Increased blood volume and hypertension force the heart to work harder. Heart failure can result if the heart cannot keep up with the demand from the body.
- *stroke and heart attack.* Hypertension associated with excess sodium intake contributes to higher rates of stroke and heart attack.

Food sources of sodium include:

- table salt
- olives
- fish
- meat (especially pork)
- cheese
- many processed foods, such as tomato sauce, packet soups, canned vegetables, pizza and pies.

Iron

Iron is an essential part of blood. As blood volume increases during youth, iron is needed in greater quantities (see figure 4.20). Iron is lost through blood from the body during menstruation, which begins for females during youth — therefore iron is especially important during youth.

Iron forms the 'haem' part of **haemoglobin**, which is the oxygen carrying part of blood. A person who does not get enough iron may develop **anaemia**, a condition characterised by tiredness and weakness. Individuals with anaemia struggle to generate enough energy to complete daily tasks such as school work, sport and socialising. Red meat is a rich source of iron, but it often contains high levels of saturated fat. As a result, lean meat ought to be chosen and iron should also be gained from other sources. A balanced, varied diet is the best way to get adequate amounts of iron.

FIGURE 4.20 As blood volume increases during the youth, iron is required in higher amounts to make red blood cells

Food sources of iron include:

- lean red meat
- turkey and chicken
- fish, particularly oily fish (e.g. mackerel, sardines and pilchards), fresh, frozen or canned
- eggs
- nuts (including peanut butter) and seeds
- brown rice
- tofu
- bread, especially wholemeal or brown bread
- leafy green vegetables, especially curly kale, watercress and broccoli.

Iron from meat is usually absorbed best, although vegetarians can still get enough iron if they eat a variety of vitamin-C rich foods. Vitamin C changes the chemical make-up of iron from non-meat sources and increases the amount that is absorbed. Vitamin C should therefore be eaten if iron absorption needs to be maximised. Examples of foods high in vitamin C are kiwifruit, broccoli, blackcurrants and citrus fruits, such as oranges, and strawberries.

CASE STUDY

Anaemia and poor nutrition running high among young Indigenous children

Young children living in remote Indigenous communities have long been known to suffer from iron deficiency and anaemia at many times the rates found among other Australian children. Now a new report shows rates of anaemia among these remote children at twice the level previously reported.

The Early Childhood Nutrition and Anaemia Prevention Project looked at six remote communities across the Northern Territory, Western Australia and Queensland, and found almost 90 per cent of children had been anaemic at least once during the ages of six months to 24 months.

It also found that 56 per cent of the infants were anaemic at their first haemoglobin check at six to nine months, which was worse than expected.

The World Health Organization classifies these levels as a severe health problem.

The study was part of a broader project, run by the University of Western Australia, James Cook University and Menzies School of Health Research, in collaboration with NT Health and Community Services, Queensland Health and various community controlled health services, as well as the Fred Hollows Foundation.

Only 5 per cent of mothers surveyed reported that fruit was part of their young child's diet and only 29 per cent of children who were found to be anaemic received the full course of iron treatment needed.

The researchers tested the feasibility of a nutrient supplement program. As part of the project, local community-based health workers distributed to mothers, sachets of multi-micronutrient powder called

'Sprinkles', together with nutrition messages about breastfeeding and healthy food. The powder was mixed with semi-solid food for young children to eat.

The authors of the study looked at qualitative data collected over a two-year period and found the Sprinkles supplement was well accepted into the communities and appears to have helped maintain good haemoglobin levels among non-anaemic children. Haemoglobin carries oxygen in the blood.

Cheap, easy junk food

Dympna Leonard, Senior Lecturer at James Cook University, who worked on the project said that, 'no supplement is ever going to be a substitute for healthy food, but the Sprinkles can enhance a child's diet during a short period when nutrient requirements are particularly high'.

Poor nutrition amongst children typically reflects poor diet and health across the wider community, 'as well as impacting on children's health, iron deficiency and anaemia can have long lasting detrimental effects on children's educational attainment,' Ms Leonard said.

'Prevention and intervention needs to start earlier, ideally before a woman becomes pregnant,' she said.

'What we are finding in these remote Indigenous communities is the end point of the loss of their land and loss of their traditional food supply, meaning people now depend on what they can buy at their local food store, on a low income.'

'The supply of healthy food to these remote communities has improved, but at the same time, the supply of junk food has also become more readily available and it is cheap, relative to more nutritious food,' Ms Leonard said.

Source: Bosler, D 2013 'Anaemia and poor nutrition running high among young Indigenous children', *The Conversation*, 4 September, https://theconversation.com/anaemia-and-poor-nutrition-running-high-among-young-indigenous-children-17769.

Case study review

1. From research undertaken in six remote Indigenous communities, what percentage of children had been anaemic between the ages of 6 months and 24 months?
2. What percentage of mothers surveyed reported that fruit was part of their young child's diet?
3. What did the Early Childhood Nutrition and Anaemia Prevention Project provide for the community?
4. According to Dympna Leonard, what are some of the major causes of the high rates of anaemia in these remote Indigenous communities?
5. According to Dympna Leonard, when do anaemia prevention and intervention strategies need to occur?

4.3 Activities

Test your knowledge

1. (a) List three functions of water.
   (b) Why is it a good idea to replace most drinks with plain water?
2. Why does the body require calcium?
3. (a) List three foods that contain high levels of calcium.
   (b) Even though spinach contains a lot of calcium, it is not considered the best food source of dietary calcium. Explain why.
4. Explain the possible health and wellbeing impacts of consuming excess sodium.
5. Describe the role of iron in the body.
6. Why is iron required in greater amounts during the youth stage of the lifespan?
7. Refer to figure 4.17 to answer the following questions.
   (a) Identify two trends evident in the graph.
   (b) Use the graph to help you explain a possible difference in health and wellbeing outcomes associated with differences in bone mass between males and females in older age.

Apply your knowledge

8. Explain how being dehydrated could affect your health and wellbeing.
9. List all the likely consequences of not getting enough calcium.
10. How do you know if you have low iron levels? What symptoms will you develop?
11. Why are females more at risk of suffering from anaemia than males?

4.4 Introduction to the nutrients required during youth: vitamin D and the B-group vitamins

KEY CONCEPT Understanding major nutrients required during youth

4.4.1 Vitamin D

The main role of vitamin D is to absorb calcium from the intestine into the bloodstream. A lack of vitamin D can lead to low levels of calcium being absorbed and bones becoming weak. Most Australians get enough vitamin D from exposure to sunlight, during which UV rays are converted to vitamin D in the skin. However, there is growing evidence to suggest that some groups of people in Australia are deficient in vitamin D because they rarely go out into the sun. Youth with dark skin or those who always cover up when outdoors can become deficient in vitamin D. Although moderate exposure without any degree of sunburn is healthy, excessive sun exposure leading to sunburn is a major risk factor for skin cancer and should always be avoided.

FIGURE 4.21 Most Australians get enough vitamin D from exposure to sunlight.

Food sources for Vitamin D include:

- fish (particularly salmon, tuna, sardines)
- beef liver
- cheese and egg yolks
- some brands of milk
- breakfast cereals and orange juice fortified with vitamin D.

4.4.2 B-group vitamins: vitamins B1, B2 and B3

The B-group vitamins include vitamins B1, B2 and B3 (also known as thiamine, riboflavin and niacin). These vitamins are essential in the process of metabolising or converting the fuels (carbohydrates, fats and protein) into energy. A lack of these nutrients can lead to a lack of energy. As energy is essential for growth, a lack of the B-group vitamins can contribute to slowed growth of muscles and bones.

Rich food sources of the B-group vitamins include:

- Vegemite
- wholegrain cereals and breads
- eggs
- fish
- meats
- dark-green leafy vegetables
- milk.

The B-group vitamins are very delicate and easily destroyed through cooking and processing. Getting enough of these vitamins from whole grains and unrefined sources is the best way to ensure that the recommended intake is met.

FIGURE 4.22 Vegemite is one of the world's richest sources of B-group vitamins

4.4.3 Folate (vitamin B9)

Folate is a B-group vitamin that is essential for optimal health and wellbeing. It plays an important role in DNA synthesis, and is therefore required for cells to duplicate during periods of growth. (It also occurs in periods of maintenance, but not to the same degree.) Folate also plays a role in the development of red blood cells, and a deficiency in folate can lead to anaemia. Note that anaemia can be caused by a deficiency in iron (called iron-deficiency anaemia) or in folate (called folate-deficiency anaemia). Anaemia is characterised by tiredness, so a young person with anaemia might no longer participate in daily activities.

FIGURE 4.23 A lack of folate can lead to folate-deficiency anaemia and, therefore, tiredness. This can have numerous effects on the health and wellbeing of youth.

Food sources of folate include:

- green leafy vegetables
- citrus fruits
- poultry and eggs
- many cereals, breads and fruit juices are fortified with folate.

The form of folate added to foods is a synthetic form of folate known as folic acid.

4.4.4 Vitamin B12

Vitamin B12 is another B-group vitamin that is required for adequate health and wellbeing during youth. Although it has a number of roles in the body, its main function during youth is for the formation of red blood cells. It works with folate in this capacity, ensuring the red blood cells are not only the correct size but also the correct shape to enable oxygen to be transported throughout the body. A deficiency of vitamin B12 can increase the chance of becoming anaemic. Having this condition can prevent young people from participating in normal activities and can therefore have a wide range of effects on their health and wellbeing.

FIGURE 4.24 Foods from animal sources are good sources of vitamin B12.

Most foods of animal origin contain some vitamin B12, but particularly good sources include meat, eggs and cheese (figure 4.24). Because vitamin B12 is found only in food sources of animal origin, **vegans** are at particular risk of being deficient.

4.4 Activities

Test your knowledge

1. Explain the link between sunlight and vitamin D.
2. Which groups are more at risk of vitamin D deficiency?
3. What is the main role of vitamin D in the body?
4. Why are vegans at particular risk of vitamin B12 deficiency?
5. Explain the role of the following nutrients and why each is important for youth health and wellbeing:
   (a) folate
   (b) vitamins B1, B2 and B3.

Apply your knowledge

6. Describe the effects on the health and wellbeing of youth who are deficient in:
   (a) vitamin D
   (b) B-group vitamins.
7. Create a mind map that summarises the function and food sources of the vitamins covered in this topic and the impact on the short and long-term health and wellbeing of youth.

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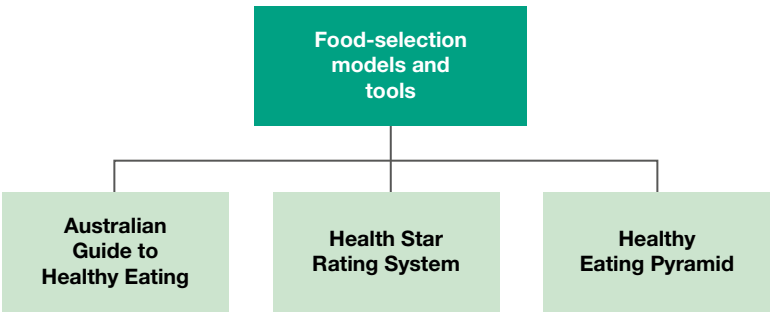
Vitamins Summary screens and practice questions

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

KEY CONCEPT There are several food-selection models and tools developed by government and non-government agencies to promote healthy eating

To assist Australian consumers, including youth, to consume a balanced diet and reduce the risk of short- and long-term consequences associated with nutritional imbalance, a number of food-selection models and tools have been produced by both government and non-government agencies. Food-selection models are tools that help youth to select foods that will meet their nutritional needs and to avoid consuming too many energy dense foods. Examples include the Australian Guide to Healthy Eating, the Health Star Rating System and the Healthy Eating Pyramid (figure 4.25).

FIGURE 4.25 Nutrition-related food models and tools implemented to promote healthy eating



4.5.1 Australian Guide to Healthy Eating

The Australian Guide to Healthy Eating is a federal government initiative that provides nutrition advice with the aim of reducing the short and long-term consequences associated with nutritional imbalance. The Australian Guide to Healthy Eating is a food selection model that provides a visual representation of the proportion of the five food groups recommended for consumption each day.

The Australian Guide to Healthy Eating is presented in poster form (see figure 4.26). The main section of the Australian Guide to Healthy Eating is a pie chart that shows the proportions of foods that should be consumed from each of the five food groups: vegetables, fruit, grain, lean meats (or alternatives), and milk, yoghurt and cheese products.

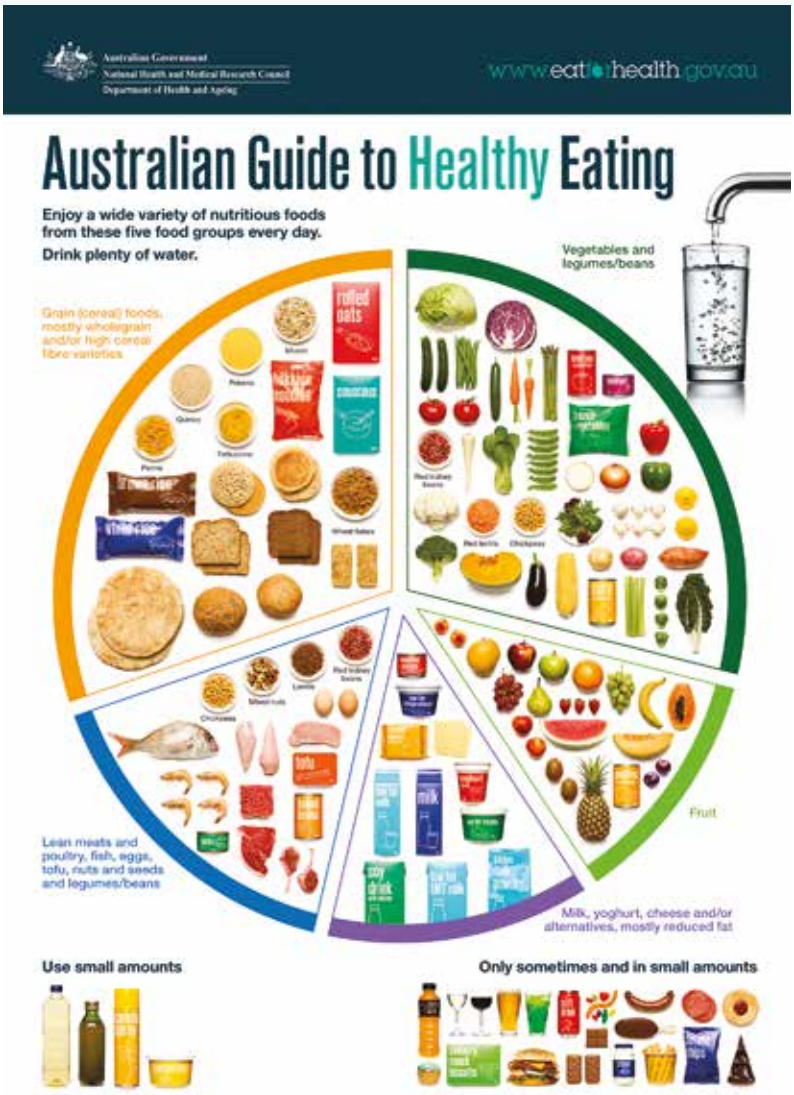
Grain foods such as bread, cereal, rice and pasta should account for around 30–35 per cent of total daily food intake. These foods are high in carbohydrates, which provide fuel for energy production, and high in fibre, which assists with weight management and maintains digestive health.

Vegetables and legumes/beans are the second biggest section and should account for around 30 per cent of daily food intake. These foods include fresh, frozen and tinned vegetables, legumes such as lentils and chickpeas, and beans such as kidney beans. These foods are high in nutrients such as fibre, protein, and folate, which assist in promoting optimal health and wellbeing among youth. They are also high in fibre and low in energy, which can assist with weight management.

Meats and meat alternatives should account for around 15 per cent of total food intake. These foods provide much of the protein that is required for the development of hard tissues, **soft tissue**, energy and blood. They also contain iron and vitamin B12, which are required for the production of red blood cells.

Although fruit contains many of the vitamins and minerals required for optimal health and wellbeing, it can contribute to weight gain if not used for energy. As a result, fruit should make up around 10–12 per cent of total food intake.

FIGURE 4.26 The Australian Guide to Healthy Eating



Milk and other dairy products should also account for around 10–12 per cent of total food intake. These foods are rich in calcium and are required for optimal bone development.

The Australian Guide to Healthy Eating recommends that people consume plenty of water, represented in the poster by a glass being filled from a tap. Water is required for many body processes but does not contribute any energy and so can assist in maintaining healthy body weight.

The healthier fats are shown in the bottom left corner of the Australian Guide to Healthy Eating poster, and include foods such as margarine and canola spray. These foods contain monounsaturated and/or polyunsaturated fats and can assist in reducing the risk of cardiovascular disease.

The foods shown in the bottom right corner of the Australian Guide to Healthy Eating poster are foods which consumers are advised to consume sometimes and in small amounts. They are not necessary to provide the nutrients the body needs, but may add variety. Many of these foods are high in saturated fats, sugars and/or alcohol, and are therefore described as energy dense. Other discretionary foods are high in salt and therefore increase overall sodium intake. Examples of discretionary foods include pies and other pastries, cakes, processed meats, soft and sports drinks, cordial, alcohol, potato chips, chocolate and biscuits.

The Australian Guide to Healthy Eating is a useful model that provides basic nutrition advice; however, it does not provide information on serving sizes, and composite foods (which are those containing food from a number of different groups, such as pizza or a casserole) are not included, making the model difficult to follow.

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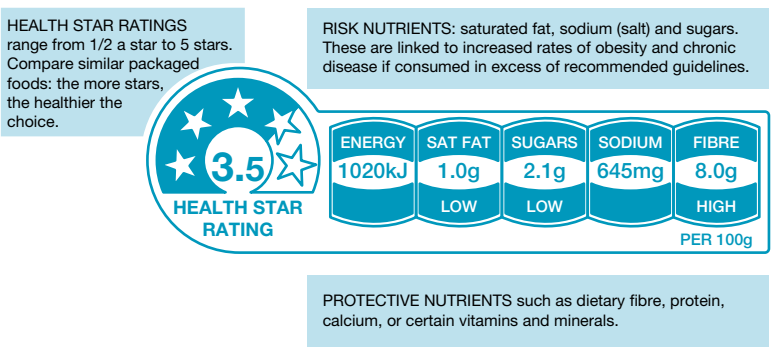
Australian Guide to Healthy Eating Summary screens and practice questions

4.5.2 The Health Star Rating System

In June 2014, the federal government endorsed the Australian Health Star Rating System on food labels as an educational tool to assist people in making healthy food choices. The Health Star Rating is a labelling system that rates the overall nutritional profile of packaged food and assigns it a rating from ½ a star to 5 stars on the front of the pack. It provides a quick, easy, standard way to compare similar packaged foods. The more stars, the healthier the choice. The Health Star Ratings are designed to take the guesswork out of reading labels. For busy shoppers, they help consumers to compare quickly and easily the nutritional profile of similar packaged foods and to make informed, healthier choices when shopping.

The Health Star Ratings system is based on comparing energy (kilojoules), **risk nutrients**, such as saturated fat, sodium (salt) and sugars and protective (positive) nutrients such as dietary fibre, protein and the proportion of fruit and vegetable, nut and legume content. All nutrients are compared based on 100 g or 100 mL of the product, to enable the consumer to have an at-a-glance comparison of products within the same category. The Health Star Rating System is voluntary and companies do not have to pay a fee when applying for a Health Star Rating for a product (see figure 4.27).

FIGURE 4.27 The nutrients analysed as part of the Health Star Rating System



The Health Star Rating System aims to promote healthy eating throughout

the Australian community. It is a tool which can be easily used by young people when making decisions about food selection at the supermarket. Most packaged foods carry a nutrition information panel, which provides important information about the contents of the food. It provides a quick and easy way to compare similar packaged food and helps youth make healthier choices without having to refer to the nutritional panel.

Choosing foods that are higher in protective/positive nutrients and lower in risk nutrients (saturated fat, sodium, sugars and energy) will help contribute to a balanced diet and lead to better health and wellbeing. However, a high Health Star Rating doesn't mean that the food provides all of the essential nutrients for a balanced diet. The Health Star Ratings are one tool to assist youth in following a healthy diet, but consideration should be given also to other food-selection models.

FIGURE 4.28 Health Star Rating is a simple and easy food-selection tool.

eBookplus RESOURCES

Explore more with this weblink: How does the Health Star Rating System work?

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Unit 1 > AOS 2 > Topic 1 > Concept 6

Health Star Rating System Summary screens and practice questions

4.5.3 The Healthy Eating Pyramid

The Healthy Eating Pyramid was developed by Nutrition Australia, a non-government organisation. The pyramid represents foods from the five basic food groups as represented in the Australian Guide to Healthy Eating and arranges them into four levels, indicating the proportion of different types of food that should be consumed. The Healthy Eating Pyramid promotes youth health and wellbeing by encouraging food variety and a diet based on minimally processed foods from the five food groups, healthy fats, limited salt and added sugar, and sufficient water (see figure 4.29).

The 'foundation' layers (the bottom two layers) contain foods of plant origin: vegetables and legumes, fruits and grains. These foods should make up the majority of an individual's daily food intake. These foods are nutrient dense and assist in providing youth with optimal amounts of carbohydrates, fibre, B-group vitamins and folate. The middle layer includes the milk, yoghurt, cheese (and alternatives) food group, which

FIGURE 4.29 The Healthy Eating Pyramid

primarily provides calcium; and the lean meat, poultry, fish, eggs, nuts, seeds and legumes food group, which provides protein, iron, and mono and polyunsaturated fats.

The top layer consists of foods that contain monounsaturated and polyunsaturated fats, which youth should consume in small amounts to support heart health and brain function. Benefits occur when people choose foods that contain these healthier fats, instead of foods that contain saturated fats and trans fats. The pyramid encourages individuals to drink water because it provides the best source of hydration for the body without adding extra sugar, and therefore energy, to the diet. It also recommends that salt intake and added sugar should be limited. Salt is a rich source of sodium, which is an essential nutrient, but the average Australian already consumes too much salt and added sugar, and this is linked to increased risk of diseases such as heart disease, type 2 diabetes and some cancers. The Healthy Eating Pyramid provides youth with a simple visual tool promoting healthy food intake. However, similar to the Australian Guide to Healthy Eating, serving sizes and provisions for composite foods are not provided, making it difficult to apply every day.

4.5 Activities

Test your knowledge

1. Explain, using an example, what is meant by a food-selection model.
2. Identify and explain two food-selection models young people can use to promote their health and wellbeing.
3. Discuss a limitation of either the Australian Guide to Healthy Eating or the Healthy Eating Pyramid.
4. Identify three examples of risk nutrients and two examples of protective nutrients that may be included in the calculations for a product to receive the Health Star Rating.

Apply your knowledge

5. Explain the similarities and differences between the Australian Guide to Healthy Eating and the Healthy Eating Pyramid.
6. (a) Identify the five food groups identified in the Australian Guide to Healthy Eating.
   (b) Identify the key nutrients provided by each group.
   (c) Explain how these nutrients can have an impact on youth health and wellbeing.
7. Describe how one of the food-selection models discussed in this chapter could reduce the short- or long-term consequences of nutritional imbalance among youth.
8. Justify the effectiveness of the Health Star Rating System in promoting healthy eating for youth.
9. Record everything you eat over a 24-hour period, then draw up either a pie chart with approximate proportions as per the Australian Guide to Healthy Eating, or the Healthy Eating Pyramid with the correct number of layers and food groups. If choosing the Australian Guide to Health Eating, include a section outside the pie chart for discretionary items. For each food item you consumed put a stroke in the appropriate section of the food-selection model.
   (a) Was your diet over the past 24 hours consistent with the proportions suggested by the Australian Guide to Healthy Eating or the Healthy Eating Pyramid?
   (b) Did you have any difficulties completing this activity? Why or why not?
   (c) Prepare an analysis of your intake. Be sure to include the following:
      (i) Were you eating mainly grains and vegetables?
      (ii) Did you consume any foods from both the dairy and meat groups?
      (iii) Were there any food groups which you do not consume the adequate proportions as reflected in the Australian Guide to Healthy Eating or the Healthy Eating Pyramid?
      (iv) Discuss the possible short- and long-term consequences of your diet if it continued over time.
      (v) Suggest changes that could be made to minimise the risk of any short- or long-term consequences identified in part iv.
   (d) Discuss any difficulties you had in classifying each food item into the five food groups and explain how these challenges could be overcome
   (e) Discuss with a partner who completed the task using a different food model from you. Which food model do you believe is easier to use in terms of analysing your diet and providing nutrition advice.

eBookplus RESOURCES

Explore more with this weblink: Nutrition Australia Healthy Eating Pyramid

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Unit 1 > AOS 2 > Topic 1 > Concept 5

Healthy Eating Pyramid Summary screens and practice questions

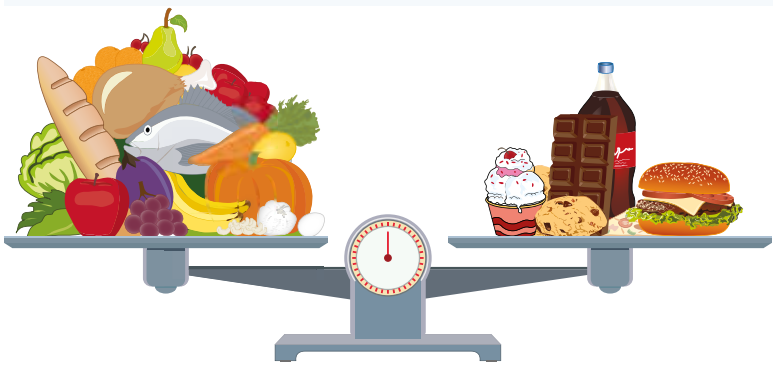
4.6 Consequences of nutritional imbalance

KEY CONCEPT Understanding the consequences of nutritional imbalance in a youth's diet on short- and long-term health and wellbeing

Good nutrition is essential for everyone, but it's especially important for young people. Youth is the third fastest stage of growth and development during the lifespan. During the adolescent growth spurt, the average female is expected to grow 16 cm in height and 16 kg in weight, and the average male is expected to grow 20 cm in height and 20 kg in weight. This means that a balanced diet high in nutritious foods is essential to fuel the body during this time.

Unfortunately, many young Australians do not eat a balanced diet and are therefore not consuming sufficient nutrients during this time. The major nutrients required during youth are found in many different food sources, including fruits and vegetables. The recommendation is that Australians consume two fruits and five vegetables per day. According to the Australian Institute of Health and Welfare (AIHW) report *Australia's Health 2016*, many Australians are not eating the recommended amount of serves of fruit and vegetables on a daily basis. As figure 4.31 shows, in 2014–2015 the vast majority (97 per cent) of children aged 5–14 did not eat the recommended daily serves of vegetables, while almost a third (30 per cent) did not eat the recommended daily serves of fruit. These figures changed slightly for adults aged 18–64, with 93 per cent not eating the recommended daily intake of vegetables and 50 per cent not eating the recommended serves of fruit.

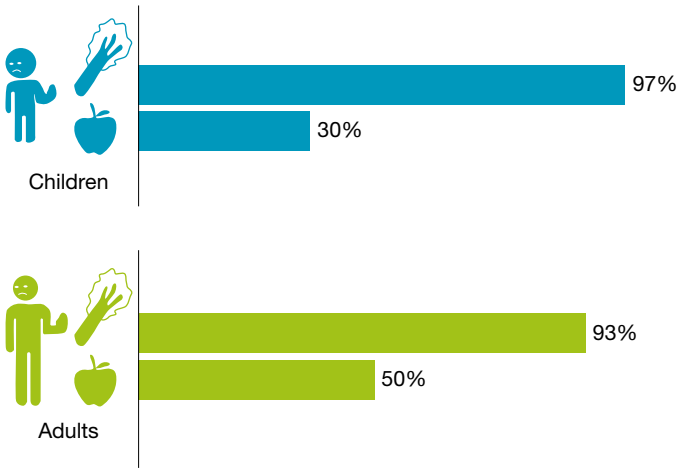
FIGURE 4.30 A balanced diet does not mean eating the same amounts of all foods — some foods should only be eaten in moderation.



If the nutritional intake during youth is not balanced and nutrients are not consumed in appropriate proportions, the risk of a range of negative consequences increases. These consequences can occur as a result of over- or under-consumption of specific nutrients and can occur in both the short and long term.

4.6.1 The short-term consequences of nutritional imbalance

FIGURE 4.31 Percentage of children and adults not eating their daily recommended serves of fruit and vegetables



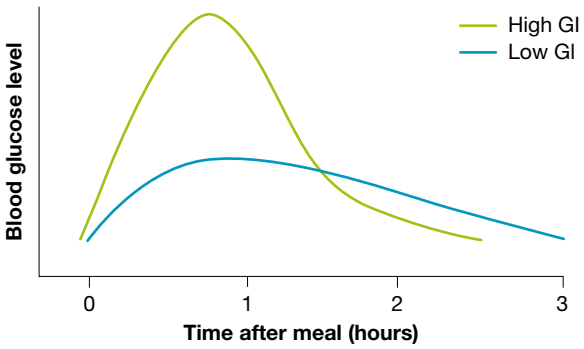
The body needs a variety of nutrients regularly in order to carry out various processes including the production of energy. If these nutrients are not present, or are in incorrect proportions, these processes may not occur effectively. Carbohydrates are broken down and the glucose molecules are absorbed into the bloodstream, from where they are taken into the cells and stored, ready for use.

The amount of glucose contained within carbohydrate-rich foods, and how much such foods affect the levels of blood glucose, is measured using a system called the **glycaemic index (GI)**. The glycaemic index rates foods from 1 to 100 based on how quickly they cause blood-glucose levels to rise. Foods that cause blood glucose to increase sharply are called high GI (with a score of more than 70), while those that have a more sustained impact on blood glucose are called low GI. (with a score less than 55). Those in between these numbers are termed medium GI. Eating foods with a low-GI rating gives a more sustained energy release and can therefore assist in carrying out the biological processes required during the day. In contrast, high-GI foods give the body a quick hit of glucose that then drops off just as quickly (see figure 4.32). As blood glucose levels decrease, hunger increases. As a result, high-GI foods can contribute to overeating.

In addition to carbohydrates, B-group vitamins and iron also contribute to the production of energy. If these nutrients are not consumed on a regular basis, energy levels may decrease, affecting physical health and wellbeing. Reduced energy levels also affect an individual in many ways, such as not having the energy to:

- socialise — which impacts social health and wellbeing
- exercise — which affects fitness, an aspect of physical health and wellbeing
- concentrate at school — which affects mental health and wellbeing.

FIGURE 4.32 The effect on blood glucose of high- and low-GI foods



Fibre is a type of carbohydrate made up of the indigestible parts of plant matter. Fibre assists in regulating bowel movements and providing a feeling of fullness. Adequate fibre intake can reduce the risk of constipation and overeating in the short term. Fibre also slows the absorption of glucose and cholesterol into the bloodstream. This acts to decrease blood glucose and blood cholesterol levels in the short term. It also assists with regulating bowel movements and has been linked to lower rates of colorectal cancer in the long term.

Water is essential for the optimal functioning of body systems throughout the life span. Dehydration can affect many processes within the body and contribute to a range of short-term impacts as a result. Common symptoms of dehydration include thirst, dry mouth, headaches, decreased blood pressure, dizziness, fainting, tiredness and constipation. In the most severe cases, dehydration can lead to unconsciousness and death.

4.6.2 The long-term consequences of nutritional imbalance

As well as contributing to short-term consequences, nutrient imbalance is associated with many long-term health consequences, including **dental caries**; underweight, overweight and obesity; chronic conditions such as cardiovascular disease, colorectal cancer and osteoporosis; anaemia; and increased risk of infection.

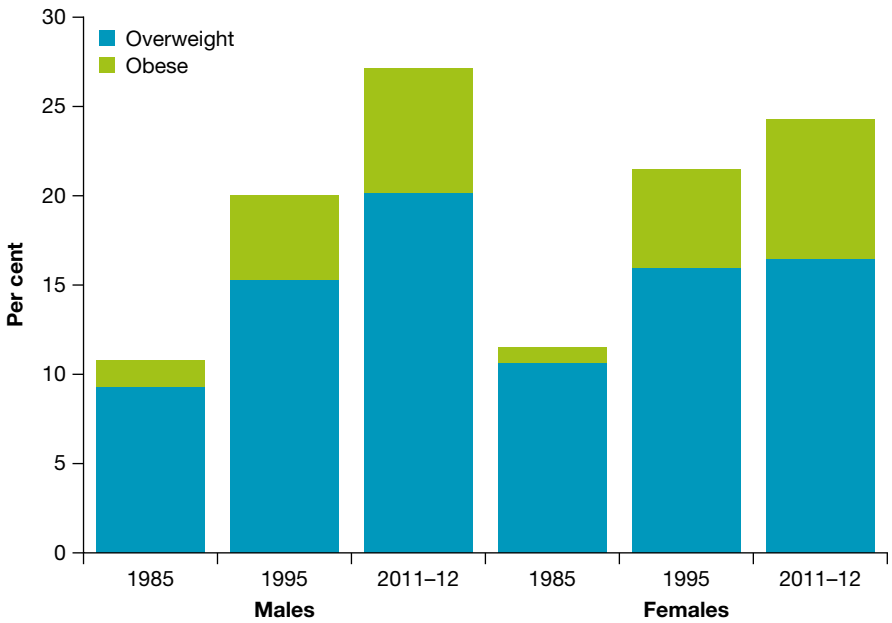
Sugar and dental health

Sugars are a type of carbohydrate found naturally in some foods such as fruit and honey, and added to many processed foods such as cakes and soft drinks. As well as providing a fuel for energy production, sugars provide a food source for bacteria in the mouth. These bacteria produce acids which can contribute to dental decay and the development of dental caries. Dental caries can not only have an impact on physical health and wellbeing, but also mental health and wellbeing if the individual's appearance is altered. Social health and wellbeing may also be affected if the individual misses out on school or other activities as a result of ongoing treatment. If dental caries are left untreated, diseases such as periodontitis can occur. Periodontitis is a condition characterised by inflammation and infection of the tissues that support the teeth. In the long term, periodontitis can lead to the loosening and loss of teeth.

Overweight and obesity

Carbohydrates, fats and proteins are essential for energy production, but if eaten to excess can be stored as adipose (fat) tissue. Over time, this can lead to weight gain, overweight and/or obesity. The most immediate consequences of overweight and obesity in youth are social discrimination (associated with poor self-esteem and depression), negative body image and eating disorders, which all have an impact on mental health and wellbeing. Overweight youth are more likely to develop sleep apnoea and have a reduced ability to exercise, which decreases fitness levels and has a negative impact on physical health and wellbeing. Overweight and obesity rates have been steadily increasing for youth over time (see figure 4.33). Overweight youth are more likely to be overweight or obese as

FIGURE 4.33 Prevalence of overweight and obesity among males and females aged 7–15 years



* Figures are for 12–17 years

adults, which increases the risk of a range of conditions including type 2 diabetes, cardiovascular disease, some cancers and arthritis.

Increased risk of disease

Long-term nutritional imbalances can lead to an increased risk of developing certain diseases. For example, if too much protein is consumed it can reduce the body's ability to absorb calcium. This can contribute to reduced bone density and osteoporosis later in life.

Saturated and trans fat increase the process of atherosclerosis by increasing levels of low density lipoprotein (LDL) in the blood. Low density lipoprotein is a type of cholesterol that can stick to the walls of blood vessels and cause the blood vessels to narrow. This process can eventually restrict blood flow or stop it completely. Atherosclerosis is the underlying cause of many types of cardiovascular disease, including heart attack and stroke. Monounsaturated and polyunsaturated fats work to reduce levels of LDL cholesterol in the blood and can therefore assist in reducing the risk of cardiovascular disease in the long term. Like all fats, however, over-consumption can contribute to obesity and its associated effects.

Underweight

Although overweight and obesity are significant issues for youth, underweight is also a concern. Underweight often indicates undernourishment by which the nutrients required for optimal health and wellbeing are not present. Severe undernourishment, as occurs in many individuals with an eating disorder, can contribute to long-term developmental problems. Growth may be slowed as the nutrients required for hard tissue formation are not present. Although peak bone mass is not reached until early adulthood, bone density increases significantly during youth. Calcium, phosphorus and vitamin D are all essential nutrients for this process. If the intake of these nutrients is deficient, weakened bones may be the result. In many cases, this will develop into osteoporosis later in life.

Anaemia

As blood cells are produced constantly, adequate intake of the nutrients required to make blood, such as iron, folate and vitamin B12, are required to ensure the amount of blood produced meets the needs of the growing youth. Vitamin C is also important as it assists with iron absorption. If these nutrients are under consumed, anaemia can occur. Anaemia is characterised by an inability of the blood to carry adequate oxygen around the body. Symptoms of anaemia include tiredness and weakness, so the young person might no longer be able to participate in daily activities.

Anaemia may affect all four dimensions of health and wellbeing for youth:

- *Physical health and wellbeing*. Due to tiredness and weakness the ability to participate in sporting activities may be reduced and have an impact on physical health and wellbeing.
- *Social health and wellbeing.* An individual may not have the energy to attend events or activities with their friendship group, which may affect their relationships with other people.
- *Emotional health and wellbeing.* Constant feelings of tiredness may generate a range of negative emotions such as helplessness and isolation.
- *Mental health and wellbeing.* Self-esteem and confidence may decrease as the individual believes they can no longer enjoy the activities they did in the past.

4.6 Activities

Test your knowledge

1. (a) Explain the glycaemic index.
   (b) Outline the consequences that a high-GI diet can have on the health and wellbeing of youth.
2. (a) Discuss how nutritional imbalance may contribute to low energy levels.
   (b) Explain three ways in which this could have an impact on youth health and wellbeing.
3. Outline the role that fibre can play in optimising health and wellbeing in the short term.

4. (a) Explain how a nutritional imbalance may contribute to dental health problems among youth.
   (b) Discuss how dental caries can impact on youth health and wellbeing.
5. Explain anaemia and its impact on youth health and wellbeing.

Apply your knowledge

6. Explain how carbohydrate, protein and fat intake can contribute to obesity.
7. Discuss how youth could reduce the risk of developing osteoporosis in later life.
8. Explain how being underweight can affect youth health and wellbeing.
9. Discuss how anaemia could have an impact on youth health and wellbeing.
10. Design a concept map, table, poster or short video outlining the possible short- and long-term effects of nutritional imbalance among youth.

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Unit 1 > AOS 2 > Topic 1 > Concept 8

Nutritional imbalance — long-term health and wellbeing Summary screens and practice questions

4.7 Sources of nutrition information and strategies to evaluate its validity

KEY CONCEPT Understanding different sources of nutrition information and evaluating the validity of these strategies

Finding reliable nutrition information can be challenging. There are so many different sources of nutrition information, including television, magazines, the internet, social media and of course medical practitioners, dietitians and nutritionists. According to the United States Academy of Nutrition and Dietetics, television, magazines and the internet were the most popular sources, while medical professionals including doctors, dietitians and nutritionists were less likely to be consulted when it came to nutrition information. These sources of information will be discussed alongside strategies to help you evaluate their validity.

FIGURE 4.34 Teenage girl receiving nutritional advice from a dietitian

4.7.1 Dietitians and nutritionists — what is the difference?

Many nutrition professionals refer to themselves as either a nutritionist or a dietitian, but in Australia professional nutrition practice is not regulated by the government, so it is important to understand the difference between the two professions.

A nutritionist will have completed a tertiary qualification in fields related to food science, nutrition and public health. Their main role is to help individuals achieve optimal health and

wellbeing by providing information about the impact of food choices on health and wellbeing. Nutritionists often work in community or public health roles, including research, and may coordinate, design and implement health promotion programs aimed at improving healthy eating among the Australian population. Nutritionists are not qualified to provide medical treatment for an individual or groups.

A dietitian also has tertiary-level qualifications in food, nutrition and dietetics; however, they have also completed additional study, which involves working in professional practice, such as public health settings, hospitals and medical therapy. They can provide dietary treatments for many conditions, including diabetes, food allergies and overweight and obesity. A dietitian is better suited to provide individual nutritional advice compared with a nutritionist, who generally works with broader health promotion nutrition community programs.

4.7.2 Television, magazines and the internet as sources of nutrition information

Food and nutrition advice is often included in stories broadcast on television. These are usually supported by new dietary advice. Television presenters may report the findings of the latest study on nutrition; however, this is often just a snapshot of the study without the details about the scope of the study and how it compares with other similar studies. Television reporters are also not qualified to provide nutrition advice, and what is presented in the media is often sensationalised to capture the attention of the viewers.

When evaluating information about nutrition presented on television, the best strategy is to ask questions. It may not be a factual report; it may be a testimonial, which means that the presenter is giving a personal endorsement for a particular product in return for a fee. So whether it is a testimonial or an advertisement, you cannot be sure that the information is based on scientific fact, and therefore reliable. You will need to look for further information.

Magazines are another popular source of nutrition information. But are they reliable? Many magazines use nutrition professionals to write their articles; however, many do not. When reading nutrition articles written in magazines you must consider the following:

- How large was the study population?
- What are the author's nutrition credentials?
- Have they written any other relevant material?
- Are there any other references to back up the claims?

FIGURE 4.35 Display of various dieting claims on popular magazines

4.7.3 Internet and nutrition apps

There are abundant sources of nutrition-related information on the internet and nutrition applications. But how do you know if the information has come from a credible source? You can employ the R.E.A.L. strategy, which will help you evaluate whether your source is reliable.

R — Read the URL. Non-commercial sites, such as those ending in .org, .edu and .gov, are generally reliable sources. Websites with .com may be commercial sites trying to sell a product, and therefore may not be a reliable source of information.

E — Examine the site's contents. Look at the author, publisher and organisation. What are their credentials? Who funds the website or app? Check if the material is current.

A — Ask about the author's name. Can you find the details of the author or publisher if you wish to contact them?

L — Look at the links. What type of pages are they linking to? Are these credible sources and do they end in .gov, .edu, or .org?

There are many nutrition-related apps that allow you to scan barcodes which then highlight the nutrients in the product, emphasising the 'good' and 'bad' products. The apps also identify alternative products by comparing the nutrition information. When using nutrition-related apps, use the R.E.A.L. strategy, but also find out who developed the product. Are they qualified to provide this information? Are they affiliated with a particular brand, supplement company, or dieting program?

FIGURE 4.36 Be mindful of the R.E.A.L. strategy when searching for nutrition information online

To become an informed consumer of nutrition information, you also need to be aware of other clues that indicate a source of information is unreliable. These clues include:

- claims that appear unrealistic, such as this 'natural product' speeds up metabolism and leads to weight loss
- products that claim to be quick and easy remedies for weight loss, without the need for dieting and exercise
- testimonials as evidence of effectiveness, such as 'I lost 15 kg using this product'
- sites that provide online diagnoses and treatments.
- requirements that you eliminate entire food groups like fruits, vegetables, wholegrains
- advice to eat a single food or drink only for a long period of time (if you do this you will be missing out on essential nutrients).

4.7 Activities

Test your knowledge

1. (a) Explain the difference between a dietitian and nutritionist.
   (b) Who would you visit if you needed advice regarding a nutrition-related disease? Why?
2. Why is it useful to understand when a TV presenter is presenting a testimonial while reporting on nutrition information?
3. What are the three things to consider when reading nutrition-related articles?
4. Why is it best to source information from the internet with a URL finishing in .org,.au, or.edu?
5. Identify two other clues you can use when assessing the validity of a nutrition source.

Apply your knowledge

6. Sarah feels ill after she consumes breads and cereals. She believes she may be intolerant to gluten. What is gluten intolerance and what would you suggest Sarah do?
7. Using the **Diabetes SA** weblink in the Resources tab in your eBookPLUS, use the R.E.A.L. strategy to analyse the validity of the Diabetes SA website.
8. Search the internet and try to find a website which contains information you would not trust. Identify the main reasons why you believe this would not be a valid source of information. Show this website to a partner and see if they also believe it to be untrustworthy once they have used the R.E.A.L. strategy.

eBookplus RESOURCES

Explore more with this weblink: Diabetes SA

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Sources of nutritional information Summary screens and practice questions

4.8 Food trends and food marketing tactics and their impact on youth health and wellbeing

KEY CONCEPT Understanding the marketing tactics used to promote foods and food trends to youth and their impact on health and wellbeing outcomes

With the digital culture explosion, the marketing and tactics used by food manufacturers has dramatically changed, influencing a number of different health and wellbeing outcomes. The marketing of both energy-dense processed foods continues to have a strong share of the market, while the new revolution of 'clean eating' is gaining momentum. Both of these concepts and the marketing strategies behind them will be explored in this subtopic.

Gone are the days when the marketing of food products was a one-sided relationship, with children and youth passively viewing TV commercials and print advertisements. In today's digital society young people interact with products and brands every day. Young people allow marketers to connect with them and their friends online. Each online interaction is carefully tracked, which allows companies to collect vast amounts of data and use sophisticated social marketing techniques to build digital profiles of their customers. The digital era is constantly evolving, as is the way youth interact with different food brands and therefore different food trends. There is a wide variety of well-known strategies and tactics used by multinational companies to promote their food products to young consumers, who at times may lack the information and ability to understand the consequences of their decisions. Common marketing strategies can be seen in figure 4.37.

FIGURE 4.37 There are many different types of marketing strategies.

One in four Australian teenagers are either overweight or obese, and this

rate is projected to rise in coming years. One significant influence is the fact the online world is saturated with marketing of processed, energy-dense foods. According to the Australian Bureau of Statistics' *Australian Health Survey 2011–12*, four out of ten young people consume burgers and soft drinks on any given day. The teenage years are critical in forming life-long eating habits. The teenage diet is putting young people at risk of developing chronic health conditions later in life.

4.8.1 Immersive marketing

Immersive marketing is a technique that involves seamlessly integrating advertising into a complete experience for the consumer. The aim is to create an emotional relationship between the consumer and a particular brand. For example, the My Coke Rewards program encourages the user to enter a code, which can be found on any Coca-Cola product. Each code is worth a certain amount of points. The more you buy, the more points you accrue. The points can be used to earn rewards, which include gift cards, televisions, more Coke products, online games, and can also be used to donate to specific charities. The longer users are connected to this program, the stronger the relationship they build with the brand.

The following statement from Carol Kruse, a Coca-Cola Executive, shows how companies such as Coke deliberately target young people through online marketing.

FIGURE 4.38 The My Coke Rewards program is an immersive marketing technique.

> We're especially targeting a teen or young adult audience. They're always on their mobile phones and they spend an inordinate amount of time on the Internet. … We did some online consumer studies with Yahoo! and Nielsen that determined [that] yes, indeed, an online ad unit can make an emotional connection and encourage consumers to buy more of our products.
>
> *Carol Kruse, Coca-Cola executive responsible for developing My Coke Rewards*

4.8.2 Infiltration of social media

Marketers are constantly advertising new food and drink promotions via Facebook, YouTube, Instagram, Twitter and other popular digital platforms. They also regularly tempt young people with a variety of competitions, either offering free products or prize money. For example, a young person may find a code on a product they have bought with an invitation to enter a draw to win $1000 in prize money. Once they have entered the code and registered online, they are encouraged to share with their friends on social media so their friends can also enter the competition. The young person has become a promoter of the product without even realising it. To register for such a competition the young person usually provides personal details such as their name, address, phone number, year of birth, and email address. This is all the information the marketer needs to build up a profile of the young person so they can bombard them with future marketing campaigns.

4.8.3 Collection of personal data

Data collection is vitally important to many multinational food and beverage companies. Consumers are tagged with unique identifiers when they go online and can be easily tracked and profiled. Their patterns of behaviour can be analysed and more targeted and personalised marketing techniques can be used.

4.8.4 Location-based mobile marketing

Through the collection of a mobile phone number, marketers have the ability to follow young people throughout their daily lives. Via sophisticated tracking techniques, they have the ability to offer enticing marketing offers, aiming to take advantage of the impulsive nature of youth when they are in close proximity to particular food outlets, and even more so at particular times of the day when cravings may increase.

4.8.5 Celebrity endorsements

Along with online strategies and techniques, marketers also use a variety of other methods, such as celebrity endorsements and product placement in television shows to develop a relationship between the consumer and the products they are trying to sell. According to research, the use of celebrity endorsements in marketing can not only enhance brand recognition, but also the desirability of the product, leading to a positive association, particularly among youth aged 13–15.

A study undertaken by in April 2016 by Melissa Bragg at the Department of Population Health, New York University School of Medicine, found that popular celebrities, defined as those who had won teen choice awards, were associated with 26 different food products, of which 81 per cent were nutrient poor. Music celebrity endorsement is particularly effective because, according to the study, youth spent almost two hours listening to music each day.

The most commonly advertised food products were sugary foods, lollies and soft drinks. When young people associate products with popular celebrities, such as Beyoncé (Pepsi), One Direction (Coke) and Taylor Swift (Diet Coke), they are more likely to consume such foods. This leads to an increase in the already high numbers of youth experiencing overweight and obesity, and the potential of developing type 2 diabetes and even cardiovascular disease later in life. Although Taylor Swift is linked to 'the healthier alternative' of Diet Coke, the artificial sweeteners in this product can have similar, if not worse, health outcomes in the long term, including links to dehydration, type 2 diabetes and cancer.

FIGURE 4.39 Celebrities such as Taylor Swift have been linked to Diet Coke

4.8.6 Product placement

Product placement is an advertising technique used by food and drink companies to subtly promote their products through appearances in television, film or other media. It is often seen as a beneficial way to promote a product without interrupting the viewer, the way traditional advertising does.

American Idol had one of the most obvious examples of product placement with their big red Coke cups sitting on display in front of the celebrity judges, who were also endorsing the products. Coke signed on as the major sponsor in 2002 with a $10 million fee. The cups became such a part of the show that

they were even used on tour in a campaign across America. Coke ended its 13-year sponsorship with the TV show in 2014, reflecting the show's decline in popularity due to increased popularity of other programs such as *The Voice*.

Product placement is a clever marketing technique because the viewer is in contact with the brand for extended periods. They are less likely to change channel, as they would if it the product was in a Coke commercial. This technique can creates a subconscious emotional connection with the product, increasing its desirability.

FIGURE 4.40 *American Idol* is well known for its association with and marketing of Coca-Cola.

4.8.7 Marketing by social influencers/bloggers

Social influencers are not necessarily just celebrities, but are also people who are influential in the online world, particularly on Instagram and Twitter. They attract large numbers of followers because people are turning to them as a 'trusted' source of information. Marketing companies realise the power these social influencers have when it comes to selling their brands, and are tapping into this market. There are a number of companies, including TRIBE, a Melbourne-based organisation, that link social influencers with the brands, and brands with social influencers. This means it is becoming more difficult to determine whether a product being endorsed by a social influencer is simply another advertisement.

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Tactics used in the marketing of foods Summary screens and practice questions

4.8.8 Impact of marketing on food trends, in particular 'clean eating'

The health and wellbeing trend of 'clean eating' is now widespread in the marketing of food products. The idea behind the clean eating phenomenon is relatively simple: eating whole or real foods, which have not been manufactured, refined or over handled, and are therefore as close to their natural state as possible.

Companies tap into this by tailoring their products to be healthier. As consumers' interest in healthy eating increases, they become willing to pay more for healthier options. For example, McDonalds is investigating how to create fries that still taste good, but without the fat. Natural sweeteners such as stevia (found in Coke Life) are beginning to replace sugar and artificial sweeteners.

Marketers know that consumers are prepared to spend more money on healthier products, and that there is a greater consumer interest in finding out where food is coming from. The Australian market for certified organic food is also increasing, as consumers are researching more about the production of their food. The market for organic food has grown along with the 'clean eating' trend.

'Clean eating' has experienced long-term trending on many popular social media platforms. Instagram, Twitter and Facebook are full of beautifully crafted photos of food perfection. Many young people choose to follow the trends of their favourite food bloggers and opt for the food they recommend. It is also commonplace for youth to upload pics of their food and gain instant approval from their friends.

The impact of 'clean eating' on health and wellbeing outcomes

'Clean eating' is usually associated with considerable health and wellbeing benefits to young people, including decreases in weight over time and a reduction in the risk of developing type 2 diabetes and some cancers. However, according to Rhiannon Lambert, a registered nutritionist in London who treats young people with eating disorders, the number of clients presenting at her clinic have doubled over the past year due to the 'clean eating' trend. According to experts, young people can start following this movement in an innocent attempt to eat more healthily, but can easily become fixated and obsessive about food quality and purity. When food is associated with terms such as 'good', 'bad', 'clean' and 'dirty' it can be become associated with choices about morality, and this is when obsessive behaviours can start.

FIGURE 4.41 Snapping pictures of 'beautiful' foods is a popular pastime.

The term used to describe this pattern of distorted eating is **orthorexia**, a condition that includes symptoms of obsessive behaviour in pursuit of a healthy diet. If a product comes from a package, box or can it is usually considered off limits for people following this trend. Having these kinds of food restrictions are unsustainable, and often involve people eliminating entire food groups from their diet, such as dairy or meat. In such cases these must be replaced with protein rich beans or tofu and fortified soy products for health and wellbeing to be maintained.

What many people following this diet are unaware of is that the processing of foods can improve the safety of the food supply. It eliminates and prevents microbes from multiplying and spoiling food, potentially causing disease. **Pasturisation** and **sterilisation** are the two most common processing treatments that aim to destroy any harmful microbes or enzymes.

4.8 Activities

Test your knowledge

1. What is meant by the term 'one-sided relationship' in relation to marketing?
2. Explain how immersive marketing techniques build relationships with the consumer.
3. Why do companies encourage consumers to sign up for competitions and rewards online?
4. How does location-based mobile marketing work?
5. Celebrity endorsement is often associated with sugary foods, lollies and soft drink. Describe three short-term consequences on health and wellbeing if young people follow the advice from such celebrities.
6. Describe three longer term consequences of the consumption of unhealthy foods promoted through celebrity endorsements.
7. Explain why marketing companies are now targeting social influencers and bloggers. Do you believe this is an effective marketing strategy?
8. How has the 'clean eating' trend had a negative impact on the health and wellbeing outcomes of some young people?
9. What are the implications for health and wellbeing if the current trend of four out of ten young people consuming burgers and soft drinks on any given day continues?

Apply your knowledge

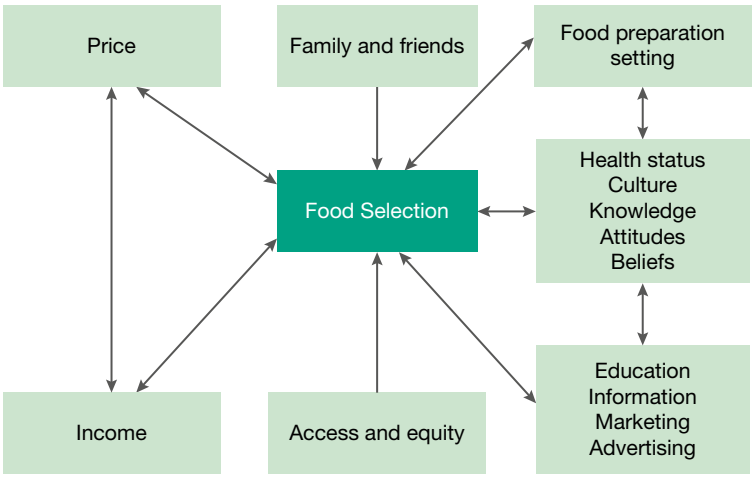
10. List five celebrities other than those listed in the text that are linked to food products.
11. Describe the type of marketing techniques that McDonalds regularly uses to target children and youth. Place these in the categories shown in figure 4.37.
12. Can you find an example of food product placement in the media? How does this company subtly promote their product? How effective do you believe this strategy is in enticing young people to purchase this product?
13. Investigate the different impacts on health and wellbeing of consuming Stevia instead of artificial sweeteners.

4.9 Enablers and barriers to healthy eating: social, cultural and political factors

KEY CONCEPT Analysing the interactions between social, cultural and political factors that act as enablers or barriers to healthy eating among youth

There are many factors that affect the food choices that young people make. These factors can all interact to determine the health behaviours and ultimately the health status of young people (see figure 4.42). In topic 3 we discussed the term 'factors' with a focus on sociocultural factors. In this topic they are split into two separate categories of '**social factors**' and '**cultural factors**'. **Political factors** will also be discussed, and can be defined as the decisions and actions made by government and non-government agencies on issues relating to healthcare, health policies and health funding. All three factors interact to act as either enablers or barriers to healthy eating as seen in figure 4.42.

FIGURE 4.42 Social, cultural and political factors all have an impact on food selection.



4.9.1 Social factors

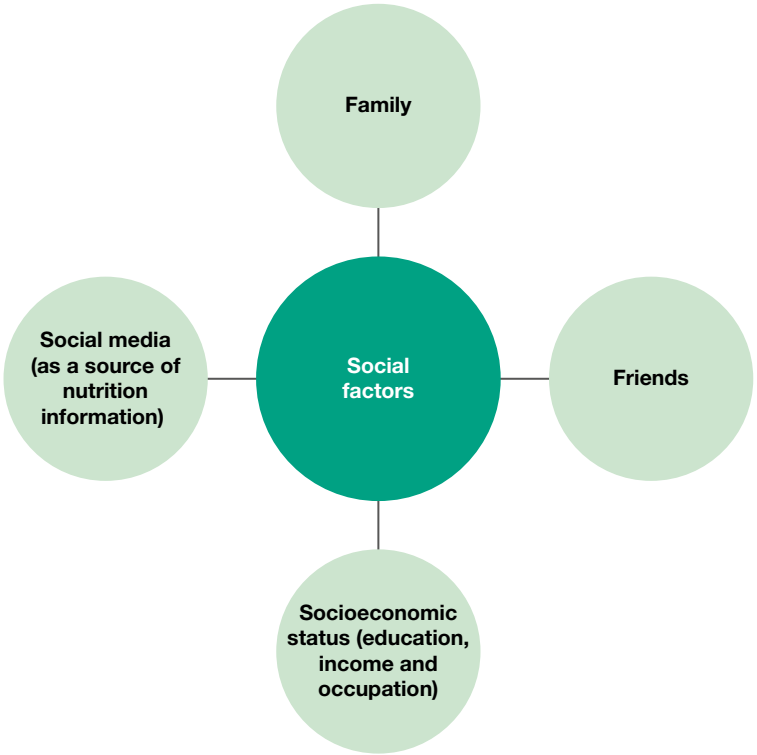
Eating is often considered a social activity. There are therefore many different social factors that can act as either enablers or barriers to healthy eating among youth. These factors are shown in figure 4.43.

Family

Food intake, patterns and behaviours associated with healthy eating are generally developed through the family network. The family unit can act as an enabler or a barrier to healthy eating among youth. A young person's family can act as an enabler when they encourage the consumption of fruit and vegetables; however, they can also act as a barrier if they are more likely to choose energy-dense processed foods.

The family plays a key role in promoting the consumption of healthy food, and this can best be done through **role modelling**. When parents and caregivers model healthy eating practices children are more likely to copy this behaviour. For example, if eating breakfast is always part of the child's daily routine from a young age, then youth are more likely to start the day with breakfast, which is an important component of eating a balanced diet.

FIGURE 4.43 Social factors that act as enablers or barriers to healthy eating.



If parents choose healthy options when away from home or when food shopping this also encourages young people to eat healthily. Most young people rely on the family to provide their meals, so when nutritious meals are provided they learn to value the importance of healthy eating practices. Many young people also learn how to cook and prepare meals in the home. When they are shown how to quickly and easily prepare healthy meals, they are more equipped to do so in the future.

Role modelling and the provision of food in the family can also act as barriers to healthy eating. For example, when family members are consistently modelling poor eating practices by consuming energy-dense food with high sugar content it becomes easy for young people to copy this behaviour. If family members make unhealthy choices when eating out and shopping, the young person is more likely do so. When breakfast is not part of the daily routine in the family, the younger members are more likely to go without. This then often leads to them snacking on unhealthy products earlier in the day because they are hungry.

FIGURE 4.44 Family members influence young people's choices about healthy food.

Friends

The peer group becomes increasingly more important as young people gain their independence and spend more time away from the family home. Just like family, the peer group can act either as an enabler or a barrier to healthy eating. Through this social influence peers may encourage the 'ideal' thin body shape and pressure other teens to skip meals or cut entire food groups out of their diet. This may lead to distorted eating patterns among young people.

Youth may also practise unhealthy eating patterns through the consumption of fast food if this is the norm for their social group. Friends are also a powerful influence on the social parameters of how much food is eaten. A study conducted at the University of Minnesota has found that if your friends eat less food, you're also likely to eat less and continue to eating less when you are alone. Peer pressure is particularly influential when eating out. For example, if a number of people in a social group order an entrée, other people are more likely to follow, and the same is true for desserts. When ordering the main meal, if a few people order healthy meal items the other people present are more likely to follow suit.

FIGURE 4.45 Friends can be highly influential on the types of foods young people consume.

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Social factors that influence nutrition Summary screens and practice questions

4.9.2 Socioeconomic status: income, education and occupation

Income

Cost can be a major enabler or barrier to healthy food consumption. Low-income groups, who find it difficult to achieve a balanced healthy diet, are often referred to as experiencing **food insecurity**. According to Australian Health Survey 2011–12, although the consumption of adequate serves of fruit (two) and serves of vegetables (five) for the population as a whole is very low, those with low socioeconomic status were twice as likely to not consume any fruit and less likely to consume two or more fruits per day.

Energy-dense processed foods are often less expensive than nutritious fresh food, and therefore can become the food of choice for those on low incomes. Transportation can also be a barrier to enabling healthy food choices for young people, as they are less likely to travel long distances for healthy foods, and become reliant on the foods around them. Often lower socioeconomic areas have a large selection of take-away and fast food restaurants and few fresh produce markets, unlike higher socioeconomic status areas.

FIGURE 4.46 A family of four can be fed for as little as $19.95 at McDonalds.

Income can also act as an enabler, as those with a higher income have increased choice of food, and are also more likely to consume nutritious food products that may be more expensive. They can also afford a wide selection of fruits, regardless of the season and price. Organic foods are more expensive and therefore can be more easily accessed by those earning a higher income.

Education

Access to quality education and health literacy are strongly associated with healthy food behaviours. Many studies have confirmed that people with higher levels of education are more likely to choose healthier lifestyles, including a greater consumption of fruits and vegetables. This is also because higher education levels generally lead greater income-earning capacity and increased income to spend on nutritious foods.

Education levels not only increase the chance of adopting healthy eating habits, but also increase the young person's ability to learn. Healthier students tend to perform well and achieve higher levels of education. Education can also promote awareness of healthy behaviours, such as the importance of eating a balanced diet and is therefore linked to an increase in the likelihood of adopting these behaviours.

Lower levels of education can be seen as a barrier for some young people when it comes to adopting healthy food choices. They may not understand the importance of consuming a balanced diet, and may under- or over-consume particular nutrients. A common nutrient that is often under-consumed by youth is calcium, as many young people skip breakfast. When young people are equipped with the knowledge about the importance of calcium, and the foods which are high in this nutrient, they are more inclined to include these in a daily breakfast routine.

FIGURE 4.47 Learning is enhanced with a healthy diet.

Occupation

Young people's occupation and working conditions can act either as enablers or barriers to healthy eating. Employment conditions can influence food choices through the impact of time available outside of work for meal planning and food shopping. Different types of work environments, such as shift work and working long hours, can also have an influence on the type of foods consumed. When work is stressful people are more likely to turn to instant meals, which often have higher levels of sodium and fats than home-prepared meals. Kitchen facilities and the type of food available in and around the workplace can also have an impact on young people's eating habits, and whether they adopt healthy eating practices.

Nutrition information sourced from social media

As mentioned in subtopic 4.7, young people source large amounts of health information from the internet and social media instead of from health practitioners. Finding credible nutrition advice via social media is becoming more complex every year. The increase in nutrition bloggers and social influencers endorsing food products can often cause confusion about whether information is opinion or fact. We all have an association with food, and there are many more experts ready to provide online advice. The content posted online is not overseen by a regulatory agency and therefore is not checked for accuracy.

Young people need to understand when they are presented with misinformation. They should also be able to identify a reputable author, while searching for inks to government or credible organisations. The R.E.A.L. strategy outlined in subtopic 4.7 can be adopted to see if the source is trustworthy.

Some online organisations that provide evidence-based food, nutrition and health information include the following:

- Better Health Channel (Victorian Government)
- Eat for Health (Australian government)
- Smart Eating for You (Dietitian's Association of Australia)
- Nutrition Australia.

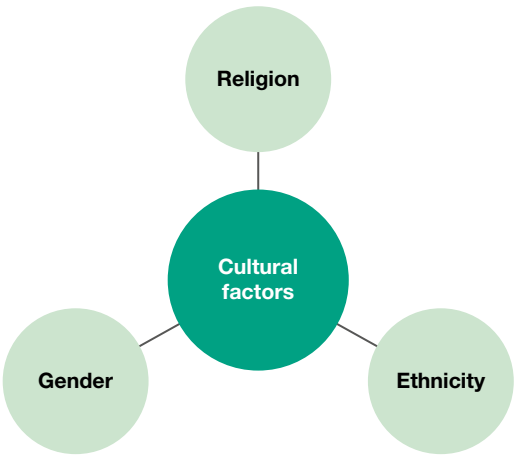
eBook*plus* RESOURCES

Explore more with this weblink: Better Health Channel
Explore more with this weblink: Eat for Health
Explore more with this weblink: Smart Eating for You
Explore more with the weblink: Nutrition Australia

4.9.3 Cultural factors

There are many different cultural factors that can act as enablers or barriers to healthy eating. These factors are represented in figure 4.48.

FIGURE 4.48 Cultural factors that have an impact on healthy eating



Religion

Religion can play an influential role in the food choices of young people and their families. There are many different religious groups in Australia, and certain groups uphold particular regulations around the consumption of food. People following the Hindu religion tend not to eat beef as cows are considered sacred. It is not uncommon for many Hindus to cut out meat all together and become vegetarian.

In Islam and Judaism, the eating of pork is prohibited, and all other meats consumed must be **halal** or **kosher**, which ensures the process and food preparation is in line with the guidelines of Islamic or Jewish law. Jewish law prohibits causing pain to animals, and so this rule must be followed in the processing of animal products. Observant Muslims abstain from eating and drinking from dawn to dusk during the month of Ramadan.

Ethnicity

The ethnic group to which a young person belongs has a significant impact on the type of foods that they consume. In many schools today, the lunch box does not consist of the traditional vegemite or ham and salad sandwich, as the demographics of students within the school are always changing. Australia's multicultural society can be seen within the variety of different foods consumed in the school yard.

Different ethnic groups select different foods, as this is the environment in which they have been bought up. For example, African and Afro-Caribbean groups often consume foods containing various meats, rice and wheat. Eastern and far Eastern groups are more likely to consume foods with large amounts of herbs and spices and vegetables. The menu from a school in Bologna, Italy can be seen below.

TYPICAL ITALIAN SCHOOL MEAL

First course: Potato-filled pasta with tomato sauce
Second course: Ricotta cheese croquettes, cabbage and salad
Snack: Homemade cookies

Ethnicity and culture play a major role in the type of foods young people consume. In different cultures, energy-dense foods may be chosen. In countries such as Germany, traditional dishes consist of Bratwurst, which is sausage composed of beef, pork or veal, and is traditionally served with sauerkraut, potato salad or a bread roll. In other countries, such as Japan, traditional meals are quite light, consisting of fish, rice and vegetables. The types of food consumed within cultures can either enable, or act as a barrier to, healthy eating.

FIGURE 4.49 Japanese cuisine is considered to be very healthy and is a contributing factor to Japan's high life expectancy.

Gender

Gender plays a role in influencing young people when it comes to food selection. The life expectancy of Australian women is 84.5 years, while for men it is 80.4 years. Contributing to these differences are health-related beliefs and behaviours, which begin during youth. Consider, for example, the consumption of fruit and vegetables. Research from the Australian Institute of Health and Welfare in 2016 confirms that Australian men consume fewer fruit and vegetables than women. Men aged 18–44 also eat a smaller variety of vegetables. On average, men consume fewer high-fibre foods, fewer low-fat foods and more soft drinks than women.

Research has identified that men face specific barriers to eating foods such as fruit and vegetables; these include time, cost, lack of cooking skills and lack of the understanding of recommended serving sizes. A study undertaken in 2008 identified this behaviour among younger men aged 18–25, who were generally unconcerned about the risks to health and wellbeing of diets low in fruit and vegetables. Food marketing also often links masculinity to the consumption of animal products — for example, meat-pie advertisements usually target men, and often those in the construction fields.

Females, on the other hand, are regarded as having a greater understanding of the importance of healthy eating behaviours and are more concerned about the types of foods they consume. This could be associated with the cultural norm of the ideal body shape for females to be thin. This may make females more conscious of their food habits and more likely to consider dieting than males.

FIGURE 4.50 Meat-pie manufacturers typically target construction workers with their advertising campaigns.

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Cultural factors that influence nutrition Summary screens and practice questions

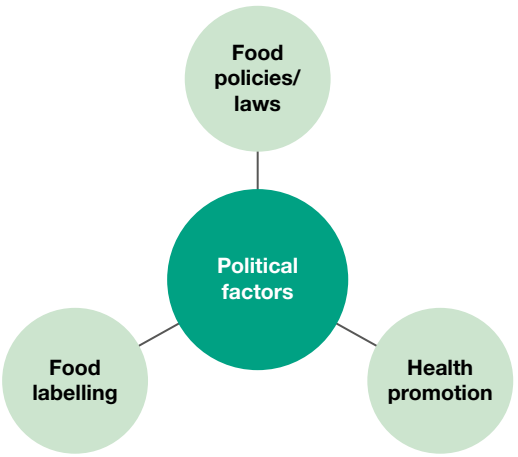
4.9.4 Political factors

Political factors can act as either enablers or barriers to healthy eating among youth. These are represented in figure 4.51.

Food policies and laws and trade arrangements

Food policies have a large impact on many parts of the food industry in Australia. Factors such as the cost of food can have potential influences on food selection. Food laws and trade arrangements also affect the availability of food within a country. An example of a current food policy is the implementation of health-related food taxes. Some groups in Australia argue that a tax should be imposed on sugary drinks, with the aim of decreasing the consumption of such products by making them less affordable and therefore reducing rising rates of obesity. Similar taxes have already been implemented in many countries, such as France, the UK and some states of the United States.

FIGURE 4.51 Political factors and their influence on healthy eating among youth

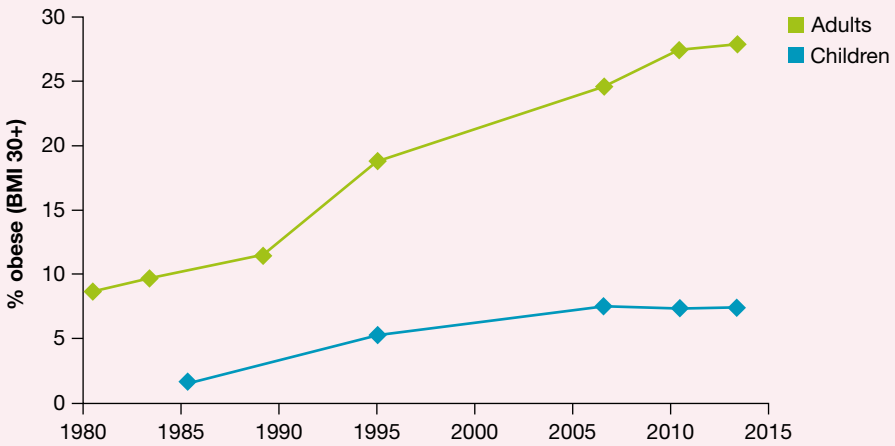


CASE STUDY

A sugary drinks tax could recoup some of the costs of obesity while preventing it

Obesity is a major public health problem In Australia. More than one in four adults are now classified as obese, up from one in ten in the early 1980s. And about 7 per cent of children are obese, up from less than 2 per cent in the 1980s.

FIGURE 4.52 The prevalence of obesity in Australia



Source: Grattan analysis of a variety of sources

Obesity not only affects an individual's health and wellbeing, but it also imposes enormous costs on the community, through higher taxes to fund extra government spending on health and welfare and from forgone tax revenue because obese people are more likely to be unemployed.

In our new Grattan Institute report, A sugary drinks tax: recovering the community costs of obesity, we estimate community or 'third party' costs of obesity were about A$5.3 billion in 2014–15.

We propose the government put a tax on sugar-sweetened beverages to recoup some of the third-party costs of obesity and reduce obesity rates. Such a tax would ensure the producers and consumers of those drinks start paying closer to the full costs of this consumption — including costs that to date have been passed on to other taxpayers. There is the added benefit of raising revenue that could be spent on obesity-prevention programs.

The scope of our proposed tax is on non-alcoholic, water-based beverages with added sugar. This includes soft drinks, flavoured mineral waters, fruit drinks, energy drinks, flavoured waters and iced teas.

While a sugary drinks tax is not a 'silver bullet' solution to the obesity epidemic (that requires numerous policies and behaviour changes at an individual and population-wide level), it would help.

FIGURE 4.53 The drinks likely to be taxed

Beverage	Sugar content (grams/100mL)	Tax
 375mL can soft drink	10g/100mL	$0.15
 2L soft drink	10g/100mL	$0.80
 600 mL sports drink	6g/100mL	$0.14
 200mL fruit drink (6 pack)	10g/100mL	$0.48
 1.25L flavoured mineral water	7g/100mL	$0.35
 250mL energy drink	11g/100mL	$0.11

Why focus on sugary drinks?

Sugar-sweetened beverages are high in sugar and most contain no valuable nutrients, unlike some other processed foods such as chocolate. Most Australians, especially younger people, consume too much sugar already.

People often drink excessive amounts of sugary drinks because the body does not send appropriate 'full' signals from calories consumed in liquid form. Sugar-sweetened beverages can induce hunger, and soft drink consumption at a young age can create a life-long preference for sweet foods and drinks.

We estimate, based on US evidence, about 10 per cent of Australia's obesity problem is due to these sugar-filled drinks.

Many countries have implemented or announced the introduction of a sugar-sweetened beverages tax including the United Kingdom, France, South Africa and parts of the United States. The overseas experience is that tax reduces consumption of sugary drinks, with people mainly switching to water or diet/low-sugar alternatives.

There is strong public support in Australia for a sugar-sweetened beverages tax if the funds raised are put towards obesity prevention programs, such as making healthier food cheaper. Public health authorities, including the World Health Organization and the Australian Medical Association, as well as advocates such as the Obesity Policy Coalition, support the introduction of a sugar-sweetened beverages tax.

Source: Duckett, S & Wiltshire, T 2016 'A sugary drinks tax could recoup some of the costs of obesity while preventing it', *The Conversation*, 23 November http://theconversation.com/a-sugary-drinks-tax-could-recoup-some-of-the-costs-of-obesity-while-preventing-it-69052.

Case study review

1. How many adults and children in 2015 are considered to be obese in Australia?
2. According to the Grattan Institute report what was the 'third party' cost of obesity in 2014–15?
3. Who would pay the additional sugar tax and what types of drinks would be taxed?
4. What changes have been made to the diets of those living in countries where the sugar tax has been implemented?
5. Explain, using an example, how the revenue made from the sugar tax could be used to help manage the obesity problem in Australia.
6. Use the R.E.A.L. strategy, which you learnt in subtopic 4.7, to test the validity of this article.

Food labelling

Food labelling laws determine what a consumer knows about the product they are purchasing. This information will often then influence the choices of food that are available and the impacts on individual diets. Food labelling laws, according to Food Standards Australia New Zealand (FSANZ), mandate that all packaged food must have a label that includes information such as a nutrition panel, use by or best before date, country of origin, and manufacturing details. See figure 4.54.

Food labelling can be confusing for young people if they are unfamiliar with reading and comprehending the information. The main focus is to try to reduce the selection of products which have added salt and sugar, and those that are high in saturated or trans fats. Food labels can be useful when comparing similar products. There are also programs such as the federal government's Health Star Rating System (discussed in subtopic 4.5) to assist people when shopping for food products.

FIGURE 4.54 FSANZ has strict labelling requirements for packaged foods.

FIGURE 4.55 Food labels are an important component of selecting healthier foods.

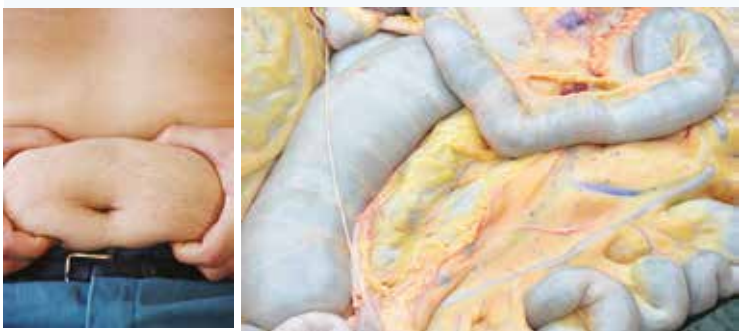
Health promotion

Health promotion activities funded by the government can enable improvements in youth diets. The implementation of the Australian Dietary Guidelines and Australia's Guide to Healthy Eating are both publications recommended by governments to be used in nutrition education within schools and other community settings. The Australian Dietary Guidelines have recently been updated to reflect Australians' behaviour in relation to food. The guidelines specifically state that sports drinks, energy drinks and high-sugar drinks should be limited, as consumption of these products has increased in recent years, particularly in young people.

The guidelines also outline the daily portion sizes for each food; however, it can be quite complicated for the everyday shopper to follow, and therefore may be a barrier to them following the guidelines correctly.

The Victorian and Western Australian state governments' Live Lighter campaign provides comprehensive, easy-to-use online resources and tools, such as a 12-week meal and activity planner,

FIGURE 4.56 Images like these were used in a state government campaign highlighting the effects of overconsumption to show that an unhealthy lifestyle (leading to a 'grabbable' gut) means the likely presence of toxic fat inside the body.



healthy recipes and an 'Am I at risk?' tool. This program caught the attention of many through the shock advertisements showing the effects of toxic fat on the body when they first aired in August 2014 (see figure 4.56).

Health promotion programs when followed can be effective in achieving healthy living and eating goals; however, unfortunately many young people often miss these messages.

4.9 Activities

Test your knowledge

1. Outline, using an example, how role modelling in the home can either act as an enabler or barrier to healthy eating among youth.
2. According to research, how does peer pressure influence the amounts of food consumed within a friendship group? Is this true of you and your friendship group? Explain.
3. Socioeconomic status reflects income, education and occupation. Choose two of these and explain how they may act as a barrier to healthy eating for young people.
4. What are the four major strategies that can be employed to ensure information regarding nutrition is valid?
5. How can the religion of a person have an impact on their food choices?
6. (a) Identify three food products that are usually marketed to females and three food products that are often marketed to males.
   (b) From the foods you have selected choose one from each group and explain your reasons why you believe this to be true.
   (c) How might these types of food have an impact on the health and wellbeing of men and women?
7. What population group do you believe the sugar tax is mainly targeted at and why?
8. Outline four different pieces of information that must be included on food labels.
9. Use the **Live Lighter campaign** weblink in the Resources tab in your eBookPLUS to view the advertisement on toxic fat. Use the R.E.A.L. strategy to test the validity of this website.

Apply your knowledge

10. Describe how the influences of family and food selection and the behaviour of young people change over time? (From childhood through youth and into early adulthood.)
11. What would be the advantages and disadvantages of introducing a sugar tax in Australia?
12. Conduct some further research on Ramadan. What does it involve and what types of food are consumed during this time?
13. What nutrients do people usually compare when reading nutrition panels and why?
14. Access the **Live Lighter** weblink and worksheet in the Resources tab in your eBookPLUS then complete the worksheet.

eBookplus RESOURCES

Explore more with this weblink: Live Lighter

Explore more with this weblink: Live Lighter Toxic Fat

Complete this digital doc: Live Lighter worksheet
Searchlight ID: doc-22628

studyon

Unit 1 > AOS 2 > Topic 2 > Concept 5

Political factors that influence nutrition Summary screens and practice questions

4.10 Topic 4 review

4.10.1 Key skills

KEY SKILL Explain the functions of major nutrients for general health and wellbeing

This key skill requires knowledge of the functions of the nutrients and how they can have impact on general health and wellbeing, including a number of food sources for each nutrient.

When addressing how the nutrients affect general health and wellbeing, points to consider should be which nutrients are protective nutrients, which nutrients are considered risk nutrients and which nutrients will have a negative impact if consumed in excess. For example, carbohydrates are the body's preferred energy source; however, if consumed in excess can lead to overweight and obesity.

You also need to be familiar with a range of food sources and to be able to identify food sources of particular nutrients from a range of food groups. You may be asked to list a non-dairy source of calcium, for example. If a food source has the nutrient added artificially, state that it is a fortified food source (such as fortified breakfast cereal being a source of vitamin D).

An example of a typical examination question testing this knowledge is shown below:

Complete the table, identifying the major nutrient and function of the food source.

Food source	Major nutrient	Function (including health and wellbeing impact)
Breads and cereals[1]	Carbohydrates[2]	**Body's preferred source of energy**; if consumed in excess, however, can lead to **weight gain.**[3]
1 In this example you are provided with the food source and are asked to complete the table.	2 Make sure you choose the major nutrient this type of food contains.	3 Note in this example the main function is provided first, followed by a health and wellbeing implication of excess consumption, which is weight gain.

When practising this key skill, you could complete a summary table which looks similar below:

Note: The nutrient function is highlighted in blue and the link to the health and wellbeing impact is highlighted in yellow in the example below. In this example there are two health and wellbeing links provided; however, you will only need to include one of these in your answers. In this example fibre is considered a protective nutrient, as it has a positive effect on the health and wellbeing outcomes of the body.

Nutrient	Function and the impact on health and wellbeing	Food sources
Fibre	Fibre acts to slow down amount of glucose that is absorbed by the digestive system, reducing the amount of energy provided by the foods consumed. Fibre also provides a feeling of fullness, and therefore decreases the amount of surplus energy consumed from unnecessary extra foods, thus assisting with weight management. Fibre absorbs water, which adds bulk to faeces. This assists in regular bowel movements, decreasing the likelihood of constipation.	Bran Wholemeal breads Apples

Practise the key skill

1. Devise your own set of flash cards. On one side, place the nutrient and food source and on the other side include the function and its link to health and wellbeing.
2. There are four different types of fat. Explain, by filling in table below, how consumption of monounsaturated fat can have a positive impact on the body and include one major food source.

Nutrient	Function of nutrient and impact on health and wellbeing	Food source
Monounsaturated fat		

KEY SKILL Describe the possible consequences of nutritional imbalance in youths' diet on short- and long-term health and wellbeing

Each nutrient has a role to play in the body, but both under- and over-consumption of nutrients can contribute to a range of short- and long-term consequences for youth. It is important to understand the effect that too little or too much of each nutrient can have on the body. By understanding the role of nutrients, predictions can be made about the likely consequences on health and wellbeing.

Most of the short-term effects will be on physical health and wellbeing; it will then be possible to predict the potential impact of these effects on the other aspects of health and wellbeing. For example, insufficient carbohydrates (which are fuel for energy) could make an individual feel tired (physical health and wellbeing). Feeling tired can have other implications for health and wellbeing, such as not wanting to participate in sports, which could also have an impact on social health and wellbeing.

Long-term consequences as a result of nutritional imbalance over an extended period of time can occur in all dimensions of health and wellbeing. The role the nutrients play in these consequences must be understood. A summary table can be useful for brainstorming the possible short- and long-term consequences of nutrient imbalance.

Nutrient	Possible short- and long-term consequences of under-consumption	Possible short- and long-term consequences of over-consumption

Consider the following example, which discusses the possible short- and long term consequences on the health and wellbeing of youth who consume a diet high in fibre.

Fibre assists in the removal of waste products in the digestive tract and promotes regular bowel movements. In the short term, this can prevent constipation (physical health and wellbeing). Fibre has also been shown to decrease the risk of colorectal cancer in the long term (physical health and wellbeing).[4]

Fibre is made up of the indigestible parts of plant matter. As a result, fibre provides feelings of fullness without adding excess kilojoules. In the short term, this can prevent overeating. In the long term, this can assist with weight management and prevent the risk of overweight and obesity. Decreased risk of obesity can enhance self-esteem (mental health and wellbeing). Individuals of optimal body weight may be more able to exercise and promote fitness (physical health and wellbeing).[5]

4 Function and impact is explained — with link to short term and long term health and wellbeing.

5 In this example two functions of fibre are explained along with two different impacts on short- and long-term health and wellbeing.

Practise the key skill

The following table displays information from the Australian Dietary Guidelines (which provides recommended serving sizes for individuals to consume to maintain health and wellbeing). Although this information

is not required, it is a very good way of looking at diet deficiencies and nutrients. The following table shows the typical food intake of Katie (a 17-year-old female) compared with the recommended number of serves for someone her age:

	Vegetables and legume/ beans	Fruit	Grain (cereal) foods	Lean meats, poultry, fish, eggs, tofu, nuts and seeds, and legumes/ beans	Milk, yoghurt, cheese and/or alternatives	Unsaturated spreads and oils
Recommended number of serves from Dietary Guidelines	5	2	7	2½	3½	2
Katie's typical intake	5	1	7	1	1	4

3. Identify the food groups which Katie is consuming in insufficient amounts.
4. Discuss two possible short- and/or long-term consequences on Katie's health and wellbeing if she continues to consume insufficient amounts of two of the food groups identified question 1.
5. Identify the food groups which Katie is consuming in excess amounts.
6. Discuss two possible short- and/or long-term consequences on Katie's health and wellbeing if she continues to consume excess amounts of the foods groups identified in question 3.

KEY SKILL Evaluate the effectiveness of food-selection models and other tools in the promotion of healthy eating among youth

In order to become proficient in this skill, knowledge of different food-selection models is necessary. The Australian Guide to Healthy Eating and the Healthy Eating Pyramid are two food-selection models that can be used by youth as tools to promote health and wellbeing. Understanding how they can be used is an important aspect of this skill. Using these tools to analyse and plan food intake can assist in developing a deeper understanding of each model.

If a question is asking you to address the effectiveness of the food-selection models/tools, you will need to provide examples of strengths and weaknesses in your examples. This can also be the limitations of use. A typical scenario in which food-selection models could be used to assist in promoting the health and wellbeing of youth is explored in the following case study.

Simon is 16 years old and enjoys playing football. He recently made the representative side for his region and is now committed to training three nights a week and playing every Sunday. He also trains in the gym at school twice a week. He has been purchasing his lunch from the school canteen most days of the week and also buys food from takeaway outlets on his way home from football training. Simon is unsure whether he is consuming all the foods he should be to provide the nutrients he needs to maintain optimal health and wellbeing.

To discuss a possible solution to Simon's eating challenges, one approach might be to identify a food-selection model, describe it, and then discuss how it could be used to assist Simon to consume healthy foods. An initiative established to promote healthy eating is the Australian Guide to Healthy Eating. The Australian Guide to Healthy Eating is a food-selection model devised by the federal government.[6] It is comprised of a poster that breaks the five food groups into the proportions in which they should be consumed on a daily basis. The largest section of the graph, and therefore the food group that should be consumed in the greatest proportion, is the grain group. This includes food items such as cereals, breads and rice. Around a third of all foods should come from this group.

6 The food-selection model is identified.

The next section is the vegetables and legumes/beans group. Around a third of all foods should come from this group. The third group is the lean meats and poultry, fish and eggs. Around one-seventh of all foods should come from this group.

The fruit group and dairy products such as milk, yoghurt and cheese are the final two food groups. Each of these should account for around one-eighth of all foods consumed.

The guide recommends drinking plenty of water, using only small amounts of healthy fats such as canola and olive oils, and limiting discretionary foods such as those containing alcohol or high levels of saturated fat, salt and/or sugar.[7]

7 The food-selection model is explained in greater detail.

8 Key aspects of the Australian Guide to Healthy Eating are included. It is important to avoid being too general and to provide examples specific to Simon where possible.

9 Aspects of the model that may limit Simon's ability to follow it are also discussed.

10 Ways of increasing Simon's understanding of the model and so improve his diet are listed.

The Australian Guide to Healthy Eating can assist Simon in adopting a healthy diet, but some of his circumstances may reduce his ability to follow it closely. The guide is in graphical form, which might make it easier for Simon to understand it and make changes to his diet.[8] The Australian Guide to Healthy Eating does not include serving sizes, which might make it hard for Simon to consume adequate amounts from each food group.[9] As Simon purchases a lot of his foods, he will have to learn to break composite foods down into their parts so he can classify them into one of the five food groups. He may be able to do this by keeping a food diary of all the food and drink he consumes. He can then take some time to practise breaking these items down to their primary components. If Simon gains an understanding of the components of different items available from the canteen and takeaway outlets, he may be able to choose foods that more closely reflect the proportions outlined in the guide.[10]

Practise the key skill

7. In order to analyse the effectiveness of the food-selection models and other tools, it is a good idea to complete a table with their advantages and disadvantages or strengths and weaknesses of each model and then these examples can be applied to different situations:

Food-selection model/tool	Advantages/strengths	Disadvantages/weaknesses
Australian Guide to Healthy Eating		
Healthy Eating Pyramid		
Health Star Rating Program		

8. Jackie is 14 and has just become a vegetarian. Identify one food-selection model and explain how it could assist Jackie in consuming foods that will provide her with the nutrients she needs to maintain optimal health and wellbeing.
9. Evaluate the effectiveness of the model selected to assist Jackie with her food selection. In your response include one strength and one weakness of the model chosen.

KEY SKILL Evaluate the validity of food and nutrition information from a variety of sources

This key skill is focused on the word *evaluate*. When evaluating a variety of information sources, you are determining the quality of the information which is provided. The R.E.A.L. strategy will enable you to be able to do this effectively.

Nutrition information is now sourced from a variety of different resources. No longer do people solely rely on health professionals for advice; instead they turn to resources such as the internet for their information. When using these other resources it is important that the consumer is able to validate this information.

When referring to nutrition information presented in a magazine the following questions should be asked: What are the author's credentials? Are there any other references? Have they written other relevant material? How big was the study group (if applicable)?

If the information is being sourced from a website then the R.E.A.L strategy should be adopted to validate the information.

- Read the URL
- Examine the site's contents
- Ask about the author's name
- Look at the links.

Below is an example of using the R.E.A.L strategy when looking at the Better Health Channel.

1. **Read the URL** — https://www.betterhealth.vic.gov.au/
   The website ends in .gov.au, which is an indication that it is a reliable source. It is fully funded by the Victorian government and does not receive additional support or sponsorship.[11]
2. **Examine and look at the authors, publishers and organisation who funds the site.**
   The authors of the site are from the digital strategy services team, which are part of the Victorian government Department of Health and Human Services.[12]
3. **Ask for authors' names and contact details.**
   There are clear contact details provided on the site, on their contact page.[13]
4. **Links — what types of links does the page lead you to?** Associated links are other government agencies such as Nurse on Call. Links do not lead to private organisations.[14]

11 the url has been identified

12 The authors of the site and the government department has been identified

13 The authors' contact details have been found

14 The links are evaluated as being to other government sites not private organisations

Practise the key skill

10. To practise the key skill of evaluating the validity of nutrition information, use the R.E.A.L strategy on the following websites:
    (a) Nutrition Australia
    (b) Live Lighter
    (c) Lite 'n' Easy.

eBookplus RESOURCES

- **Explore more with this weblink:** Nutrition Australia
- **Explore more with this weblink:** Live Lighter
- **Explore more with this weblink:** Lite 'n' Easy

KEY SKILL Analyse the interaction between a range of factors that act as enablers or barriers to healthy eating among youth.

This skill requires an understanding of a range of different factors that can have an impact on a young person's ability to consume healthy foods. These factors are grouped into three categories: social, cultural and political factors. Factors can either act as enablers or barriers to healthy eating. An example of a social factor — income — is discussed below.

Explain how household income can act as an enabler or barrier to healthy eating for youth.

Income affects people's ability to consume healthy foods. Young people who come from a household which has a relatively high income can easily afford fresh nutritious foods; however; others who may be brought up in a low-income household may be more inclined to purchase energy-dense, processed foods, which are cheaper in comparison.[15] In this example income can affect people differently, and is therefore both a barrier and an enabler to healthy eating.

15 In this example one factor is analysed and reasons provided for how it can be a barrier to one person while being an enabler for another.

Social, cultural and political factors all have an impact on a person's ability to consume healthy foods. Many of these factors are interrelated, and can act as either enablers or barriers to healthy eating. The example below looks at how two different factors can interact to affect healthy eating for youth.

Briefly explain how a social factor can interact with a political factor when making decisions about food selection.

Health promotion, (a political factor) has shown to be more effective with people who have experienced a higher level of education (a social factor) than others. They are more likely to read health promotion information and take action, such as in relation to the importance of healthy eating. They are also more likely to pay attention to food labelling when it comes to food selection. (political factor)[16] as they have an increased understanding of how to read the labels correctly.

16 In this example the political factors of health promotion and labelling are identified and linked to level of education, which is a social factor.

Explain how a cultural factor can interact with a social factor to have an impact on the ability of a person to consume healthy food.

Gender, a cultural factor, can also affect a person's ability to eat healthy foods, as research has shown that males consume fewer fruits and vegetables and are also more likely to consume more energy-dense processed foods than females. This behaviour can be enhanced when the friendship (social)[17] group also shares similar views on food selection. The work environment (social), can also impact on food behaviours. Young people around them can be influenced by what foods others are consuming, as well as what food outlets are near their work. Building sites, which are often largely populated with males, often have visiting food trucks, which sell energy-dense, processed foods, with often a limited selection of healthy food available.

17 In this example a cultural factor of gender has been linked with the social factor of the influence of friends and work, and the impact on healthy food choice has been discussed.

Practise the key skill

Mary is a 19-year-old first-year university student who has moved from country Victoria into a share house in inner Melbourne. She lives with three other first-year students from her home town.

Mary's previous cooking experience is very limited, as her meals were prepared for her by her family during her final year of school. Her roommates have decided to share the cooking, and each person is responsible for one night's meal preparation. Mary is reluctant to cook, and therefore usually heads to the local pizza store when it is her turn to cook, as they have cheap deals on a Tuesday. One of her housemates is a vegetarian and often cooks vegetable stir fry. One of her housemates is Indian and so often prepares a traditional Indian dish, while her third housemate is struggling financially so regularly buys fish and chips.

11. Discuss the range of different factors that have interacted to have an impact on the food intake of Mary and her friends.

4.10.2 Topic summary

- There are six categories of nutrients required for optimal health and wellbeing: carbohydrates, protein, fats, water, vitamins and minerals.
- Youth require a balance of the six categories of nutrients in order to maintain optimal health and wellbeing.
- The main function of carbohydrates is as an energy source.
- Fibre is a type of carbohydrate that is indigestible. Fibre has numerous health benefits, such as reducing hunger, and decreasing cholesterol and glucose absorption. Fibre also acts to assist in moving food and waste products through the digestive system and reduce the chance of colorectal cancer later in life.
- Protein is required for the growth, maintenance and repair of body cells and structures. It can also be used as an energy source.
- The main function of fats is as a fuel for energy production. They are also a key component of cell membranes.
- Monounsaturated and polyunsaturated fats are a better choice than saturated and trans fats because the latter increase the risk of cardiovascular disease and type 2 diabetes.
- Water is required for many body processes, including functioning as a medium for all chemical reactions in the body and forming an important part of blood and soft tissues.

- Calcium is an important component of hard tissues and is required to achieve optimal peak bone mass.
- Iron is required for haemoglobin in blood and a deficiency can lead to anaemia.
- Vitamin D is required in order for calcium to be absorbed in the small intestine and therefore assists in building hard tissue.
- The B-group vitamins are required to release energy from carbohydrates, protein and fat.
- Folate and vitamin B12 play a role in the development of red blood cells, which enable oxygen to be transported around the body correctly.
- If energy intake and expenditure are not roughly the same, weight gain or loss will result.
- Nutrient imbalance can result in a range of short- and long-term consequences for youth.
- Short-term consequences include a lack of energy, a spike in blood glucose levels, overeating and constipation.
- Long-term consequences include dental caries, periodontitis, overweight and obesity, type 2 diabetes, cardiovascular disease, sleep apnoea, arthritis, osteoporosis, colorectal cancer, anaemia and increased risk of infection.
- The short- and long-term consequences of nutrient imbalance can have an impact on all aspects of the health and wellbeing of youth.
- Food-selection models can be used as tools to assist youth in preventing nutritional imbalance.
- The Australian Guide to Healthy Eating presents the five food groups in a pie chart which represents a 'plate model'.
- The Healthy Eating Pyramid contains four layers relating to the proportions of different foods that should be consumed.
- The Health Star Rating System is a food-selection tool that assists consumers to purchase food products that are healthier than similar products, as they have been ranked according to their content of sugar, saturated fat, sodium, fibre and energy contributions.
- Nutritionists generally work more commonly with health promotion programs and larger community groups, compared with dietitians, who can give individual and more specific information regarding particular dietary deficiencies or health conditions.
- When sourcing nutrition information from the Internet you can employ the R.E.A.L. strategy to ensure that the website or blog is a valid source of information.
- There are a number of different strategies used in the marketing of food to young people, often centered on digital marketing: immersive marketing, location-based marketing, product placement, celebrity endorsement and social influencers.
- These strategies are all focused on connecting consumers to brands, while at the same time collecting as much information about consumers as possible to continue relationships in the future.
- The 'clean eating' food trend has been strongly influenced by social media and can have both positive and negative impacts on health and wellbeing.
- Social, cultural and political factors can all affect the ability of young people to consume nutritious foods. They can act as enablers or barriers to healthy eating.
- Social factors include family, friends, income, education, access to nutrition information, social media and the work environment.
- Cultural factors include gender, ethnicity and religion.
- Political factors include food policies and laws, food labelling and health promotion.

4.10.3 Exam preparation

Question 1

The federal government's Health Star Rating Program places stars on food products based on the nutrition contribution of the product. They market the program by saying 'the more stars the better', on individual products. The products are given star ratings on individual nutrients and not whole foods, and most fruits and vegetables do not come in a packet.

Explain a limitation of this statement 'the more stars the better'. (A product can reach a maximum of 5 stars.) **(2 marks)**

Question 2

Charlie is an active 16-year-old boy. Below is a typical breakdown of the amount of foods he consumes daily, in comparison to the recommended amounts from the Australian Dietary Guidelines.

	Vegetables and legume/ beans	Fruit	Grain (cereal) foods	Lean meats, poultry, fish, eggs, tofu, nuts and seeds, and legumes/ beans	Milk, yoghurt, cheese and/or alternatives	Unsaturated spreads and oils
Recommended number of serves from Australian Dietary Guidelines	5	2	7	2½	3½	2
Charlie's typical intake	3	1	8	1	1	4

(a) Which food groups is Charlie over-consuming? **(2 marks)**
(b) Which food groups is Charlie under-consuming? **(4 marks)**
(c) Explain two short-term consequences for Charlie's health and wellbeing if he continues this diet. **(2 marks)**
(d) Explain two long-term consequences for Charlie's health and wellbeing if he continues this diet. **(2 marks)**
(e) Identify two ways that Charlie could use the Australian Guide to Healthy Eating to assist him to consume a more balanced diet. **(2 marks)**
(f) Identify two limitations Charlie may find in using this guide to assist him with his food selection. **(2 marks)**

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Try out this interactivity: Definitions
Searchlight ID: int-6853

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TOPIC 5
Promoting youth health and wellbeing

5.1 Overview

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
- 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

- 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
- Analyse the role and influence of community values and expectations in the development and implementation of health and wellbeing programs for youth

FIGURE 5.1 How would we rate the health and wellbeing of Australia's youth?

KEY TERMS

Binge drinking consuming seven or more standard drinks for males or five or more standard drinks for females in one sitting
Body image how you see your body, the way you feel about your body, the way you think about your body and the behaviours in which you engage as a result
Health action behaviour change where health-compromising behaviours are replaced by health-enhancing behaviours
Health inequalities differences in health status or in the distribution of health risk and protective factors
Health literacy the degree to which individuals have the capacity to obtain, process and understand basic health information and services needed to make appropriate decisions about their health and wellbeing
Illicit use of drugs use of an illegal drug, which is prohibited from manufacture, sale or possession, or the misuse of a legally available drug
LGBTIQ acronym for commonly used definitions of people who are not heterosexual: lesbian, gay, bisexual, transgender, intersex, questioning
Protective factor something that enhances the likelihood of a positive health and wellbeing outcome and lessens the likelihood of negative health and wellbeing outcomes from exposure to risk
Risk factor something that increases the likelihood of developing disease or injury
Social connections the relationships you have with the people around you
Social inequality unequal distributions of resources, wealth and opportunities within a group or society based on characteristics such as religion, ethnicity, gender, age and class
Values judgements about what is important in life

5.2 What areas of youth health and wellbeing need action?

KEY CONCEPT Aspects of youth health and wellbeing requiring health action

The health and wellbeing of Australia's youth is excellent. However, data on rates of illness and death or self-assessed health status indicate that there are still areas for improvement. These areas often involve risk factors that commonly emerge or increase in the youth stage, but which can affect current and future health and wellbeing. **Health inequalities** exist among young people in Australia as a cohort and between young people and other age groups. Health inequalities may result from sociocultural factors, such as income, education, community expectations or gender, that are avoidable or unfair. These are called **social inequalities**. Health inequalities in youth can also be a result of risk taking and inexperience. Health inequalities can be addressed by empowering youth to change behaviour, through government action or by early intervention through health promotion programs.

Your task in topic 6 (the next topic) will be to explore a health and wellbeing focus and produce a detailed report. Some of the areas for improvement or inequalities that you can research as a focus will be outlined in this topic. These outlines are not intended to provide you with a detailed explanation, but rather, just enough information for you to make a decision about which health and wellbeing focus you want to learn more. The Australian Bureau of Statistics (ABS) *Australia's Health 2016* report and the Mission Australia Youth Survey are sources of data that will be used to gain an understanding of the health inequalities and concerns relating to Australian youth. Each year Mission Australia, a non-government community service organisation, seeks feedback from young Australians aged 15–19 about the issues that concern them. The information gained from this survey is used to inform government action and policy as well as the work of community organisations.

According to Drug and Alcohol Research and Training Australia (DARTA), the youth stage has always posed risk factors for health and wellbeing — but most young people get through it successfully. However, DARTA suggests that youth today are exposed to social issues and risk factors much earlier and are now

specifically targeted by advertisers in a relentless manner. Communication of information is immediate, with no 'wait-time', and worldwide trends and fads spread quickly.

In the youth stage, males usually develop later than females. Adults rely on reasoning and judgment when making decisions, whereas young people use emotions to process information rather than think through possible consequences of their choices. This means that they can feel as though they will live forever; take risks without fear of consequences; don't believe it could happen to them; have limited attention spans and a different concept of time; and will understate risks and overstate the gains of undertaking health-compromising behaviours.

5.2.1 Injury

'Injury' is an umbrella term that refers to a range of causes of mortality and morbidity, including traffic accidents, suicide and poisoning, falls, violence and drowning. All injuries are considered to be preventable, which can add to the impact that they have on individuals. According to the Australian Institute of Health and Welfare (AIHW), although death rates from injury have decreased significantly over the past 20 years, injury is still the leading cause of death for youth in Australia.

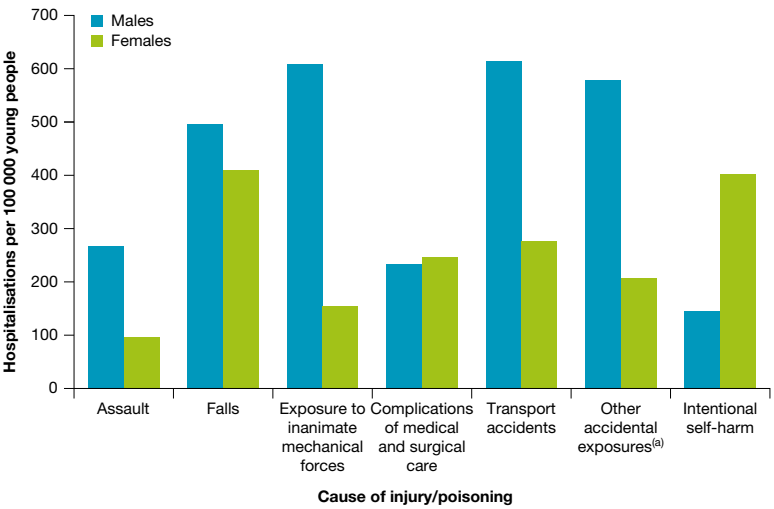
FIGURE 5.2 All injuries are considered to be preventable, which can add to the impact that they have on individuals.

Serious outcomes from injury (more common in road crashes) are spinal cord and traumatic brain injury and death. Outcomes that contribute to morbidity without being life threatening (more common in sport) include soft tissue sprains and strains, bone fractures, cuts, eye wounds and dislocations.

Burden of disease, inequalities and concerns of young people

Young people are over-represented in injury statistics compared with any other age group. According to the AIHW, the leading causes of death for young people aged 15–24 years in 2012–2014 were suicide (15 per 100 000 or 31.6 per cent), land transport accidents (11 per 100 000 or 23.8 per cent), accidental poisoning (2 per 100 000 or 4.9 per cent) and assault (1 per 100 000 or 3.2 per cent). Land transport accidents (largely motor vehicle accidents) were the main reason for the hospitalisation of youth in 2013–14. The most common type of sporting injury sustained was a fracture (knee/lower leg; elbow/forearm; wrist/hand or head), followed by soft tissue injury.

FIGURE 5.3 Causes of injury/poisoning and hospitalisation for young people aged 15–24



(a) This category comprises accidental drowning and submersion; accidental threats to breathing; overexertion; travel and privation; and accidental exposure to other and unspecified factors.

Source: AIHW, *Australia's Health 2016,* Australia's health series no. 15. Cat. no. AUS 199. Canberra: AIHW.

The following statistics from various agencies point to the issue of injuries among youth.

- The AIHW reported in 2014 that the rate of hospitalisation for spinal injury in Australia was highest in the 18- to 24-year-old age group.
- Males are 1.9 times more likely to be hospitalised for injury/poisoning than females.
- Females aged 15–24 are 2.8 times more likely to be hospitalised for self-harm as males aged 15–24.
- Males are 2.2 times more likely to be hospitalised for transport accidents than females.
- The rates of hospitalisation for assault for young males in 2013–14 were three times those of females.
- 15- to 24-year-olds have the highest age specific rate of spinal cord injury. The ratio of male to female injury in this age group is 9 to 1.
- 15- to 19-year-old males are most at risk of suffering traumatic brain injury — 399 per 100 000 population compared to 189 per 100 000 population for the community as a whole.
- Youthsafe found that every 4 minutes and 24 seconds, on average, a young person is injured in an Australian workplace.
- Rural youth are more likely to engage in dangerous behaviours that result in accidental injury.
- According to the AIHW, Indigenous children and young people are over one and a half times more likely to have injuries that require hospitalisation when compared to other Australians in the same age-range.
- Mission Australia's 2016 survey found that 12.8 per cent of young people indicated that crime, safety and violence were a national concern, an increase from 10.1 per cent in 2015.
- Indigenous youth are six times more likely to die from assault and four times more likely to die from suicide.
- Orygen found in 2016 that 24.4 per cent of young women and 18.1 per cent of young men aged 20–24 have self-injured in their lifetime.

Contributing factors

Young people can be injured on the roads, while socialising, while participating in sport and recreation and in the workplace. The youth stage of the lifespan has specific relationships with both the type and rate of injuries experienced. Developing independence in the transition to adulthood increases the opportunity young people have for decision making, which can increase risk-taking behaviour. During the youth stage, the areas of the brain that control decision making and self-control are still developing, along with the reward-processing and pleasure-seeking areas. This can lead to youth engaging in more risk-taking behaviour.

Increased independence means that young people generally start being more mobile and have less adult supervision. New situations may require the development of new skills, such as driving, and inexperience can have serious implications for injury. For youth, peer acceptance may be a motivating factor in risk taking rather than longer term concerns of health and wellbeing. Risk-taking behaviours, including alcohol or drug consumption, are particularly significant during youth and have a strong relationship with injury and death.

FIGURE 5.4 Young drivers are at greatest risk of being involved in a crash in their first year of driving unsupervised when they are on their P-plates.

The over-representation of young people in transport-related accidents can be linked to risky behaviours including speeding, driving when fatigued, and driving under the influence of alcohol or other drugs. Inexperienced drivers have lowered hazard perception, and the still-developing brain, combined with other factors, such as driving at night and the presence of other young passengers, contribute to an increased risk of crash for young drivers.

When young people start their first job, they may be required to perform duties for which they have not received training. Young workers with little supervision in the workplace may have to make decisions for which they are ill-equipped. The likelihood of injuries or illness increases when dangerous equipment is being used. Many young workers have casual and temporary jobs and they may not stay long enough in a job to receive appropriate training. They may also be concerned that they will lose their job if they complain.

In rural areas, the roads may be of poor quality, young people may need to travel longer distances, and in less safe vehicles. The increased likelihood of injury in rural areas may be related to lower **health literacy** about accident prevention, such as the importance of compliance with safety regulations, speed limits, use of seat belts and vehicle roadworthiness.

5.2.2 Alcohol use

Youth is a stage during which many people experiment with alcohol. Youth under the age of 18 are recommended not to consume any alcohol as their bodies and brains are experiencing rapid development, in particular the hippocampus, which is the part of the brain involved in memory and learning, and the prefrontal cortex, which controls planning, judgement, decision making and impulse control. The brain continues to develop through young adulthood up until the age of 25.

Although it is illegal to sell alcohol to people under 18 years of age, many young people have access to alcohol before they turn 18. The Drug Strategy Household Survey 2016 found that the average age at which people aged 15–24 years said they first consumed alcohol was around 16.3 years. For youth aged 18, in order to reduce the risk associated with alcohol consumption, the Department of Health and Ageing recommends not consuming more than:

- two standard drinks on any day (to reduce lifetime risk)
- four standard drinks on any day (to reduce short-term risks).

FIGURE 5.5 Youth is a stage when many people experiment with alcohol consumption.

Alcohol can reduce alertness and concentration, reduce coordination skills and problem-solving ability, promote risk-taking behaviours, including self-harm, and increase aggression. Young people under the influence of alcohol are less able to accurately assess risks to their own safety and that of others. This can lead to unsafe sex, physically dangerous behaviour, and driving or getting in a car with someone who is drunk. They will have lower levels of self-control and are less able to identify hazards and dangers. This means they can't assess the consequences of their own (or others') actions as well as someone who hasn't been drinking.

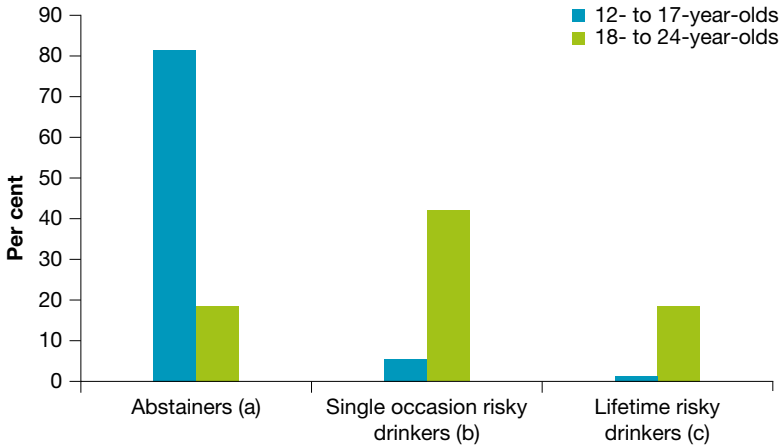
Excessive alcohol intake — such as **binge drinking** — during youth is associated with higher rates of injury, death and violence-related trauma, cuts and concussions. Binge drinking can also affect brain development, such as memory, the ability to learn, verbal skills, and can increase the risk of alcohol-related problems later in life, such as alcohol dependence. Alcohol also increases mental health problems including depression, self-harm and suicide.

Burden of disease, inequalities and concerns of young people

The statistics show worrying levels of alcohol use among some young people and the level of damage it can cause. However, there are some encouraging statistics showing that young people are starting drinking later and some don't drink at all.

- In the Australian Secondary Students' Alcohol and Drug Survey 2014, 40 per cent of students reported never drinking alcohol.
- Twenty-one per cent of young men (33 per cent of male students who drank alcohol) and 11 per cent of young women (19 per cent of female students who drank alcohol) reported consuming 'seven or more drinks' on a day when they drank.
- According to the 2016 National Drug Strategy Household Survey, 15 per cent of young people aged 18–24 drank alcohol at levels that put them at very high risk of harm.
- Alcohol accounts for 13 per cent of all deaths among 14- to 17-year-old Australians. The National Health and Medical Research Council has estimated that one Australian teenager dies and more than 60 are hospitalised each week from alcohol-related causes.

FIGURE 5.6 The proportion of young people who drink at a single occasion risk and lifetime risk, 2016



(a) Not consumed alcohol in the previous 12 months.
(b) Had more than 4 standard drinks at least once a month.
(c) On average, had more than 2 standard drinks per day.

Source: AIHW 2014, *National Drug Strategy Household Survey 2013*, supplementary tables.

- Alcohol contributes to the three major causes of teen death: injury, homicide and suicide.
- The AIHW found that younger people are continuing to delay starting drinking, with the average age among those aged 14–24 trying alcohol for the first time increasing from 14.4 in 1998 to 16.1 in 2016.
- Five per cent of 12- to 17-year-olds reported drinking five or more drinks on at least one of the past seven days, with 9 per cent of 16-year-olds and 17 per cent of 17-year-olds drinking at this level.
- Australian Drug Foundation data suggests that young people (including underage drinkers) living in regional Victoria routinely drink at levels that put them at a high risk of harm compared with those in metropolitan areas.
- Mission Australia found that around one third of Aboriginal and Torres Strait Islander young people identified alcohol and drugs as an important issue in Australia today (32.2 per cent compared with 26.6 per cent of non-Aboriginal or Torres Strait Islander young people).

Contributing factors

As most youth are not of legal drinking age, the environment in which they drink can promote or discourage excessive alcohol consumption. The places where young people consume alcohol are shown in table 5.1.

Many parents believe that serving alcohol at home teaches children to drink responsibly, but research indicates that children whose families refused to serve them alcohol at home were less likely to drink in other situations. Young people from families in which there is less supervision or alternatively excessive control or conflict are more likely to drink than young people who believe that their parents care about and are supportive of them. Youth who are exposed to a close family member drinking or getting drunk are also more likely to use alcohol.

The belief that all young people drink (despite research indicating that they don't) may cause them to drink. Many young people believe that drinking helps them fit in, or that without alcohol they won't have the confidence to take part in social situations. Australia has a strong drinking culture, and alcohol is present in many social situations, such as at sporting events. Seeing celebrities or role models drinking, can create

the assumption that it's a socially desirable thing to do.

Some in rural Australia associate drinking with **values** such as 'self-reliance', 'hardiness' and 'mateship'. Rural people experience disproportionately high levels of alcohol misuse and its associated burden of disease and injury. This may be due to lack of venues for recreation, attitudes about help-seeking, economic and employment disadvantage, and less access to healthcare professionals and alcohol treatment services.

A limited range of venues for recreation and socialising could be a contributing factor to excessive drinking among rural youth, as local sports clubs (and the bars within) are among the few leisure and social venues in many rural areas. It has also been suggested that rural youth (especially males) experience high levels of boredom in leisure hours, which causes higher levels of alcohol use. Studies show that the increased misuse of alcohol in rural areas is a result a lack of knowledge of alcohol guidelines and alcohol-related harm, easier access to alcohol and a low level of community awareness of alcohol as problem.

TABLE 5.1 Usual place of alcohol consumption by age group, 2013

Place	12–17	18–24	25–29
In my own home	41.8	60.1	76.0
At a friend's house	38.2	56.3	48.3
At private parties	62.3	52.3	40.5
At raves/dance parties	12.2	18.3	7.6
At restaurants/cafés	*4.8	37.3	45.3
At licensed premises	*6.1	66.2	53.8
At school/TAFE/ university, etc.	**0.5	4.0	*1.8
At the workplace	— —	3.3	5.3
In public places	5.6	5.5	4.0
In a car	*1.6	3.6	2.5
Somewhere else	*8.0	3.3	3.0

FIGURE 5.7 Campaigns such as 'Stop the Supply' in NSW highlights that parents can be some of the key suppliers of alcohol to minors.

eBookplus RESOURCES

Watch this eLesson: Teenage alcohol
Searchlight ID: eles-0226

5.2.3 Illicit use of drugs

Many people experiment with drugs and other substances during youth. Misuse of illicit drugs can lead to a range of short- and long-term effects on health and wellbeing, such as internal organ damage (including brain damage) and depression. Those who experiment with substances during youth are more likely to develop substance abuse issues later in life, which further increases the risk of health conditions. Although the impacts will depend on the type of drug, how it is taken and the duration of use, some common consequences include social isolation, mental disorders, poor academic performance, unemployment, increased rate of criminal behaviour and family breakdown.

Young people may also experience health concerns caused by others' harmful drug-taking behaviour. This includes drug-related violence at home or in public places, parental and peer substance use, and others'

risk-taking behaviours, including driving under the influence of drugs. Some of the common substances used during youth include marijuana, amphetamines (including ecstasy and crystal meth), cocaine and heroin.

Burden of disease, inequalities and concerns of young people

The statistics show that cannabis is the most commonly used illicit drug, but the rates of use have not increased.

- In 2016, 17 per cent of young people aged 14–19 of young people had used illicit drugs in the previous 12 months — significantly less than in 2013 (20.6 per cent).
- Cannabis was the most commonly used illicit substance, with 16 per cent of students aged between 12 and 17 having ever used cannabis, and 7 per cent using it in the month before the survey.
- The proportion of students using cannabis in the past week, past month or in their lifetime had not changed between 2008 and 2014 or between 2011 and 2014.
- Mission Australia found in 2016 that around a third of Aboriginal and Torres Strait Islander young people and a quarter of non-Aboriginal or Torres Strait Islander young people nominated alcohol and drugs as a key issue facing Australia today.

Contributing factors

The reasons for youth trying drugs are complex. Like most risk-taking behaviours, drug use arises from a combination of factors that include risk taking and peer group pressure. Young people may use drugs because of the fear of not being accepted into a social circle that they believe includes drug-using peers. They also often use drugs because drugs interact with the chemistry of the brain to produce feelings of pleasure and to lessen the feelings of distress that may arise from depression, social anxiety and stress-related disorders. Young people may also be motivated to seek new experiences. The reasons for trying illicit drugs are shown in table 5.2.

TABLE 5.2 Factors influencing first use of any illicit drug, lifetime users aged 14 years or older, by sex, 2013

Factor	14–19	20–29	Recent user[(a)]	Ex-user
Friends or family member were using it/offered by friend or family member	44.4	51.3	51.2	51.5
Thought it would improve mood/to stop feeling unhappy	19.2	8.7	11.9	4.1
To do something exciting	32.4	23.2	26.8	14.6
To see what it was like/curiosity	72.2	69.1	67.0	65.8
To enhance an experience	16.3	16.8	22.1	7.8
Other	*4.4	4.2	5.3	2.0

(a) Used in the previous 12 months

Source: Australian Institute of Health and Welfare 2014. *National Drug Strategy Household Survey detailed report 2013*. Drug statistics series no. 28. Cat. no. PHE 183. Canberra: AIHW.

eBook*plus* RESOURCES

Watch this eLesson: Marijuana madness
Searchlight ID: eles-0227

5.2.4 Smoking

Youth is a critical time in the development of tobacco addiction, and those who do not smoke during youth are less likely to smoke later in life. Nicotine is the addictive drug in tobacco smoke. Research has shown that the symptoms of addiction (craving and withdrawal) can begin when youth are smoking as few as two cigarettes a week. Evidence shows that young people can develop nicotine addiction — on average within

two months of starting to smoke, with some reporting symptoms of dependence even before they start smoking on a daily basis.

Smoking increases the chances of premature death and a range of conditions including cancer, cardiovascular disease and respiratory illness. Even though AIHW figures show that smoking rates steadily declined between 1991 and 2014, tobacco use is the single most preventable cause of ill-health and death in Australia, contributing an estimated 7.8 per cent of the total burden of disease. This equates to more drug-related hospitalisations and deaths than alcohol and **illicit drug use** combined.

Burden of disease, inequalities and concerns of young people

Rates of smoking among young people are extremely low. According to the AIHW's 2016 National Drug Strategy Household Survey, the average age at which 14- to 24-year-olds smoked their first full cigarette increased from 15.4 years of age in 2010 to 15.9 years of age in 2013 and to 16.3 in 2016.

The 2014 Australian secondary school students' use of tobacco report by Cancer Council Victoria indicates that:

- smoking among 12- to 15-year-olds is at its lowest level since 1984. Five per cent are current smokers, which is significantly lower than the rate of 7 per cent reported in 2011 and 2008.
- more youth have no experience with smoking in their lifetime: 94 per cent of 12-year-olds and 61 per cent of 17-year-olds
- one in five 16- and 17-year-olds (19.5 per cent and 22.3 per cent) has ever used an e-cigarette. Of students who had used an e-cigarette, 39 per cent did not know whether it contained nicotine or not.
- the Australian Bureau of Statistics (ABS) found that Indigenous youth are two to three times as likely to be daily smokers. In 2002, 51 per cent of Aboriginal and Torres Strait Islander males aged 15 years and over were daily smokers, the daily rate declined to 46 per cent in 2008 and to 41 per cent in 2014–15.
- the ABS found that in 2002, 47 per cent of Aboriginal and Torres Strait Islander females aged 15 years and over were daily smokers; the daily rate declined to 43 per cent in 2008 and to 36 per cent in 2014–15.
- the ABS data indicates that the majority of the change in daily smoking rates has occurred in non-remote areas, with 47 per cent of people aged 15 years and over in remote areas smoking daily in 2014–15 (down from 50 per cent in 2002) compared with 37 per cent in non-remote locations (down from 48 per cent in 2002).

Contributing factors

The decline in young people smoking may be the result of public awareness campaigns, tighter restrictions around smoking in public spaces, greater regulations around legal purchasing age and increased costs of cigarettes. Despite the vast amount of information available about the health consequences of smoking, many young people continue to smoke. This could be because they don't perceive themselves as personally at risk, or may underestimate the risk of conditions caused by smoking relative to other behaviours they undertake or witness. Other influences on smoking behaviour include the number of close friends who smoke and whether parents smoke. Exposure to tobacco advertising and product placements are strongly associated with smoking initiation.

FIGURE 5.8 Tighter restrictions now exist around smoking in public spaces, including the banning of smoking in playgrounds and public transport stations.

5.2.5 Weight issues

FIGURE 5.9 Overweight and obesity are increasing among young Australians.

To maintain a stable weight, young people need an energy (kilojoule) intake that equals their energy use. If they use more energy than they consume they will lose weight. If, on the other hand, they eat more kilojoules than they need for growth and activity they will gain weight.

Being underweight can lead to a weakened immune system and an increased risk of infection and disease. An inability to concentrate at school due to low energy levels can create stress and problems with schoolwork that affect mental and emotional health and wellbeing. Low body weight can also contribute to delayed puberty and the required increases in bone and muscle mass may not be achieved.

Obesity in youth can have lifelong implications and contribute to many leading causes of death among adults, such as cardiovascular disease, some cancers and type 2 diabetes. If the youth carries the extra weight into adulthood, the risk of developing these conditions continues to increase. In the short term, youth can suffer from psychological distress, sleeping problems and low levels of energy. Long-term risks of overweight and obesity include cardiovascular disease, type 2 diabetes, arthritis and some cancers. The increased prevalence of overweight and obesity among youth is due to the combination of changes to food intake and the development of sedentary lifestyles.

In addition to the effects on physical health and wellbeing, early obesity influences social and mental health and wellbeing. Overweight and obese youth are often bullied because of their weight. They may also face negative stereotypes, discrimination and social marginalisation. These social problems contribute to reduced mental health and wellbeing in the form of low self-esteem, low self-confidence and a negative **body image**, and can cause youth to be excluded from competitive activities that require physical activity.

Burden of disease, inequalities and concerns of young people

The statistics show that overweight and obesity has become a major health and wellbeing concern for Australian youth, particularly for those who live outside major cities.

- In 2015, around 2–5 per cent of those aged 12 to 17 were considered to be underweight. Fifty-seven per cent of young people were in the normal weight range, but 22 per cent were classified as overweight and 15 per cent as obese.
- The percentage of overweight and obese children and youth has more than doubled over the past two decades and continues to rise.
- According to the Australian National Preventive Health Agency (ANPHA), compared with non-Indigenous Australians, Indigenous males and females were slightly less likely to be overweight, but 1.6 (males) and 2.2 (females) times as likely to be obese.
- In general, people who live outside major cities are more likely to be above a healthy weight. Much of this difference is due to the higher concentration of people of a lower socioeconomic status and of Aboriginal and Torres Strait Islander ethnicity, as well as a lower concentration of migrants, who as a group weigh less than Australian-born people.
- Three in ten Indigenous and non-Indigenous respondents to the Mission Australia survey indicated they were highly concerned about body image.

Contributing factors

An increase in obesity results from an imbalance between energy intake and expenditure, resulting in positive energy balance. While genetics can play a role in the development of obesity, it is not the cause of the recent increases in early obesity. Contributing factors are poor diet and snack choices, sugary beverages

and increased portion sizes. The increased prevalence of overweight and obesity among youth is also due to the development of sedentary lifestyles, and increased electronic and small screen recreation.

CASE STUDY

One quarter of Australia's teenagers are overweight or obese, new health survey reveals

Health experts have called on schools and parents to take a more proactive role in the long-term health of Australia's teenagers after a new survey found a quarter of the country's adolescents were overweight or obese.

A report by the Cancer Council and National Heart Foundation revealed teens were spending too much time in front of the television, with 58 per cent of students having at least three televisions in their home and 40 per cent with video games in their bedrooms. In addition, more than three-quarters of teenagers were spending more than two hours in front of computers, laptops, tablets, video games and televisions every school day.

Chair of the Cancer Council's Public Health Committee Craig Sinclair said there was a marginal improvement in their physical activity levels, but any modest benefits were undone by the increased screen time. 'That's increased from 71 per cent in 2010 to 77 per cent in 2013,' Mr Sinclair said. 'The vast majority of adolescents, you know, 82 per cent, are not engaging in more than 60 minutes of physical activity per day as is what is recommended. As a parent myself I know the challenges of managing electronic devices in the home and it's not easy.'

He said schools needed to encourage physical activity while local and state governments needed to ensure adequate recreational facilities for teenagers such as cycle tracks or skate parks. 'Already, a quarter of male secondary students are overweight or obese, for female students, a fifth fall into this group,' he said. 'And as they carry this extra weight into adult life, their risk of chronic diseases and cancer increases. We certainly have very strong evidence of a direct link between obesity and a range of cancers, particularly breast cancer in post-menopausal women, bowel cancer and kidney cancer. So it is critically important that we minimise the risk of future adult Australians from getting to the point where they are managing excessive weight.'

However, finding a way to get teenagers to look 30 years into the future and consider a health condition they might develop is not an easy task, Mr Sinclair said. 'What we can do and what the evidence is clearly showing is that if we create environments where it's easy for teenagers to be active then they are very likely to be engaged in that activity and we've certainly seen that in other health areas. If you look at tobacco control in particular, there is a decreasing prevalence of smoking in this population and that's largely because of not telling them not to smoke — we don't advertise to them directly, but more importantly because we've created environments where it is not conducive for them wanting to smoke,' he said.

Jo Salmon from Deakin University's Centre for Physical Activity and Nutrition Research said Australia needed a physical activity strategy. 'They could be walking and cycling to school more, we could have much more activity at the school, on weekends and even standing strategies in classrooms is something that we're looking at in our research at the moment,' Ms Salmon said. 'We're looking at strategies in schools to get adolescents to stand up and engage in more active curriculum throughout the day. It helps them not only to increase their energy expenditure but also to focus and pay attention in class. There is a suggestion urban planning could also play a huge role. Parents are concerned about safety and traffic safety so we need to build streets that support adolescents cycling safely to school,' she said.

Source: Brown, R 2015, 'One quarter of Australia's teenagers are overweight or obese, new health survey reveals' *ABC Online*, 19 Feb.

Case study review

1. Describe the **risk factors** for obesity that are mentioned in the article.
2. Describe the **protective factors** for obesity that are mentioned.
3. Why is reducing youth obesity important?
4. What strategies to reduce obesity have been proposed in the article?

5.2.6 Sexual health

Sexual health is not only about sexually transmitted infections but also about sexual relationships, safety and respect. Youth is often a time of sexual exploration, and this can have both short- and long-term effects on the health and wellbeing of young people.

If youth participate in unsafe sex, they may expose themselves to a range of sexually transmissible infections (STIs). STIs pass from one person to another through sexual contact. This includes oral, genital and anal sex. Many STIs, such as chlamydia and syphilis, can have short- and long-term effects on health and wellbeing if not treated. These include infections and chronic pain in the cervix, pelvis and uterus.

For males, STIs can affect the testes, urethra and prostate. Treatment is often not sought, as the condition may not have obvious symptoms. Other STIs, such as herpes and human immunodeficiency virus (HIV), are incurable and can affect the individual's health and wellbeing for the rest of their life.

According to the World Health Organization (WHO), sexual health requires a positive and respectful approach to sexuality and sexual relationships, as well as the possibility of safe sexual experiences, free of coercion, discrimination and violence. The sexual rights of all young people must be respected and protected. Cyberbullying or sexting involves the use of technology or social media to harass, intimidate or threaten someone. Respectful relationships do not involve someone forcing or pressuring a young person to engage in sexual activity, including posing for sexually explicit photos.

Burden of disease, inequalities and concerns of young people

As the data shows, the rate of certain STIs has increased since 2005, but the rate of teenage births has decreased since 2004. Whether a young person contracts an STI often depends on where they live.

- In 2014, there were more than 50 000 notifications of chlamydia, gonorrhoea and syphilis, a rate of 1812 per 100 000. Rates have increased since 2005 when 1040 per 100 000 notifications were reported.
- There were 13 births per 100 000 births to teenage mothers in 2014, which has decreased from 16 births per 100 000 in 2004.
- In 2015 the *Australian Annual Surveillance Report* found there were an estimated 260 000 new cases of chlamydia cases in 15- to 29-year-olds.
- Higher rates of STIs are recorded in remote areas where 81 per cent of reported cases are 15- to 24-year-olds.
- Aboriginal and Torres Strait Islander young people are ten times as likely to have notifications for sexually transmissible infections and six times as likely for hepatitis.
- Aboriginal and Torres Strait Islander young people are six times as likely to be teenage mothers.
- In an Australian Research Centre in Sex, Health and Society survey of year 10, 11 and 12 students who were sexually active, 28 per cent of young women and 20 per cent of young men reported having had sex at some time when they did not want to. Of these, 49 per cent gave being too drunk as a reason, more than 50 per cent reported being influenced by their partners, and nearly 30 per cent reported being frightened.
- The fifth National Survey of Australian Secondary Students and Sexual Health, conducted by LaTrobe University, found that 54 per cent of surveyed students reported receiving a sexually explicit text message and 26 per cent reported sending a sexually explicit photo of themselves.

Contributing factors

According to the AIHW, youth may be at an increased risk of STIs due to a lack knowledge, inconsistency with condom use, and lack of communication and negotiation skills, which can make using condoms difficult. As many young people have not decided on a long-term partner, there is potential for STIs to spread at high rates in this age group.

The prevention of STIs is important to promote the health and wellbeing of youth in Australia. Avoiding sexual contact is the safest way to prevent contracting an STI. Studies by the AIHW have found that for those who are sexually active, using a condom during sexual contact can reduce the risk of contracting an STI. In 2013, 43 per cent of sexually active young people (in years 10–12) reported 'always' using condoms when they

FIGURE 5.10 Using a condom during sexual contact can reduce the risk of contracting an STI; however, there are barriers to young people accessing them.

had sex in the previous year. A further 39 per cent used condoms only 'sometimes' and 13 per cent 'never' used condoms.

In rural areas, access to condoms is reduced for reasons such as supermarkets not stocking condoms or keeping them under the counter, very limited availability of free condoms, and a reluctance to install or maintain condom vending machines due to vandalism. Many young people use condoms and/or contraception inconsistently. Rural young people's risk of infection is therefore higher than average.

Rural youth face particular barriers to getting help with sexual health concerns, including physical isolation, lack of public transport, lack of specialised services, fears about confidentiality and, sometimes, conservative local attitudes. However, the National Survey of Australian Secondary Students and Sexual Health found that the internet can give youth access to reliable and confidential information in areas where questions may be too hard to ask. Results indicate that the use of social media is almost universal and plays a large role in the negotiation and development of sexual relationships. This may involve sending explicit messages and images, most of which appear to occur within relationships.

5.2.7 Stress

Stress is a response to pressure or a threat. Under stress a person may feel tense, nervous, or on edge. The stress response is a physical one: a surge of a hormone called adrenaline temporarily affects the nervous system. Stress is characterised by feelings of tension, frustration, worry, sadness and withdrawal that is of short duration. The body uses energy to cope during frequent bouts of stress. Although the link is still unclear, and research is ongoing, there is evidence to suggest that stress may contribute to poor physical health and wellbeing, such as cardiovascular disease, high blood pressure, increased risk of infection and chronic fatigue. Extended periods of stress can lead to more serious psychological disorders such as depression and anxiety. Depression is both more severe and longer lasting. Depression is characterised by more extreme feelings of hopelessness, sadness, isolation, worry, withdrawal and worthlessness that last for a prolonged period and interfere with normal activities.

Burden of disease, inequalities and concerns of young people

The data below shows that anxiety was the most common mental disorder among young people. The data also shows that stress caused by schoolwork is rated highly among survey respondents.

- Fourteen per cent of young people aged 12–17 had a mental disorder in the last 12 months — anxiety was most common (7 per cent), followed by Attention Deficit Hyperactivity Disorder (6.3 per cent) and major depressive disorders (5 per cent).
- One in four young people are living with a mental disorder and 9 per cent of young people (aged 16–24 years old) experience high to very high levels of psychological distress.
- Around four in ten respondents to the same survey indicated that they were either extremely concerned or very concerned about coping with stress and school or study problems.
- One third of Aboriginal and Torres Strait Islander young people have reported high levels of psychological distress; more than twice the rate of young non-Aboriginal or Torres Strait Islander people.

Contributing factors

Growing up and finding a balance between independence and reliance on others can create stress and lead to serious depression for young people who are ill-equipped to cope, communicate and solve problems. Primary sources of stress for youth include relationships with friends and family; schoolwork, such as homework and assessment; expectations from others such as teachers and sports coaches; and problems in the lives of family and friends.

Feeling pressured or stressed by schoolwork may influence health and wellbeing and health behaviours. Stressed students can engage in more health-compromising behaviours such as smoking and drinking alcohol. They can also have more frequent health concerns such as headache and abdominal pain, and experience psychological problems such as feeling sad, tense and nervous.

Heavy use of social media can also create stress. The results of the Australian Psychological Society Stress and Wellbeing in Australia Survey 2015 indicate that adults spent on average 2.1 hours per day connected to social media while young Australians spent an average of 2.7 hours per day. Fifty-six per cent of Australian youth are heavy social media users, with 25 per cent reporting being connected to social media constantly.

The youth surveyed indicated that stress arose when they went on holidays or missed a social opportunity and didn't know what their friends were doing. Recent research has shown that using social networking sites can increase stress levels, produce anxiety and negatively affect a person's sense of self.

FIGURE 5.11 When young people use social media unhelpful thoughts may arise through unrealistic comparisons, adding to the stress many young people feel.

Creating a profile allows a person to decide exactly what image to present to others. Social media provides constant updates, which motivates many young people to continually check their status on mobile devices. Despite these negative impacts social media can help psychologists monitor the mental health and wellbeing of patients; help to spread awareness about issues including mental disorders; and connect people with one another.

5.2.8 Discrimination

Discrimination is when a person or group of people is treated differently based on one of their characteristics such as their sex, culture or sexual preference. Ethnic and race-based discrimination, for example, refers to discrimination based on perceived 'racial' differences, culture, religion or language.

Discrimination can have potentially negative impacts on mental health and wellbeing, such as creating stress and fear, and on physical health and wellbeing through the effects of stress on the immune, endocrine and cardiovascular systems. Affected individuals may attempt to manage their stress by engaging in behaviours that are damaging to health and wellbeing, such as smoking and alcohol or illicit drug use. Discrimination may result in violence, which is associated with poor physical and mental health and wellbeing. Discrimination can, in turn, lead to social isolation and exclusion. Young people who feel that they are being treated unfairly may have their trust in others undermined; and hence experience a reduced capacity to form the **social connections** that are important for good mental health and wellbeing.

Burden of disease, inequalities and concerns of young people

The statistics show that discrimination is a major issue for young people in Australia, particularly among Indigenous Australians.

- According to Mission Australia, in 2016 almost a third of young people experienced unfair treatment or discrimination based on their race.
- Just over one quarter (26.6 per cent) of young people indicated that they had experienced unfair treatment or discrimination while around twice as many (50.6 per cent) indicated that they had witnessed unfair treatment or discrimination.
- Around one quarter of Aboriginal and Torres Strait Islander and non-Aboriginal or Torres Strait Islander young people identified equity and discrimination as an important issue.

- Aboriginal and Torres Strait Islander young people were almost twice as likely to report having experienced racial discrimination than their non-Indigenous peers.
- For non-Aboriginal or Torres Strait Islander young people the leading causes of discrimination were gender (39.1 per cent) and race/cultural background (30.8 per cent), with almost half of females who reported discrimination indicating that this was on the basis of gender.
- Aboriginal and Torres Strait Islander young people were almost twice as likely to report having experienced discrimination on the basis of race or cultural background compared with non-Aboriginal or Torres Strait Islander young people (54.7 per cent compared to 28.3 per cent). These respondents were also more likely to experience unfair treatment or discrimination on the basis of mental health and wellbeing, age, physical health and wellbeing or ability, sexuality, religion and other reasons than their non-Aboriginal or Torres Strait Islander peers.
- One of the top three issues identified in 2016 was equity and discrimination (28.7 per cent).
- Female students are more likely than males to have decreased health and wellbeing as a result of racism.
- **LGBTIQ** young people report experiencing verbal homophobic abuse (61 per cent), physical homophobic abuse (18 per cent) and other types of homophobia (9 per cent), including cyberbullying, graffiti, social exclusion and humiliation.

Contributing factors

Nationally, the top three reasons indicated by young people for their reported experience of unfair treatment or discrimination were gender (39.1 per cent), race/cultural background (30.8 per cent) and age (22.1 per cent). More than twice the proportion of female than male respondents reported that gender was a reason they had experienced unfair treatment or discrimination (48.4 per cent compared with 19.5 per cent).

A much greater proportion of male than female respondents reported that race/cultural background was a reason for the unfair treatment or discrimination they had experienced (40.7 per cent compared with 25.1 per cent). The Foundation for Young Australians reports that a 2014 survey of social cohesion found that 20 per cent of young people aged 18 to 24 reported discrimination because of their 'skin colour, ethnic origin or religion'. They reported that the most frequent impact of discrimination was anger and frustration and a sense of not belonging to their local community.

FIGURE 5.12 Discrimination based on religion, culture, race or language can produce negative emotions such as stress and fear.

Whether they are born in Australia or overseas, young people from different ethnic backgrounds can feel caught between two sets of cultural standards and values. Parents may feel that to adopt Australian values and customs would risk losing their traditional culture. They therefore may use strict discipline with their children to address the permissiveness they perceive in Australian society.

A Kids Helpline survey revealed that feeling restricted in choice of friends, dating and socialising were major sources of family conflict identified by young people from non-English speaking backgrounds. Social isolation can be a problem for young people from non-English speaking backgrounds, as making and maintaining friendships can be difficult due to language and cultural differences and because of bullying. Poorer outcomes for young people from diverse backgrounds include increased risk of suicide, risk-taking behaviours, increased vulnerability to drug or alcohol problems, anxiety, depression and poor self-esteem.

Another issue that may affect the mental health and wellbeing of many Australians is racism. Racism places less value on an individual's identity and sense of self, which can lower their self-esteem and confidence. Racist behaviour may result in people withdrawing from social contact or being afraid of going to school or work. It may increase the risk of mental disorders such as depression, anxiety and substance use.

5.2 Activities

Test your knowledge

1. (a) What is meant by 'health inequalities'?
   (b) What is meant by 'social inequalities'?
2. What reasons do DARTA give for youth today being more at risk?
3. (a) Use a concept map or table to identify major health inequalities relating to youth health and wellbeing.
   (b) For each health inequality, add a dot point list of contributing factors.
4. Explain what is meant by the statement 'The youth stage of the lifespan has specific relationships with both the type and rate of injuries experienced'.
5. Explain how youth can be affected by multiple health inequalities.
6. Explain why discrimination and stress in young Australians are priority areas for action.

Apply your knowledge

7. Explain how a school could be either a risk or a protective factor for the health and wellbeing of young Australians.
8. Create a podcast, Padlet wall or visual presentation to create awareness of the health inequalities faced by youth.
9. Create an infographic on the causes and impacts of injury in youth.
10. Using topic 2 as a reference, identify the health indicators that would be affected by each of the areas of youth health and wellbeing that require action.
11. Access the **Mission Australia Youth Survey** weblink and worksheet in the Resources tab in your eBookPlus then complete the worksheet.
12. Access the **Kids Helpline** weblink in the Resources tab in your eBookPLUS to research and create a presentation on the contributing factors that affect Indigenous youth health and wellbeing.
13. Use an online polling tool to investigate the concerns of a small group of your peers and the contributing factors.

eBookplus RESOURCES

Explore more with this weblink: Kids Helpline

Explore more with this weblink: Mission Australia Youth Survey

Complete this digital doc: Mission Australia Youth Survey worksheet
Searchlight ID: doc-22630

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Aspects requiring health action Summary screens and practice questions

5.3 Government and non-government programs relating to youth health and wellbeing

KEY CONCEPT Programs to improve youth health and wellbeing

Health and wellbeing is dynamic and can vary according to where we learn or work, live and play. Health and wellbeing is created when we have the opportunity to make health-promoting choices, to have control over our life circumstances and to be connected to a society in which conditions support health and wellbeing. Social inequalities can exist for youth through variations in socioeconomic status, the quality of family relationships or access to education. Provision of culturally safe education as well as health services that are confidential, affordable and free of racism and other forms of discrimination will ensure positive youth health and wellbeing outcomes.

5.3.1 Federal government

If young people are to make health-promoting choices, and have control of their health and wellbeing, they need to be aware of risks, be motivated to change, and have access to information and support. Government and non-government agencies provide resources and programs to assist youth in taking **health action**. Topic 10 outlines in detail the Australian health services, such as doctors, specialists and hospitals, that the federal government provides to young Australians. The federal government also funds national youth health promotion strategies, which are outlined below.

Drugs and alcohol

In 2008, the Australian government commenced a $53.5 million National Binge Drinking Strategy to address the high levels of binge drinking among young Australians. The campaign included a hard-hitting campaign that ran over two years to confront young people about the costs and consequences of binge drinking. The campaign's primary target audience was young people aged 15–25 years. The secondary target audience was parents of 13- to 17-year-olds, because young people often look to their parents to provide guidance and set boundaries of acceptable behaviour in relation to alcohol. The campaign tagline 'Don't turn a night out into a nightmare' encouraged teenagers and young adults to think about the choices they make about drinking, and the possible negative consequences of excessive consumption. A National Alcohol Strategy for 2016–2021 is currently being developed. The draft National Drug Strategy 2016–2025 describes a nationally agreed approach to reducing the harm arising from alcohol, tobacco and other drug use.

The government committed $19 million over four years to the Australian Drug Foundation to continue the Good Sports Programme that aims to change behaviour and attitudes relating to alcohol consumption through partnerships with more than 6500 sporting clubs. Good Sports works with sporting clubs across the country, teaching club leaders and administrators how to structure their club activities to encourage healthier behaviour and

FIGURE 5.13 Federal government funding is supporting the Coward Punch campaign to reduce alcohol-related violence.

create a positive club culture as well as plans to reduce and prevent underage and problem drinking. Good Sports works with junior clubs to influence behaviours within the club environment and decrease the visibility of alcohol at junior sport.

Coward punch

In 2016, the Australian government committed to increase awareness about the dangers of harmful drinking, including risks to health and wellbeing such as increased violence. They contributed funding that went towards the production of two television advertisements featuring the former boxing champion Danny Green. The campaign raises awareness of the serious consequences that a single act of alcohol-related violence can have for both the victim and the attacker.

Mental health and wellbeing

The federal government funds headspace, the National Youth Mental Health Foundation, which provides early intervention mental health and wellbeing services to 12- to 25-year-olds, along with assistance in promoting young people's health and wellbeing. headspace was developed as a health and wellbeing one-stop shop that offers support for mental and general health and wellbeing, drug and alcohol services, as well as work and study support. Information and services for young people, their families and friends as well as health professionals can be accessed through the headspace website and headspace centres.

FIGURE 5.14 headspace was developed as a health and wellbeing one-stop shop.

Source: © headspace National Youth Mental Health Foundation Ltd.

CASE STUDY

Knowing when to draw the line

The Line is a primary prevention behaviour change campaign for young people aged 12 to 20 years. The Line encourages healthy and respectful relationships by challenging and changing attitudes and behaviours that support violence. The Line is an initiative under the National Plan to Reduce Violence against Women and their Children 2010–2022 and is funded by the Australian government's Department of Social Services. It is delivered by Our Watch.

The research that informed the development of The Line revealed that young people are struggling to work out what healthy, respectful relationships look like.

- One in three young people don't think that exerting control over someone else is a form of violence.
- One in four young people don't think it's serious when guys insult or verbally harass girls in the street.
- One in four young people think it's pretty normal for guys to pressure girls into sex.
- Fifteen per cent of young people think it's ok for a guy to pressure a girl for sex if they're both drunk.
- One in four young people don't think it's serious if a guy, who's normally gentle, sometimes slaps his girlfriend when he's drunk and they're arguing.
- More than one quarter of young people think it's important for men to be tough and strong.
- Sixteen per cent of young people think that women should know their place.

Gender stereotypes appear to be having a significant negative impact on young people's expectations and behaviours when it comes to intimate relationships. Parents aren't talking to their children about the issues, it's not being adequately covered in the education system, and community leaders are not addressing it. As a result, young people are left in a vacuum and require information and guidance from parents and teachers. In the absence of other sources of information, social media is playing a central role in young people's relationships; actions are being played out publicly, and previously unacceptable behaviours offline become easier to do online. This is giving young people even less opportunity to learn to understand and negotiate

respectful, healthy and equal relationships. Young people are left to figure it all out for themselves from other sources: their friends, their 'heroes', the media's portrayal of women, pornography, and porn-inspired popular culture.

Encouragingly, the research reveals that young people universally agree that behaviours that make a girl or woman feel frightened, diminished or intimidated 'cross the line' and are unacceptable. However, the research shows there is a group of young men who are more likely to justify and potentially perpetrate violence against girls and women in the future. Through online articles, resources and a social media campaign The Line will challenge rigid gender roles, gender inequality, and sexism and encourage young people to break the cycle of violence.

Source: Adapted from Grant, H 2015, 'New research shows need to challenge violence supportive attitudes among youth', *Our Watch*.

Case study review

1. Describe the contributing factors for the development of The Line.
2. What is meant by 'primary prevention behaviour change'?
3. What behaviours need to change if youth health and wellbeing is to improve?
4. What methods does The Line use to address the contributing factors you listed?

5.3.2 Victorian government

The state and territory governments in Australia have primary responsibility for public hospitals and community and public health, ambulance, public dental services and mental health and wellbeing programs.

Safer P-Platers

The Transport Accident Commission's (TAC) 'Safer P-Platers' campaign is designed to inform parents of the unique risks young drivers face and provide them with a range of strategies to improve their children's safety. The website includes sections on night driving, drink driving, peer pressure and bad weather that cover an explanation of the risk and suggestions about how parents can support young drivers. The program also offers mobile apps, including the Road Mode app, which prevents young drivers from being distracted by a mobile phone while driving. Road Mode silences incoming calls and text messages. Those calling or texting will receive an automated text to let them know the person is driving and can't answer.

FIGURE 5.15 Young drivers are 30 times more likely to crash when they first start driving because they are inexperienced and are more likely to take risks on the road.

Doctors in Schools

Most recently, the Victorian government began the Doctors in Secondary Schools initiative. Funding will allow general practitioners (GPs) to attend up to 100 Victorian government secondary schools up to one day a week to provide medical advice and healthcare to those students most in need.

The objectives of the program are:

- to make primary healthcare more accessible
- to provide assistance to young people to identify and address any issues or concerns early.

The participating Victorian government secondary schools, students and their parents, guardians or carers will not incur any out-of-pocket expenses for consultations undertaken by Doctors in Schools.

Youth Central

Youth Central provides articles and information on topics such as health and wellbeing, alcohol, smoking, drugs and sexual relationships. It also has links to ways to get involved and active in the community, or to develop new skills and make new friends.

FIGURE 5.16 Youth Central is the Victorian government's website for young people aged 12–25.

Victorian youth can interact with Youth Central by:

- publishing articles, interviews, videos and podcasts
- commenting on or sharing posts from Facebook or checking out their YouTube channel
- retweeting or replying to their tweets or sending them an email with suggestions
- entering one of their competitions.

WayOut

WayOut is a state-wide suicide prevention program that targets same-sex attracted, bisexual and transgender young people in rural Victoria. It aims to raise awareness about the needs of same-sex attracted and gender diverse young people and the nature and effects of discrimination in regional, remote and rural communities. WayOut is funded by the Victorian government Department of Health to support young individuals, their families and friends. It provides information sessions for teachers, healthcare professionals, youth services and community organisations that work with young people. It also provides Youth Mental Health First Aid Training in partnership with Live4Life — a mental health and wellbeing initiative in secondary schools across the Macedon Ranges Shire.

FIGURE 5.17 WayOut is a state-wide suicide prevention program.

eBookplus RESOURCES

Explore more with this weblink: TAC young drivers

Complete this digital doc: TAC young drivers worksheet
Searchlight ID: doc-22835

5.3.3 Local government

Local government activities can have a primary impact on young people through urban planning, public spaces, parks and gardens, human services, libraries and infrastructure. With its proximity to local youth, local government could be a potentially powerful advocate on youth issues to state and federal governments. This could involve leading debates and engaging people in shared decisions about both local and global issues. One example of local government responding to issues in youth health and wellbeing is the Live4Life programs.

Live4Life

The Live4Life initiative was developed in 2009 as a community-wide response to a reported increase in depression, anxiety, self-harm and suicide in the Macedon Ranges Shire, particularly in 13- to 14-year-olds. The initiative adopts a whole-of-community approach to increase knowledge, reduce stigma and improve mental

health and wellbeing service pathways appropriate for youth. Live4Life involves training local community members to become Accredited Youth and Teen Mental Health First Aid (MHFA) Instructors to deliver the Youth MHFA course to teachers, parents, carers, first-responders and community leaders. There is also the delivery of two age-appropriate Teen MHFA courses to all year 8 and year 11 students in the local areas.

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Government programs Summary screens and practice questions

5.3.4 Non-government organisations

Rethink Sugary Drinks

Rethink Sugary Drinks is a partnership between 13 health and community organisations, including the Australian Dental Association, the Cancer Council, Diabetes Australia and Nutrition Australia, that are concerned about the amount of sugar in soft drinks and sugary drink overconsumption. They are concerned because the consumption of sugar-sweetened beverages, such as soft drink and sports drinks, is associated with increased energy intake. This can create weight gain and obesity if physical activity levels are low. By highlighting the amount of sugar in sweetened beverages the program is hoping to encourage Australians to rethink their sugary drink consumption and switch to either water, reduced-fat milk or unsweetened options.

DrinkWise

Established by the alcohol industry, DrinkWise Australia is an independent, not-for-profit organisation. The primary focus is to help bring about a healthier and safer drinking culture in Australia. The initiative includes a website with an interactive tool that demonstrates the impact of alcohol on the body of a young person. It also includes fact sheets and videos on first alcohol experiences.

FIGURE 5.18 DrinkWise was designed to address youth binge drinking.

Youthbeyondblue

Youthbeyondblue aims to empower young people aged 12–25, their friends and those who care for them to respond to anxiety and depression. Youthbeyondblue supports and promote environments and settings that build on the strengths of young people. It is an arm of the beyondblue organisation that commits to work across the lifespan — supporting those who are well to stay well, while assisting those who have depression and anxiety to recover and manage their condition.

Resources promoted by Youthbeyondblue include fact sheets on anxiety, low self-esteem, body image, depression, bullying and family breakup. They also offer a chat line, personal stories and an online forum. Social connection with other people supports good mental health and wellbeing and makes us more resilient to life's challenges.

FIGURE 5.19 Youthbeyondblue has resources to help reduce tension from stress and school pressure and an app to check in on friends.

Butterfly Foundation

The Butterfly Foundation is an independent, not-for-profit organisation that operates a National Eating Disorders Support Helpline offering support over the phone, via email and online. The helpline is staffed by trained counsellors experienced in assisting with eating disorders.

Claire Vickery founded the program when her daughters were diagnosed with an eating disorder. She felt that no one wanted to talk about it, the stigma was outrageous and the treatment was old-fashioned and ineffective. She felt that others in the community in the same position couldn't find where to seek help, and yet there was a high mortality rate associated with the condition.

The Butterfly Foundation delivers a range of positive body image workshops to schools and workplaces through its education program because it recognises that eating disorders often arise from poor body image. It has a strong media presence to raise awareness of the Butterfly Foundation's perspective in community debates about body image.

5.3 Activities

Test your knowledge

1. What conditions are required for health action to occur?
2. (a) What is headspace?
   (b) How could headspace promote health and wellbeing in young Australians?
3. What advantages does the Doctors in Schools program offer for improving the health and wellbeing of young people?
4. (a) Why are local governments well placed to improve youth health and wellbeing?
   (b) How could WayOut address health inequalities that affect youth?
   (c) What data in this topic would justify the WayOut program?
5. How could the DrinkWise program have an impact on youth health inequalities?

Apply your knowledge

6. Use the **Youth Central** weblink in the Resources tab in your eBookPlus to investigate how effective it is in addressing youth health inequalities.
7. With a partner, trial the Smiling Mind or Check In apps and write an evaluation of their likely effectiveness in improving youth health and wellbeing.
8. Debate the decision of the Victorian government to introduce the Doctors in Schools program.
9. (a) Research a government or non-government strategy that addresses a health inequality for youth.
   (b) Produce a summary on the strategy and include the following information:
      (i) Name of the organisation/level of government
      (ii) Aims/goals of the organisation/strategy
      (iii) A description of how they attempt to achieve their goals.

eBookplus RESOURCES

Explore more with this weblink: Youth Central

Complete this digital doc: Youth Central worksheet
Searchlight ID doc: doc-22836

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Non-government programs Summary screens and practice questions

5.4 Community values and expectations that influence the development and implementation of programs for youth

KEY CONCEPT Understanding community values and expectations

The Australian Medical Association states that the provision of services promoting the health and wellbeing of children and young people is an investment, not a cost. This is because the health and wellbeing of young people shapes the future health and wellbeing of adults. Promoting optimal youth health and wellbeing, or at least tackling health and wellbeing issues in the youth stage, is socially and economically more effective than dealing with chronic problems in adulthood. To achieve this, the community expects that programs will be developed that allow youth to take action in a variety of settings based on trustworthy information and resources.

FIGURE 5.20 Promoting the health and wellbeing of children and youth is an investment, not a cost.

5.4.1 Community values and expectations

When young people experience good health and wellbeing they are more likely to achieve better educational outcomes, make a successful transition to full-time work, develop healthy adult lifestyles, experience fewer challenges forming families and parenting their own children, and be more actively engaged in their community. As adults of the future, children and youth are an essential part of our communities. Other members of the community, such as parents, grandparents, business owners and government representatives therefore all have a stake in youth health and wellbeing.

Youth health promotion programs

The values people have can be seen in the choices they make and the expectations they have about their daily lives, government and society. Community values about youth health and wellbeing can been seen in its expectations about youth health promotion programs, including the following:

- Programs should be developed and delivered to provide resources and information according to youth needs; they should be **effective**.
- Programs should put young people at the centre of the service or program and enable control over and improvements to health and wellbeing. They should also advocate for positive outcomes; they should be **strength-based**.
- Programs should be non-judgemental and discreet, which is critical to ensuring a feeling of security and being cared for is created; they should be **respectful** and **confidential**.

- Programs should be accessible without discrimination on the basis of country of birth, cultural heritage, language, gender, religious belief, age or socioeconomic, educational or family background; they should be **accessible**.

The community expects that health programs will enhance the capability of young people to take control of their lives and improve their health and wellbeing through the provision of environments that develop health literacy, empowerment and promote protective factors. It is common for the community to call for a health concern to be included in the school curriculum. Reducing the incidence of childhood obesity, implementing first aid courses, sex education, driver education and preventing youth pregnancy have all been included or suggested as mandatory parts of the national school curriculum.

Including programs into the school curriculum improves health literacy. Health promotion programs also improve health literacy. This assists young people to develop and maintain healthy attitudes, lifestyles and behaviours. These programs are developed to support young people to:

- develop good relationships with their family, their peers and the community
- forge their own identity and to make their own decisions
- adopt healthy lifestyles
- learn how to seek help
- identify and manage risks to their health and wellbeing.

The use of health programs can also be affected by the values and expectations that young people have about their delivery. Many young people suffering from health conditions do not seek or receive help. Barriers can exist for youth which limit their opportunities to access appropriate resources, know and exercise their rights, and fully participate in decisions about their health and wellbeing. Barriers include stigma and embarrassment, poor health literacy, desire for self-management, issues with confidentiality and trust, feelings of hopelessness or previous negative experiences when seeking help. Investing in an understanding of youth health and wellbeing will allow for better targeted programs to achieve change in the health status of young people. For example, using condoms and lubricant consistently and correctly significantly reduces the transmission of chlamydia; however, 24-hour access to condoms for young people is unreliable. In rural areas, issues of privacy, lack of service provider choice, transport and cost are extra barriers that prevent rural young people from accessing condoms.

CASE STUDY

Taking action on youth sexual health

Baw Baw Shire Council is seeking community feedback on a proposal to install condom vending machines under a joint pilot project with Gippsland Women's Health. Funded by the Department of Health and Human Services, the project proposes to install six condom vending machines within public toilets across Baw Baw Shire for a trial period of 12 months.

Mayor of Baw Baw Shire Councillor Joe Gauci said Council is seeking feedback from the community on the proposed project, and is particularly interested in finding out the views of young people in the Shire. 'This could be a positive way for Council and its health partners to address identified sexual and reproductive health concerns in Baw Baw. But, we want to know if the community thinks this is a project Council should take on and if it's something the community is on board with,' said the Mayor. 'The rates of sexually transmitted infections and teenage pregnancies in Gippsland are higher than the Victorian average, particularly in young people aged between 15–19 years. 'It is expected that this pilot would help improve the state of sexual and reproductive health in Baw Baw, especially in young people; reducing the spread of sexually transmitted illnesses (STIs) and the number of unplanned and teenage pregnancies.'

Studies have shown that there are a number of major barriers to accessing to condoms in rural areas such as Baw Baw Shire, including limited public transport; low density and limited operating hours of retail outlets; lower access to health services and particularly the stigma associated with purchasing condoms where 'everyone knows everyone'. The Mayor explained that it is anticipated the pilot would see the machines installed in the accessible toilet cubicles of public toilets and provide packets of two condoms at a cost of $2.00 per packet. 'We are keen to get community feedback on the proposal, and to find out if the community agrees with the suggested locations or if there are any other locations that people think would be easily accessible,' said the

Mayor. 'Young people in Baw Baw Shire have expressed that this project would allow them to access condoms in a more affordable and less embarrassing way.'

Source: Baw Baw Shire Council, 2016, 'Council seeks comment on proposed condom vending machines pilot project', 7 June, www.bawbawshire.vic.gov.au.

Case study review

1. What are the factors that prompted the proposal of this program?
2. Why is Baw Baw shire seeking feedback from the community?
3. What are the barriers to youth health and wellbeing they hope to address?
4. Why might this program create debate among some members of the community?

Community concerns

Sometimes there is reluctance in the community to fund programs related to sexual health or harm minimisation in relation to drug use because of the fear that it is seen as approving of and promoting this type of behaviour. The principle of harm minimisation acknowledges that some people will use alcohol and other drugs. Harm minimisation policies aim to prevent or reduce drug-related harms. The three aspects used when addressing alcohol and other drug use are reducing the supply of drugs, reducing the demand for drugs and reducing the harm from drugs. An example of a harm-minimisation strategy that has generated community debate involves harm reduction from recreational drug use through drug checking (pill testing) in clubs and at music festivals. Other approaches that generate community debate include safe injecting rooms, condom vending machines and general approaches to promoting health and wellbeing, such as a sugar tax on soft drinks.

5.4 Activities

Test your knowledge

1. Why is it important to invest in youth health and wellbeing?
2. Select one expectation that the community has of health program delivery for youth and identify one value that it upholds.
3. (a) What barriers can young people face when trying to access health services?
   (b) How do they reflect youth values?
4. (a) What is meant by 'health literacy'?
   (b) Select one action that health literacy programs support and explain how it would improve youth health and wellbeing.

Apply your knowledge

5. A youth centre planned a sexual health campaign to coincide with Valentine's Day. The local sexual health team were able to support the event by handing out free condoms, chlamydia-testing kits and sexual health information. How would this enable youth to take action to improve their health and wellbeing?
6. As a class, create a selection of anti-drinking television commercials and vote for your favourites, including the one most likely to prevent you from drinking or encourage you to stop.
7. (a) Select one area of youth health and wellbeing that requires action.
   (b) Choose one strategy from the list below:
   - helping schools to set up peer-support programs
   - providing information stalls in shopping centres to inform young people about health problems and how they can take action to reduce risks to their health and wellbeing
   - introducing programs in community settings such as sporting clubs
   - asking young people to design a campaign to promote a protective behaviour.

   (c) Describe how the chosen strategy could meet the expectations of the community and young Australians.

5.5 Topic 5 review

5.5.1 Key skills

KEY CONCEPT Use research and data to identify social inequalities and priority areas for action and improvement in youth health and wellbeing

This key skill requires an understanding of the concepts of social inequality and health inequality and how they relate to youth. For example, you need to be able to identify and discuss areas of youth health inequality that arise from differences in sociocultural factors, such as distribution of resources or opportunities, ethnicity or location. Additionally, you need to be able to identify and discuss areas of concern that arise from risk-taking or non-health promoting behaviours common among youth.

This key skill also requires the ability to use information presented (e.g. in the form of tables, graphs or case studies) and combine it with your existing knowledge about health and wellbeing in order to draw conclusions about issues facing Australia's youth. Whenever you are using data take the time to understand the information presented. If it is presented in graphical form, follow the steps presented in the skills section at the end of topic 2. If it is in written form, always re-read the information carefully. It is easy to miss key information on a first reading.

In the following example, data on risk and protective factors linked to body weight, such as activity and food intake patterns, are analysed and conclusions are drawn about why they are priority areas for action and improvement.

According to *Australia's Health 2016*:

- Twenty-three per cent of students are overweight or obese.
- There is a significantly higher rate in low SES areas.
- Seventy-seven per cent of students spent two hours or more using electronic media on a school day.
- Eighty-nine per cent of students spent two hours or more using electronic media on the weekend, and don't engage in sufficient activity to provide a health and wellbeing benefit.
- Eighteen per cent of students did 60 minutes of physical activity per day.
- Seventy-six per cent of students did not meet the daily recommended intake of four vegetable servings daily.
- Fifty-nine per cent of students did not meet the daily recommended intake of three servings of fruit daily.
- Almost one third of students drink four or more cups of soft drink, cordial or sports drink a week
- Fifty-five per cent of students tried a new food or drink product in the past month that they had seen advertised.

The data indicates that body weight is an issue for 23 per cent of young Australians.[1] The rates of overweight and obesity are higher in youth in low SES areas.[2] Overweight or obesity indicates that an individual consumes more kilojoules than they need for growth and activity. The excess energy is stored as body fat, which causes an increase in weight. Over time this can result in overweight.[3]

Risk factors for overweight and obesity are low levels of physical activity, which could be caused by the percentage of students (77 per cent) who spent two or more hours using technology during the week while only 18 per cent did 60 minutes of physical activity per day. Increased energy intake would also occur for the one third of students who drink four or more cups of soft drink, cordial or sports drink a week. Low intake of fruit and vegetables (76 and 59 per cent respectively) could also encourage higher energy intake.[4] This is a priority area for action because in the short term, youth may suffer from

1 A health inequality relating to youth burden of disease is included.

2 A social inequality relating to youth burden of disease is included.

3 The characterising features of overweight are identified.

4 Inequalities in risk factors that increase obesity are identified for focus.

5 The reasons why body weight is considered a health and wellbeing issue is identified. In this case, it is due to the high rates of morbidity and the potential impact on adult health and wellbeing.

psychological distress, sleeping problems and low energy levels. This also may increase the risk of cardiovascular disease and type 2 diabetes in adulthood. Overweight and obesity can also affect social and mental health and wellbeing if bullying and discrimination occur, affecting self-esteem, confidence and social contact.[5]

Practise the key skill

TABLE 5.3 Most important issues in Australia today

	National 2016 %	Female %	Male %	National 2015 %	National 2014 %
Alcohol and drugs	28.7	26.9	31.1	27.0	22.1
Equity and discrimination	27.0	29.5	24.4	25.0	19.1
Mental health (and wellbeing)	20.6	26.2	14.1	14.9	16.3
International relations	16.2	15.2	17.7	13.4	3.3
Population issues	16.0	15.9	16.1	15.3	16.1
The economy and financial matters	14.7	13.2	16.6	18.9	25.1
Crime, safety and violence	12.8	14.0	11.6	10.1	10.1
Politics	12.8	10.5	15.6	16.1	23.5
Education	11.6	11.9	11.5	12.2	15.0
The environment	11.5	12.3	10.9	12.8	11.6
Health (and wellbeing)	10.3	10.4	10.2	9.5	13.4
Bullying	10.1	12.3	7.8	9.3	14.3
Employment	9.9	8.5	11.8	12.7	11.1
Homelessness/housing	7.5	8.9	6.1	7.8	7.4
LGBT issues	7.4	9.9	4.2	13.2	6.1

Note: Items are listed in order of national frequency.

1. Analyse the data to identify two priority areas for action and improvement in youth health and wellbeing that relate to social inequality.
2. Identify any health inequalities that arise from risk-taking or non-health promoting behaviours that might also require action to improve youth health and wellbeing.
3. Justify your choices based on the impact on youth health and wellbeing of these inequalities.

KEY SKILL Describe and analyse factors that contribute to inequalities in the health status of Australia's youth

You are required to demonstrate knowledge of the contributing factors related to youth health inequalities. Remember that the focus of this key skill is on youth, and any discussion should be about this particular age group. To do this you need to explain why the health and wellbeing of young people may differ to that of other age groups or why groups of young people within the same country have differing health status or opportunities for optimal health and wellbeing. In order to demonstrate this key skill, you need to be able to explain contributing factors and predict the likely consequences for youth health and wellbeing.

Consider the following example related to overweight and obesity:

Weight gain is an outcome of kilojoule intake exceeding energy expenditure. If this occurs over a prolonged period, obesity can result, increasing the associated impacts on morbidity and mortality.[6] Research by the Cancer Council and the National Heart Foundation shows Australian teenagers are spending increased time using electronic devices such as computers, laptops, tablets, video games and TV. Seventy-seven per cent of Australian youth spent more than two hours using electronic devices for entertainment on school

6 An inequality is identified.
7 A contributing factor is analysed.

days according to the National Secondary Students' Diet and Activity Survey.[7] There was an increase in the proportion of teenagers exceeding the recommended two hours of screen time per day on weekends from 83 to 89 per cent.

An increase in physical activity and healthier eating are needed for weight balance. There has been a small improvement in levels of exercise since 2010. However, over 80 per cent of young Australians are still not getting the recommended minimum of one hour's physical activity each day. Research indicates that over 50 per cent of students have at least three televisions at home and approximately 40 per cent have one in their bedroom. In addition, they may also have video games in the bedroom as well. This combination is one factor that could be contributing to 22 per cent of young people being classified as overweight and 15 per cent as obese.[8]

8 Further information about the inequality is provided.

9 Discussion is included about likely consequences for health status.

The short-term health and wellbeing outcomes for Australian youth include psychological distress, sleeping problems and low levels of energy. This could result in youth identifying their self-assessed health status as only fair or poor. In addition, early obesity influences social and mental health and wellbeing because young people can be bullied about their weight or face negative stereotypes and discrimination. This could result in higher levels of psychological distress measured on the Kessler scale. Possible long-term risks include greater likelihood of incidence of type 2 diabetes.[9]

Practise the key skill

The Royal Children's Hospital conducts the Australian Child Health Poll. In 2015, the poll results for Australian adults revealed the top ten problems for child health and wellbeing:

- excessive screen time
- obesity
- not enough physical activity
- unhealthy diet
- bullying
- illegal drug use
- family and domestic violence
- internet safety
- child abuse and neglect
- suicide.

4. Describe one of the top ten health and wellbeing problems for young Australians.
5. Explain the contributing factors to your chosen health and wellbeing problem.
6. Discuss the impact on specific health status indicators for youth.

KEY SKILL Analyse the role and influence of community values and expectations in the development and implementation of health and wellbeing programs for youth

This skill requires an analysis of the role of community values and expectations in the development of health promotion programs to improve youth health and wellbeing. To conduct an analysis you need to:

(a) recognise a youth health and wellbeing concern
(b) select a program designed to address this health and wellbeing concern
(c) briefly describe the program
(d) show how the program links to community expectations and values.

In the following example, the Smiling Mind program is analysed.

Stress and school or study problems are the top two personal concerns for Australian youth. Coping with stress was listed as the biggest concern for Australian youth, with 20.1 per cent indicating they were extremely

10 Statements relating to the concern are made.

concerned and 24.3 per cent very concerned. Around 38 per cent were either extremely concerned or very concerned about school or study problems.[10]

The Smiling Mind program exists to help build individual mental health and wellbeing through positive, preventative tools based on mindfulness meditation, irrespective of geographic location or socioeconomic status. The Smiling Mind app aims to reduce worries, anxiety and distress. Health and wellbeing outcomes are a sense of calm, greater capacity to relax and regulate emotions, improved concentration and productivity, a sense of empathy and connectedness, and better sleep.[11]

11 A program is identified and elements of the program are described.

12 Values and expectations are identified in the implementation of the program.

The Smiling Mind program meets community expectations that health services will be accessible to youth. The program is free and readily available. It address the concerns related to stress effectively and in a format young people can understand. It is also responsive and strength-based. As it puts youth at the centre of the health action as it gives them the tools to control their own stress.[12]

Practise the key skill

7. Analyse the community values and expectations you think might be related to the development of the Youthbeyondblue 'Check in' app.

5.5.2 Topic summary

- The health and wellbeing of Australia's youth is excellent, but there are still health inequalities that need to be addressed.
- Injuries are the leading cause of death for youth and are higher for males.
- Developing independence, risk-taking behaviour, peers and the media influence risk-taking behaviour in youth.
- Youth is a stage of experimentation, but alcohol and drug use can have far reaching implications.
- Binge drinking increases the risks associated with alcohol consumption.
- Smoking rates among youth have steadily declined.
- Overweight and obesity rates have increased in recent decades and this is a risk factor for a range of other concerns such as psychological distress, cardiovascular disease and type 2 diabetes. Increased consumption of energy-dense foods and a decrease in physical activity levels have contributed to this issue.
- Rates of STIs have increased over time, especially chlamydia infections.
- Coping with stress, school or study problems and body image are young people's top three self-reported concerns.
- Making health promoting choices and having control so that we can take health action involves awareness of risks, motivation to change, information and resources for support.
- Young people can experience social inequality based on diversity of cultural background and identity, socioeconomic status or location.
- A number of strategies have been implemented to address youth health and wellbeing in Australian society, including Youthbeyondblue.
- Health and wellbeing services and programs for youth can be affected by community values and expectations.

5.5.3 Exam preparation

The Koorie Youth Council (KYC) is a state-wide network of Indigenous young people aged between 12 and 25 years that aims to give Indigenous young people more opportunities to have a say, to support skills and leadership development, and increase their sense of wellbeing and pride.

KYC uses social media as a tool in much of its work. KYC's Facebook page informs a broader number of young people about issues of interest, as well as news about activities and opportunities to get involved. KYC uses Twitter to connect with state and national organisations in the youth sector, build relationships, and promote its work at an organisational level. KYC also has a YouTube account, on which the profiles of two KYC members have been posted.

In 2013, KYC used Instagram to run a photo competition, in which Indigenous young people were asked to take and send in Instagram photos. This was aimed at providing positive imagery of young Koories as well as showing the diversity of Indigenous young people throughout Victoria.

1. Explain one health inequality affecting Australian Indigenous youth. **(2 marks)**
2. Explain two contributing factors to this inequality. **(4 marks)**
3. What community expectations would be met by this program? **(2 marks)**
4. How are the values and expectations of young people evident in this program? **(2 marks)**

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Try out this interactivity: Definitions
Searchlight ID: int-6855

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Sit Topic Test

TOPIC 6
Exploring youth health and wellbeing issues

6.1 Overview

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

FIGURE 6.1 The health and wellbeing of Australia's youth is excellent, but there are a number of issues that require attention.

KEY TERMS

Advocacy promoting the interests or cause of an individual or a group of people
Anxiety uneasy emotional state that may be brought on by an actual or perceived threat to the safety and wellbeing of the individual
Depression a debilitating condition in which low mood and feelings of sadness or worthlessness continue for an extended period
Direct costs costs associated with preventing the disease or condition and providing health and wellbeing services to people suffering from it. Direct costs include all those associated with developing and implementing health promotion strategies as well as the diagnosis, management and treatment of the condition.
Indirect costs costs not directly related to the diagnosis or treatment of the disease, but that occur as a result of the person having the disease
Intangible costs costs on which it is difficult to place a monetary value. They often involve emotions or feelings for both the individual and community.
Lobbying trying to influence or persuade an organisation or government to take a particular action
Mental disorders an umbrella term that encompasses a wide range of mental health conditions that affect how we feel, think and behave with greater severity and for prolonged periods, such as anxiety or depression
Mental health conditions refer to both mental health problems and mental disorders
Mental health plan care plan to help decide what services are needed, to set goals and decide on the best treatment options
Mental health problems a negative impact on a person's thoughts, feelings and social abilities that is often temporary and disappears with time. Examples of mental health problems include anger, changed eating patterns, loneliness, self-esteem issues, sleep problems and increased stress levels.
Resilience the ability to manage adversity and stress effectively and in a way that increases the ability to respond to future adversity

6.2 A health and wellbeing focus relating to Australia's youth: anxiety and depression — part 1

KEY CONCEPT Understanding the key features of one health and wellbeing focus relating to Australia's youth — impact on different dimensions of health and wellbeing and the incidence, prevalence and trends

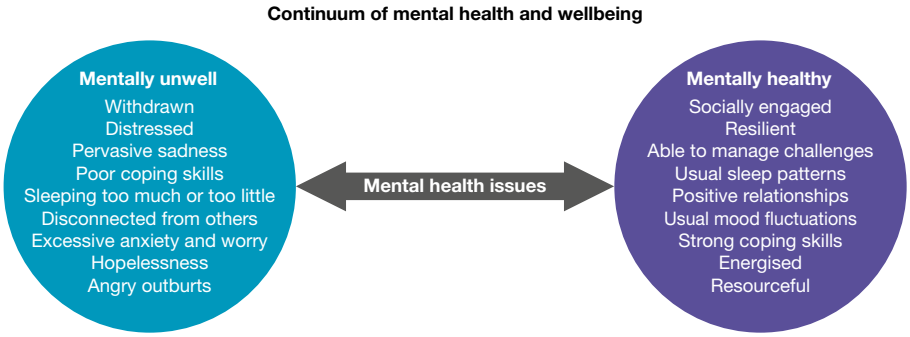
In topic 5 you saw that areas of youth health and wellbeing that require action. According to the Australian Institute of Health and Welfare (AIHW) report *Australia's Health 2016*, too many young people are overweight or obese; not meeting physical activity or fruit and vegetable consumption guidelines; are drinking at risky levels; are victims of alcohol- or drug-related violence; are participating in unprotected sexual activity; or experience discrimination or stress. You will be required to investigate one of these issues in depth.

In this topic, a comprehensive look at mental health conditions is included as a guide to the depth required in your research and report.

6.2.1 Focus on mental health and wellbeing

Mental health and wellbeing is a positive concept, described in topic 1 as the state of a person's mind or brain and relates to the ability to think and process information. At any given time, an individual's mental health and wellbeing might vary along a continuum from being mentally unwell and struggling, to periods of being mentally healthy, positive and happy.

FIGURE 6.2 Mental health and wellbeing is a continuum.



Mental health conditions include both **mental health problems** and **mental disorders**. Many adults with mental health conditions have the first onset of their problems in childhood or youth, and prevention and early intervention are important in reducing the burden of mental health problems throughout the lifespan. Mental disorders contribute more to the burden of disease for youth than any other condition and will be the focus of this topic.

Mental health problems

Mental health problems have a negative impact on a person's thoughts, feelings and social abilities, but are often temporary and disappear with time. Examples of mental health problems include anger, loneliness, self-esteem issues, sleep problems and increased stress levels.

Mental disorders

Most mental disorders are often first experienced in the late teens or early twenties, but may only fully emerge later in life. They have a greater severity of impact and longer duration than mental health problems. There are different types of mental disorder, including **depression**, **anxiety**, psychosis and substance use disorder. These different disorders may all occur with different degrees of severity. Of the conditions included under the 'mental disorders' umbrella, anxiety and depression are the two most common among both male and female Australian youth and will therefore form the focus of the exploration of this topic.

6.2.2 What is anxiety?

Anxiety disorders cover a range of conditions including phobias, panic disorder and generalised anxiety. Everyone experiences anxiety at one time or another. It comes from a concern over having a lack of control over circumstances. Anxiety is characterised by an uneasy mental state that may be brought on by an actual or perceived threat to the safety and wellbeing of the individual. Anxiety incorporates both the emotions and the physical sensations we might experience when we are worried or nervous about something. When anxiety is excessive, persists for many weeks without relief, or interferes with everyday life, an anxiety disorder may be diagnosed.

FIGURE 6.3 Stressful experiences such as bullying can be a risk factor for anxiety and depression.

Emotionally, people with an anxiety disorder may feel short-tempered and apprehensive, fearing that bad things are about to happen. They may constantly worry about things that are a

regular part of everyday life or about things that aren't likely to happen. People with an anxiety disorder may have physical symptoms such as sleep problems, panic attacks, an increased heartbeat, shortness of breath, a tight chest, an upset stomach, muscle tension or they may feel shaky.

eBook*plus* RESOURCES

Explore more with this weblink: Get to know anxiety: snowballing worries

6.2.3 What is depression?

Everyone feels sad from time to time, but depression is more than feeling sad. Depression is a debilitating condition in which the feelings of sadness or worthlessness continue for an extended period. Depression is a feeling of low mood that lasts for a long time and affects your everyday life rather than just 'feeling down'. It is a medical disorder with a biological and chemical basis.

FIGURE 6.4 Individuals suffering from anxiety and depression may isolate themselves from others.

Mentally and emotionally, a person suffering from depression may withdraw from their normal activities, have lowered self-esteem and an inability to control emotions that include pessimism, anger, irritability and anxiety. They may feel a reduced capacity to experience pleasure, an inability to enjoy usual activities, and poor concentration and memory.

Physically, they may experience a decreased or increased appetite, disturbed sleep patterns and increased aches and pains. In its mildest form, depression doesn't stop the individual from leading a normal life, but it can make everything harder to do and seem less worthwhile. At its most severe, depression can make an individual feel suicidal, and can be life-threatening.

eBook*plus* RESOURCES

Explore more with this weblink: Personal story of depression: Adam

6.2.4 The impact of anxiety and depression on different dimensions of health and wellbeing

Mental health and wellbeing is directly related to physical health and wellbeing. It strengthens the ability to have healthy relationships and to find satisfying roles in life, to make good choices, handle the ups and downs of life and develop to our potential. For young people who are still developing, the onset of a mental

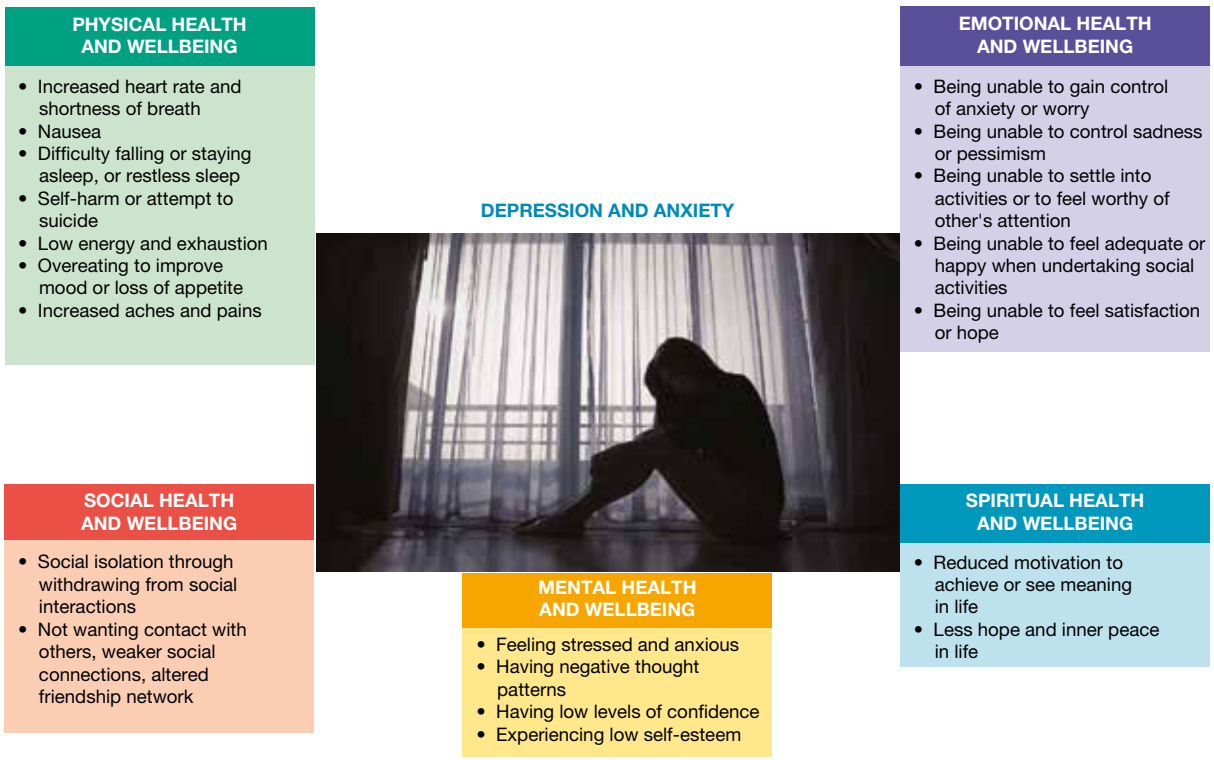
health condition can disrupt their family relationships, education and employment pathways. Positive mental health and wellbeing is important for young people making the transition from childhood to adulthood.

Anxiety causes the heart and breathing rates to increase, muscles to tense, and blood flow to be diverted from the abdominal organs to the brain. In the short term, anxiety prepares us to confront a crisis by putting the body on alert, but these physical effects can also cause light-headedness, nausea, diarrhoea and frequent urination.

Research suggests many possible causes interact to bring on depression. These include problems with mood regulation by the brain, genetic susceptibility, stressful life events, medications and medical problems. Depression causes chemical changes in the brain that affect hormone levels, resulting in appetite loss and disturbed sleep patterns due to changed serotonin levels. As a result, the body may not be adequately rested, causing constant fatigue and the inability to cope with day-to-day tasks. Increased aches and pains may also result because changes to serotonin can alter sensitivity to pain, especially back pain.

Depression also increases the risk of a number of diseases or conditions. This is because increasing levels of stress hormones such as cortisol or adrenaline have an effect on the immune system, making it harder for the body to fight infection. Anxiety and depression can have an impact on all dimensions of health and wellbeing (see figure 6.5).

FIGURE 6.5 Anxiety and depression can affect all of the dimensions of health and wellbeing.



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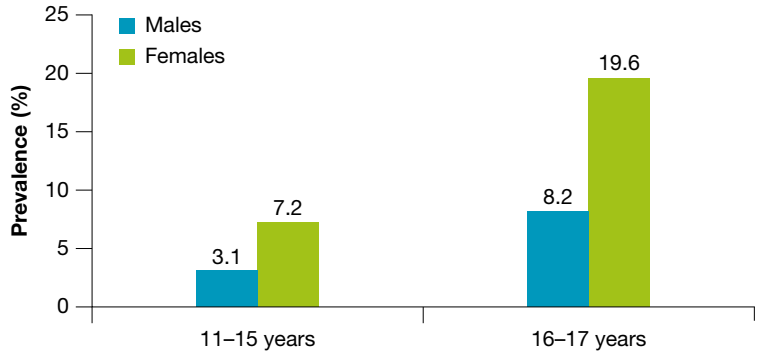
Impact on dimensions of health and wellbeing Summary screens and practice questions

FIGURE 6.6 Mission Australia's *Mental Health Over the Years 2016* study found that one in five young people aged 16 to 17 self-reported a level of psychological distress that indicated a probable serious mental disorder.



6.2.5 The incidence, prevalence and trends of mental disorder among youth

The rates of mental disorders are high among youth and contribute significantly to the overall burden of disease in this age group. According to Youthbeyondblue, about 26 per cent or one in four 16- to 24-year-olds had symptoms of a diagnosed mental disorder in the previous 12 months. Anxiety disorders are the most common mental health problem experienced by young Australians. Australian Bureau of Statistics data from the National Survey of Mental Health and Wellbeing suggests that one in six young Australians is currently experiencing an anxiety condition and that 15.4 per cent of Australians aged 16 to 24 have experienced an anxiety disorder in the last 12 months.

Mission Australia's *Young People's Mental Health Over the Years* (2016) report found that 7.7 per cent of 11- to 17-year-olds met the criteria for a major depressive disorder (depression). This means they experienced at least five symptoms of depression for a minimum of a two-week period. The symptoms caused significant distress and interfered with normal functioning at school, at home or in social settings. The prevalence of major depressive disorder was higher in females than males (11 per cent compared with 4.5 per cent). Of males aged 16–17 years, 8.2 per cent met criteria for major depressive disorder, compared with 19.6 per cent of 16- to 17-year-old females.

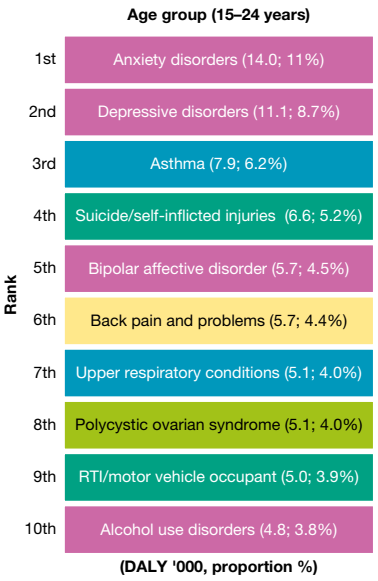
This report suggests that the overall rates of mental conditions have remained fairly constant, but there has been an increase in the proportion of youth experiencing a major depressive disorder (2.9 per cent in 1998 to 5 per cent in 2013–14).

Mission Australia's 2016 report also found:

- young females were almost twice as likely to have a probable serious mental disorder than young males (26.5 per cent of females, compared to 13.9 per cent of males)
- the prevalence among young males remained relatively stable over the three years.

The Australian Institute of Health and Welfare (AIHW) *Australian Burden of Disease Study 2016* shows that from the ages of 15 to 24, a variety of mental and substance use disorders accounted for a large proportion of the non-fatal healthy years lost (see figures 6.7 and 6.8).

FIGURE 6.7 Leading causes of total disease burden for females aged 15–24

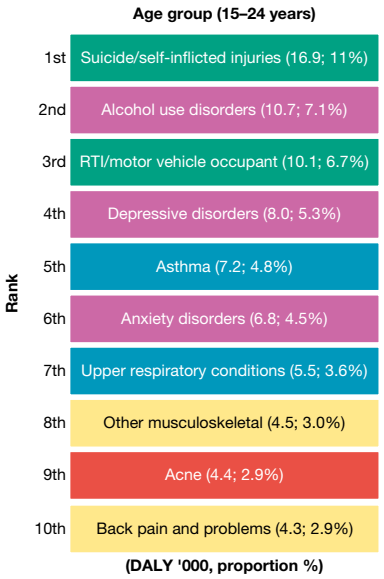


Suicide is the biggest killer of young Australians, and accounts for the deaths of more young people than car accidents. Of these, 77 per cent were male deaths. The rate of suicide is slowly declining in Australia

but many more males than females continue to commit suicide. The majority of those who attempt suicide have had a previous diagnosis of a mental disorder.

In 2015 the Young Minds Matter survey identified that 7.7 per cent of young people reported that they had a major depressive disorder. Responses provided by their parents indicated that 4.7 per cent had a major depressive disorder. Two-thirds of these youths said that their parents or carers knew only 'a little' or 'not at all' about how they were feeling, indicating that young people may not always feel comfortable discussing their emotional health and wellbeing with their parents. Australian research by headspace.com.au shows that up to 70 per cent of young women and 80 per cent of young men who experience a mental disorder receive no help at all. Additionally, it takes an average of 6.9 years for those experiencing anxiety and mood disorders to recognise that they have a disorder, and a further 1.3 years to get help after this. These statistics suggest that the rates of youth suffering from mental disorders may be higher than reported.

FIGURE 6.8 Leading causes of total disease burden for males aged 15–24



6.2 Activities

Test your knowledge

1. With the use of examples, explain the difference between mental disorders and mental health problems.
2. Create a concept map with a description of both anxiety and depression in the centre. Add a dot point list of the impact that anxiety and depression can have on each of the dimensions of health and wellbeing to the concept map.
3. (a) What proportion of young Australians have an anxiety disorder?
   (b) What are the criteria for a depressive disorder?
   (c) What percentage of young Australians self-report as having a depressive disorder?
   (d) What trends are shown for male and female youth reporting a level of psychological distress that indicated a probable serious mental illness? (Refer to figure 6.6.)
4. Examine figures 6.7 and 6.8 and answer the following questions:
   (a) What is the leading cause of disease burden in young Australians?
   (b) What percentage of DALYs are attributable to anxiety and depression for males and females aged 15–24 respectively in terms of total burden?
   (c) Which other causes of disease burden shown have a relationship with mental disorder?
5. Do the statistics obtained from surveys about youth mental health and wellbeing always show the true prevalence? Explain.

Apply your knowledge

6. The Australian government funded the largest national survey examining the mental health and wellbeing of Australian children and adolescents in 2015. The title of the survey was Young Minds Matter. Justify the title of this survey by writing a paragraph discussing the importance of improving youth mental health and wellbeing.
7. (a) Use the **WHO** weblink in the Resources tab in your eBookPLUS to watch the video 'I had a black dog, his name was depression'.
   (b) Use the **Black Dog Institute** links in the Resources tab in your eBookPLUS to respond to the following questions.
      (i) What is the significance of the Black Dog Institute logo?
      (ii) How does the Black Dog Institute support young people in understanding the impact of mental disorders?
8. Using books and the internet, conduct research to find information about a health and wellbeing focus relating to Australian youth. These are outlined in topic 5. Present your research as an infographic, fact sheet or presentation that includes:
   (a) an explanation of the health and wellbeing focus
   (b) the possible impacts of this health and wellbeing focus on all dimensions of health and wellbeing
   (c) incidence, prevalence and trend data relating to this health and wellbeing focus. Make sure your data relates to Australian youth.

eBookplus RESOURCES

Explore more with this weblink: WHO video: Depression

Explore more with this weblink: Black Dog Institute

Complete this digital doc: Black Dog Institute worksheet
Searchlight ID: doc-22631

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Incidence, prevalence, trends Summary screens and practice questions

6.3 A health and wellbeing focus relating to Australia's youth: anxiety and depression — part 2

KEY CONCEPT Understanding the key features of one health and wellbeing focus relating to Australia's youth — the risk and protective factors

6.3.1 Risk factors and protective factors

Like many physical illnesses, mental disorders are thought to arise from the interaction of genetic, socio-cultural and environmental factors, including stressors in life. All of us have varying degrees of genetic vulnerability to developing mental disorders, but whether they are triggered depends on the level of stress we experience — from risk factors in the prenatal stage, early childhood experiences or distressing events in adult relationships. The stress may only need to be slight to trigger a mental disorder, but for others who are more resilient, it may need to be a more traumatic event.

Anxiety and depression are often diagnosed for the first time in youth or early adulthood. Research by headspace suggests that 75 per cent of mental health disorders begin before the age of 25 years. There are many factors that can contribute to or protect an individual from anxiety and depression, and it is most likely that these conditions arise from a combination of factors. The presence of one or more risk factors does not mean an individual will develop a mental disorder; however, as the number of risk factors increases, so does the likelihood of developing a mental disorder. Anxiety and depression can increase the chances of risky health behaviours such as self-harm, social withdrawal and substance abuse. These in turn can intensify the cycle of mental ill-health.

FIGURE 6.9 Physical activity is a protective factor for anxiety and depression.

Knowing what kinds of factors put young people at risk of mental disorders

helps health experts plan and develop the kinds of support and resources needed to be able to intervene early. It also helps to guide efforts to prevent mental health problems developing in the first place. Knowledge of protective factors can reduce exposure to risk. For example, a young person with good social and emotional skills is able to make friends easily and is consequently less likely to experience social isolation (risk factor). Positive connections with family or school supports academic achievement and reduces the likelihood of failure. For example, a caring relationship with a parent, carer and/or teacher provides young people with a source of support to help them cope with difficulties. Similarly, a strong sense of cultural identity can help to protect against the negative effects of discrimination and increase **resilience**. Some specific risk and protective factors for mental disorders are shown in table 6.1.

FIGURE 6.10 A supportive family is a protective factor for anxiety and depression.

TABLE 6.1 Risk factors and protective factors for anxiety and depression

	Risk factors	Protective factors
Individual	1. Difficult temperament (e.g. overly shy, inflexible or aggressive) 2. Poor social and emotional skills 3. Learning difficulties, poor problem-solving skills 4. Risk-taking behaviours, such as alcohol and illicit drug taking, which alter chemical make-up of the brain 5. Damage during the prenatal stage 6. Family history of mental disorders 7. A deficiency of serotonin, which contributes to poor mood control 8. Negative life events relating to loss, trauma and abuse	1. Easy temperament and sociable 2. Socially and emotionally competent, able to regulate emotions, positive sense of identity, and an optimistic and positive attitude to help-seeking 3. Good coping and problem solving skills 4. Engages in physical activity (a health-promoting behaviour), which releases endorphins, relieves muscle tension, improves sleep
Family	1. Family conflict including domestic violence 2. Inconsistent or unclear discipline and lack of warmth and affection by parents, insecure attachment	1. A supportive family life, free from conflict and abuse 2. Clear expectations for behaviours and support at critical times, positive parent or carer relationship
Peers	1. Poor peer role models that are not inclusive or use drugs, alcohol and violence or antisocial behaviour	1. Positive peer role models, inclusive group norms with health-promoting behaviours 2. Positive and supportive relationships with respectful communication
School	1. Poor student–teacher relationships 2. Bullying or discrimination, not inclusive 3. Low teacher expectations of students and poor absenteeism structures and processes	1. Supportive relationships with open and clear communication 2. Policies on behaviour and bullying; school acknowledges and respects diversity 3. Opportunities for academic or other school achievement with policies and processes for attendance
Community	1. Social or cultural discrimination and racism 2. Poor access to recreational activities and limited access to support services 3. Neighbourhood violence or crime and exclusion	1. Resources and opportunities to participate in a range of cultural and recreational activities 2. Access to support services (e.g. mental healthcare and family support) 3. Safe and inclusive community

6.3 Activities

Test your knowledge

1. Explain how a young person's family could be either a risk or protective factor for mental disorders.
2. Explain how physical activity is a protective factor for mental disorders.
3. What roles can peers play in determining youth mental health and wellbeing?
4. Why are schools often a setting for youth mental health and wellbeing programs?
5. Why would it nearly always be a combination of factors that leads to anxiety or depression in youth?

Apply your knowledge

6. Mike is 18 and has been experimenting with drugs and alcohol for the past three years. In the past few months he has been feeling depressed and has lost his usual enthusiasm for life. As a result, he has dropped out of his TAFE course and quit his part-time job. Mike now relies on financial government assistance but this has not been enough to support his lifestyle. At the moment he spends most of his days sitting around the house that he shares with three friends, who are also alcohol and drug users.
   (a) Identify the risk factors that may be affecting Mike.
   (b) Is it possible that Mike has a mental disorder? Discuss.
   (c) Explain how Mike's current situation may affect his health and wellbeing.
   (d) Suggest two protective factors that Mike could introduce into his lifestyle to manage his mental health and wellbeing.
7. Access the **Mental health and wellbeing case studies** weblink and worksheet in the Resources tab in your eBookPlus then complete the worksheet.
8. On your own or with a partner, select a health and wellbeing focus relating to Australia's youth.
   (a) Use a concept map or summary table to brainstorm the risk and protective factors that may contribute to the selected health and wellbeing focus.
   (b) Which risk factor do you think has the greatest influence? Justify your choice and discuss your responses with the rest of the class.

eBookplus RESOURCES

Explore more with this weblink: Mental health and wellbeing case studies
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Unit 1 > AOS 3 > Topic 2 > Concept 3

Risk and protective factors Summary screens and practice questions

6.4 A health and wellbeing focus relating to Australia's youth: anxiety and depression — part 3

KEY CONCEPT Understanding the key features of one health and wellbeing issue relevant to Australia's youth — community values and expectations, healthcare services and support, government and community programs, and personal strategies to reduce impact of direct, indirect and intangible costs

As you saw in topic 5, as a community, we value and protect our youth from harm where possible. We have an expectation that youth will experience optimal health and wellbeing, and be resilient enough to meet life's challenges as they make a successful transition into adulthood and reach their potential. We also expect that there will be government and community services to support this and to address any health and wellbeing concerns should they arise.

Mental disorders in young Australians are of concern. Based on these expectations, Australia's health system provides opportunities for youth to seek care relating to their mental health and wellbeing. In addition, both anxiety and depression have been the subject of numerous government and non-government strategies that aim to reduce risk factors and increase protective factors to improve the health and wellbeing of those experiencing these conditions.

6.4.1 Community values and expectations

In addition to the values and their associated expectations outlined in the previous topic, mental health and wellbeing programs are expected to develop resilience, and reduce risk factors such as anxiety, stress, helplessness, violence, social exclusion and substance use. Enhancing resilience includes:

- increasing coping skills
- improving quality of life, enhancing self-esteem, wellbeing and belonging
- strengthening social supports
- strengthening all dimensions of health and wellbeing.

FIGURE 6.11 A range of community values that drive expectations of mental health and wellbeing programs for youth

Mental health and wellbeing programs are also expected to reduce inequities, which involves considering gender, ethnic or cultural background, sexual orientation and location through diversity policies, and anti-stigma campaigns.

According to the Young Minds Matter survey, the most common reasons given by young people aged 13–17 with a major depressive disorder for not seeking help or receiving more help were related to stigma or poor mental health literacy. The following common reasons were given: 62.9 per cent worried what other people might think or didn't want to talk to a stranger; 61.7 per cent thought the problem would get better by itself; and 57.1 per cent wanted to work out the problem on their own or with help from family or friends. Young people expect that health and wellbeing programs will provide advice and education about a range of general health topics, including body image as well as safe sex and respectful relationships and drugs. They state that they are often frustrated with the perceived stereotyping of their concerns by adults.

TABLE 6.2 A range of community values and expectations

Value	Expectations
Confidentiality	A confidential, discreet relationship between a young person and their healthcare provider is critical to determine whether they seek care. If a doctor deems a young person (under the age of 18) to be mature, then parents do not have to be informed of consultations or treatment. If the person is deemed not mature by the doctor, then parents may be informed.
Accessibility	Services should be available to everyone irrespective of a person's country of birth, gender, income, language, culture, race or religion (i.e. be free of discrimination). There is an expectation that waiting times, hours and information will be appropriate.
Respect	Lifestyle choices and personal risk behaviours that affect health risks are shaped by physical and social circumstances and life opportunities and environment. As a community we fund the health system. Health professionals have a responsibility to help individuals understand the choices available to them, and to empower them to take an active role in illness prevention and treatment. Health treatment should be free from judgement, so that a feeling of security and being cared for is created. Healthcare providers should consult with young people regularly about the adequacy, design and standard of services to ensure that their information is easily accessible and comprehensible by youth.
Effectiveness	Treatment, intervention or services will produce a benefit and achieve desired outcomes for health and wellbeing to meet the needs of people when they are sick. The health system also needs strong investment in wellness, prevention and early detection.
Strength-based	Opportunities must be provided for young people to participate collaboratively with the health organisation and service provider so that it meets expectations in a timely manner and puts youth at the centre of the service.

6.4.2 Mental healthcare services available to young people

In Australia, mental healthcare services are provided in a number of ways, including general practitioners, specialists, such as psychologists and psychiatrists, and hospital care. Many of these services are either fully or partially funded through Medicare. As well as curative mental healthcare services, youth can access a range of government, community and personal programs and preventative strategies.

Medicare

Youth enrolled in Medicare can receive treatment for a range of health services including:

- subsidised doctors' consultations
- treatment by a psychiatrist
- free treatment and accommodation for public patients in a public hospital
- seventy-five per cent of the Medicare Schedule fee for services if you are a private patient in a public or private hospital.

Medicare rebates are available for up to ten individual and ten group allied mental health services per calendar year to patients with an assessed mental disorder who are referred by a General Practitioner (GP) under a GP Mental Health Treatment Plan, or under a referred psychiatrist assessment and management plan, or a psychiatrist or paediatrician. In 2014–15, over 10 million Medicare-subsidised mental health-related services were provided by psychiatrists, psychologists and other allied health professionals to over 2 000 000 patients.

General practitioners and specialist services

General practitioners (GPs) are often the first contact youth have with the health system. In 2014–15, 13 per cent of all GP encounters were mental health-related (17.1 million GP encounters nationally). Depression, anxiety and sleep disturbance were the three mental health-related problems most frequently managed by GPs in 2013–14. GPs provide a range of services including preparing a **mental health plan**, referring the individual to the right health professional (including specialists), and prescribing appropriate medicines and associated treatments (free if the doctor bulk bills).

FIGURE 6.12 Individuals can and should be involved in devising treatment plans.

Young Australians have access to more medical information than ever before, enabling them to self-diagnose and research providers and treatment options. Their expectation of the doctor–patient relationship is no longer one of dependence, but one where they have more to say, and their opinion is valued. Young people have the right to assist in the development of a treatment plan that suits them.

Mental health specialists include psychologists, psychiatrists, mental health nurses, occupational therapists, social workers and Indigenous health workers. If an individual sees a psychiatrist as a public patient at a community health centre or a public hospital, the service is likely to be free. If they see a psychiatrist in private practice, Medicare will refund part of the psychiatrist's fee. Some psychiatrists may bulk bill some patients, which means the patient does not have to pay anything for the consultation. These services are provided in a range of settings; for example, in hospital, consulting rooms, home visits and over the phone.

Hospital care

Hospital emergency departments also play a significant role in treating mental disorders and, in addition to GP consultations, can be the initial point of contact with the health system for youth. Emergency departments can often be an initial point of care for those seeking mental health-related services for the first time, as well as an alternative point of care for people seeking after-hours mental healthcare.

6.4.3 Government and community strategies/programs

headspace

headspace is the National Youth Mental Health Foundation funded by the Australian government. It provides early intervention mental health services to 12- to 25-year-olds in four areas: mental health and wellbeing, physical health and wellbeing, work and study support, and alcohol and other drug services. headspace offers information and services for young people, their families and friends as well as health professionals. These are provided through their website, headspace centres and an online counselling service eheadspace. headspace centres are located across metropolitan, regional and rural areas of Australia. The centres are built and designed with input from young people so they are youth-friendly and don't have the same look or feel as other clinical services. At these centres young people can be assisted to access a GP, psychologist, social worker, alcohol and drug worker, counsellor, vocational worker or youth worker.

Youthbeyondblue

Youthbeyondblue is the youth arm of beyondblue and focuses on young people aged 12 to 25 years. Youthbeyondblue aims to raise awareness of depression and anxiety by reassuring young people that it's okay to talk about depression and anxiety, and to get help when it's needed.

Youthbeyondblue.com provides a website with information for young people about depression and anxiety, and where to get help. Youthbeyondblue also provides young people with an opportunity to share their experiences of depression and anxiety, their ideas and thoughts. Through this forum, young people can also respond to other people's stories.

Another beyondblue national program that has been developed in collaboration with LGBTIQ communities and the Movember Foundation is aimed at improving understanding about discriminatory behaviour and the impact it can have on the mental health and wellbeing of LGBTIQ communities. This campaign presents a cinema commercial and real-life stories that have been designed to prompt people to stop discrimination, think about how comments could cause real distress and harm, and to respect people who are different.

FIGURE 6.13 Youthbeyondblue provides young people with an opportunity to understand depression and anxiety, and gain general information about getting help and getting better.

CASE STUDY

Young people with anxiety helped by Queensland-developed Brave Program

Every year a quarter of all Australian young people experience mental health issues and more than half of them are too embarrassed to discuss the problem.

But there is hope for those with severe anxiety in the form of an online program developed by Queensland researchers.

The Brave Program is changing the way anxiety in young people is treated.

More than 12 000 young people and parents across the country have registered for the program over the past two years.

One of its co-creators, Dr Sonja March, said the 10-session, self-directed tool used games, quizzes, and real life scenarios to identify, explain, and treat anxiety.

'Children and teenagers these days just tell us that they really are quite stressed about things; there's a lot to stress young people these days so sometimes it can be as simple as an exam coming up or it can be an incident of bullying or it may be a fear that has developed over time,' Dr March said.

The program has versions for children aged 8 to 12 years, and teenagers aged 13 to 17 years, and can be done privately or with a parent or teacher.

'It will teach them the skills that we know work and it'll ask them to apply it to their own situations and shape the way that they might face those fears in real life.'

About 40 per cent of program participants are from regional or remote areas, where mental health services are often less accessible.

'We're really grateful that we're seeing a good uptake in those areas, they can do it from the comfort of their own home or they can do it at school,' Dr March said.

School counsellors at the coalface of treatment

School counsellors like Rachael Proctor are using the program as an early intervention tool.

She said the program was evidence based so it was effective in helping kids.

'Because they're doing some of it online it means we've got more time in our sessions to actually do some examples and run through scenarios and practise how they might apply it,' she said.

'It's got the parenting program as well so it means we can refer parents to the parenting program and they can develop their knowledge and skills in supporting their kids.'

Dr March said levels of anxiety experienced by young people had been examined before and after taking part in the program and had produced significant results.

She said for those who were initially experiencing problematic levels of anxiety and had gone on to complete at least seven sessions of the program, 70 per cent of children, and 52 per cent of adolescents no longer showed problem levels of anxiety.

Ms Proctor said she was seeing those results in her students.

'We're seeing a better understanding of their anxiety symptoms, being able to pick that up sooner and having greater confidence in their skills to be able to manage that anxiety,' she said.

Source: Kos, A 2016 'Young people with anxiety helped by Queensland-developed Brave Program', 15 July, *ABC Online*.

Case study review

1. Describe the Brave Program by outlining its aim and the resources it offers to promote mental health and wellbeing.
2. How does the Brave Program ensure that it effectively reaches all young Australians?
3. What results have the Brave Program achieved?

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Unit 1 > AOS 3 > Topic 2 > Concept 5

Healthcare services and support Summary screens and practice questions

6.4.4 Personal strategies that promote mental health and wellbeing

FIGURE 6.14 Talking to friends and family can improve mental health and wellbeing.

As well as government and community strategies and programs to combat anxiety and depression, there are a number of things that individuals can do to promote their own mental health and wellbeing. They include the following:

- *Communicating with friends and family* — an effective way of promoting mental health and wellbeing as individuals can discuss problems and solve issues before they seem unmanageable
- *Seeking help from medical professionals* — assists in promoting mental health and wellbeing, as mental health disorders can be professionally identified before they develop into clinical anxiety or depression
- *Taking time for relaxation* — strategies such as engaging in hobbies, exercise and meditation can enhance mental health and wellbeing. The National Survey of Mental Health and Wellbeing showed that 66.4 per cent of adolescents reported undertaking protective behaviours, such as doing more exercise or taking up a sport (37.9 per cent), doing more activities they enjoyed (45.1 per cent), seeking support from friends (24.4 per cent) and improving their diet (23.2 per cent).
- *Talking to a school counsellor* — individuals can discuss their problems and resolve issues before they become seemingly unmanageable. According to the National Survey of Mental Health and Wellbeing, of 12- to 17-year-olds with mental disorders, 48.7 per cent had used or attended a service at school, 38.8 per cent had used individual counselling services at school and 12.6 per cent participated in group counselling or a support program.

Data presented from the Young Minds Matter survey shows that of all young people aged 13–17 years, 22.2 per cent had used internet services. Of these, 10 per cent used online assessment tools, 4.4 per cent used online self-help, 3.1 per cent participated in a chat room or online support group, and 1.7 per cent received online personal support or counselling. Use of telephone counselling was reported by 3.6 per cent.

Of those with a major depressive disorder, 52 per cent had used an online service including services provided by headspace, ReachOut and Youthbeyondblue, to get help or information about emotional or behavioural problems in the previous 12 months. Studies by ReachOut.com show that young people prefer internet services for accessing information, advice or support. The anonymity it provides make them more willing to engage with online interventions.

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Unit 1 > AOS 3 > Topic 2 > Concept 6

Government and community programs and personal strategies Summary screens and practice questions

6.4.5 Costs associated with mental disorders

Mental disorders affect not only the young person, but also their family, carers, friends and the wider community. Poor mental health and wellbeing leads to economic impacts for the individual, the economy and society more broadly.

The economic burden related to mental disorders includes costs related to premature death and disability, provision of treatment and support services, reduced productivity and loss of income both from sufferers and their carers. National expenditure on mental-health related services increased from $343 per person in 2010–11 to $361 per person during 2014–15. While not all costs relate to youth, $1.1 billion was paid in benefits for Medicare-subsidised mental health-related services in 2015–16, equating to 5.3 per cent of all Medicare subsidies. Expenditure on psychologist services made up the largest component of mental health-related Medicare subsidies in 2015–16. The Australian government spent $564 million, or $24 per person, on subsidised prescriptions for antipsychotics (49.6 per cent) and antidepressants (36.5 per cent) under the Pharmaceutical Benefits Scheme (PBS) during 2015–16.

In addition to the financial costs associated with diagnosing and treating mental health conditions, there is a wide range of hidden costs. Many of these are financial, but it is difficult to put a dollar value on many other costs. Costs associated with disease and injury can be classified as being direct, indirect or intangible. The burden of these costs can lie with the community or the individual.

Direct costs

Direct costs are those associated with preventing the disease or condition and providing health services to people suffering from it. These costs include all those associated with developing and implementing health promotion strategies as well as the diagnosis, management and treatment of the condition. It is relatively easy to put a dollar value on direct costs.

Direct costs to the individual are those paid for by the ill person or their family. Examples include fees for ambulance transport, doctor and specialist fees not covered by Medicare, surgery or hospital fees not covered by Medicare or private health insurance, and pharmaceuticals.

FIGURE 6.15 The costs that can be incurred by individuals and the community

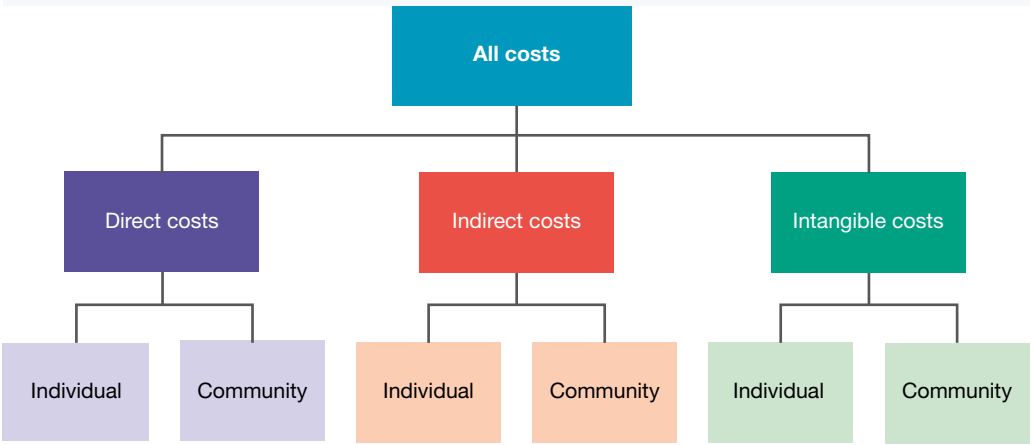

TABLE 6.3 Examples of direct costs associated with mental health and wellbeing issues

Direct costs to the individual	Direct costs to the community
• Fee associated with cognitive behavioural therapy to understand the link between thoughts, feelings and behaviour • Fees associated with treatment of anxiety disorders or depression including medication such as antidepressants and therapy	• Costs associated with implementing health promotion strategies such as Youthbeyondblue • Costs associated with scheduled fees for a GP visit to discuss low mood, diagnose and treat the condition (paid for by Medicare and/or private health insurance) • Costs associated with providing the PBS to subsidise antidepressant medication • Costs associated with the operation of public and private hospitals for treatment for self-harm

Indirect costs

Indirect costs are not directly related to the diagnosis or treatment of the disease, but occur as a result of the person having the disease. An example of an indirect cost to the community is lost productivity. Businesses may lose employees, which decreases the volume of products or services they are able to produce. They may also be paying sick leave while employees are ill. There are also losses in government taxation revenue when people are not working as well as welfare payment costs if disability payments are required.

TABLE 6.4 Examples of indirect costs associated with mental health and wellbeing issues

Indirect costs to the individual	Indirect costs to the community
• When a young person is unwell due to depression they may not be able to continue in part-time work and therefore suffer loss of income.	• Businesses may lose part-time employees due to depression, which decreases the volume of products or services they are able to produce.

Intangible costs

Costs can also be intangible, which means it is very difficult to put a monetary value on them. **Intangible costs** to the individual could include pain and suffering, stress about the impact and outcome of their condition, loss of self-esteem and feelings of worthlessness if the person is unable to complete activities they could in the past.

TABLE 6.5 Examples of intangible costs associated with mental health and wellbeing issues

Intangible costs to the individual	Intangible costs to the community
• Depression may cause inability to work or reduce participation in social activities, such as coaching the local football team or volunteering for the local charity.	• Family, friends, work colleagues and associates within the community may experience grief in the case of the death of an individual due to suicide.

The costs associated with mental health and wellbeing issues in Australia are significant. A 2015 report commissioned by ReachOut Australia found that poor mental health and wellbeing in young people costs Australia at least $6.29 billion per annum, including $1.3 billion in direct health costs and $1.2 billion in unemployment and disability payments.

6.4 Activities

Test your knowledge

1. (a) What expectations does the community have about youth mental health and wellbeing?
   (b) Briefly explain two community values that relate to mental healthcare.
   (c) Discuss factors that may prevent young people from accessing professional support for their mental health and wellbeing.

2. How does Medicare support the mental health and wellbeing of young people?
3. (a) What is Youthbeyondblue?
   (b) How does it promote the health and wellbeing of Australian youth suffering from mental disorders?
4. What personal strategies can be undertaken as protective factors for youth mental health and wellbeing?
5. Develop a mind map or table of the direct, indirect and intangible costs linked to youth mental health problems.

Apply your knowledge

6. Why would it be beneficial for an individual to assist in devising their mental health plan?
7. Discuss the opportunities and limitations of online resources, social media and apps with regard to youth mental health and wellbeing.
8. Access the **ReachOut** weblink and worksheet in the Resources tab in your eBookPlus then complete the worksheet.
9. (a) Research government and/or non-government strategies that are employed to address a health and wellbeing focus relating to Australian youth.
   (b) Produce a summary on the strategy and include the following information:
      (i) name of the organisation/level of government
      (ii) aims/goals of the organisation/strategy
      (iii) a description of how they attempt to achieve their goals
      (iv) direct, indirect and intangible costs that would be reduced as a result.

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Unit 1 > AOS 3 > Topic 2 > Concept 7

Direct, indirect and intangible costs Summary screens and practice questions

6.5 Opportunities for youth advocacy and action to improve outcomes in terms of health and equity

KEY CONCEPT Advocacy involves helping people find their voice. An advocate is a person who argues for, or supports, a cause or policy relating to a focus area.

Young people can experience barriers that limit their opportunities to receive appropriate resources, know and exercise their rights, and fully utilise healthcare services. Healthcare decisions are sometimes made by professionals without the view of the young person being taken into account, making them the passive recipients of decisions. As a consequence, young people have often had adults speak on their behalf and protect their rights.

It is important for young people to be able to advocate for their healthcare rights and to take health action. Effective youth participation is about creating opportunities for young people to be involved in influencing, shaping, designing and contributing to policy and the development of services and programs. It is based on the principles of young people being informed, having an effect on outcomes or being involved in decision-making and evaluation.

Advocacy can:

- encourage participation
- address inequalities
- improve services
- change attitudes and values.

6.5.1 Advocacy and action

The World Health Organization describes advocacy for health as a 'combination of individual and social actions designed to gain political commitment, policy support, social acceptance and systems support for a particular health goal or programme'.

Two main goals underpin health advocacy:

- protecting people who are vulnerable or discriminated against
- empowering people who need a stronger voice by enabling them to express their needs and make their own decisions.

Advocacy work can occur in a range of settings.

Policy advocacy

Policy advocacy aims to directly influence policy, legislation or regulations. Organised groups such as Youthbeyondblue and VicHealth focus their efforts on influencing legislators through **lobbying** members of parliament, making submissions to government inquiries, conducting research and coordinating action. For example, beyondblue has a stated aim to positively influence national, state and territory policies to ensure that they consider the needs of people with depression and anxiety and improve mental health and wellbeing. An example is its 2016 submission to the Standing Committee on Health, Ageing, Community and Social Services Inquiry Into Youth Suicide and Self-Harm in the ACT and a 2016 information paper on suicide prevention.

Public advocacy

Public advocacy aims to influence behaviour, opinion and practices of the public, to mobilise groups and institutions that are involved in affecting change. SANE is an organisation that conducts public campaigns designed to influence the media to report mental disorders in a responsible and positive manner.

SANE operates StigmaWatch, which monitors and responds to inaccurate or inappropriate stigmatising portrayal of mental disorders or suicide in the media. StigmaWatch acts on concerns of individuals who are distressed and offended by news stories, advertisements and other media representations that stigmatise people with mental disorders or promote self-harm or suicide. Advocating on their behalf, StigmaWatch holds the mass media to account for its portrayal of mental disorders and suicide. StigmaWatch has moved to a positive focus, with incentives for media professionals to portray mental disorders and suicide responsibly.

Community advocacy

Community advocacy aims to effect change by working with affected communities to influence behaviour and practices. An example of this is the City of Monash, which is trying to encourage development of resources and education for mental health and wellbeing for individuals living in the local area.

Young people offer valuable and diverse perspectives and opinions. It is important to listen to these perspectives and opinions and to provide them with a voice. This contributes significantly to the community, and the individuals themselves are empowered when they participate. Young people can strengthen health and wellbeing programs in areas that may be considered

FIGURE 6.16 SANE Australia is a national charity working for a better life for Australians affected by mental disorders.

CASE STUDY

Council wants federal commitment to headspace centre

Monash Council is lobbying for a new mental healthcare centre for youth in the city.

Councillors want headspace, the National Youth Mental Health Foundation, to open in Monash to provide a direct and accessible mental health service health for people, aged 12–25.

Mental health is the number one issue facing Monash youth, according to council's youth plan.

Mayor Paul Klisaris said many young people in the community were struggling with anxiety, self-harm and depression.

'Young people in Monash deserve to have the support provided by a headspace hub,' he said.

'These services are critical in helping young people deal with these issues and find the support they need. 'We believe the federal government needs to provide more funding to address this gap in Monash. 'We believe we need a service based in Monash.'

The federal government has committed to there being 100 centres across the country by 2017–18. Headspaces exist in Hawthorn and Knox. Three clinical mental health services are available to Monash youth at Dandenong, Box Hill and Moorabbin. Mr Klisaris said the council supported youth mental health through the youth and family services, but there was a significant lack of care based in Monash.

Oakleigh state Labor MP Steve Dimopoulos said he supported having a headspace in Monash, and in particular Oakleigh.

'The main funding comes from the Commonwealth so I have been talking to state Health Minister Martin Foley about a range of issues and a headspace would be awesome,' he said.

'I've been working with council to see what pathway to take to get this.'

More than 60 000 young people have used headspace in the past year.

A study, published in the *Medical Journal of Australia*, found 60 per cent of the youth who received support from headspace significantly improved over time.

Head of centres, Leslie McGuire, said headspace would continue to work towards bridging the gaps in service provision.

'We would love to have a headspace available in every community across the Australia,' she said.

'The right intervention at the right time for young people with mental health issues can make a huge difference to their future.'

Source: 'Council wants federal commitment to headspace centre', *The Leader*, http://leader.newspaperdirect.com/epaper/viewer.aspx.

Case study review

1. What is the City of Monash lobbying for?
2. What community expectations are reflected in this advocacy?
3. How is this an example of community advocacy?
4. Why does the City of Monash see a need for this?
5. What is the desired outcome of the advocacy?

sensitive by the community or stigmatised, such as youth sexuality and reproductive health, drug and alcohol abuse or gender-based violence. Peer to peer youth programs involve young people providing informal support to other young people. Programs are based on the assumption that young people are more likely to discuss personal issues with their peers rather than with parents or adults, and that peers are often regarded as a more credible and non-judgemental source of information.

There are a number of youth-led organisations operating in Australia. Here are three examples:

- *WYPIN*. The Western Young People's Independent Network (WYPIN) is an organisation based in the western region of Melbourne. It is led by young people from diverse backgrounds and it works to achieve a vision of an inclusive, multicultural society.
- *SYN*. SYN is a media organisation run by a community of young people. It provides training and radio, TV and internet broadcast opportunities for young Australians.
- *batyr*. batyr focuses on preventative education in the area of youth mental health and wellbeing. batyr provides programs that train young people to speak about their personal experience with mental ill

health and start a conversation in their community. batyr takes these speakers into schools, universities and corporate arenas to continue this conversation around mental health and wellbeing. The programs engage, educate and empower the audience to learn from the experiences of others and to reach out to the great services around them.

Anyone can be an advocate. You do not need to have any formal qualifications, but in order to advocate on behalf of a group or community you need the consent and support of the community or group that you are representing. Australian youth, Indigenous Australians and people from migrant and refugee backgrounds have often had others advocate on their behalf. This has led to good health and wellbeing outcomes. However, enabling them to advocate for themselves means they are involved in decisions affecting their lives. An advocacy process that could involve or be used by youth is outlined in table 6.6.

FIGURE 6.17 batyr@school programs aim to remove the stigma around mental health and wellbeing and engage, educate and empower young people to reach out for help when they need it.

TABLE 6.6 Steps in planning advocacy

What health and wellbeing focus or inequity needs promoting?	Identify a health and wellbeing focus or inequity related to Australia's youth. Sources of information include: • government reports such as *Young Australians: Their Health and Wellbeing 2011* • Mission Australia Youth Survey • survey results • media items • personal experience.
What needs to be done or changed?	Decide which of the following is needed: • increased awareness about the issue • changed policy • increased youth participation • improved access to resources.
What is known about the health and wellbeing focus or inequity?	Collect information. This could include: • a literature or media review • identification of the cause of the health and wellbeing focus and who it affects • expert opinion • a focus group with targeted groups of young people • vox pops • an online survey with a broad cross-section of young people.
What opportunities for action are there?	Undertake any of the following actions: • work with a group or expert • arrange a face-to-face meeting with decision-makers • write and deliver a position paper, research and policy document • do a public presentation • start a program • create a school activity • organise a public meeting • write a letter or an email, make phone calls • develop a social media campaign that includes a petition, blog or website • participate in a committee or forum. • use the mainstream media through an opinion piece or letter to the editor.

AN EXAMPLE OF ADVOCACY TO IMPROVE MENTAL HEALTH AND WELLBEING

Save the Children conducted research in 2012 to better understand the day-to-day experiences of young Aboriginal people in Perth. The project involved interviews with 120 young Aboriginal people. To gain a deeper understanding they also interviewed a further 20 through a research technique called Photovoice.

Photovoice involved providing the participants with cameras and asking them to take photos reflecting their daily experiences. This demonstrated the issues they faced. The stories that emerged showed that the common perspective that Indigenous youth are involved in antisocial and criminal behaviour was in fact not supported.

A more accurate understanding of issues that the participants faced emerged as a result of engaging the young people in the project. Photovoice provided results that were used in a more targeted approach to develop a health promotion program for Aboriginal youth in Perth. The perspectives that emerged were different to those of the wider community, highlighting the importance of Save the Children involving young people in their research.

6.5 Activities

Test your knowledge

1. Explain the term 'advocacy'.
2. What are the two goals of advocacy?
3. Explain the three types of advocacy about mental health and wellbeing. Include their aim and examples.
4. (a) Briefly describe the public advocacy of beyondblue.
   (b) Explain how it could influence youth mental health and wellbeing.

Apply your knowledge

5. An example of an advocacy campaign that aims to raise awareness of suicide and to inspire and empower individuals to connect with people around them and support anyone struggling with life is R U OK? Day. Research this campaign and explain how it is an example of community advocacy.
6. (a) Access the **headspace** weblink and worksheet in the Resources tab in your eBookPLUS then complete the worksheet.
7. Use table 6.6 to plan advocacy to improve outcomes for a youth health and wellbeing focus.

studyon

Unit 1 > AOS 3 > Topic 2 > Concept 8

Opportunity for youth advocacy Summary screens and practice questions

eBookplus RESOURCES

Explore more with this weblink: headspace

Complete this digital doc: headspace worksheet
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6.6 Topic 6 review

6.6.1 Key skills

KEY SKILL Research and collect data on one particular health and wellbeing focus relating to youth, with critical analysis of its impact, management and costs

As the issue of mental health and wellbeing is explored in detail in this topic already, it may be useful to explore another issue to demonstrate this key skill. To complete this skill, you must describe in detail one health and wellbeing focus that relates to Australian youth. To critically analyse the health and wellbeing focus, you are required to explain:

- what it is
- how it affects morbidity (including prevalence and incidence where appropriate)
- how it affects mortality
- how it affects other indicators outlined in topic 2
- how it impacts on the dimensions of health and wellbeing of the sufferer
- the risk and protective factors linked to it.

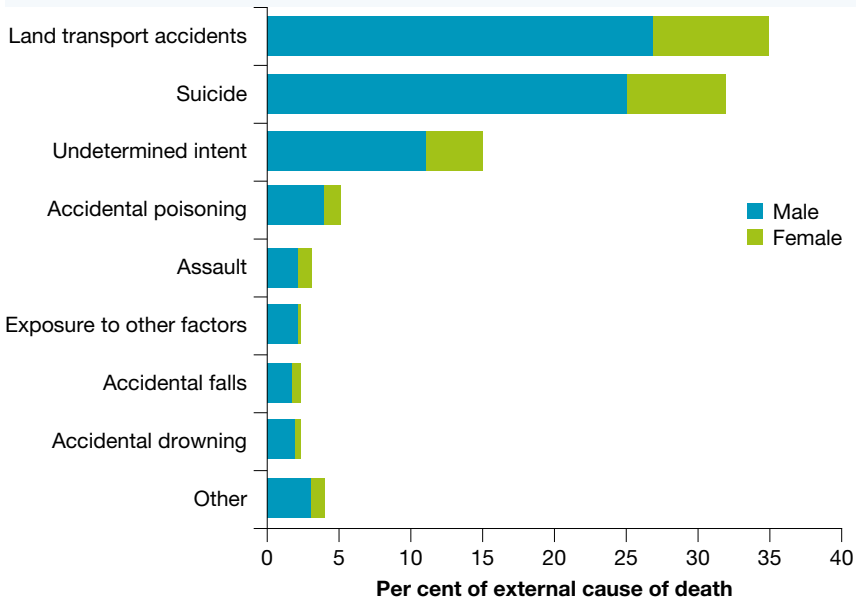
It is important to use information presented (e.g. in the form of tables, graphs or case studies) to draw conclusions about the impact of the health and wellbeing focus relating to Australia's youth.

This key skill also requires a critical analysis of personal strategies and/or community and government programs that have been implemented to manage or address the issue and to reduce direct, indirect and intangible costs. Critical analysis also requires you to comment on the actual or possible effectiveness. For instance, there may be financial constraints or the program may not be consistent with community values. These may prevent the program from being more effective than it should be. It is not expected that all comments will be positive. There will no doubt be room for improvement in at least some of them.

The following example explores injuries as a health and wellbeing issue facing Australia's youth. This example will be used in all the key skills in this topic.

'Injury' is a term that refers to the intentional or unintentional physical damage that can occur to the body as a result of trauma.[1] Examples of injuries affecting youth include drowning, car crashes, suicide and poisoning.[2] Injuries contribute more to mortality for youth in Australia than any other cause, with land transport accidents the single greatest cause of injuries, followed by suicide (AIHW, *Young Australians: Their Health and Wellbeing, 2011*). As shown in figure 6.18, males experience a greater percentage of injury deaths than females.

FIGURE 6.18 Injury and poisoning deaths among young people aged 15–24 years, by external cause of injury



1 The characterising features of injuries are identified.

2 Examples related to youth are identified.

As well as mortality, injuries can result in lifelong disability and contribute significantly to morbidity. When not fatal, injuries can require hospitalisation and ongoing treatment, including rehabilitation. Injury can also have an impact on social health and wellbeing through reduced access to social networks during recovery. Serious injury resulting in reduced physical function could create low mood, low self-esteem and poor self-image. In 2011, the Australian Institute of Health and Welfare collected information relating to hospitalisations caused by injuries for those aged 15–19.[3] It found that there were 19 531 cases of children aged 15 to 17 years hospitalised as a result of an injury, representing 15 per cent of all hospitalised injury cases in youth. The incidence rate of injury was 2244 cases per 100 000 populations (AIHW, Injury Research and Statistics series, 2014)[4] Males are more likely to be hospitalised than females.[5]

3 The reasons why injury is considered a health and wellbeing issue is identified. In this case, it is due to the high rates of mortality and morbidity. Information about impact is presented in a range of ways.

4 When relevant, the data source is explained.

5 Differences and similarities between males and females are identified.

6 Risk and protective factors that can increase or decrease the risk of injuries are identified.

Factors such as alcohol and drug use, risk-taking behaviours and the influence of the peer group increase the risk of sustaining injuries. Protective factors that can reduce the risk of injury include wearing a seatbelt, obeying the speed limit, wearing a helmet, and ensuring long road trips are broken up into manageable chunks so that fatigue does not become a risk factor.[6]

In the 2011–12 financial year, injury expenditure was around $5.5 billion, representing almost 5 per cent of total allocated health expenditure in that year (AIHW, *Australia's Health 2012*).[7]

Medicare provides a range of healthcare services in Australia. Healthcare services available to youth relating to injuries issues include:

- ambulance services for transport to hospital following injury
- general practitioners to treat cuts, breaks and injuries
- emergency departments at public hospitals following injury
- rehabilitation services to regain physical and mental health and wellbeing
- allied health professionals such as physiotherapists to regain full flexibility and movement.[8]

The TAC produce a range of initiatives including advertising campaigns, with the aim of reducing the incidence and severity of injuries occurring as a result of road accidents. The Everybody Hurts campaign is an example of this (see figure 6.19).

FIGURE 6.19 An anti-speeding advertisement produced by the Transport Accident Commission

The Everybody Hurts campaign is an advertising strategy aimed at encouraging people to reduce their speed and therefore their risk of sustaining injuries on Victorian roads. Everybody Hurts utilises social media such as Facebook to personalise road safety messages. It also provides a website that contains clips of the all the different people who are affected by road trauma.

The TAC's Everybody Hurts campaign utilises media (including social media) to reach its audience. Young people are often engaged in social media so may be more likely to be exposed to its message. Everybody Hurts aims to educate people by accessing their social media profiles and making personalised messages relating to the impact of injuries sustained on roads.[9]

Not all young people at risk of road injuries access social media and not all will be exposed to the Everybody Hurts message. Youth is a time of risk taking for some individuals, and even if they are exposed to the Everybody Hurts campaign, they may not respond its message.[10]

Overall, the Everybody Hurts campaign is effective, as it targets speed, which is a major cause of land transport

7 Costs are identified.

8 A range of services available to youth are identified.

9 Elements of TAC's Everybody Hurts campaign are discussed.

10 Critical thinking is shown through identification of possible limitations of the campaign.

11 A conclusion is drawn and points made to support the conclusion.

accidents — the major cause of injury death among young people. The campaign acts to reach young people via media that they engage in, particularly social media.[11] This may encourage youth to think twice about risk taking on the road and may decrease the rate of injury death among youth. This will reduce the direct costs of GP and hospital fees due to injury. It will reduce indirect costs related to government subsidy of Medicare and PBS for the schedule part of GP and pain medication. It will also reduce the intangible costs of injury such as pain, suffering and frustration linked to reduced mobility.[12]

12 The likely impact of the campaign is outlined.

Practise the key skill

1. (a) Identify and describe one health and wellbeing focus for Australia's youth that has become increasingly significant in the past ten years. Make sure you include:
   (i) the name
   (ii) what the health and wellbeing focus actually is
   (iii) morbidity (including incidence and prevalence where appropriate), mortality and burden of disease data, trends and other indicators outlined in topic 2
   (iv) impact on all dimensions of health and wellbeing
   (v) the amount of money spent addressing the issue.
2. Identify personal strategies that a young person could use to prevent or manage the health and wellbeing focus.
3. Explain a government or community program designed to address the health and wellbeing focus.
4. Discuss the likely effectiveness of the program in promoting youth health and wellbeing.

KEY SKILL Plan advocacy and/or action based on identification and evaluation of opportunities for promoting youth health and wellbeing

This key skill requires you to identify a health and wellbeing focus or inequity related to Australia's youth and to plan advocacy and/or action to address it.

You will need to include:

(i) what needs to be promoted
(ii) what needs to be done or changed
(iii) what is known about it
(iv) what opportunities for action exist.

In addition, you need to comment on the possible effectiveness of your advocacy plan. For this, a critical approach is required. For instance, there may be constraints that could prevent the action from being more effective than it should be. You will need to consider the values and expectations discussed in this topic. It is not expected that all comments about your advocacy plan will be positive.

The health and wellbeing focus that affects young Australians that I am promoting is road trauma.[13] I plan to raise awareness of the impact it has on the health and wellbeing of young people because land transport accidents are the single greatest cause of injuries for youth. I believe that attitudes to safe driving need to be changed and awareness of resources that could be used to assist this needs to be increased in my peers.[14]

TAC statistics indicate that young drivers are 30 times more likely to crash when they begin driving on their P-Plates. I think young people need to be made more aware of the risks associated with speeding and being distracted by things such as mobile phones while driving. According to the TAC, a driver taking their eyes off the road for two seconds at 50km/h is the equivalent of driving effectively blind for 27 metres. In 2015, 22 per cent of drivers who lost their lives in Victoria were aged between 18 and 25 years; however, this age group only represented 13 per cent of Victorian licence holders.[15]

13 A relevant health and wellbeing focus that needs promoting is identified.
14 What needs to be changed is identified.
15 What is known about the health and wellbeing focus is presented.

I plan to organise a forum at school assembly with a member of the Victorian Police Road Accident Branch, a road trauma victim, a paramedic and a young driver. I will present videos from the TAC 'Distractions' campaign such as the video 'Blind', which will demonstrate the consequences of driver inattention.[16]

16 Opportunities to promote youth health and wellbeing and a plan of action are included.

17 Critical evaluation of the advocacy plan is made.

My advocacy plan could be quite successful because it discusses the issue of mobile phone use and distraction, which are relevant to young people my age. It also uses personal stories that make the message memorable for youth. It also uses experts who have firsthand experience of road trauma involving young people. It will have the potential to change the attitudes and behaviour of youth in relation to driving and speeding or driving while using a mobile phone, which will reduce the risk of injury. It will also clarify the laws related to mobile phone use while driving.

My advocacy may face barriers if there is a poor relationship between the police and youth in my area. It may also be dismissed by some young people who have an 'it won't happen to me' attitude. Research suggests that even though young people can be aware of potential risks they can believe that they are less likely to experience these than their peers. At this stage of their development, they may have an unrealistic idea that they are invincible, which leads them to think that this only happens to other people.[17]

Practise the key skill

5. Identify a health and wellbeing focus or inequity related to Australia's youth that requires improvement.
6. Plan advocacy or action to address it. Make sure you include:
   (a) what needs to be promoted
   (b) what needs to be done or changed
   (c) what is known about it
   (d) what opportunities for action exist

6.6.2 Topic summary

- You will be required to research a health and wellbeing focus of your choice. This topic uses mental health conditions to illustrate the level of detail required.
- The term 'mental health condition' refers to both mental health problems and mental disorders.
- Mental disorders such as anxiety and depression cause the largest burden of disease among Australian youth.
- A mental disorder or mental illness is an umbrella term that encompasses a wide range of mental health conditions that affect how we feel, think and behave. Mental disorders are more severe and last for longer periods than mental health problems.
- Anxiety disorders cover a range of conditions including phobias, panic disorder and generalised anxiety.
- Depression is a debilitating condition in which the feelings of sadness or worthlessness continue for an extended period.
- Mental health problems have a negative impact on a person's thoughts, feelings and social abilities but are often temporary and disappear with time.
- Mental health problems can affect physical, social, emotional and spiritual health and wellbeing.
- One in six young Australians is currently experiencing an anxiety disorder and 7.7 per cent of 11- to 17-year-olds met the criteria for a major depressive order.
- The rates of mental disorders have been fairly stable over the past ten years to 2015.
- Factors can either protect a person against, or put them at risk of, developing a mental disorders.
- The community has values and expectations that relate to the provision of mental health services and programs.
- Up to 70 per cent of youth with a mental disorders do not seek help.
- A range of healthcare services are available to youth, many of which are fully or partially funded by Medicare.
- A number of strategies have been implemented to address the issue of mental disorders in Australian society, including headspace and Youthbeyondblue.
- Personal strategies such as relaxation and communication can protect individuals from mental disorders.
- Costs associated with mental health problems can be direct, indirect or intangible for individual or the community.
- Advocacy involves promoting the interests or cause of an individual or a group of people.
- Advocacy can occur in policy, public or community settings.
- Youth advocacy aims to protect vulnerable young people and empower them with a stronger voice.
- Health advocacy involves identifying a focus, deciding what to do about it, researching it and making a plan of action.

6.6.3 Exam preparation

Question 1

There are many issues facing Australia's youth. If continual improvements to health status are to be made, these issues must be addressed. Individuals, communities and governments can implement a range of strategies and programs in order to optimise health and wellbeing.

(a) List three focus areas of youth health and wellbeing that require improvement. **(3 marks)**
(b) Select one of these focus areas and describe it briefly. **(4 marks)**
(c) Describe one program or strategy that has been designed to address this health and wellbeing focus. **(3 marks)**
(d) Explain how it would reduce costs associated with the health and wellbeing focus. **(3 marks)**
(e) How does it meet community expectations? **(4 marks)**
(f) Describe one example of action or advocacy that could be taken in the area of the health and wellbeing focus. **(3 marks)**

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Sit Topic Test

UNIT 2 MANAGING HEALTH AND DEVELOPMENT

AREA OF STUDY 1

Developmental transitions

OUTCOME 1

Explain developmental changes in the transition from youth to adulthood, analyse factors that contribute to healthy development during prenatal and early childhood stages of the lifespan and explain health and wellbeing as an intergenerational concept

AREA OF STUDY 2

Healthcare in Australia

OUTCOME 2

Describe how to access Australia's health system, explain how it promotes health and wellbeing in their local community, and analyse a range of issues associated with the use of new and emerging health procedures and health technologies

TOPIC 7
The human lifespan

7.1 Overview

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
- Developmental transitions from youth to adulthood

Key skills

- Collect and analyse information to draw conclusions on perceptions of youth and adulthood
- Describe the developmental changes that characterise the transition from youth to adulthood

FIGURE 7.1 Development becomes more obvious as people get older.

KEY TERMS

Abstract thought a complex thought process where ideas are the focus rather than tangible objects
Bilingual being able to speak two languages fluently
Concrete thought a simple thought process that centres on objects and the physical environment
Development the series of orderly, predictable changes that occur from conception until death. Development can be physical, social, emotional or intellectual.
Developmental milestone a significant skill or event occurring in a person's life (e.g. learning to walk, getting a job or having children)
Ejaculation the process whereby semen is ejected from a male's penis
Emotional development relates to experiencing the full range of emotions, and increasing complexity relating to the expression of emotions, the development of a self-concept and resilience
Epiphyseal plates a cartilage section at each end of long bones that allows the bone to lengthen, resulting in growth
Fertilisation when a sperm penetrates an ovum and the genetic materials fuse together to make a single cell called a zygote
Fine motor skills the manipulation and coordination of small muscle groups such as those in the hands
Generation gap the difference in attitudes and opinions experienced by people of different generations
Gross motor skills the manipulation and coordination of large muscle groups such as those in the arms and legs
Intellectual development the increase in complexity of processes in the brain such as thought, knowledge and memory
Menarche the first occurrence of menstruation in females
Menstruation the discharge of blood and other tissue from the uterus that marks the beginning of the menstrual cycle
Narcissistic having an over-inflated sense of self-importance
Period *see* menstruation
Physical development changes to the body and its systems. These can be changes in size (i.e. growth), complexity (e.g. the increase in complexity of the nervous system) and motor skills (e.g. learning to walk).
Puberty biological changes that occur during youth and prepare the individual for sexual reproduction
Semen a substance containing sperm and fluids that is released from the penis during ejaculation
Social development the increasing complexity of behaviour patterns used in relationships with other people (VCAA)
Sperm a component of semen. Sperm are the male sex cells required for reproduction.
Spermarche relating to the first ejaculation in males
Youth People aged 12 to 18 years; however, it should be acknowledged that classifications for the stage of youth can differ across agencies (VCAA)
Zygote a full cell resulting from the fusion of a sperm and an ovum

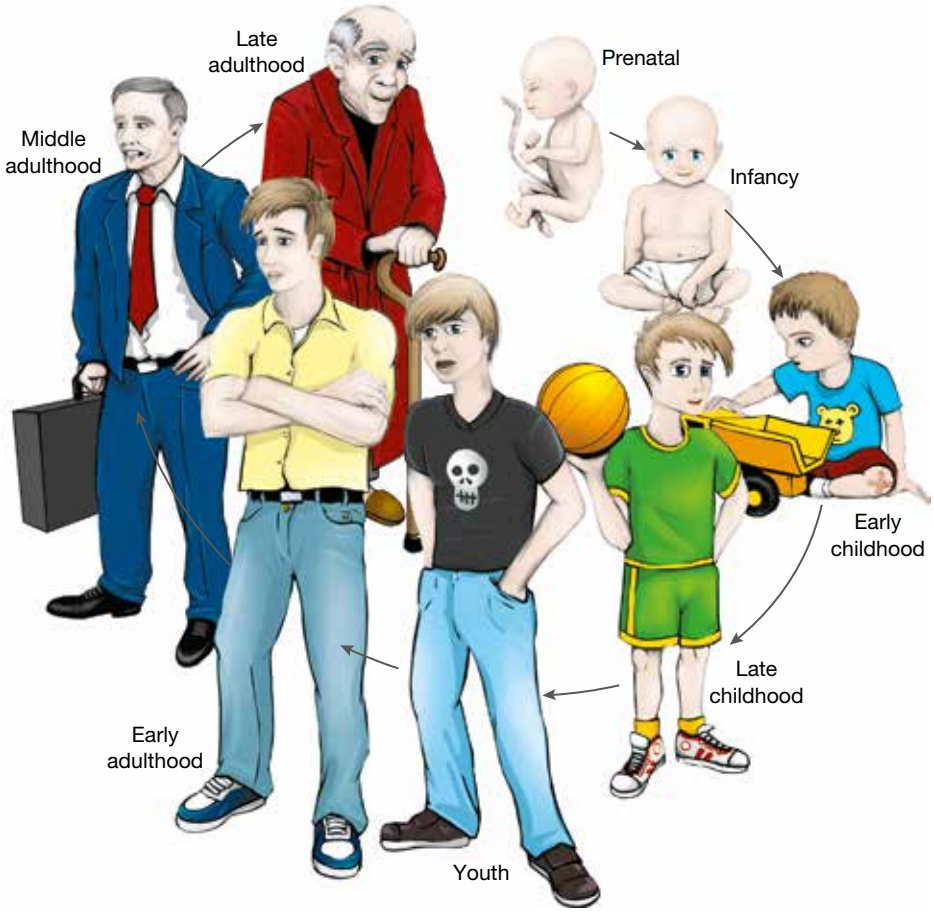
7.2 Overview of the human lifespan

KEY CONCEPT Understanding the stages of the human lifespan

An understanding of the human lifespan and the various stages within it allows analysis and discussion of health and wellbeing and **development** that occurs for people at different times throughout their lives.

The human lifespan can be broken into different stages (figure 7.2), although different cultures and societies have different ways of defining the stages. One thing that all groups agree on is that the human lifespan starts at conception and ends at death. In Australian society, as in most Western societies, there are a number of stages that humans pass through as they age.

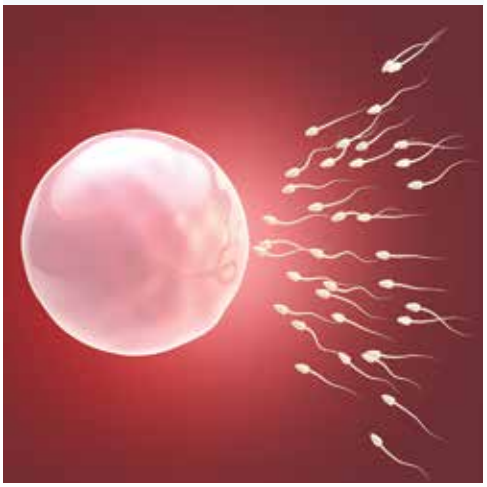
FIGURE 7.2 Stages of the human lifespan



7.2.1 Prenatal stage

The prenatal stage begins when a sperm penetrates an egg (figure 7.3) in a process known as **fertilisation** to form one complete cell, called a **zygote**. The prenatal stage continues until birth and is characterised by the development of the body's organs and structures, and substantial growth. The unborn baby goes from being a single cell (smaller than a quarter of a millimetre across) to consisting of more than 200 billion cells at birth and weighing around 3.5 kilograms on average. This process takes about 38 weeks to complete. In terms of rate of growth, the prenatal stage is by far the fastest growth period of all the human lifespan stages. It is also one of the most vulnerable stages of the lifespan in terms of making it all the way through the prenatal stage and the process of birth.

FIGURE 7.3 The prenatal stage begins when one sperm penetrates the egg.



7.2.2 Infancy

As with most lifespan stages, there is debate about when infancy finishes. Everyone accepts that it starts at birth, but when does the infant become a child? Historically, infancy was considered to continue until the onset of speech. However, because infants can vary greatly in the time at which they start speaking, many organisations and professionals in this field have adopted the view that this stage ends with the second birthday (approximately). Therefore, we will also use the second birthday as signifying the end of the infancy period.

Infancy is a period of rapid growth with many changes. A newborn baby is obviously very different from a two-year-old. By the time an infant turns two, they have developed their motor skills and can walk, use simple words, identify people who are familiar to them, play social games — and throw tantrums when they do not get what they want.

Many of the **developmental milestones** that the infant achieves will have some sort of bearing on how they develop in later years. This concept will be explored in more detail in topic 9.

The term 'infant' comes from the Latin *infans*, which translates to 'without speech' or 'unable to speak'.

7.2.3 Childhood

Like infancy, the start and end of the childhood stage is difficult to define. Most people say that it ends at the onset of **puberty**. As the age of the onset of puberty varies greatly we will use the twelfth birthday to signify the end of childhood, which also coincides with the completion of primary school for many children. The development that occurs in childhood is substantial, so it is worthwhile considering this lifespan stage as being divided into early childhood and late childhood.

Early childhood

Early childhood starts at the end of infancy and continues until the sixth birthday. This stage is characterised by slow and steady growth, and the accomplishment of many new skills. The child learns social skills that will allow them to interact with other people. During this stage they will make friends, be able to eat with adults at the table and become toilet trained.

FIGURE 7.4 Learning to ride a bike is a milestone for most children.

Late childhood

Late childhood starts at the sixth birthday and ends at the twelfth birthday. Like early childhood, late childhood is characterised by slow and steady growth. There are many physical, social, emotional and intellectual changes that occur as the child moves through this stage. These include refining reading and writing skills, developing long-term memory, understanding gender stereotypes and refining motor skills.

7.2.4 Youth

The **youth** stage of the lifespan has steadily lengthened over the past 100 years. This has occurred because puberty is starting earlier, and young people are taking longer to gain independence and reach maturity in other aspects of their lives. As a result, the youth stage of the lifespan is perhaps the hardest to define. We will assume that youth starts at 12 years of age and continues until 18, although this may vary depending on the research used. The secondary school years are a marker of this lifespan stage for many youth in Australia. The youth stage is characterised by rapid growth, increased independence and sexual maturity.

This stage of the lifespan is concerned with moving from childhood to adulthood. Youth must undergo vast physical changes in order to achieve sexual maturity, and therefore the ability to reproduce. Youth will also undergo significant social, emotional and intellectual changes as they become accustomed to greater independence, more complex relationships and the development of life goals. The end of youth is characterised by reaching a level of maturity across physical, social, emotional and intellectual aspects of development.

FIGURE 7.5 Friends play an influential role in development during youth.

The terms 'adolescent' and 'adult' come from different forms of the Latin word *adolescere*, meaning 'to grow up'. For adolescent and adult, it means 'growing up' and 'grown up' respectively.

The term 'adolescence' has generally come to mean the period between the onset of puberty and the cessation of growth (i.e. physical maturity). As society has changed over the years, the physical changes are seen as being only one aspect of the transition between childhood and adulthood. Young people now spend more time reaching maturity in other areas such as tertiary study, finding a career, living with their parents and gaining financial independence. As a result, the term 'youth' is now more commonly used to describe the stage between childhood and adulthood because it encompasses all the changes experienced during this transition, not simply the physical changes.

CASE STUDY

Bedtimes could pinpoint the end of adolescence

The end of puberty, or sexual maturation, is well defined. It is the point when bones stop growing. But for adolescence, the transition from childhood to adulthood, there is no clear endpoint.

'I don't know of any markers for it,' says Till Roenneberg of the Centre for Chronobiology at the University of Munich in Germany. 'Everyone talks about it but no one knows when adolescence ends. It is seen as a mixed bag of physical, psychological and sociological factors.'

[The study of 25 000 individuals of all ages] reveals a distinct peak of night-owlishness at around age 20. Women reach this peak at 19.5 years old on average, and men at 20.9 years. After that, individuals gradually return to earlier and earlier sleeping patterns, until things go haywire in old age.

Roenneberg, thinks that the peak in lateness is the first plausible biological marker for the end of adolescence.

If it is a physiological effect, forcing teenagers to get to school for, say, 8 am, could be a mistake, Roenneberg says. They probably take nothing in for the first two lessons because they are still in biological 'sleep time', and end up with a horrendous sleep deficit by the weekend.

Case study review

1. What aspect of sleeping patterns may signify the end of adolescence (youth) according to the study?
2. Discuss why starting school at 8 am could be a 'mistake' for adolescents.
3. (a) Create a survey that could be used to find out about the sleeping patterns of youths and young adults. Some questions to consider are:
   - What time do you go to bed?
   - What time do you wake in the morning?
   - Do you sleep during the day as well? If so, for how many hours?

- Do you get sleepy during the day?
- How do your sleeping patterns change on the weekend compared to Monday to Friday? What about your holiday sleeping patterns?

(b) Hand the surveys out to people you know in the youth stage (your class could be a good place to start) and to those in their 20s and 30s.

(c) Collate and present the results (graphs and tables are useful for this). Be sure to include the total number of hours of sleep for each person and the average for each age group.

(d) Did you find any patterns or trends in the results?

(e) Did they support the findings of the study in Europe?

FIGURE 7.6 Sleep is important to most adolescents.

7.2.5 Early adulthood

Early adulthood begins on the 18th birthday and ends on the 40th birthday. Physically, this stage is characterised by the body reaching its physical peak around 25–30, followed by a steady decline in body systems thereafter. Some growth may continue at the beginning of early adulthood, but all stages of adulthood are essentially periods of maintenance and repair as opposed to the periods of growth experienced in the earlier lifespan stages.

People in this age group often become focused on building a career. Young adults may also choose a life partner, get married and/or have children. These events lead to many physical, social, emotional and intellectual changes.

7.2.6 Middle adulthood

Middle adulthood begins at 40 and continues until the age of 65. The events that occur during this period vary from culture to culture and from individual to individual. Some of the more common characteristics of this lifespan stage include stability in work and relationships, the further development of identity, including the maturation of values and beliefs, financial security, physical signs of ageing and, for women, menopause. During this stage, children may gain independence and leave home, giving the parent a new sense of freedom. Sometimes this can also create a sense of loss or loneliness, often referred to as 'empty nest syndrome'. Many individuals in the middle adulthood stage will experience the joy of becoming grandparents for the first time, although this can occur in late adulthood as well.

FIGURE 7.7 Late adulthood is often characterised by increased leisure time.

7.2.7 Late adulthood

Late adulthood, the final stage of the lifespan, occurs from the age of 65 until death. This period is characterised by a change in lifestyle arising from retirement and financial security (for most). It can include greater participation in voluntary work and in leisure activities, such as golf. Many older people may

also have to endure the grief associated with the death of friends or a spouse. Their living arrangements may also change, presenting challenges and opportunities for their health and wellbeing and development.

As health and wellbeing begins to decline significantly, older people tend to reflect on their lives and achievements. This may provide a sense of satisfaction or regret, depending on how they assess the choices they have made in their lives.

7.2 Activities

Test your knowledge

1. (a) When does the human lifespan start?
   (b) When does it finish?
2. (a) What are the stages of the human lifespan?
   (b) When does each stage start and finish?
   (c) (i) Which lifespan stage is the longest?
   (ii) Would this be the same for everyone? Explain.
   (d) Why are the starting and end points of some lifespan stages difficult to classify?
3. Discuss the difference between youth and puberty.
4. Why is it difficult to pinpoint the end of youth?
5. (a) Why has the period of youth been getting longer over the past 100 years?
   (b) How many of these reasons relate to the physical changes that occur during youth? What aspects of life do they relate to?
6. What developmental milestones are used to signify independence?

Apply your knowledge

7. Why might other cultures define stages of the lifespan differently?
8. (a) How might the experiences of youth in Australia differ from the experiences of youth in a country like Ethiopia in Africa?
   (b) Are there any experiences you think are common to youth across the world?
9. (a) Brainstorm factors that may affect the age at which a person reaches their physical peak.
   (b) How could someone prolong their peak physical condition?
10. Work individually or with a partner to identify key words you would use to explain each lifespan stage.
    (a) What sort of words did you come up with for each stage?
    (b) Were the words used for each lifespan stage positive or negative?
    (c) Where do you think these ideas come from?
    (d) Would they be the same if someone from another culture played this game? Why?
11. Design a concept map that summarises three aspects for each lifespan stage that you think help define the stage. Images from newspapers, magazines and/or the internet can be used for this activity.
12. Access the **Lifespan** weblink and worksheet in the Resources tab in your eBookPLUS then complete the worksheet.

eBookplus RESOURCES

Explore more with this weblink: Lifespan

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Searchlight ID: doc-22659

studyon

Unit 2 > AOS 1 > Topic 1 > Concept 1

The human lifespan Summary screens and practice questions

7.3 Perceptions of youth and adulthood as stages of the lifespan

KEY CONCEPT Understanding perceptions of youth and adulthood

Perceptions are beliefs or opinions based on how things seem. The perceptions of youth and adulthood therefore relate to the different ways that people view those in each of these lifespan stages. Perceptions can be influenced by personal experiences, including what people see and hear. Some people have positive perceptions; some people have negative perceptions; and many people have a mix of both.

In the past, the difference in opinions between people of different ages was known as a **generation gap**. The different attitudes between those in different lifespan stages can contribute to a lack of understanding and even conflict between those of different ages.

In order for all people to develop optimally, healthy relationships between generations is essential. Offering support, guidance and encouragement to those in other lifespan stages is an important consideration for people of all ages.

The perceptions that an individual has about people in different lifespan stages is often the result of a range of factors, including:

- past experiences with people in the specific lifespan stage
- the way the media portrays people in the lifespan stage
- their own experiences in the lifespan stage
- other people's opinions
- the way politicians and other public figures speak of various population groups
- their values and beliefs.

In this subtopic a range of perceptions of youth and adults will be considered.

FIGURE 7.8 Building relationships with people in different lifespan stages can promote understanding and positive perceptions.

7.3.1 Perceptions of youth

Limited research has been carried out in Australia relating to the perceptions of youth. The most recent data are from 2003. Perceptions about youth vary but, according to the *Kids Are Like That*! study from 2003, fit into one of four categories:

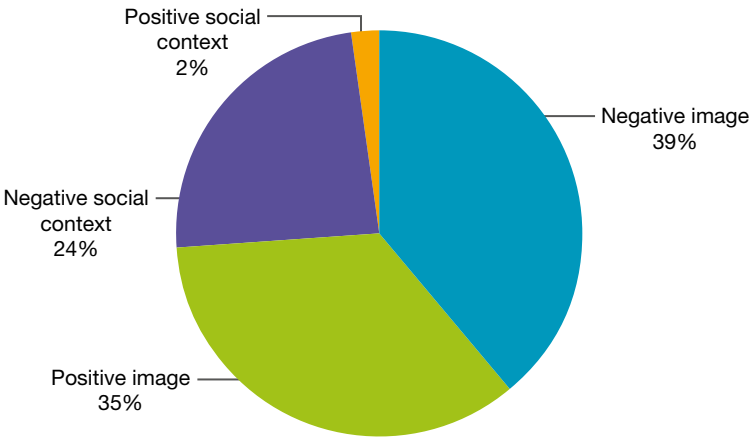
- *positive image* — youth are positive, ambitious, hardworking and happy
- *negative image* — youth are frightening, lazy or selfish
- *positive social context* — youth have many opportunities and are fortunate to live at this time and in this society
- *negative social context* — youth are devalued, victimised or neglected.

In the report, participants' perceptions of young people were more likely to be negative than positive (figure 7.9).

Negative perceptions of youth in the community have existed since the beginning of recorded history. For example:

- Hesiod (eighth century BC) wrote, 'I see no hope for the future of our people if they are dependent on frivolous youth of today, for certainly all youth are reckless beyond words. When I was young, we were taught to be discreet and respectful of elders, but the present youth are exceedingly disrespectful and impatient of restraint.'
- Socrates (fifth century BC) wrote, 'The children now love luxury. They have bad manners, contempt for authority; they show disrespect for elders and love to chatter in place of exercise.'

FIGURE 7.9 How respondents perceived youth in Australia



Source: Bolzan, N 2003 *Kids are Like That! Community Attitudes to Young People*, National Youth Affairs Research Scheme, 2003, https://docs.education.gov.au/documents/kids-are-community-attitudes-young-people.

- Plato (fifth century BC) wrote, 'Our youth have an insatiable desire for wealth; they have bad manners and atrocious customs regarding dressing and their hair and what garments or shoes they wear.'
- Seneca (first century AD) wrote, 'Our young men have grown slothful. There is not a single honourable occupation for which they will toil night and day. They sing and dance and grow effeminate and curl their hair and learn womanish tricks of speech; they are as languid as women and deck themselves out with unbecoming ornaments. Without strength, without energy, they add nothing during life to the gifts with which they were born — then they complain of their lot.'
- Peter the Hermit (eleventh century) wrote, 'The young people of today think of nothing but themselves. They have no respect for their parents or old age. They are impatient of all restraint. They talk as if they alone know everything and what passes for wisdom in us foolishness in them. As for the girls, they are foolish and immodest and unwomanly in speech, behaviour, and dress.'

In more recent times, perceptions of youth have continued to be influenced by stereotypes, including:

- Youth are lazy and **narcissistic**. They do whatever they want, whenever they want.
- They are slackers and are unable or unwilling to gain ongoing, meaningful employment.
- They are uneducated and incapable of making informed, rational decisions.
- They lack the maturity of past generations.
- They feel entitled to a decent life and want the world to provide it for them.
- They are more concerned with how many 'likes' they receive on social media than how they can positively contribute to society.

FIGURE 7.10 Youth are often perceived as being narcissistic.

According to the *Kids Are Like That!* study, youth often believed that these negative perceptions were:

> based on the fact that they looked different, often because of the kind of clothing they wore, and judgments made on the basis of superficial evidence rather than on knowledge or understanding. They also blamed false and sensational accounts of young people in the media. (p. vii)

A number of studies of Australian media have shown that the majority of print media articles about youth are related to crime. The smaller proportion of positive articles often relate to high achievers and therefore do not portray the diversity that exists among youth in Australia. Programs such as *Young, Lazy and Driving Us Crazy* and *Summer Heights High* often reinforce the perception of youth as narcissistic, lazy and rude.

As well as the negative perceptions, youth are sometimes portrayed in a positive manner. For some people, youth are seen as vibrant, hard-working, happy individuals. Those who have positive personal experiences with young people, such as grandparents, teachers, sports coaches and neighbours, are more likely to hold these views.

Another positive perception of youth is the romanticised belief that these years are the best of a person's life. This perception is based on the belief that youth have no real worries or stressors and are free to pursue their dreams. This perception could be the result of two different scenarios. One is from a position of envy, where adults see the broad range of exciting opportunities available to youth in relation to education, relationships, socialising and freedom. The other can be from a position of regret — when adults wish they could go back and build a better life for themselves with the benefit of hindsight.

The following case study, which is about British youth but also applies to Australian youth, explores how media perceptions of youth are often not accurate.

CASE STUDY

Today's 13-year-olds are not as bad as we're led to believe

In 1982 I was toying with the idea of a career in teaching. That year a controversial film, *Made in Britain*, starring Tim Roth was released and I almost didn't become a teacher. The film's central character, Trevor was a dysfunctional, violent, foul-mouthed youth — everything society hates and fears. My natural fear was how would I, as a young teacher, cope with a classroom full of such kids? Of course the film is fictional. It portrayed the 1980s accurately — but did it portray Britain's youth accurately?

With the way some of the media represents young people, you may be forgiven for thinking that Roth's character is alive and well and infesting our streets and schools. Different newspapers have their favourite terms for teenagers: the *Daily Mail* likes 'yobs' while the *Daily Express* goes with 'feral kids'.

Changing preoccupations of year 9s

But a new longitudinal study of 13- to 14-year-olds has painted a very different picture of the youth of today. They are drinking and smoking less and bullying is on the decrease — despite the inexorable rise of social media making bullying much easier than it was 30 years ago.

The media has briefly picked up on some of these elements, such as the decline in drinking and smoking and bullying. But they have also focused on how the youth of today communicate less with each other one-to-one and prefer computer games to actual contact with their peers. This cherry-picks the data to fit a stereotype of the lone child, shut off from society playing violent games — a potential outcast from society.

In my time as a teacher I saw the best and worst of year 9, the pupils at the focus of this longitudinal study. It was common 30 years ago to explain the behaviour of year 9 children as a consequence of puberty. Young girls were often more mature in their development and outlook than young boys.

Certainly there was the push against authority, the testing of boundaries and a feeling of invincibility that often led to risky behaviour — from drinking alcohol to trying drugs. In the inner-city schools where I worked, year 9 was often the 'dangerous year' where kids could easily go off the rails. We looked for the tell-tale signs of a hedonistic lifestyle, the aroma of strange cigarettes, the dark circles under the eyes or a pallor not usually seen in fresh-faced youth. It was easier to do this with the boys than the girls who covered up any blemish with make-up and any odd odour with perfume.

Not a 'dsyfunctional' youth

But what of the youth of today? The report is encouraging to say the least. It found that 64 per cent of young people reported no risky behaviours and 68 per cent of their parents reported no indications of risky behaviour, such as contact with the police. Despite what the media says, the majority of young people are neither dysfunctional, violent nor affiliated with gangs.

Of course, there will always be some children who behave immorally, criminally or antisocially, but the indications are that the youth of today are less likely to be involved in risky, criminal behaviour. More than three quarters — 76 per cent — of those questioned had reported no instances of criminal behaviour and only 3 per cent of children reported that they were actively engaged with a street gang.

Attitudes towards schooling have also changed significantly over the past 30 years. When I started teaching in the mid-1980s, it was a struggle to keep children in education past the school-leaving age of 16. A Levels and post-16 education concentrated mainly on the minority who were going on to university. Vocational qualifications were around, but never really valued.

Ten years ago, when the first longitudinal study was undertaken, 79 per cent of children expected to stay on in post-16 education. This has now risen to just under 90 per cent. Admittedly, the school-leaving age has increased, but the proportion looking to enter university has increased significantly in the past ten years from 34 per cent to 41 per cent.

Parents happier

Parents were also asked for their views in this study. Their support is a vital aspect of education and supportive parents who work with and trust the school make a big difference when it comes to positive educational achievement. A staggering 90 per cent of the parents surveyed felt that their child's school was either good or very good (as compared to 78 per cent of schools similarly judged by schools regulator Ofsted in 2013).

A huge 93 per cent were fairly or very satisfied with their child's progress in school. Contrast this picture with the stream of negative rhetoric that comes from politicians of underperformance in our schools that needs to be tackled with some bright new initiative from the Department of Education.

Focus on the positive

So what can we learn from this new study? Well, it's easy to find negatives in our education system. The press delight in feeding people's fears — the stereotypes they create of badly behaved, criminal gangs of delinquent children, roaming the streets, drunk and drugged-up looking for a fight sells more newspapers.

But as any good teacher will tell you, a focus on the negative, always highlighting the bad behaviour, will not stop that behaviour. A focus on the positive that recognises good behaviour is a far better way to manage children and the classroom. This doesn't mean that there should be no consequences for the bad behaviour, but tackling the bad often requires a deeper understanding of why children behave the way that they do.

Source: Williams J 2014, 'Today's 13-year-olds are not as bad as we're led to believe', The Conversation, 24 November, https://theconversation.com/todays-13-year-olds-are-not-as-bad-as-were-led-to-believe-34380.

Case study review

1. Identify the two terms commonly used to describe youth in the media. Are they positive or negative?
2. Discuss how attitudes to education have changed according to the article.
3. Does the author believe the perceptions of youth in the media are fair? Discuss.

Although there are a range of perceptions of youth, strong negative perceptions are more common than positive perceptions in Australian society. This is despite the fact that young people generally view themselves in a positive manner. Different factors influence people's attitudes, but those who have close contact with young people are more likely to report positive perceptions. Adults with little or no personal contact with young people are generally more likely to be influenced by the media, the opinions of others and general discussions about the problematic nature of youth.

7.3.2 Perceptions of adults

Adulthood is the longest stage of the lifespan for most people, and the perceptions that people have of adults varies according to which stage of adulthood is concerned. For early adults, especially those in their late teens and early twenties, perceptions are often similar to that of youth. As early adults reach their thirties, they are often seen by other adults as being at their peak physically, being responsible citizens and contributing to society by being productively employed. Youth may see adults of this age as being judgemental and lacking understanding. Again, variations of these perceptions occur as a result of a range of factors including personal experiences.

As adults reach their forties and fifties, they are often seen by young people as being out of touch. It is often the perceptions of youth by adults of this age that contribute to this negative perception.

As individuals enter the late stage of adulthood, they are often perceived as being wise and experienced. In this sense, older adults are seen as a source of information and expertise and are therefore able to assist in guiding younger people through the challenges they face in their lives.

Negative perceptions of older adults are common among youth and younger adults. Like youth, the negative perceptions of older adults are influenced heavily by the media and what other people say. In a 2013 Australian Human Rights Commission report, Australians were shown to have largely negative perceptions of older adults, including:

- fifty-nine per cent of Australians feel that older people are more likely to be lonely or isolated
- fifty-two per cent feel that older people are more likely to be victims of crime
- fifty-one per cent feel older people are more likely to be forgetful
- forty-three per cent feel older people don't like being told what to do by someone younger.

Other common negative perceptions of older adults include:

- they are resistant to change and have trouble learning complex tasks
- they are bad drivers
- they complain a lot
- they are a burden on the health system.

It is important to remember that perceptions vary from positive to negative and rarely occur in isolation. For example, a young person may believe that older adults are bad drivers, but also believe their life experiences make them a valuable source of advice.

FIGURE 7.11 Older adults are often perceived as forgetful and vulnerable.

CASE STUDY

Grey dawn or the twilight years? Let's talk about growing old.

The most recent National Press Club forum on aged care has once again put the spotlight on the 'longevity revolution' and attitudes towards Australia's ageing population.

Australia as a 'youthful' society

The word ageism — 'prejudice or discrimination on the grounds of a person's age' — made its first appearance in 1969 in the *Washington Post*. So it's an American invention. But what about the concept it refers to — does the concept of ageism have any Australian roots?

Social history research like that by Graeme Davison suggests a resounding 'yes'.

Ageism appeared in the early colonial period, and was fuelled by Australia's perception of itself as a 'young society'. The use of *young* was doubly justified: it contrasted with *old* in 'the Old Country' (as Britain was

commonly referred to), and it also emphasised the high percentage of young people in the population. Nuclear families in early colonial Australia consisted of parents and their children, where the latter often grew up not ever knowing their grandparents.

Characteristics associated with youth — both positive (energy, vigour, optimism), and negative (immaturity, unruliness, disrespect for elders) — became accepted as national traits. By the end of the nineteenth century, Melbourne-based journalist John Stanley James made note of the ageist tendencies of Australian contemporary society:

'Neither privately nor publicly have the Old Folks that consideration shown to them here [in Australia] which is evidenced in Europe and Great Britain.'

So how are 'the old folks' viewed more than a century after James? We've been trawling through Australian newspapers to find out how the media portrays 'ageing Australians' today.

A problem that 'isn't going away'

It's common to read about older people being a 'burden' on both carers and social services (hence the impending 'aged-care crisis'), as well as on the economy as a whole. The National Press Club forum's title says it all: 'The Aged Care Conundrum: Meeting the Care Needs of an Ageing Population Without Blowing the Budget'.

And as moderator Katharine Murphy pointed out, 'this problem isn't going away'.

The growing proportion of older people within the total population, described as 'grandpa boom' (or 'elderly boom'), places intense 'pressures' on both individuals and families, and also threatens to 'bankrupt' society (in the form of a 'social Armageddon' — to quote a yet-more-extreme phrase).

In this scenario, older people are essentially viewed as frail and ill. They're often abused (hence the term 'elder abuse'), and need legal protection in the form of 'elder law'.

In this scenario, older people are unable to care for themselves and thus create an 'elderly burden' that can be combated by extending the 'retirement age' and establishing 'granny crèches' (adult daycare centres). This is so that the 'sandwich generation' (those stuck between having to care for dependent parents and dependent children) can keep on working.

'Zuppies' and 'zoomers'

It's a grim scenario contrasting with Australia's *zuppies* and *zoomers*, two recent colloquial expressions for the ageing and active baby boomer. (*Zuppy* means Zestful Upscale Person in their Prime, while *zoomer* is anamalgam of *boomer* and *zip*, also playing on *zoom*.)

'Gerontolescence' does away with the image of the frail and dependent 'ageing Australian', and instead depicts the 'senior boom' as a 'grey revolution'. Older people are seen as a 'greying army' or 'grey brigade' — a formidable entity who fight for 'grey power' (also the name of a political party representing older people's rights).

The image of active and self-conscious seniors is also implied with the use of expressions like 'healthy ageing' and 'positive ageing'. These emphasise the individual's responsibility in 'ageing well' — something best achieved by maintaining a 'portfolio lifestyle' that is divided among family responsibilities, volunteer work, and personal hobbies and interests.

The 'new aged' can opt to live in 'over-55s resorts' (the latest euphemism for a 'retirement home') and experience the 'golden years' (the years of retirement) as a second chance at life. They are the 'grey nomads' who travel around the country in their caravans and the 'silver surfers' who are tech-savvy (and might even take up surfing as a hobby).

Cashed-up working boomers

Another scenario in ageing articles focuses on the highly valued skills and expertise of older people, which can be exploited in earnest in the workforce. This is the rise of 'grey labour', which helps diminish the labour-shortage crisis that is hitting Australia.

Within this discourse the elderly are respected for the knowledge they have accumulated over the years, hence the expression 'mature-aged worker'. And yet plenty of workplaces are still not 'mature age-friendly', overlooking anyone above 55 years.

Longer employment results in more money that can be spent by 'older consumers' (the 'not-so-young shoppers' or the 'cashed-up baby boomers'). These are the forgotten customers of the 'grey market' who have plenty of 'grey dollars' to dispose of and have significant influence on investment patterns.

Senior sunset or greying dawn?

What these words and expressions show is that alternative scenarios exist side-by-side in the media about older Australians. They are not necessarily compatible.

After all, somebody described as a 'silver surfer' is hardly frail and in need of care. Conversely, the 'economic burden' of the ageing population is at odds with the image of a 'mature-age workforce'. These expressions are powerful. They can evoke the whole scenario they belong to, backgrounding other alternatives.

Undoubtedly, ageing has biological, social, political and economic aspects, but how we think (and feel) about it also boils down to how we talk about it: is it the start of the twilight years or the beginning of a grey dawn?

Source: Burrdige, K & Benczes R 2016, 'Grey dawn or the twilight years? Let's talk about growing old, *The Conversation*, 21 July, https://theconversation.com/grey-dawn-or-the-twilight-years-lets-talk-about-growing-old-62488.

Case study review

1. Why was Australia considered a 'young country'?
2. Outline the perceptions of older people discussed in the article. Classify each as either positive or negative.
3. Are there any perceptions in the article you agree with? Discuss.

7.3 Activities

Test your knowledge

1. Briefly explain what is meant by:
   (a) perceptions
   (b) generation gap.
2. Outline factors that contribute to the perceptions that people have of other lifespan stages.
3. Briefly describe:
   (a) negative perceptions of youth
   (b) positive perceptions of youth
   (c) negative perceptions of adults
   (d) positive perceptions of adults.

Apply your knowledge

4. Watch an episode of *Young, Lazy and Driving Us Crazy* or *Summer Heights High* and analyse the perceptions of youth portrayed in the program.
5. Irish playwright George Bernard Shaw wrote 'Youth is wonderful. What a pity to waste it on children.' What do you think this quote is saying about youth?
6. Conduct a research task that analyses the portrayal of youth in the media. You can review a range of media, including television, newspapers and online news agencies. For each piece relating to youth, record the nature of the story and whether it portrays youth in a positive or negative manner. Collate the results and present in a written report.
7. Suggest ways more accurate representations of young people could occur.
8. Create and conduct a survey that explores perspectives of youth and older adults in the community. Compile the results and present them to the class.
9. Conduct a *vox populi* (interviews with members of the public) around the school to gain perspectives of youth and adults in the school community. Ensure a range of age groups are interviewed. Record the interviews and present to the class.
10. Access the **Youth in the media** weblink and worksheet in the Resouces tab in your eBookPLUS then complete the worksheet.
11. Access the **Perceptions of youth** weblink and worksheet in the Resources tab in your eBookPLUS then complete then worksheet.

eBook*plus* RESOURCES

Explore more with this weblink: Youth in the media

Complete this digital doc: Youth in the media worksheet
Searchlight ID: doc-22660

Explore more with this weblink: Perceptions of youth

Complete this digital doc: Perceptions of youth worksheet
Searchlight ID: doc-22661

studyon

Unit 2 AOS 1 Topic 1 Concept 3

Perceptions of adulthood Summary screens and practice questions

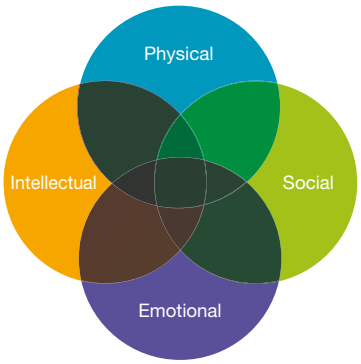
7.4 Developmental transitions from youth to adulthood — physical

KEY CONCEPT Understanding the characteristics of physical development and the physical development that occurs during the transition to adulthood

In a lifespan context, development encompasses the changes that people experience from conception until death. Development is often characterised by milestones that are predictable and occur in a sequential order. Going through puberty, learning to walk or learning the skills required to interact with others are examples of milestones associated with development.

In this course, we will examine four areas or types of development (figure 7.12). All four areas are interrelated and therefore affect each other. In the coming sections, we will explore each area of development and the common changes that occur in relation to each as individuals transition from youth to adulthood.

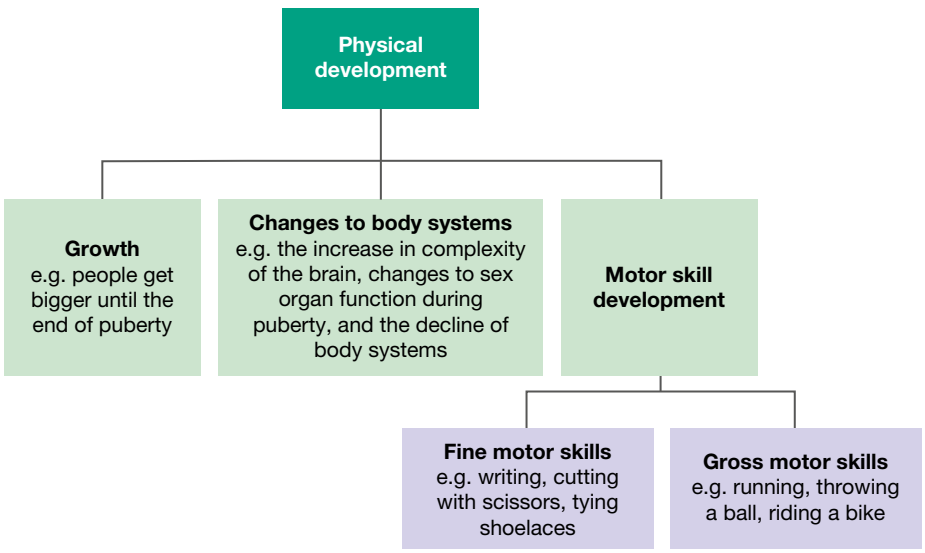
FIGURE 7.12 The four areas of development



7.4.1 Physical development

Physical development refers to the changes that occur to the body and its systems. It includes external changes that you can see, such as changes in height, and internal changes you cannot see, such as the increasing size of the heart. Physical development includes growth as well as motor skill development. Various aspects associated with physical development are summarised in figure 7.13.

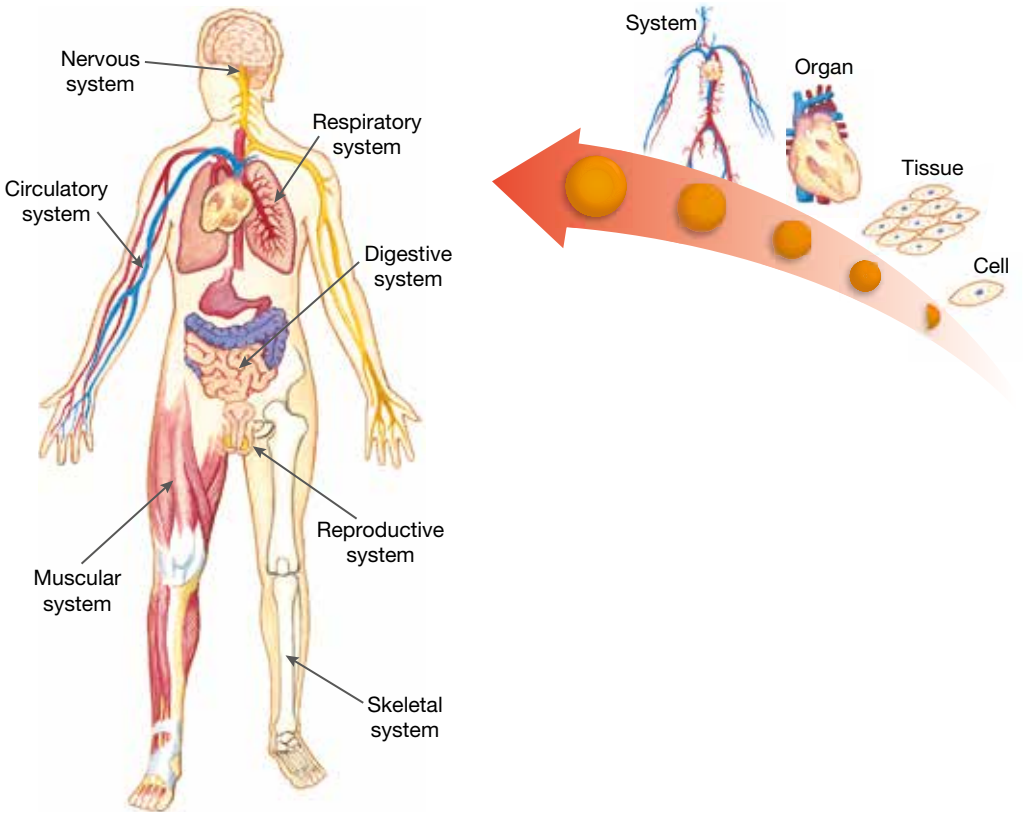
FIGURE 7.13 Aspects of physical development



Growth

From early in the uterus, the embryo begins to develop the cells that will become the vital organs and systems required to sustain life in the outside world (figure 7.14). The changes in size that take place in these organs and systems are important parts of physical development. Examples of systems in the body include the circulatory system and the immune system.

FIGURE 7.14 Physical development of the body, from a cell to the whole body



Growth refers to organs and systems getting bigger in size. It is an important aspect of physical development. Much growth occurs during puberty, which is why youth is considered a rapid growth period, along with the prenatal and infancy stages. Childhood is characterised by slow and steady growth, while the three adulthood stages are predominantly periods of maintenance. Even though growth stops at the end of puberty, individuals keep on developing physically for the rest of their lives. The decline in body systems that people experience in later lifespan stages is also part of physical development.

FIGURE 7.15 Humans experience their fastest rate of growth while in the womb.

Changes to body systems

As well as increasing in size and mass, tissues and systems also change in structure and function. Examples of changes to body systems include:

- the replacement of baby teeth with permanent teeth during childhood
- the hardening of bones until early adulthood (in addition to the growth of bones)
- the change in the way sex organs function during youth
- the development of the immune system that occurs throughout life.

These changes are part of the processes that assist individuals in reaching their physical peak. This physical peak usually occurs in the early twenties to early thirties. After this point, most of the systems — such as the muscular system, the circulatory system and the skeletal system — generally decline at a rate of about

0.5 to 2 per cent per year. This decline is a normal part of physical development. Most of the decline takes place over a long period of time. In fact, people might not realise they have changed until they look back at old photographs of themselves. Changes associated with physical decline for most people include:

- the stiffening of the heart as muscle tissue is replaced by connective tissue
- the thickening of the walls of arteries
- the decrease in aerobic capacity (by up to 70 per cent at age 65)
- the gradual loss of bone density that occurs after this point.

FIGURE 7.16 By the age of 70, many signs of ageing are evident.

Motor skill development

Motor skills refer to the control of the muscles in the body. Imagine a newborn baby. It has very underdeveloped motor skills (e.g. uncoordinated limbs). As the infant gets older, motor skills will develop and movements will gradually become more controlled and deliberate.

Motor skills can be classified as either fine or gross:

- **gross motor skills** refer to movements that involve large muscle groups such as walking, throwing, skipping and kicking
- **fine motor skills** involve control over the smaller muscle groups such as those used for writing, tying shoelaces, cutting with scissors and manipulating the mouth to speak.

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Unit 2 > AOS 1 > Topic 2 > Concept 1

Development Summary screens and practice questions

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Unit 2 > AOS 1 > Topic 2 > Concept 2

Physical development Summary screens and practice questions

7.4.2 Physical changes as youth transition to adulthood

Youth is a time of rapid development and the transition to adulthood is characterised by being sexually mature; being seen as an adult in the eyes of the law; finishing compulsory education; being legally allowed to drink alcohol, drive, vote and join the army; and making many other decisions independently. We will explore the development that occurs as youth transition to adulthood in each of the four areas of development, beginning with physical development.

The transition from youth to adulthood is characterised by a number of physical changes, including:

- growth plates (also known as **epiphyseal plates**) in bones fuse
- sexual maturity
- changes in body composition and structure.

Growth

The transition to adulthood is marked by significant growth. During youth, on average, a girl will gain 16 centimetres in height and 16 kilograms in weight, while boys will gain an extra 20 centimetres in height and 20 kilograms in weight. By the end of youth or during early adulthood, the epiphyseal plates in long bones fuse and no more growth is possible.

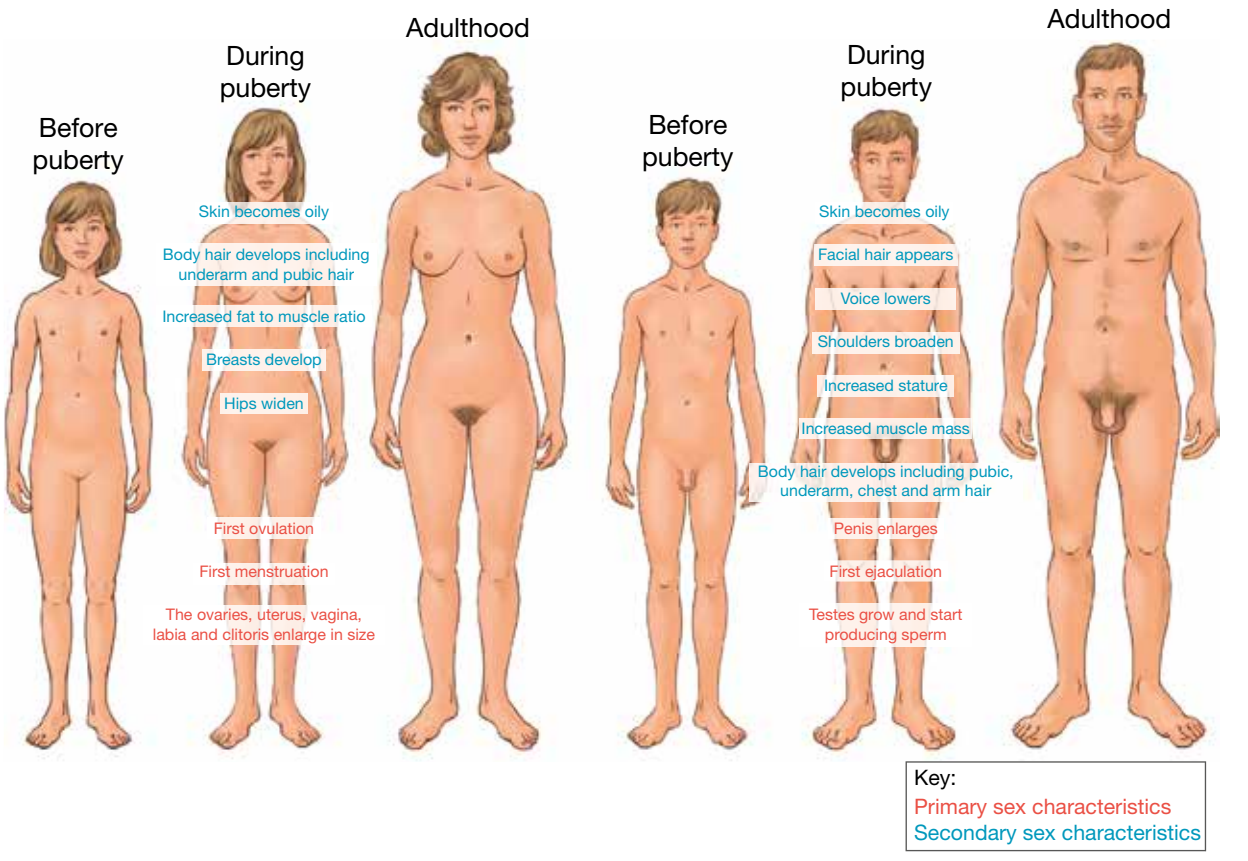
Changes to body systems

One of the most noticeable changes that occur to body systems as youth transition to adulthood are the changes to the reproductive system, which includes the sex organs and the way they function. These changes can be classified into two categories: primary and secondary sex characteristics.

Primary sex characteristics are those parts of the body that are directly involved in reproduction. During puberty, changes occur to the organs of reproduction commonly referred to as the 'genitals'. Although present at birth, these organs only start to develop during puberty. By early adulthood, these organs are usually fully developed and functioning (see the case study on sperm production and the menstrual cycle). **Secondary sex characteristics** arise from changes that occur to both males and females but are not directly related to reproduction and are not present at birth. By the start of adulthood, these characteristics are usually fully developed. Examples of primary and secondary sex characteristics that develop during the transition to adulthood for males and females are shown in figure 7.17.

Although bones have fused by now, it will be a number of years until they reach their maximum density or strength. Youth is an important time for building bone density and ensuring that bones are as strong as possible for adulthood.

FIGURE 7.17 Changes to body composition and the primary and secondary sex characteristics that develop for males and females as they transition from youth to adulthood.



As well as changes in height, the transition to adulthood is marked by changes in body composition. In males, increases in muscle mass and the broadening of the shoulders in relation to the waist result in a more triangular body shape. For females, the hips widen and the fat to muscle ratio increases. Most fat is deposited in the mid-section, including the thighs and hips, resulting in the hourglass figure seen in many adult females. The changes that occur in relation to body composition during the transition from childhood to youth and from youth to adulthood can be seen in figure 7.17.

Structures in the brain continue to increase in complexity throughout youth and into adulthood. New skills and experiences provide opportunities for different structures of the brain to change in complexity, and this impacts on brain function. The results of these changes relate to intellectual development and will be explored in more detail later.

Motor skill development

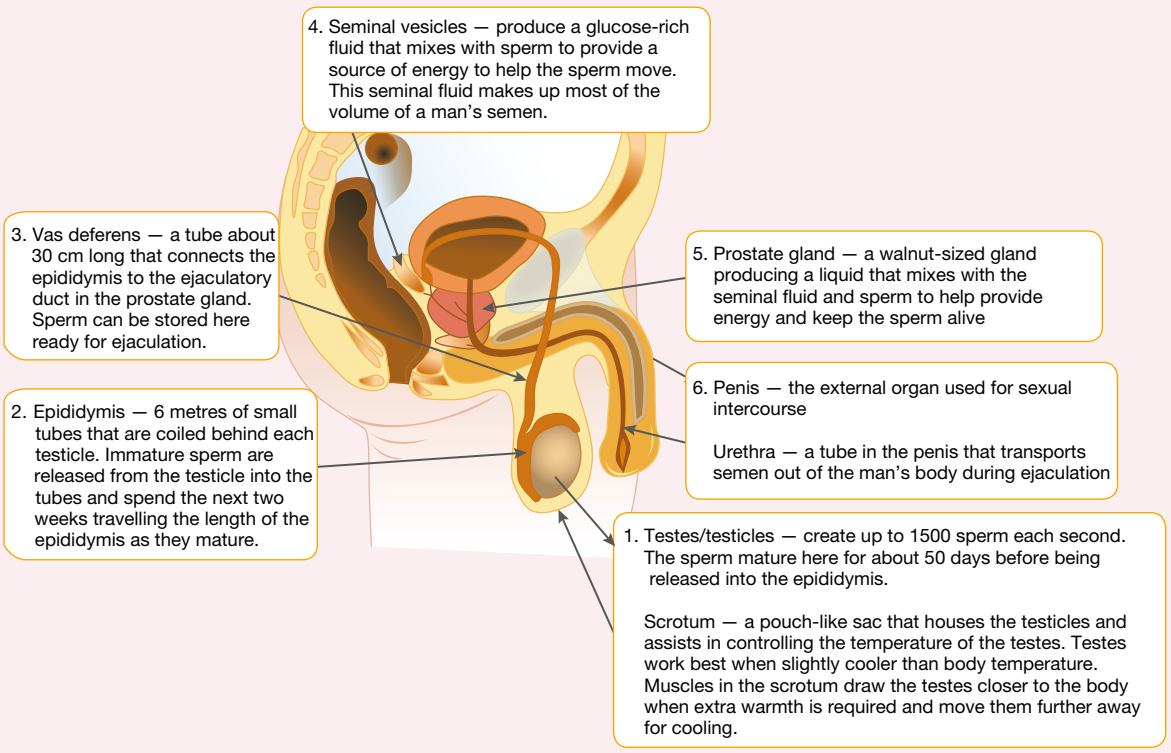
As the body matures during youth, the individual will gain more control over it. By the end of puberty, the arms and legs are proportionate to the rest of the body and coordination generally improves. The extra strength and endurance gained during puberty increase the ability to carry out many motor skills in adulthood, although due to differences in muscle mass, males generally experience a greater gain in skills requiring strength.

CASE STUDY

Sperm production and menstrual cycle

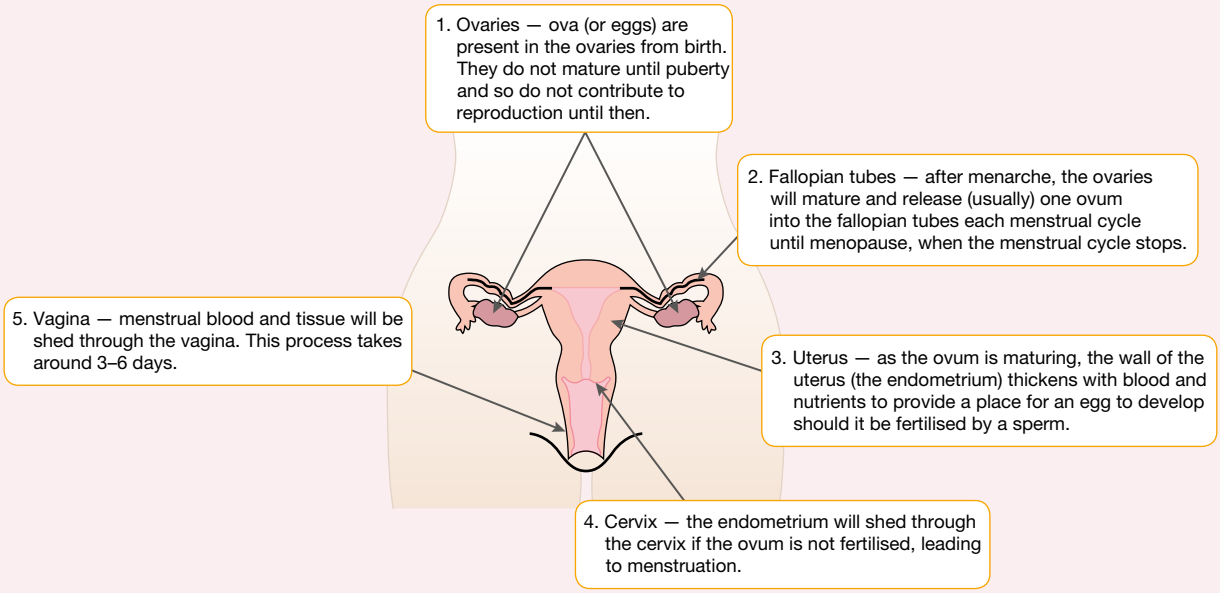
The male reproductive system consists of internal and external organs that are responsible for **semen** production and **ejaculation**. The internal reproductive organs are the testicles (or testes), epididymis, vas deferens, prostate and urethra; and the external reproductive organs are penis and scrotum (figure 7.18). During puberty, these organs grow and **sperm** is produced. The onset of sperm production is often marked by **spermarche** (or first ejaculation). This often occurs as a nocturnal emission (also referred to as a 'wet dream') or direct stimulation (most commonly as a result of masturbation). Sperm are the male sex cells that are required for reproduction. Once sperm are produced, males are capable of reproduction. If not ejaculated, sperm will eventually die and are absorbed back into the body so a build-up does not occur.

FIGURE 7.18 The male reproductive system begins to function during puberty.



The menstrual cycle refers to the process required to develop an ovum (or egg) and signals the ability to reproduce in females (figure 7.19). The first menstrual cycle begins with a process called menarche which relates to the first **menstruation** (or **period**) a female experiences. Most girls will experience erratic menstrual cycles for the first couple of years after menarche before the cycle settles and becomes more regular and predictable. Once this occurs, the menstrual cycle will usually last from 24 to 30 days.

FIGURE 7.19 The menstrual cycle generally signifies the ability of females to reproduce.



Case study review

1. Explain what is meant by:
   (a) spermarche
   (b) menstruation
   (c) menarche
   (d) menstrual cycle.
2. Draw a flow chart summarising the production of sperm.
3. Research the menstrual cycle and prepare a timeline showing when different events occur.

7.4 Activities

Test your knowledge

1. Explain what is meant by ‘development’.
2. Using examples, define physical development.
3. (a) What does ‘increase in complexity’ mean?
   (b) List one example of a body part that increases in complexity.
4. Explain the difference between growth and development of body systems.
5. Using examples, explain:
   (a) primary sex characteristics
   (b) secondary sex characteristics.
6. Using figure 7.17 as a guide, draw a Venn diagram summarising the changes that male and female youth undergo as they transition to adulthood.

Apply your knowledge

7. Draw a line graph showing the rate of growth across the lifespan. Place the lifespan stages on the horizontal axis and the rate of growth (no growth, slow, medium and fast) on the vertical axis.

8. Accces the **Puberty** weblink and worksheet in the Resources tab in your eBookPLUS then complete the worksheet.
9. Prepare an educational guide or poster for year 10 students outlining the physical changes that occur as youth transition to adulthood.

eBookplus RESOURCES

Explore more with the weblink: Puberty

Explore more with this digital doc: Puberty worksheet
Searchlight ID: doc-22662

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Unit 2 > AOS 1 > Topic 2 > Concept 3

Physical changes as youth transition to adulthood Summary screens and practice questions

7.5 Developmental transitions from youth to adulthood — social

KEY CONCEPT Understanding the characteristics of social development and the social development that occurs during the transition to adulthood

While the physical aspect of development is often the most easily recognisable, there are significant social changes that also occur as individuals transition from youth to adulthood.

7.5.1 Social development

People from different cultures are raised with different values and skills relating to how they are expected to interact with others. A newborn child knows very little about how to interact with others; it must learn the appropriate social skills and behaviours. **Social development** refers to the increasing complexity of behaviour patterns used in relationships with other people (VCAA). Examples of social development are summarised in figure 7.20.

FIGURE 7.20 Aspects of social development

Behaviours

Behaviours relate to how individuals act around others. Learning what behaviours are appropriate in a range of situations is an important part of social development. Being a good listener and being generous are two examples of behaviours that people may learn.

Social roles and expectations

Humans spend a lot of their time in different groups and will often have distinct roles within those groups. Examples include the role of employee, friend, son/daughter, coach and teammate. Each role will generally have a set of behaviours, skills and expectations associated with it. Gender roles are another example of social roles and relate to behaviours that are culturally acceptable for males and females. Although many of these roles and expectations have broken down over the past decades, some cultures still have distinct roles for males and females. These roles are learnt from a very young age and shape many aspects of the wider society. Examples of traditional social roles related to gender include:

- males working and females staying at home to look after the children
- men mowing lawns and women cooking
- girls playing with dolls while boys play with trucks
- men and women dressing differently (e.g. women wearing skirts and men wearing trousers).

FIGURE 7.21 Learning behaviours, such as table manners and using cutlery, are important aspects of social development in Australia.

Communication skills

Being able to communicate effectively with different groups of people is an important aspect of social development and continues to be built upon over the years. For example, talking to an elderly grandparent requires different skills from talking to a brother, sister or school friend. Communication occurs in a range of formats including verbal, written, body language and sign language. Communicating effectively in all required formats is important in ensuring that an individual is effectively understood.

Relationship skills

Relationship skills include knowing how to behave in a relationship and what is expected. This will be continually refined over time. It often requires establishing mutual respect and taking the time to listen to each other's point of view.

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Unit 2 > AOS 1 > Topic 2 > Concept 4

Social development Summary screens and practice questions

7.5.2 Social changes as youth transition to adulthood

Even though considerable physical changes occur as youth transition to adulthood, the social changes can be just as intense.

Behaviours

The peer group is extremely influential as youth transition to adulthood. Many of the social experiences that youth encounter are due to their peer group and this continues into adulthood. The peer group may influence their choice of clothing, style of music, the types of activities they participate in and the formation of their identity. As individuals strive for their own independence, they may spend a majority of their free time with their peers, possibly experimenting with different behaviours within the peer group. Some of these behaviours may be considered 'risky', such as smoking cigarettes and experimenting with alcohol.

Culture and family play a significant role in social development as individuals transition to adulthood. Culture and family may influence the social circle and relationships that people have, the career they choose to pursue, where they choose to live and how they spend their spare time.

Youth generally move from being essentially dependent on parents, to being largely independent as adults. They learn how to act among different groups, and change the way they behave according to the situation.

Social roles and expectations

Greater independence and a wider range of social experiences contribute to the development of more complex social roles. For example:

- many youth will gain paid employment for the first time as they transition to adulthood which develops the role of employee
- intimate relationships experienced during this stage may develop the role of boyfriend or girlfriend
- having greater responsibility for their own actions may promote an increase in the complexity of social roles already played, such as son, daughter and student.

Communication skills

The types of interactions that occur change as youth are given greater freedom and treated more like adults. As a result, their communication skills are further developed. Individuals often communicate in a number of different ways and the use of the internet, mobile phones and social media can significantly influence how youth communicate with friends and learn about the world. The nature of relationships changes during this time as many peer groups include members of the opposite sex. This can further develop communication skills and provide individuals with opportunities to experience new types of relationship. As youth transition to adulthood, they often experience a range of more intimate relationships.

FIGURE 7.22 Socialising helps youth learn vital social roles.

Relationship skills

In gaining greater independence, youth often learn that they are responsible for their own actions, decisions and consequences. As a result, young people often question more things, and this can contribute to conflict with their parents or other caregivers. Up until this point, parents have often made most of the decisions for their child. During youth, relationships with parents are

often reorganised in such a way that both the child and parent have a say in decision making. As a result of this struggle (and the other changes that youth experience, such as identity formation, social changes and puberty), youth may disagree with parents more often, which can lead to escalating conflict. However, most people enter adulthood with a deeper understanding of their parents and vice versa.

Many individuals will experience their first intimate relationship with another person as they transition to adulthood, and some will experience their first sexual relationship. New skills, such as conflict resolution and compromise, are learned and/or developed as a result of these relationships. Towards the end of the youth stage and into adulthood, the individual will usually have developed a clearer sexual identity and may be looking for a serious relationship.

7.5 Activities

Test your knowledge

1. Using examples that may occur as youth transition to adulthood, explain social development.
2. What is meant by 'social roles and expectations'? Provide three examples.
3. Explain why conflict with parents often occurs as youth form their own values and beliefs, and gain independence.
4. Make a list of the aspects of social development that can be influenced by the peer group.
5. Outline social changes that occur as youth transition to adulthood.

Apply your knowledge

6. (a) Make a list of all the people or groups from which we learn social skills.
   (b) Which of these do you think has had the greatest influence on your own social development? Explain.
7. Make a list of social skills that are generally learned from the family.
8. Would learning to use a knife and fork be a part of social development in all cultures? Explain.
9. In small groups, find or write lyrics to a song that depicts an aspect of social development during youth.

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Unit 2 > AOS 1 > Topic 2 > Concept 5

Social changes as youth transition to adulthood Summary screens and practice questions

7.6 Developmental transitions from youth to adulthood — emotional

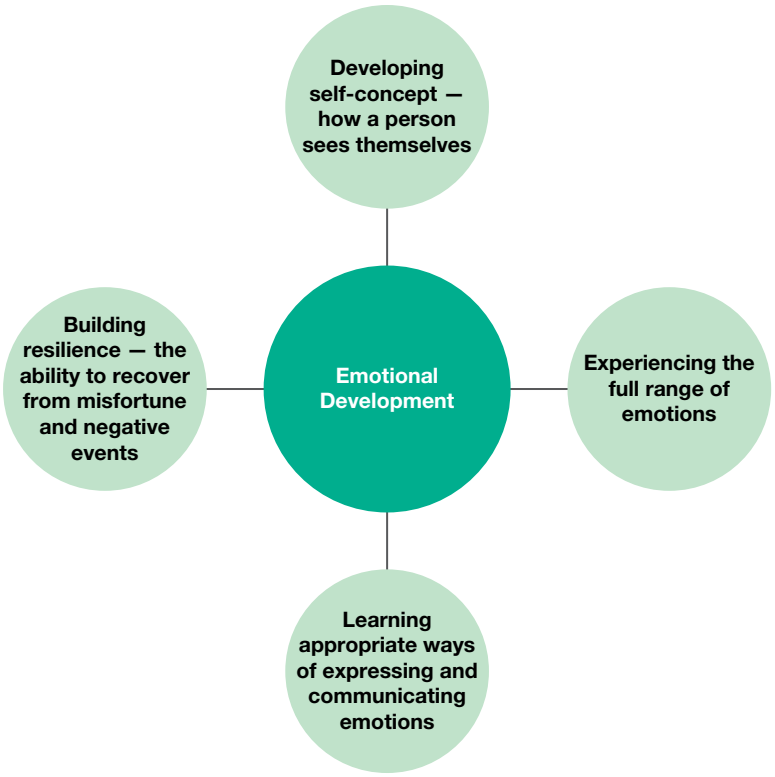
KEY CONCEPT Understanding the characteristics of emotional development and the emotional development that occurs during the transition to adulthood

7.6.1 Emotional development

Emotional development occurs as individuals experience the full range of emotions and learn ways to appropriately express emotions. Resilience develops as individuals experience the range of emotions, and is a key component of emotional development. Self-concept is also a part of emotional development and relates to how an individual sees themselves. Although related to emotional health and wellbeing, emotional development involves the skills that individuals develop over time as they experience different situations and emotional states.

Some specific examples of emotional development are summarised in figure 7.23 and are explained in more detail in the following text.

FIGURE 7.23 Aspects of emotional development



CASE STUDY

Identity

Identity is the establishment of a unique personality and encompasses aspects of both social and emotional development. It refers to how an individual defines him/herself, and is based on the values and beliefs of that individual. There are various aspects of identity — including physical, sexual, political, religious and ethnic identity — and the different aspects may develop at different times. Although an identity will generally be firmly formed by the later stages of youth, aspects of it will be modified throughout life.

In early youth, identity is often based on parental expectations and occurs without exploring alternatives. As youths develop, they may begin to question this identity and actively experiment with alternatives in an attempt to find an identity that suits them. During this process, the individual may change hobbies quickly, explore various possibilities for future careers, and sample different clothing and hair styles, musical genres and friendship groups.

As abstract thought develops, many youths will explore their spirituality. Spirituality is an aspect of identity that means different things to different people. Some of the more common associations include:

- searching for meaning in life
- finding one's place in the world, where the greater good of the universe and those in it is important
- seeing oneself as a small part of a bigger universe
- acknowledging forces that are separate from the physical and mental functioning of living things.

Religion is an organised form of spirituality that is based on culturally and historically based guidelines (or doctrine). As part of their search for spirituality, some people will explore religions — or turn away from the religion in which they were raised.

Many factors contribute to identity formation. They include:

- culture/ethnicity
- parents
- siblings
- friends
- school
- society.

Once an identity has been committed to, people feel more comfortable about themselves. This can contribute to increased self-esteem and also help to guide their moral decisions.

Case study review

1. What is meant by the term 'identity'?
2. What factors could cause someone to change aspects of their identity later in life?
3. Explain the difference between spirituality and religion.
4. (a) Answer this question ten times: 'Who am I?'
   (b) (i) Rank your answers according to how well they define who you are, where '1' is the answer that best defines you and '10' is the answer that least defines you.
   (ii) For what reasons did you choose the answer you ranked as '1'?
   (c) Next to each answer, write down who you think influenced this aspect of yourself the most.
   (d) (i) Which influence featured the most times?
   (ii) Do you think this influence is the biggest determinant of identity? Explain.

Self-concept

Self-concept relates to how individuals see themselves, and develops over time as they experience various aspects of life. Initially, humans may not see themselves as distinct from other people, but this changes as they develop a sense of self. As the self-concept develops, the individual may have different views about different aspects of themselves, such as their academic ability, social skills and physical capabilities. Self-concept also influences the formation of an individual's identity (see case study).

Experiencing the full range of emotions

As individuals develop, they experience a greater range of emotions. The first emotions that can be recognised by infants include joy, anger, sadness and fear. As children begin to develop a sense of self, they experience more complex emotions, such as shyness, surprise, embarrassment, shame, guilt and pride. Young children often experience basic emotions such as happiness and anger, and often only experience one emotion at a time. As they develop emotionally, children realise that they can experience multiple emotions at once. For example, feeling both happy and sad when school holidays come to an end. Older children also begin to identify different emotions and learn appropriate ways of responding to them. This is a process that continues through youth and into adulthood.

Learning appropriate ways of expressing emotions

As individuals develop emotionally, they become more equipped at expressing emotions in an appropriate manner. Those who are more emotionally developed are better able to control the way in which they express their feelings. This is why toddlers, rather than adults, are more likely to throw temper tantrums when they do not get their own way.

Desire, guilt and jealousy are common emotions that people express in various ways. Learning to accept the things they cannot change and focusing energy on the things they can change is a significant achievement in this area, as it influences the manner in which people express the emotions they experience. For example, instead of crying at not being selected for the soccer team, a person can direct

FIGURE 7.24 Throwing tantrums is a characteristic that most children overcome as they develop emotionally.

this energy into training harder in order to have a better chance of selection next time. It takes time to develop appropriate ways of responding to emotions.

Building resilience

Resilience relates to the ability to effectively deal with adverse or negative events that occur throughout life. Such events include the death of a loved one, relationship breakdown, financial stress, conflict with family and friends, job loss and job insecurity.

Individuals will use a variety of coping strategies to deal with challenging events and these will vary depending on the type and extent of the situation/s they are exposed to.

Developing coping strategies assists in building resilience. Some coping strategies include:

- *taking time out for relaxation.* Leisure activities such as exercise, socialising and resting are important as they assist in providing clarity, energy and focus when issues require attention.
- *meditation.* meditation works to calm the mind and assists with refocusing thoughts. It can also assist in reducing stress which allows energy to be applied to important issues.
- *setting goals.* Setting manageable goals allows an individual to achieve success and work towards dealing with aspects of life that may sometimes seem overwhelming.
- *talking to others.* Other people are a great resource for putting issues in perspective and providing alternative ways of viewing life events. It also allows individuals to express how they are feeling.
- *maintaining positive self-talk.* Self-talk relates to the inner voice in a person's mind that says things they don't necessarily say out loud. Self-talk can be positive or negative. Positive self-talk has been shown to promote resilience.

Learning the skills necessary to become resilient is a key component of emotional development and people who have good levels of resilience experience better emotional health and wellbeing.

WHAT IS THE DIFFERENCE BETWEEN EMOTIONAL HEALTH AND WELLBEING AND EMOTIONAL DEVELOPMENT?

Emotional health and wellbeing and emotional development are closely related concepts but there are specific differences between them.

Emotional development includes experiencing the full range of emotions, the acquisition of knowledge and skills that assist in expressing emotions effectively, the development of the self-concept and resilience. All of these characteristics develop over time. For example, an infant usually experiences basic emotions and does not have the ability to express them as appropriately as an adult. As an individual develops emotionally, they learn ways of expressing their emotions in a more mature manner. For example, if an adult doesn't get a promotion at work, although they may experience disappointment, they are more likely to use this as opportunity to improve future outcomes by modifying their behaviour — for example, by working harder in the future.

Emotional health and wellbeing, on the other hand, relates to how an individual is using these skills and abilities at a given point in time. Emotional health and wellbeing includes recognising and understanding emotions, experiencing appropriate emotions in a given scenario, being able to effectively respond to and manage emotions, and the level of resilience experienced.

Emotional health and wellbeing and emotional development are interrelated and therefore affect one another. For example, an infant may not manage their emotions effectively and throw a tantrum (emotional health and wellbeing) as they do not have the skills to express their emotions in a more appropriate way (emotional development). As a result, this behaviour is considered normal for most infants. Adults generally do not throw tantrums (emotional health and wellbeing) as they usually have the skills to express these emotions in a more positive way (emotional development).

A range of factors such as stress, illness and various life events (such as relationship breakdown, changing schools, experiencing conflict with loved ones or moving out of home) can influence the ability of an individual to use their emotional skills and abilities in every scenario. Consider the following:

- A person may have experienced the full range of emotions (emotional development) but this doesn't mean they will always accurately recognise emotions in every situation.
- A person who has acquired the skills to express emotions effectively (emotional development) may feel overwhelmed in a particular scenario and may struggle to appropriately respond to the emotions they feel (emotional health and wellbeing). For example, a heated argument with a work colleague may overcome them and they may not respond to their emotions in their usual calm and mature manner.

eBook*plus* RESOURCES

Watch this eLesson: Clarifying self-identity and self-worth
Searchlight ID: eles-1043

study on

Unit 2 > AOS 1 > Topic 2 > Concept 6

Emotional development Summary screens and practice questions

7.6.2 Emotional changes as youth transition to adulthood

As with social and physical development, the emotional changes that occur during youth are significant. Because of all changes young people go through as they transition to adulthood, the way they view themselves and how they deal with these feelings may also change.

Self-concept

As young people transition to adulthood and explore different values and beliefs, they may a have deeper understanding of who they are as people. This influences their emotional development and sense of identity. If they are satisfied with the person they have become, they may enter adulthood with a great sense of pride and achievement not experienced previously. As self-concept develops, individuals often become more comfortable with themselves. As a result, they generally become less concerned with what others think and more concerned with who they are as a person.

FIGURE 7.25 The development of an identity is often influenced by friendship groups.

Experiencing the full range of emotions

As the body matures so does the mind, and youth might seek emotional independence. For example, they might try to solve their own problems instead of consulting their parents. This may lead to feelings of satisfaction if they succeed or despair if they fail. Experiencing these emotions can encourage the individual

to take more responsibility for their actions and provide ways to accept emotions — both positive and negative — that occur as a result of this responsibility (e.g. guilt, remorse, happiness, fulfilment).

As the nature of relationships changes, young people may also seek intimacy and affection within those relationships. They might experience emotions such as love and lust and learn ways to express them appropriately (figure 7.26).

FIGURE 7.26 Some young people will experience the emotions associated with a relationship for the first time.

Learning appropriate ways of expressing emotions

Towards the end of the youth stage, the individual will have been exposed to a range of emotions and will generally be able to recognise them accurately when they arise. Most older youth will also have an understanding of appropriate ways of expressing those emotions and be able to adequately express their feelings in words, which helps to regulate their emotions. For example, when experiencing anger, youth have a greater ability to deal with this emotion in a calm manner and discuss why they are feeling this way with others.

Building resilience

As life experiences and knowledge develop, the transition to adulthood is often marked by greater resilience. The coping strategies that are first developed early in life are built upon, contributing to the greater level of resilience experienced by most adults compared with children. For example, a young person may be able to use positive self-talk to help them overcome their disappointment at not getting the first part-time job they have applied for. The level of resilience will usually continue to develop throughout adulthood.

7.6 Activities

Test your knowledge

1. Using examples, explain emotional development.
2. Discuss three emotional changes that may occur as youth transition to adulthood.
3. Explain what is meant by ‘emotional independence’.
4. Explain what is meant by ‘self-concept’.
5. Explain what is meant by ‘resilience’ and discuss ways that individuals can build their resilience.

Apply your knowledge

6. Brainstorm emotions that may be experienced for the first time as youth transition to adulthood.
7. Explain how developing emotionally can impact on relationships with others.
8. Discuss ways in which youth may express or respond to the following emotions compared to a child:
   (a) happiness
   (b) anger
   (c) jealousy
   (d) disappointment.
9. Discuss the difference between social development and emotional development.
10. Explain how social development and emotional development may have an impact on each other.
11. Access the **Emotions** weblink and worksheet in the Resources tab in your eBookPLUS then complete the worksheet.

eBookplus RESOURCES

Explore more with this weblink: Emotions

Complete this digital doc: Emotions worksheet
Searchlight ID: doc-22663

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Unit 2 > AOS 1 > Topic 2 > Concept 7

Emotional changes as youth transition to adulthood Summary screens and practice questions

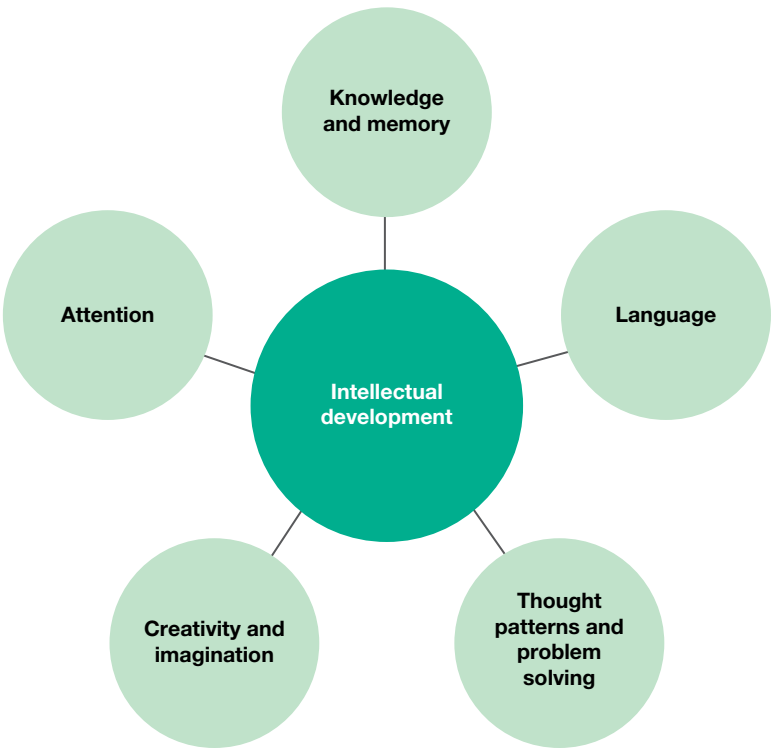
7.7 Developmental transitions from youth to adulthood — intellectual

KEY CONCEPT Understanding the characteristics of intellectual development and the intellectual development that occurs during the transition to adulthood

7.7.1 Intellectual development

Intellectual development refers to the increase in complexity of processes in the brain, such as thought, knowledge and memory. Intellectual development occurs as a result of the changing processes that occur within the brain and the increasing complexity of the brain. Although many aspects of intellectual development occur in the younger years, intellectual development continues throughout the lifespan as people learn skills associated with pursuing careers, raising children, becoming grandparents or taking up hobbies. Aspects of intellectual development are summarised in figure 7.27 and are explained in more detail below.

FIGURE 7.27 Aspects of intellectual development



Knowledge and memory

Knowledge relates to the range of information and concepts an individual is familiar with and understands. Knowledge becomes more complex as

people develop intellectually. The longer a person has been developing intellectually, the more opportunities they have to gain knowledge.

Memory relates to the ability to retain and recall information. Memory abilities change throughout the lifespan and can decline in the latter part of adulthood. Using the parts of the brain responsible for memory can help to promote a good memory in late adulthood.

Language

Knowledge of language and the way it can be used develops continually over the human lifespan. When a baby is born, they do not understand speech or language. Within months, they can distinguish between sounds and begin to understand what is being said to them. In time, they will learn to speak themselves and their use of words and sentences will continue to develop into adulthood. Some people are **bilingual**, which can further develop the parts of the brain responsible for the production of speech and knowledge of language.

Thought patterns and problem solving

The way an individual thinks changes as they develop, from **concrete thought** to **abstract thought**. Abstract thought relates to the ability to think about concepts and ideas rather than just the physical objects you can see (concrete thought). In the early stages of the lifespan, individuals can only think in concrete ways. As they develop intellectually, they can consider concepts and situations not encountered before. For example, children often learn to count by memorising the numbers. As abstract thought develops, they will begin to notice the patterns that exist in the formation of numbers.

Problem solving relates to finding a way from the current state to the desired goal when no clear path exists. Problem solving is one of the most complex of all thinking processes. Examples include trying to fit a number of commitments into a given timeframe, figuring out what has caused a computer to crash or calculating how much weight a new (as yet unbuilt) bridge can hold. Trial and error is an important part of problem solving. As experience and knowledge develops, problem solving abilities increase.

FIGURE 7.28 Intellectual development is rapid during the early years, but it continues throughout the lifespan.

Creativity and imagination

Creativity and imagination relate to thinking in new ways. Both creativity and imagination can be developed by exposure to many different experiences including books, music and other people. Imagination is essential for optimal development during childhood. Children often engage in imaginative play, such as pretending and making up stories. Imaginative play assists all four areas of development. As individuals develop, imagination becomes more related to artistic pursuits, problem solving and forming life dreams and desires.

Attention

Attention relates to focusing on one aspect of the environment while ignoring others. Attention is an important aspect of intellectual development as it assists in learning new material. Young children can focus their attention for shorter periods than older children. Attention can be developed by attaching an intrinsic (or internal) reward, such as attaching satisfaction to completing a task. The more a person enjoys the matter requiring attention, the longer they can focus their attention on it.

7.7.2 Intellectual changes as youth transition to adulthood

During youth, physiological changes occur in the brain and in the way that the young person perceives problems. These changes result in significant advances in intellectual development.

Knowledge and memory

During the transition to adulthood, youth often focus more on the future. This may guide the development of knowledge — for example, students wanting to study science might develop an interest in learning about scientific principles and choose science courses in their final years at school.

More complex concepts are learned in the final years of school and in employment or tertiary education. As a result, youth and early adults may develop an understanding of how they learn best (e.g. visual versus aural learners) which can further promote the acquisition of knowledge.

As the brain continues to develop during youth and early adulthood, so does the capacity to remember past events and concepts. Individuals in these stages may also implement strategies to assist in recalling information such as the use of acrostics and association.

Language

As knowledge and memory develop, so can the ability to remember words and what they mean. As a result, the transition to adulthood is often accompanied by an increase in skills relating to vocabulary, grammar and the use of language. For example, the use of figurative speech such as metaphors, similes and puns may develop as youth transition to adulthood.

Language is developed through many experiences, including through reading, communicating with others and exposure to media such as newspapers, magazines, music, television and the internet. Young people who have an interest in language and reading may develop a greater understanding of language than others.

Thought patterns and problem solving

As they transition to adulthood, youth begin to see 'grey' areas in problems when they would have seen only 'black and white' in the past. During this stage, the brain structures mature and abstract thought develops, as opposed to the concrete thought relied upon during childhood. Information can be processed more efficiently, and groups of concepts that were viewed individually might now be linked together and viewed as an interrelated whole.

The ability to create hypothetical solutions and evaluate the best options develops. This comes from previous experiences and from applying old knowledge to new situations. In contrast, most children can see only concrete solutions. Reasoning skills continue to be refined into adulthood with the challenges presented by employment or further study. Older youths can often distinguish between fact and opinion and may challenge views put to them by others, including adults. This critical thinking continues into adulthood and for the remainder of life.

Some research suggests that the frontal lobe (a part of the brain) is not fully developed until a young person is in their twenties. The state of the brain during these years may influence thought patterns and make youths and early adults favour immediate rewards and disregard long-term consequences. It is thought that this aspect of brain development may account for why these groups are more likely to take risks than children or older adults.

Creativity and imagination

The increase in knowledge and thought patterns can work to promote creativity and imagination as youth transition to adulthood. Creativity and imagination can contribute to the development of new ideas and innovations in their areas of interest such as career or hobbies.

Young people who have an interest in creative pursuits, such as music, painting or poetry, may develop skills through practice that can facilitate further creativity and imagination. For example, a youth who regularly practises and plays guitar may have more opportunities to express their imagination and creativity as a result of being capable of using this instrument. Although the transition to adulthood can be accompanied by greater levels of creativity and imagination, some research suggests that these skills can decrease if individuals do not promote their development.

Attention

Like creativity and imagination, attention can develop as youth transition to adulthood. If individuals develop a deep interest in a career or hobby, they may be able to focus their attention on a related task for hours at a time. Conversely, as youth transition to adulthood, they may lose interest in activities that they see as pointless or meaningless. In this respect, attention can become more targeted and focused during adulthood.

FIGURE 7.29 Towards the end of youth, individuals generally start to shift their attention to learning things associated with their interests and possible career paths.

7.7 Activities

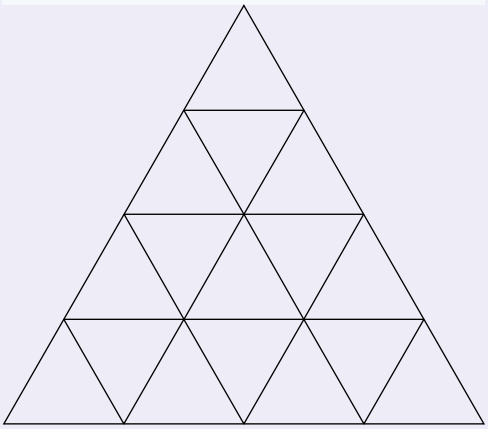
Test your knowledge

1. Using examples, explain what is meant by intellectual development.
2. Outline three aspects of intellectual development that may occur as youth transition to adulthood.
3. (a) Discuss the difference between concrete and abstract thought.
   (b) List one example of thought that illustrates:
      (i) concrete thought
      (ii) abstract thought.
4. Classify the following as examples of physical, social, emotional or intellectual development:
   (a) the changes to sex organs that occur during puberty
   (b) learning to use a graphing calculator
   (c) deciding to join a religious group
   (d) pattern baldness that occurs in many males
   (e) a musician writing a song for the first time
   (f) finding a way to fix a banging door
   (g) a person perceiving themselves as intelligent
   (h) a person deciding that they value honesty more than not hurting someone else's feelings
   (i) developing the skills required to discuss issues with parents
   (j) increase in the complexity of the skeletal system in a developing foetus
   (k) using words to express emotions
   (l) developing beliefs relating to ethical issues such as abortion
   (m) changes in height that occur during childhood
   (n) moving in with a partner
   (o) learning skills associated with a career.

Apply your knowledge

5. Draw pictures/collect magazine photos and create a collage representing examples of the type of development that might occur as youth transition to adulthood. Ensure that the four areas of development are addressed.
6. (a) Find lyrics to a song that focuses on an area of development.
   (b) Print the lyrics and share them in small groups.
   (c) Discuss what the lyrics are saying about development.
7. 'When I was a boy of 14, my father was so ignorant I could hardly stand to have the old man around. But when I got to be 21, I was astonished at how much he had learnt in seven years.' What do you think this quote (by American author Mark Twain) is trying to say?
8. (a) How many triangles are shown in figure 7.30?
   (b) Compare your answers with other students.
   (c) Do you think a child would be able to answer this problem? Why?
   (d) Think of another example of a brain teaser/ problem that children and youth might answer differently.

FIGURE 7.30 Triangle problem



9. Create a concept map or summary table to illustrate the changes that occur in relation to the four areas of development as youth transition to adulthood.

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Unit 2 > AOS 1 > Topic 2 > Concept 9

Intellectual changes as youth transition to adulthood Summary screens and practice questions

7.8 Topic 7 review

7.8.1 Key skills

KEY CONCEPT Collect and analyse information to draw conclusions on perceptions of youth and adulthood

This key skill requires information to be collected relating to the perceptions of youth and adulthood as stages of the lifespan. Information should be gathered from a range of sources including primary and secondary sources.

Information from primary sources can be collected through surveys (either face-to-face or online) and interviews. A range of people from different backgrounds and lifespan stages should be used as participants so a variety of perceptions are identified. Secondary sources include newspapers, magazines, books, television and the internet. It is important to record where the information comes from, so a source can be presented for each piece of information and can also be recorded in a bibliography.

Information relating to perceptions of youth and adulthood should be collated and presented in a variety of ways including discussions, tables and graphs. When analysing information, look for trends, similarities and differences between perceptions and the participants who hold them. This will allow relationships to be established and conclusions to be drawn relating to the perceptions that people have.

In the following example, information from a survey relating to perceptions of youth is collated and conclusions about the proportion of people with negative perceptions are drawn:

TABLE 7.1 Perceptions of youth

	Female				Male			
Age group	Negative perceptions (%)	Positive perceptions (%)	Mixed perceptions/ Neutral (%)	Total (%)	Negative perceptions (%)	Positive perceptions (%)	Mixed perceptions/ Neutral (%)	Total (%)
18–40	22	65	13	100	18	68	14	100
41–60	42	30	28	100	38	42	20	100
61–80	68	21	11	100	56	36	8	100
81+	57	32	11	100	44	46	10	100

In this survey, females were more likely to have negative perceptions of youth than males in all age groups.[1] For example, in the 18–40 age group, 22 per cent of females held negative perceptions compared to 18 per cent of males in the same age group.[2]

As age increased, the percentage of those with negative perceptions also increased. For example, for females the proportion of those with negative views increased from 22 per cent in the 18–40 age group to 68 per cent in the 61–80 age group. For males, it increased from 18 per cent in the 18–40 age group to 56 per cent in the 61–80 age group.[3]

Those in the 81+ age group were less likely to have negative perceptions than those aged 61–80 in both sexes.[4] For females, 57 per cent of those aged 81+ had negative perceptions compared to 68 per cent in the 61–80 age group. For males, the proportions were 44 per cent and 56 per cent for those in the 81+ and 61-80 age groups respectively.

1 A conclusion is drawn.
2 Data are used to substantiate the conclusion.
3 A second conclusion is drawn and data are used again to substantiate the conclusion.
4 A third conclusion is drawn, maintaining the focus on those with negative perceptions.

Practise the key skill

1. (a) Monitor news sources (either print or television) for one week and record the nature of stories relating to youth and adults.
   (b) Classify the stories according to the nature of the article. Possible categories include:
   - positive — achievement, good behaviour / deeds
   - negative — crime, victims, bad behaviour, needing help.

   (c) Analyse the results and draw conclusions about the representation of youth and adults in the media.
2. (a) Conduct a survey to collect information relating to the perceptions of youth and adults among community members. Ensure a range of age groups are surveyed so relationships between perceptions and lifespan stages can be identified.
   (b) Collate and analyse the results and draw conclusions about community perceptions of youth and adulthood as stages of the lifespan.

KEY CONCEPT Describe the developmental changes that characterise the transition from youth to adulthood

The transition to adulthood is a time of rapid development, and the common aspects of development should be known. In addition to the physical changes that occur, the social, emotional and intellectual changes are also significant. Some questions will focus on one area of development and others will be more open. Be sure to read the question carefully to determine the main focus or requirement.

In the following scenario or case study, Tan is in year 11. The following response outlines the physical changes that Tan will experience as she transitions from youth to adulthood.[5] As this example relates to physical development, links should be made to aspects such as changes to body systems, growth and/or motor skill development.

Tan can expect to experience a range of physical changes during this stage of development. Tan's bones may still be growing, but this process will end soon and her height will be fixed, although her bones will continue to gain density.[6] Her body proportions may continue to change as her hips widen and more fat is deposited around the thighs and hips. Tan may continue to gain strength and will refine her fine and gross motor skills.[7] Tan's menstrual cycle may be erratic at this time, but will generally become more regular as she transitions to adulthood.

5 Keep your answer focused on the physical development of females.

6 Remember that not all physical changes can be seen. Some occur inside the body, such as the changes in bone density.

7 Use key terms where appropriate.

A key requirement of this skill is to develop the ability to predict possible outcomes for an individual in all areas of development in a particular scenario or set of circumstances. Having a detailed knowledge of the four areas of development is the first step in achieving this.

In this scenario (or case study), Ben is 16 and has just left school to begin a plumbing apprenticeship. A discussion of how Ben's development might be affected by his leaving school and beginning full-time employment is presented below.

Ben's development might be affected in the four key areas: physical, social, emotional and intellectual.[8]

- *Physical:* He may miss out on playing sports at school, and this could affect his motor skill development as he experiences limited opportunities to practise them. He may learn new manual skills in the workplace that may enhance his motor development.
- *Social:* He will learn to communicate effectively with a range of people in a professional manner. He will develop his role of employee by taking responsibility for tasks assigned to him.
- *Emotional:* His identity may change as he begins to see himself differently as he gains more skills and responsibilities.

8 If the question does not specify, ensure that all areas of development are covered.

- *Intellectual:* Despite missing out on the traditional academic concepts learned at school, Ben will learn a new set of skills associated with his trade.[9]

9 Not all outcomes will be entirely positive or entirely negative. Try to achieve a balance.

Practise the key skill

3. Draw a concept map outlining the four areas of development. For each area, include two characteristics that occur as youth transition to adulthood.
4. Mandie is 18 years old and has just moved out of her parents' house with a friend. Explain three developmental changes that Mandie may experience as a result of moving out.

7.8.2 Topic summary

- The human lifespan begins at conception and ends at death. Each stage has characteristics common to most people.
- The start and finish of some lifespan stages has been debated over the years, and different groups and organisations may define the lifespan stages differently. For the sake of this course, the lifespan stages, and the start and end of each stage, are:
  - prenatal: fertilisation until birth
  - infancy: birth to age 2
  - early childhood: age 2 to age 6
  - late childhood: age 6 to age 12
  - youth: age 12 to age 18
  - early adulthood: age 18 to age 40
  - middle adulthood: age 40 to age 65
  - late adulthood: 65 years of age until death.
- Perceptions of youth and adulthood relate to the different ways that people view those in each of these stages.
- Perceptions can be positive, negative or a mix of both.
- Perceptions are formed as a result of a range of factors including personal experiences, media representations and opinions of others.
- Development refers to the orderly, predictable and sequential changes that occur in individuals from conception to death. Development occurs in the physical, social, emotional and intellectual areas.
- Physical development involves internal aspects (development and growth of body systems and organs) and external aspects (motor skill development and growth). It includes the decline in body systems.
- Youth is considered a period of rapid growth, but the body enters a maintenance phase during early adulthood and growth stops.
- The physical changes that occur during puberty can be classified as either primary or secondary sex characteristics.
- Social development refers to the increasing complexity of behaviour patterns used in relationships with other people (VCAA).
- The transition to adulthood is characterised by rapid social development. Individuals interact with a wider range of people, including increased interactions with those of the opposite sex, which develops social abilities.
- The peer group is an important influence on social development as it contributes to the development of behaviours and communication skills.
- Emotional development refers to experiencing the full range of emotions and increasing complexity relating to the expression of emotions, the development of self-concept and resilience.
- Self-concept is an important aspect of emotional development and relates to the way that an individual sees him/herself.

- Individuals experience a wider range of emotions as they transition to adulthood and learn to recognise and deal with them more appropriately.
- Intellectual development relates to the increase in complexity of processes in the brain such as thought, knowledge and memory. The brain continues to develop as youth transition to adulthood and contributes to more developed thinking and reasoning skills.
- Older youth often become more focused on knowledge related to possible career paths.

7.8.3 Exam preparation

Question 1

Complete the following table by filling in any empty cells. **(13 marks)**

Lifespan stage	When the stage begins	When the stage ends
Prenatal		
Early childhood		
Early adulthood		
Late adulthood		

Question 2

(a) Briefly explain what is meant by physical development and outline two changes that may occur in relation to physical development as youth transition to adulthood. **(3 marks)**

(b) Outline two changes that may occur in relation to each of the following areas of development as youth transition to adulthood:
- social
- emotional
- intellectual. **(6 marks)**

Question 3

Outline two common perceptions of youth in the community. **(2 marks)**

eBookplus RESOURCES

Try out this interactivity: Crossword
Searchlight ID: int-6874

Try out this interactivity: Definitions
Searchlight ID: int-6875

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Sit Topic Test

TOPIC 8
Healthy and respectful relationships

8.1 Overview

Key knowledge

- Key characteristics of healthy and respectful relationships and the impact on health and wellbeing, and development

Key skill

- Analyse the role of healthy and respectful relationships in the achievement of optimal health and wellbeing

FIGURE 8.1 Teamwork and decision making are important aspects of healthy and respectful relationships.

KEY TERMS

Abuse physical, psychological or sexual ill treatment of a person
Authoritarian parenting a style of parenting that employs strict rules, and punishment if rules are broken
Authoritative parenting a style of parenting that uses positive reinforcement of good behaviours and flexibility in interpretation of rules
Belonging the feeling whereby a person feels they have a place and a role in society
Communication the passing or sharing of information between people
Connectedness relates to the quality, number and frequency of interactions with others in a social setting
Emotional abuse the use of verbal abuse, threats, rejection, put downs and other behaviour in order to have control over another person
Empathy the ability to understand and share the feelings of another
Equality the state of being equal, whereby all people involved in a relationship are valued and able to contribute to and take from the relationship. They have the same expectations of the relationship.
Honesty the quality of being honest — choosing not to lie, deceive or cheat
Intimate relationship an interpersonal relationship that involves physical and/or emotional closeness
Loyalty the quality of being faithful to others. It also means that people stick by each other and provide support and consistency even through challenging times.
Non-verbal communication the use of gestures, body language, mannerisms and facial expressions to express yourself
Permissive parenting a style of parenting that is low in discipline and whereby parents see themselves more as friends than parents
Physical abuse any physical act that hurts or scares an individual
Relationship a connection between two or more people or groups of people
Respect the consideration of others' feelings, opinions, rights and needs
Safety the state of being free from danger, either physically or emotionally
Social networking the use of dedicated websites and applications to interact with other users, or to find people with similar interests
Trust the feeling of having confidence in another person and feeling emotionally and physically safe around them
Uninvolved a parenting style whereby parents show little interest in their children's lives
Verbal communication the use of sounds and words to express yourself

8.2 Healthy and respectful relationships

KEY CONCEPT Understanding what makes a healthy and respectful relationship

Humans have evolved to be social beings, and feeling of a sense of **belonging** and **connectedness** are essential to our health and wellbeing. A **relationship** is the connection between two or more people, or groups of people, and their involvement with one another over a period of time. We have relationships with all sorts of people. Relationships are complex and dynamic; they can be developed and maintained in a range of ways. Relationships can be healthy or unhealthy, and both have an impact on the dimensions of health and wellbeing and the areas of development.

8.2.1 Types of relationship

There are many types of relationship: some can be quite simple while others are more complex. For example, we may have simple relationships with many people based on shared interests or lifespan stage. Other relationships, such as with an intimate partner, can be more complex where the needs of both people need to be met. This can be difficult sometimes; for example, if one person in the relationship gets a job in another city, the other partner might need to compromise on their career, friendships or interests.

FIGURE 8.2 There are many different types of relationship.

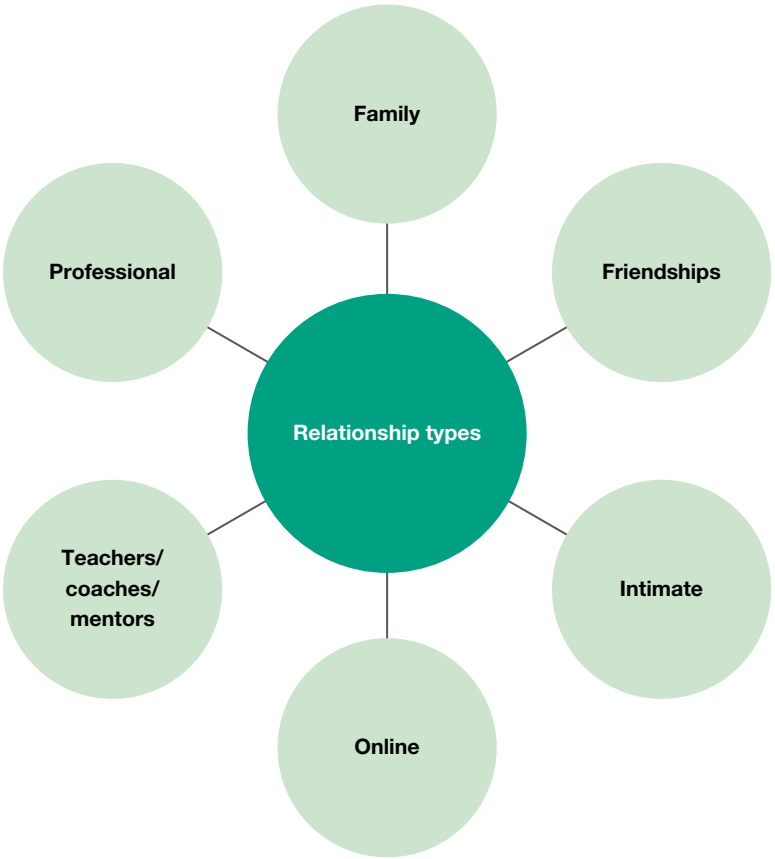

FIGURE 8.3 Relationships are formed with a wide range of people throughout the lifespan.

Many relationships will change over time depending on people's life experiences, interests and needs. The relationships that we experience throughout our lifespan shape our beliefs, sense of self-worth, and give a sense of belonging and connection.

Family relationships

Families are diverse and unique. Regardless of their makeup, families usually provide love, security, care and support for their members. Family members are generally dependable and trustworthy, and support and guide us through milestones in life. Such times might include starting school, choosing which university to attend, moving out of home, and getting married or having children. In the past, typical families comprised parents and children. However, today there are a wide variety of different family structures. What is classified as their family is different for each individual depending on their circumstances. Families are better defined by what they do and the qualities they offer their members rather than how they are composed. Regardless of their makeup, all families should provide a supportive, caring and loving environment for their members.

FIGURE 8.4 Families come in many different forms.

In many family scenarios, the relationship between parents and children is a key factor in how well the family functions. There are four main recognised parenting styles, each of which has the potential to impact on health and wellbeing of parents and, especially, children. These parenting styles and their commonly accepted impacts on health and wellbeing of the children are discussed below.

Authoritarian parents establish a set of rules and expect their children to follow them without question. This type of parenting relies on punishment, does not allow negotiation and the children gain minimal skills in problem solving. Children from these types of families often have lower levels of emotional and mental health and wellbeing, as they often direct anger at their parents for the punishments they inflict and also tend to have poor self-esteem.

Authoritative parents also have rules; however, they allow some exceptions based on their children's feelings and also explain the reasons for their rules or limits. These parents tend to use consequences rather than punishments, and often implement positive consequences or rewards to reinforce positive behaviours. Children with these types of parents usually develop good decision making skills and become responsible adults with good mental health and wellbeing.

Permissive parents don't really offer any discipline and may take on the role of friend more than parent. As such, although they may encourage their children to talk to them about their problems, they rarely discourage bad behaviour. Children in these relationships often have issues with authority and rules, causing them difficulties at school and later in life. These children often report low self-esteem and sadness, which causes poor mental health and wellbeing.

Uninvolved parents show little interest in their children's lives, often do not meet their basic needs and offer little attention. These parents are often affected by mental health issues or substance abuse problems. Children in these families tend to feel rejected and consequently have low levels of happiness and poor self-esteem.

Friendships

The friendships we establish are often based on common interests, such as sports and hobbies, or on life experiences. Like all relationships, friendships can change significantly. They can be close and intense or more relaxed and carefree. Friendships can be long lasting or short, but all can be meaningful and important to our health and wellbeing and development. Friends may drift apart for periods or forever. This may not necessarily be negative; it's just that their common interests may have changed.

Friends usually share good times and bad, and offer support in those times that are more difficult. Friends offer opportunities for understanding the world outside of the influence of our immediate family. Friends are critical during certain life stages, such as youth, when many young people strive to become independent from their families. Youth rely on their friends to help with decisions about dating, consuming alcohol and drugs, sports, and school priorities. Friends can either be a good or bad influence, and their input in such decisions should be carefully evaluated.

FIGURE 8.5 Friends offer care and support and are important to health and wellbeing at all stages of the lifespan.

Online relationships

Since the development of **social networking** sites, many people of all ages have been able to develop and maintain relationships through online **communication**. There can be negative outcomes associated with online relationships; however, healthy and respectful relationships can also be developed through online forums and networking sites for people with shared interests. Large numbers of people use social networking sites such as Facebook to maintain contact with people they already know offline. Chatting and interacting online can be an effective way to stay in touch and keep up to date with friends easily and instantaneously.

FIGURE 8.6 Social networking sites such as Facebook help to develop and maintain relationships, especially over long distances.

Intimate relationships

Intimate relationships usually involve strong emotions. Love and infatuation are romantic feelings that are common

in such relationships. Intimate relationships involve a desire to spend large amounts of time with, and a physical attraction to, another person; but they may not always be sexual in nature. Many intimate relationships do become sexual after a period of time. The characteristics of intimate relationships differ for everyone and depend on values, beliefs and expectations. For some people, intimacy is centred on physical closeness; for others it is more about a spiritual or emotional connection.

FIGURE 8.7 Intimate relationships involve a close connection with another person.

Relationships with teachers, coaches or other mentors

Healthy and respectful relationships can be formed with any people who play a significant role in our lives. Particularly for young people, teachers at school or sports coaches are important people in a young person's support network. Mentors of any type provide positive role models for people of all ages and can be very influential in the lives of youth.

FIGURE 8.8 Teachers and coaches are a major source of support and guidance for young people.

Professional relationships

Most adults spend large amounts of their day in some form of work environment. Their relationships with co-workers and managers can have a significant impact on health and wellbeing. In the workplace, relationships need to be open and supportive and are usually based on shared values and goals. Workplace relationships require good communication, trust and respect. Healthy and respectful workplace relationships generally allow workers to be more productive and result in better outcomes for everyone for the workplace.

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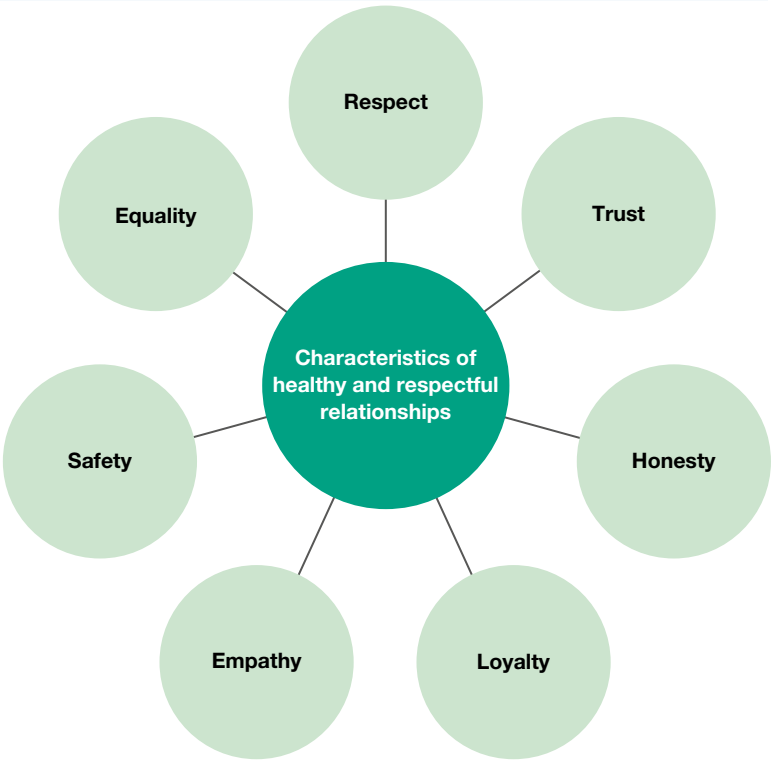
Relationships Summary screens and practice questions

8.2.2 Characteristics of healthy and respectful relationships

Healthy and respectful relationships have positive impacts on all aspects of health and wellbeing and development for people across the lifespan. Healthy and respectful relationships are important — they contribute to personal growth and self-confidence, promote self-expression and an awareness of others. They enable

people to feel accepted, and give an important sense of belonging and connectedness. The key characteristics of healthy and respectful relationships are respect, trust, honesty, loyalty, empathy, safety and equality.

FIGURE 8.9 The key characteristics of healthy and respectful relationships



Respect is a pattern of behaviour that is found in healthy and respectful relationships whereby people have consideration for others' feelings, needs, thoughts and rights. Respect means that people in the relationship value each other's opinion and treat each other in a thoughtful way.

Trust in others means that you think they are reliable and dependable, you have confidence in them, and feel safe with them emotionally and physically. Trust is a key characteristic of healthy and respectful relationships.

Honesty in healthy and respectful relationships involves telling the truth and not keeping secrets. Being honest means choosing not to lie, cheat, steal or deceive in any way. Honesty and trust are characteristics that are closely linked, as being honest helps to build trust in any type of relationship.

Loyalty is a characteristic of healthy and respectful relationships whereby people stick by each other and provide support and consistency even through challenging times. Being loyal doesn't mean that the people involved in the relationship always agree and share exactly the same opinions, but they will always be there for each other and work to resolve their differences.

Empathy is the capacity to understand or feel what another person is experiencing by placing yourself in their position. Empathy helps to contribute to healthy and respectful relationships because it allows people to sense and understand other people's emotions and offer support when needed.

Safety is an essential characteristic of any healthy and respectful relationship. A relationship can't be considered healthy and respectful if the people involved do not feel physically and emotionally safe. Like honesty, safety and trust are intrinsically linked. Emotional safety means trusting other people with your feelings and knowing that they have your best interests in mind. Only healthy and respectful relationships are those free from any sort of physical harm or abuse.

Equality means that the people involved in the relationship are valued and able to give and take from the relationship. They have the same expectations of the relationship. Relationships all involve different numbers of people — from intimate relationships of two people to larger family or friendship groups. Regardless of the number of people involved, each person needs to contribute to a healthy and respectful relationship. When a relationship is unequal, one person may try to hold power over the other.

Healthy and respectful relationships may involve disagreements or differences of opinion. In healthy and respectful relationships, when differences occur they are managed in ways that lead to understanding and resolution without damage to the relationship. Conflict within relationships can be uncomfortable; however, conflict that stems from a difference of opinion or ideas does not necessarily lead to an unhealthy relationship. It is normal for groups of people to hold different points of view. In a healthy and respectful relationship conflict is resolved, often by simply agreeing to disagree.

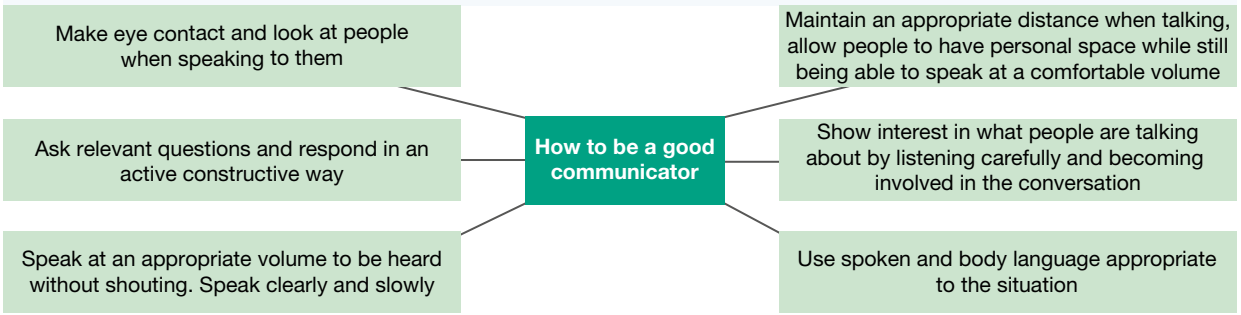
The importance of communication

For healthy and respectful relationships to be developed and maintained good communication is an essential characteristic. Clear communication in any relationship allows people to share their interests, aspirations, and concerns or worries. It helps them to discuss their expectations of the relationship and to support each other. Clear and supportive communication in healthy and respectful relationships can help people to make difficult decisions.

Communication involves verbal and non-verbal skills. **Verbal communication** is clearly conveying a message through talking and careful listening, while **non-verbal communication** is the use of body language, facial expressions and tone of voice. Good communication is an important feature of healthy relationships because it shows the people involved have respect for each other. Verbal communication allows facts, thoughts, feelings and opinions to be conveyed directly. Clear verbal communication is essential to building healthy and respectful relationships in order to avoid misunderstandings, hurt, anger or confusion. Non-verbal aspects of communication are easily lost when electronic communication is used. Facial expressions, body posture and tone of voice are not available as cues to understand the true context of a message. Misunderstandings and hurt feelings are common consequences of this type of communication and do not foster healthy and respectful relationships.

Developing good communication skills is a process that continues throughout a person's lifespan. Some characteristics of good communicators are outlined in figure 8.10.

FIGURE 8.10 Characteristics of good communicators



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Healthy and respectful relationships Summary screens and practice questions

8.2.3 Unhealthy relationships

To determine how healthy and respectful a relationship is, you must first be able to recognise the signs of an unhealthy or negative relationship. Most people encounter unhealthy relationships at various times in their lives. These relationships are not always abusive in nature; however, they are unsatisfying to one or more of the people involved. An unhealthy relationship is usually one in which a person is prevented from challenging themselves, and is unable to be their best self. Other characteristics might include:

- feeling uncomfortable around a person or group of people
- being put down by others
- not feeling appreciated, valued or cared for
- feeling that the relationship is unequal and one person is putting in greater effort than others to maintain the relationship

FIGURE 8.11 Shouting, anger and fear are common in unhealthy relationships.

- low self-esteem and a lack of confidence around others
- being embarrassed, bullied or harassed
- feeling scared, vulnerable, constantly disappointed or angry.

FIGURE 8.12 Physical violence and fear are common features of abusive relationships.

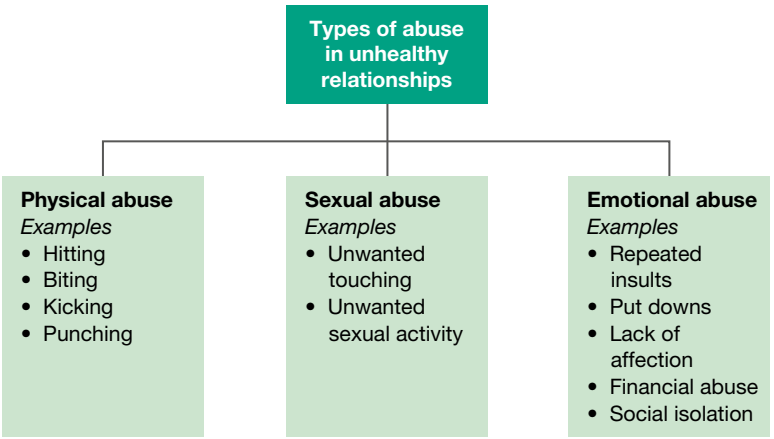
Abuse in relationships

An extremely unhealthy relationship may become an abusive relationship. **Abuse** can be physical, emotional or sexual and endangers the person being abused.

Examples of each type of abuse are outlined in figure 8.13.

Unhealthy and abusive relationships can have extremely detrimental consequences for health and wellbeing and development in all lifespan stages. Being physically abused causes injuries and sometimes death; while sexual and emotional abuse can lead to poor self-esteem, depression, anxiety, withdrawal from social interactions and self-harm. All dimensions of health and wellbeing are negatively affected by any form of abuse in a relationship. Abusive relationships within families are known as family or domestic violence, and includes not only behaviour resulting in physical injury, but also direct or indirect threats, sexual assault, emotional and psychological torment, financial control, damage to property, social isolation and any behaviour that leads another family member to live in fear.

FIGURE 8.13 Types of abuse in unhealthy relationships



8.2 Activities

Test your knowledge

1. Identify the six different types of relationship.
2. (a) Name the four parenting styles discussed.
   (b) Briefly outline the characteristics of each parenting style.
3. Create a table or concept map identifying the characteristics of a healthy and respectful relationship with a description of each characteristic and a picture that illustrates that characteristic.
4. What is meant by
   (a) verbal communication?
   (b) non-verbal communication?
5. Provide an example where a misunderstanding in a relationship has occurred as a result of poor verbal and non-verbal communication.
6. Explain why communication is so important in healthy and respectful relationships.

Apply your knowledge

7. (a) In the tables provided, identify the three most important characteristics of relationships with parents, friends, teacher or coach.
   (b) Justify why you consider these characteristics the most important in each of the relationships.

Parent(s)

Characteristic	Justification

Friend

Characteristic	Justification

Teacher or coach

Characteristic	Justification

8. Imagine that you and three others have been stranded on a desert island.
   (a) Identify and describe three ways the relationship between all four people might be tested.
   (b) Suggest a list of rules to maintain respectful relationships on the island.
   (c) Which characteristics of a healthy and respectful relationship do you think would be most needed in this scenario? Why?
9. (a) Identify the characteristics of an unhealthy relationship.
   (b) Discuss reasons why a person may stay in an unhealthy relationship.
   (c) Predict the impact of an unhealthy relationship on the health and wellbeing of an adolescent who has just begun dating.
10. Often messages communicated electronically are misinterpreted. Suggest reasons why misunderstandings often happen with this type of communication.

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Unit 2 > AOS 1 > Topic 3 > Concept 3

Unhealthy relationships Summary screens and practice questions

8.3 Healthy and respectful relationships and health and wellbeing

KEY CONCEPT Understanding the impact of healthy and respectful relationships on health and wellbeing

Healthy and respectful relationships in which there is good communication and all people feel supported, connected and cared for have a positive impact on all dimensions of health and wellbeing.

Physical health and wellbeing is enhanced as people in healthy and respectful relationships do not suffer physical injuries from abuse or violence. Healthy and respectful relationships also promote physical health and wellbeing in other ways. For example, people may play sport as part of a team or be encouraged to do physical activity with friends and family members, which improves cardiovascular health, helps to maintain a healthy body weight and enhances the functioning of the immune system.

Healthy and respectful relationships are at the core of good social health and wellbeing. Having healthy and respectful relationships contributes to the achievement of optimal social health and wellbeing, as people interact with others in a positive way and offer support to each other.

Emotional health and wellbeing is also closely associated with healthy and respectful relationships. When people are in positive, caring relationships they are easily able to recognise and manage their emotions.

As discussed earlier, healthy and respectful relationships do sometimes involve conflict, which can lead to emotions such as sadness, disappointment, frustration and anger. However, in healthy and respectful relationships a positive outcome can be achieved with good communication. Through good communication within a caring and supportive relationship optimal emotional health and wellbeing can be promoted.

FIGURE 8.14 Friends running together encourage each other to achieve optimal physical health and wellbeing.

Stress, anxiety and low self-esteem are characteristics of people involved in unhealthy, negative relationships in which mental health and wellbeing can be severely compromised. Healthy and respectful relationships can improve and promote optimal mental health and wellbeing because stress levels remain low. When anxiety is present it can be reduced by sharing thoughts and being cared for by others. Being supported to achieve goals and accept challenges builds good self-esteem and self-confidence. In healthy and respectful relationships, even when people fail to fully achieve their goals, having love and support from others means they can try again and resilience is built along the way.

FIGURE 8.15 Achieving goals and self-confidence are features of mental health and wellbeing that are promoted through healthy relationships.

Being part of a healthy and respectful relationship means that big life decisions can be made together, which means the anxiety that usually accompanies them can be reduced. For example, a couple might be deciding when to start a family. In a healthy and respectful relationship with good communication, both parties will offer their thoughts and feelings to make the decision together. In an unhealthy relationship, both partners might feel anxious and stressed about the decision and withdraw from each other.

A sense of belonging is at the centre of good spiritual health and wellbeing. A strong feeling of connectedness is fostered through healthy and respectful relationships. People feel connected to each other through shared interests, values, beliefs and opinions, which are the foundations of positive relationships. Healthy and respectful relationships are inclusive of others and make people feel comfortable, promoting optimal spiritual health and wellbeing. Meaning and purpose in life are essential aspects of spiritual health and wellbeing, which can be achieved through having many different relationships. For example, a football coach can satisfy his or her spiritual needs by building a strong relationship with a team of young sports players. Helping young people to develop their skills and watching them grow as players can be very fulfilling for a coach. People who become involved in volunteering can achieve spiritual health and wellbeing through the relationships they make through giving their time and effort.

FIGURE 8.16 Volunteers at shelters for homeless people satisfy their spiritual health and wellbeing needs through helping others.

CASE STUDY

Good relationships keep you healthier for longer

Arguments with the people we are close to can have a serious impact on our health and mortality rate, a new study has confirmed. The link between having supportive friends and family and serious health outcomes has long been recognised, but this research, published in the *Journal of Epidemiology and Public Health*, takes our knowledge of the impact of relationships on health one step further by showing how stress can even impact on our lifespan.

Stressful social relations with partners, children, other family members, friends and neighbours, were examined using questions about everyday life. Questions addressed the degree to which people felt their relationships demanded too much of them, worried them or involved conflict. These questions were scored from always through to seldom, with people reporting frequent stressful social relations being deemed as at high risk.

Social relations were also measured with a more standard psychological questionnaire, the Copenhagen Social Relations Questionnaire. This study found that frequent worries, demands or conflicts were related to an increased risk of death through any cause.

Individuals who experienced frequent conflicts in their social relationships were, alarmingly, at two to three times the risk of mortality compared to individuals who rarely experienced such conflict. Conflicts, worries and demands from your partner seemed to be particularly important and had a stronger effect on men's mortality than women's, suggesting that men are more vulnerable to the negative impact of social relationships.

FIGURE 8.17 Conflict in our close relationships can affect our health and wellbeing.

Be sociable

These results shouldn't surprise us. It has already been established that large social networks and high quality social support can boost your lifespan; we would expect that negative social relationships might be linked to an increased risk of mortality.

The link between being socially isolated or having poor quality social relationships and earlier mortality is well established. And having a small social network appears to be particularly detrimental to men when the link between social support and mortality takes into account other risks such as smoking and high blood pressure.

But less is known about the other side of the coin in terms of whether or not our social relations can actually harm our health. There is certainly some evidence to suggest this is the case. In my own laboratory we have shown that individuals with poor quality marriages have a reduced antibody response to medical vaccinations in comparison to happily married individuals.

During a stressful marital conflict, laboratory studies have shown that physical wounds heal slower in couples who consistently demonstrated high levels of hostile behaviour toward each other, and higher levels of inflammation the day after a hostile marital social interaction. Inflammation is a major contributor to many age-related diseases.

There are many candidates for causing this. In particular, higher levels of stress hormones, such as cortisol, can adversely affect many parts of the body including the immune system, cardiovascular function, and even muscle and bone strength.

It is possible that men's increased vulnerability to the impact of stress on their bodies is due to these same biological pathways, as men have been shown to have higher stress hormone and blood pressure responses than women. In turn, high stress reactivity is associated with a range of serious diseases including developing cardiovascular disease and cardiovascular disease mortality.

Healthy relations, healthy life

So the key question is, what can we do to reduce our risk of falling foul of the negative effect of stress in our relationships? A glib answer would be, do not form close relationships with individuals with whom one does not get on well. But relationships often deceptively start well and only show the cracks and difficulties later down the line.

A more pragmatic answer would be to work hard at our relationships to maintain their quality, by making both parties in the relationship feel valued and appreciated. Through this, conflicts, demands and worries should become less frequent.

Another potential solution might be to learn to self-regulate our responses to conflict when it arises. Rather than escalate the situation by responding negatively to a negative encounter in order to further our own point of view, we might consider reacting calmly.

Scientifically, the biological impact of stress on people who don't tend to respond angrily in stressful situations is smaller than those who are frequently angry and hostile, and make large displays of showing it. Sometimes there is no escaping stress in our relationships with others — especially those we're closest to. But with increasing evidence that stress has a serious impact on our health and lifespan, we'll do better to work hard at investing in our relationships.

Source: Phillips A 2014 'Good relationships keep you healthier for longer', *The Conversation*, 12 May http://theconversation.com/good-relationships-keep-you-healthier-for-longer-26549.

Case study review

1. According to the article, individuals who experienced frequent conflict in their social relationships were how many times more at risk of mortality than those who rarely experienced such conflict?
2. Is the mortality of men or women more affected by the impacts of negative social relationships?
3. What evidence is there to suggest that social relationships can actually be harmful to our health and wellbeing?
4. How can we reduce the risk of the harmful effects stress in our relationships? Identify and describe three different suggestions outlined in the article.

8.3 Activities

Test your knowledge

1. Explain the ways in which relationships can be:
   (a) good for health and wellbeing
   (b) bad for health and wellbeing.
2. Complete a concept map with an example of how healthy and respectful relationships can have a positive impact on each of the dimensions of health and wellbeing.
3. (a) Why are relationships with frequent conflict damaging to health and wellbeing?
   (b) Conflict can be a part of a healthy and respectful relationship. Discuss the impact of conflict on the health and wellbeing of people in a healthy and respectful relationship.
4. A sense of belonging is a key feature of several dimensions of health and wellbeing. Explain how this is promoted through healthy and respectful relationships.

5. (a) How do you know if a relationship is unhealthy or abusive?
   (b) List the three types of abuse in relationships with two examples for each one.

Apply your knowledge

6. Access the **For the Birds** weblink and worksheet in the Resources tab in your eBookplus then complete the worksheet.
7. Access the **Family violence** weblink and worksheet in the in Resources tab in your eBookPlus, then complete the worksheet on the Victorian Government's new ten-year plan on family violence.

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8.4 Healthy and respectful relationships and development

KEY CONCEPT Understanding the impact of healthy and respectful relationships on development

8.4.1 Physical development and healthy and respectful relationships

Development of gross and fine motor skills are the areas of physical development that will benefit most from healthy and respectful relationships. Positive relationships with friends and sports coaches who encourage participation in recreational activities promote physical development. For example, a team of netballers who have a friendly relationship with their teammates and their coach will be motivated to attend training and weekly games, which improves aspects of physical development such as hand–eye coordination, running, jumping, throwing and catching. If the relationship with the coach is unhealthy because the coach has unrealistic expectations, or shouts or uses put-downs at training, players won't want to go to training and their motor skills will not continue to develop.

FIGURE 8.18 Motor skills such as throwing and catching are enhanced by positive relationships with coaches and teammates.

8.4.2 Social development and healthy and respectful relationships

Social development is fostered by healthy and respectful relationships and, like social health and wellbeing, social

development is intrinsically linked with healthy and respectful relationships. Developing communication skills, conflict resolution skills and an understanding of values and beliefs are aspects of social development that are enhanced through healthy and respectful relationships. In relationships where there is respect, honesty and loyalty, people can practise these skills without fear of being embarrassed or put down by others. Being yourself and feeling comfortable with who you are is key to the development of self-identity, and it is only possible when the people around you support and do not judge you. This only occurs in healthy and respectful relationships, not in relationships that are unhealthy.

8.4.3 Emotional development and healthy and respectful relationships

Healthy and respectful relationships allow for and promote the emotional development of people of all ages. When relationships are supportive and people can be honest with each other, emotions can be expressed without fear of rejection or ridicule. People who are in relationships where there are low levels of stress and little conflict are able to express their emotions and are able recognise and support others' emotions. In an unhealthy relationship, an emotion such as jealousy, for example, might be expressed as anger or frustration. In a healthy and respectful relationship, a jealous person would be more able to talk about their jealousy with their friend or partner, and come to a satisfactory resolution. Healthy and respectful family relationships foster emotional development. For example, if a young child is supported to understand why they are frustrated and throwing a tantrum, rather than simply told not to do it or ignored, they are better able to learn about their emotions and find ways to express them more effectively as they grow older.

8.4.4 Intellectual development and healthy and respectful relationships

Intellectual development involves mental processes such as building knowledge and problem-solving abilities, imaginative skills and language skills. All of these characteristics are enhanced through healthy and respectful relationships with supportive family and friends, and particularly with teachers in a formal school setting. For example, if a child is part of a friendship group that supports learning and intellectual development, the child will not hold back at school for fear of embarrassment or bullying by other students. This friendship group might work together and encourage each other with their homework, increasing their problem-solving skills and learning. Similarly, a teacher who develops good relationships with students through a safe, caring learning environment will encourage students to take risks with their learning to advance their creativity and problem-solving skills. In a classroom where the teacher shouts and embarrasses students, or where students put each other down or are bullied, intellectual development will not proceed as students become bored and lose interest and motivation, or they are scared to offer their thoughts in case they are wrong.

FIGURE 8.19 Students in a supportive learning environment will offer their thoughts without feeling embarrassed or worried that they might be incorrect.

8.4 Activities

Test your knowledge

1. Explain why relationships can have a positive and negative impact on the development of an individual.
2. Explain, using an example for each, how healthy and respectful relationships promote physical, social, emotional and intellectual development. (You could use a table for this question.)
3. Youth is a time of increased conflict between children and parents. Explain how in a healthy and respectful parent–child relationship, this conflict helps to promote:
   (a) social development
   (b) intellectual development.
4. Explain using examples how healthy and respectful relationships promote the interrelationship of health and wellbeing and development.

Apply your knowledge

5. (a) Find the lyrics to a song that focuses on relationships.
   (b) Print out the lyrics. Is the relationship healthy and respectful or unhealthy?
   (c) In small groups, discuss what the song is saying about relationships and evaluate the possible impacts of the relationship on each of the areas of development.
6. Read the following case study then answer the following questions.

> Susan and her boyfriend Tom have been dating for a month. Susan decided she wanted to have sex with him and told him two nights ago. Yesterday Susan's parents went away for the weekend and she asked Tom to stay over. Susan started to feel really uncomfortable when they started kissing. She felt sort of sick and nervous. Susan thought that Tom noticed that she didn't feel good. He asked her if there was anything wrong. It was kind of hard for Susan to explain, so she didn't say anything for a few seconds, then she just said she didn't feel well. Tom seemed a little annoyed, but he said that that was cool, and got her a glass of water. Susan eventually told Tom that she didn't feel good because she wasn't ready to go that far yet. Tom listened and together they decided that they would wait until they both felt comfortable. Then Susan and Tom watched a movie and went to sleep.

   (a) Do you think this is a healthy and respectful relationship? Justify your answer.
   (b) Using examples from the case study, suggest ways that this relationship might promote Susan and Tom's emotional development.
   (c) Using examples from the case study, suggest ways that this relationship might promote Tom's social development.
   (d) Using examples from the case study, suggest ways that this relationship might promote Susan's intellectual development.

8.5 Topic 8 review

8.5.1 Key skills

KEY CONCEPT Analyse the role of healthy and respectful relationships in the achievement of optimal health and wellbeing

An understanding of what makes a healthy and respectful relationship and what is not healthy and respectful is the starting point for this key skill. It is necessary to be familiar with the characteristics of a healthy and respectful relationship before being able to analyse the impact these type of relationships may have on a person's ability to achieve optimal health and wellbeing. The main characteristics of healthy and respectful relationships are trust, honesty, respect, safety, empathy and loyalty.

To analyse means to examine something methodically and in detail. In this key skill, it is necessary to take the details of each healthy and respectful relationship characteristic and determine how it affects each dimension of health and wellbeing (physical, social, emotional, mental and spiritual). Because this key skill is about the achievement of optimal health and wellbeing, discussions should focus on the positive impact on health and wellbeing and what happens in healthy and respectful relationships. Answers should not discuss the impact of unhealthy or abusive relationships and their negative outcomes.

For example, a question may ask for a discussion of a particular parenting style and the impact of this relationship on achieving optimal health and wellbeing.

The authoritative parenting style is characterised by the key features of a healthy and respectful relationship as it displays empathy, trust, respect, safety and honesty[1] when placing limits on behaviours. Although the parents set limits and boundaries, they respect the feelings and opinions of the children and explain to them the reasons behind their decisions. This type of relationship helps build an environment where optimal health and wellbeing is promoted. Physical health and wellbeing is achieved as parents make decisions that keep their children safe from physical harm, such as injuries.[2] Emotional health and wellbeing is fostered in this type of relationship because there is good communication and, although there are boundaries and limits which may cause frustration or disappointment in the children, they are free to express their feelings, and the parents manage these feelings by explaining why those limits are in place.[3] Mental health and wellbeing is promoted in this type of caring relationship as children's stress and anxiety levels are kept low through good communication and resolution of conflicts. Opinions are listened to and decisions are explained so that there is mutual understanding and children are able to be supported while they learn resilience skills.[4]

1 Characteristics of healthy and respectful relationships are listed.
2 The impact of the relationship on an aspect of physical health and wellbeing is explained.
3 The ability to achieve good emotional health and wellbeing is explained.
4 The impact of the relationship on mental health and wellbeing is discussed.

It is not necessary to cover every dimension of health and wellbeing in this type of discussion.

Practise the key skill

1. List the characteristics of a healthy and respectful relationship.
2. Explain what is meant by each of the following terms in relation to healthy and respectful relationships:
   (a) empathy
   (b) respect
   (c) equality.
3. (a) What are the characteristics of good communication?
   (b) Explain why it is important to have good communication for healthy and respectful relationships.
4. Explain how healthy and respectful relationships promote optimal health and wellbeing.
5. Explain how healthy and respectful relationships promote an individual's development at any age of the lifespan.
6. Give examples of each of the types of abuse commonly seen in unhealthy relationships.

7. Predict the possible impacts of each of the four parenting styles on the dimensions of health and wellbeing and areas of development. A table such as the one below could be used here. (Discuss as many of the dimensions of health and wellbeing and areas of development as possible.)

Parenting style	Impact on health and wellbeing	Impact on development

8.5.2 Topic summary

- Healthy and respectful relationships are essential to achieving optimal health and wellbeing.
- A relationship is a connection between two or more people.
- Types of relationship include family, friendships, intimate relationships, online relationships, relationships with teachers/coaches or others in mentoring roles, and professional relationships in workplaces; there may be many other examples of relationships.
- Some relationships are complex; others are simple and relatively straightforward.
- Meaningful relationships can be short or long lasting but both involve a connection.
- Families generally offer support and care in a loving environment, regardless of the makeup of the family.
- Friends offer opportunities and understanding outside the family context.
- Friendships are usually based on shared interests or experiences.
- Friends usually share good times and challenging times.
- Friendships can be critical to decision making, especially during youth.
- Online relationships offer ways to develop and maintain positive relationships, especially over long distances.
- Intimate relationships involve strong emotions and physical closeness with another person, but they are not always sexual relationships.
- Expectations of intimate relationships are different for each person.
- Relationships with teachers, coaches or other mentors can be very important, particularly for young people.
- Healthy and respectful relationships are characterised by respect, loyalty, empathy, equality, safety, trust and honesty.
- Good communication is the key to healthy and respectful relationships.
- Communication can be verbal or non-verbal.
- Unhealthy relationships prevent the achievement of optimal health and wellbeing.
- Unhealthy relationships are characterised by poor communication, being embarrassed, bullied, put down or harassed by others, and unequal power or control between people.
- Unhealthy relationships can cause fear, disappointment and sadness and result in low self-esteem.
- Abusive relationships can include physical, emotional or sexual abuse, and can cause injuries through violence as well as poor mental and emotional health and wellbeing.
- Healthy and respectful relationships promote all dimensions of health and wellbeing.
- Physical health and wellbeing is promoted through a sporting team or by exercising with friends and family.
- Mental health and wellbeing is promoted as healthy and respectful relationships reduce levels of stress and anxiety.
- Emotional health and wellbeing is promoted as people are easily able to recognise, understand and manage emotions when they are cared for and supported.
- Healthy and respectful relationships are central to good social health and wellbeing.
- Spiritual health and wellbeing needs are satisfied through relationships with others as they give meaning and purpose to people's lives.
- Healthy and respectful relationships have a positive impact on all areas of development.
- Physical development is promoted through the motivation to develop motor skills with a team or relationship with the coach.
- Social development is promoted through positive interactions with people in many different types of relationship.
- Emotional development is promoted through being able to express and manage emotions appropriately in relationships with others.
- Intellectual development is promoted through positive interactions with teachers and supportive friends who value learning,

8.5.3 Exam preparation

Question 1

(a) Identify two characteristics of healthy and respectful relationships. **(2 marks)**

(b) Outline how each of the characteristics chosen in question 1a promote health and wellbeing. **(4 marks)**

Question 2

Identify one type of relationship and discuss how it could contribute to a person achieving optimal health and wellbeing. **(2 marks)**

Question 3

Read the following case study then answer the questions.

Grace and Matilda are in year 2 at school. They have been friends since they started together in prep and like many of the same things. At school, their favourite class is Art. Recently, Grace has started playing more with Ruby at lunchtime and excluding Matilda completely. Matilda felt sad at being left out, but some other girls have welcomed her into their group at lunchtime. Grace has now become jealous that Matilda has new friends and she tells Matilda that she won't be friends with her anymore if she doesn't stop playing with the other girls. Grace won't let Matilda borrow her pencils and she takes all of Matilda's favourite paint colours and won't share them with her. While Matilda continues to play with her new friends, Grace and Ruby spread mean stories about her so that no one else will want to play with her.

(a) Is the relationship between Matilda and Grace healthy and respectful? Justify your answer using examples from the case study. **(2 marks)**

(b) How could this relationship have an impact on Matilda's health and wellbeing? **(2 marks)**

(c) How could the relationship with the new group of friends or a supportive and caring teacher promote Matilda's optimal health and wellbeing? **(2 marks)**

(d) Analyse the impact of the relationship between Grace and Matilda on Matilda's intellectual development. **(1 mark)**

(e) Analyse the impact of the relationship with the new group of friends on Matilda's emotional development. **(1 mark)**

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Sit Topic Test

TOPIC 9
Parenting and prenatal and early childhood development

9.1 Overview

Key knowledge

- Considerations in becoming a parent such as responsibilities, and the availability of social and emotional support and resources
- 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

- Analyse factors to be considered and resources required for the transition to parenthood
- Explain factors that influence development during the prenatal and early childhood stages of the lifespan
- Explain health and wellbeing as an intergenerational concept

FIGURE 9.1 The prenatal stage is the first stage of the lifespan and early life experiences can have an impact on future health and wellbeing and development.

KEY TERMS

Amniotic fluid the fluid surrounding the embryo/foetus that protects the unborn baby
Antenatal occurring before birth
Blastocyst thin walled hollow structure consisting of a cluster of cells making up an outer cell mass that becomes the placenta, and an inner cell mass which becomes the embryo
Cell differentiation when cells take on specialised roles
Cephalocaudal development development that occurs from the head downwards
Chromosomes strands of DNA that contain genetic information
Emotional needs the need to feel loved and wanted by caregivers
Emotional support the feeling that others understand your needs and will try to help you
Endometrium the nutrient-rich lining of the uterine wall in which the ovum (blastocyst) embeds or that is expelled every month if pregnancy does not occur
Foetal alcohol spectrum disorder describes a range of features seen in babies who have been exposed to alcohol while in the womb
Genes the blueprint of the body that controls growth, development and how the body functions
Implantation when a cluster of cells that will become an embryo attaches itself to the endometrium
Intellectual needs knowledge, understanding, curiosity and search for meaning
Intergenerational the health and wellbeing of one generation affects the next
Low birthweight weighing less than 2500 grams at birth
Neural tube defect failure of the neural tube (which develops into the central nervous system) to close during the development of the embryo, resulting in conditions such as spina bifida
Object permanence an awareness that objects continue to exist even when they are out of sight
Organogenesis the formation of organs
Parenting the process of promoting the physical, emotional, social, and intellectual development and health and wellbeing of a child from birth to adulthood.
Physical needs the need for food, air, water, activity, rest and physical safety
Placenta an organ that allows the transfer of nutrients, gases and wastes between mother and foetus
Proximodistal development development that occurs from the core or centre of the body outwards towards the extremities
Regenerate regrow to replace damaged, old or dead cells or tissue
Sanctions rewards or punishments imposed to encourage appropriate behaviour
Social needs the need for belonging, self-worth and the respect of others
Social support informal, emotional or practical assistance from relatives, friends, neighbours or the community
Teratogen anything in the environment of the embryo that can cause defects in development. Examples include tobacco smoke, alcohol, prescription medication and some diseases, such as measles.

9.2 Considerations when becoming a parent

KEY CONCEPT Parents play a crucial role in promoting the health and wellbeing and development of their children. Parenting actually begins before birth in the prenatal stage, and affects the course of health and wellbeing of children through to adult life.

9.2.1 The responsibilities of parenting

Parenting refers broadly to the activity of raising a child. Not just the biological relationship, it covers all people who carry out parenting responsibilities, including biological parents, step-parents, adoptive parents, foster parents and other carers. Parenting includes a set of behaviours that characterise how parents interact on a daily basis to meet the needs of their child, and the beliefs and attitudes about parenting that underpin these behaviours.

FIGURE 9.2 Parenting begins before birth with an optimal prenatal environment.

In the early years of life humans are wholly dependent on others to provide for their needs and uphold their rights. The UN Convention on the Rights of the Child lists the rights or things every child should have or be able to do. Some of these include the following:

- Children have the right to live a full life.
- Children have the right to good quality healthcare, clean water, nutritious food and a clean environment so that they will stay healthy.
- Children have the right to a standard of living that is good enough to meet their physical and mental needs.
- Children have the right to relax, play and to join in a wide range of leisure activities.
- Children have the right to reliable information from the media. Mass media should provide information that children can understand and should not promote materials that could harm children.

These rights dictate that children have the right to grow up in an environment in which they are enabled to reach their full potential in life. It is parents' responsibility, with the support of other caregivers and family members, communities and governments, to ensure that the rights that relate to a child's needs and an optimal environment for development are fulfilled.

Parents play the most important role in ensuring children's rights and needs are met. Over the past 50 years changing social factors have led to changes and challenges in how parents carry out their job. Some of these include more flexible work hours, more women in the full-time workforce and people working from home, different income and education levels, higher divorce and remarriage rates, and single parenthood by choice. The responsibilities for the parenting of a child can therefore be carried out in different ways and under different circumstances.

Parents have to understand and respond appropriately to the needs and rights of a child from birth, which requires skills and knowledge. Parenting

FIGURE 9.3 The newborn is relatively helpless and relies on parents/caregivers for almost everything.

knowledge can be limited by lack of exposure to parenting experiences. Smaller family units mean less opportunity to watch parents interacting with siblings or less contact with extended family networks, which can all reduce confidence in relation to parenting skills. Information may now be gained from parenting courses, online sources, social networking sites and the media rather than from family experiences alone.

Adults embarking on parenthood need to be able to answer following questions:

- Can a child's needs be met?
- Can an environment that will promote optimal development be provided?
- Are the changes that parenting will bring acceptable?

Can a child's needs be met?

Parenting can be rewarding — and demanding. A child's needs are constantly changing. The obligation, and challenging task, is to figure out what those needs are and how best to meet them.

Children have **physical needs** which are linked to basic survival. Parents or carers must provide an appropriate quantity and variety of nutritious food, conditions for adequate sleep, safety, adequate housing and access to healthcare in order to enable physical health and wellbeing and development. A baby or child who is cold, sick or hungry will not be very interested in socialising or learning. Babies must also feel safe from personal danger and threats. When a child is fearful, all concentration goes to calming the fear with no thought for any other task.

FIGURE 9.4 Children's basic needs are linked to survival.

Children have **social needs**, which can be satisfied through interaction with others. This involves socialisation, which is the process by which an individual learns to live according to the expectations of a group or society. It means acquiring its beliefs, values, accepted behaviours through imitation, observation, family interaction and education systems. This requires parents to provide love, attention, confidence and opportunities for interaction, achievement and independence.

FIGURE 9.5 Children are socialised through interaction with others.

Children have **emotional needs**. Parents need to use positive parenting practices with warmth and praise to create emotional security and stability for children. Children's emotional needs are supported when parents have good mental health and wellbeing and resilience. Human beings need relationships with others and to feel love and belonging. Through healthy relationships with parents and caregivers, children can learn self-respect and develop confidence, achievement, independence and freedom.

FIGURE 9.6 Warmth and praise help meet children's emotional needs.

Children have **intellectual needs**, which include learning, communication and skill development. Intellectual needs can be met

by creating opportunities for problem solving, learning and understanding, which allows them to have control over their environment.

FIGURE 9.7 Children's intellectual needs can be met through opportunities for learning.

Can an environment that will promote optimal development be provided?

Potential parents need to consider the level of support available to them from family, friends and the community. They also need to consider what resources they have to provide for a child's needs. Children should be given opportunities to develop physically, socially, emotionally and intellectually. A positive parent–child relationship allows children to develop socially through positive communication and parents encouraging desirable social behaviour through praise.

Parents teach skills and behaviours to children through direct instruction, **sanctions**, by acting as role models and interacting with them. For children to develop emotionally they need to learn to form appropriate feelings and reactions to situations. Parenting involves managing a child's behaviour through establishing limits, providing instruction and enforcing appropriate consequences for problem behaviour. Physical and intellectual development in children involves using the senses and actions to learn and grow, from basic reflexes in newborns and to more complex motor skills and thought processes in later childhood. A family needs to provide opportunities for new experiences, age appropriate toys and experiences that allow motor and sensory stimulation.

Are the changes that parenting will bring acceptable?

With parenting, personal freedom gives way to responsibility. Parents-to-be should consider whether any changes in diet and lifestyle are needed in order to have a healthy pregnancy and healthy child. Parenting is an intense, 24 hour a day, 7 day a week job. New parents can find it difficult to do all the things they used to do while also caring for a newborn. They have to be prepared to let some things go for a while. New parents may find themselves faced with changes in their relationship, an increase or change in household duties, the possibility of becoming the sole provider or even a stay-at-home parent. Financial priorities also change, and a balance between career responsibilities and family will have to be found. Preparing for the increase in responsibility might mean building up savings, choosing one parent to stay home with the new baby full time or taking newborn education or parenting classes.

To help get them through this initial adjustment, parents should have a strong relationship and good communication skills. New parents need a supportive network of friends and family to lean on or talk to when things get tough. Expectant parents should also prepare for a significant decrease in the social events they can attend, especially in the first few months. When the new baby arrives, the amount of time parents have to spend with their partners is significantly less than before the arrival of the baby, especially if one or both parents works. Spending less time together can sometimes lead to relationship friction and communication issues.

9.2.2 Social and emotional support for new parents

Once a person decides to become a parent or caregiver they will need **social** and **emotional support**, as parenting involves learning on the job, often without any previous experience of child rearing.

Social support

Social support for new parents could include money, babysitters, help with meal preparation, care of other children, sharing of information, assistance with transport and help in case of emergencies or with household tasks. Grandparents can be a great source of support to new parents through sharing their own experiences. Having family members, such as grandparents, available and prepared to babysit can mean parents are able to work which will increase financial resources. Greater financial resources will give parents greater capacity to provide adequate housing, clothing and food. Contact with extended family can also teach children about history and culture through the stories their grandparents tell.

Parents with higher levels of social support are better able to cope with stress and be more resilient. For example, women who receive strong social support from their families during pregnancy appear to be protected from sharp increases in a particular stress hormone, making them less likely to experience depression after giving birth. Good social support is also of benefit to the child. Having other people in the child's life who show them affection, praise and warmth strengthens the child's trust and emotional security. This increases the likelihood of them becoming competent and independent when interacting outside the family in later life.

FIGURE 9.8 Social support increases the resources available to parents to carry out their parenting role.

Emotional support

The idea of parenting can bring a mix of emotions: both positive and negative. Fears about whether they will do good job can lead to doubts and negative thoughts, which can cause stress for adults considering parenthood. Once the baby arrives there may also be frustration and regret at losing a lifestyle that may have involved greater financial independence, career advancement and spontaneity related to time with a partner or friends.

The birth of a baby involves a period of adjustment. A survey, conducted by Healthdirect Australia revealed the biggest challenges facing new parents were lack of sleep for themselves and the baby, feeding, recovering from birth and juggling care for other children. Participants reported that their top concern during pregnancy was that something was 'wrong' with their baby. During the first week after birth, up to 80 per cent of mothers will experience the 'baby blues' which can involve feelings of anxiety, mood swings and irritability. These feelings tend to peak three to five days after the birth and are mainly caused by hormonal changes after childbirth.

Other people can offer new parents emotional support through encouragement, active listening and reassurance. People who are willing to share ideas and advice in a non-judgemental way can increase self-esteem and resilience for parents. This helps parents to see things in a more positive light and identify ways to cope.

Having adequate social and emotional support is important for parents and carers. Parents who are well supported are better able to provide for their child's needs, feel less stressed, feel better able to relate to

their child, make good decisions and model appropriate behaviours. This is all positive for the child's mental health and wellbeing. Research shows that the extent to which parents perceive themselves as competent, being as good as or better than other parents, is strongly linked to parent wellbeing and children's health and wellbeing and development. Children whose needs are met and who have strong social and emotional skills are likely to become adults who find it easier to create and maintain a supportive social network. This increases the likelihood that they will be effective parents of their own children.

FIGURE 9.9 Discussing parenting with others shapes a parents' attitudes and beliefs about their own competence in the role.

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Unit 2 > AOS 1 > Topic 4 > Concept 2

Social and emotional support Summary screens and practice questions

9.2.3 Resources new parents need

Families must be able to access and use resources effectively to undertake their parenting responsibilities. As discussed in section 9.2.1, the amount of time a person can put into the role of parenting is a significant consideration in becoming a parent, and a major resource if the person decided to become a parent. Time has an impact on parents' ability to use other resources required for effective parenting, including knowledge of health-promoting behaviours and parenting practices, material resources, such as income and food, and resources provided by all levels of government.

Knowledge

Parents' level of education and knowledge is a resource that affects the developing baby in a number of ways. Knowledge of health and wellbeing behaviours (also known as 'health literacy') can increase the probability of parents caring for themselves in ways that promote the health and wellbeing and development of their unborn baby. Accessing healthcare, consuming nutritious food, not smoking, avoiding alcohol and drugs are more likely to occur in those who are educated about the benefits of maintaining optimal health and wellbeing during pregnancy. Parental education also increases employment opportunities and the ability to generate an adequate income, which can be used for resources such as adequate nutrition and healthcare.

Material resources

When a newborn child enters a household, income may decrease temporarily or permanently as carers withdraw from the workforce. Alternatively, household income may increase due to becoming eligible for family assistance. According to the Australian Institute of Family Studies, parents of first-born children report increased expenditure on groceries, health and wellbeing and children's clothing, but reduced levels of spending on holidays. Money may be required for items to clothe, transport, bathe, and feed a baby as well as give it a safe place to sleep and explore.

In terms of financial resources, new parents need to consider who is going to be the primary caregiver and whether the primary caregiver is going to work after the birth. These considerations will be affected by family values and current financial commitments.

New associated costs during and after pregnancy may include:

- doctor and hospital bills, scans and special medical tests
- maternity clothes
- baby clothes and equipment
- childcare, whether it is provided by family members or childcare centres.

9.2.4 Federal government resources for new parents

Medicare is Australia's universal health insurance scheme that provides free or subsidised treatment for all Australians through the public health system. Pregnant women can access a range of Medicare-funded health services throughout their pregnancy, including free treatment in public hospitals. By making healthcare more affordable, Medicare increases accessibility to **antenatal care**, which can assist with early detection of issues during pregnancy and medical intervention when required. Medicare also assists in providing professional health workers such as nurses, midwives, doctors and obstetricians to assist with the birthing procedure at no charge to the patient in a public hospital.

FIGURE 9.10 There is a strong relationship between regular prenatal health care and positive health and wellbeing outcomes for both mother and baby.

Dad and Partner Pay gives new dads or partners, including same-sex partners, up to two weeks of government-funded pay during the first year following birth or adoption of a child. The Australian Government's Dad and Partner Pay can provide partners with a chance to take time off work to bond and connect with the baby, learn by doing, share experiences as a family and support a partner. Dad and Partner Pay gives up to two weeks of government-funded pay at the rate of the National Minimum Wage (currently $672.60 per week before tax). Other benefits for families include Paid Parental Leave and Family Tax Benefit.

The federal government provides a free phone and online service for pregnant women and new parents who have a baby up to 12 months of age. The Pregnancy, Birth and Baby helpline provides information and advice on topics such as maternal nutrition, breastfeeding, baby development and sleeping habits as well as direction to maternity-related services including specialist and support services. In addition, raisingchildren.net.au is the Australian government parenting website that aims to equip parents with the information they need to optimise the health and wellbeing of their child.

9.2.5 State government resources for new parents

Maternal and Child Health Service

The Maternal and Child Health Service is a primary health service, free for all Victorian families with children from birth to school age. The service is available 52 weeks of the year. The service provides

appointments to check a child's health and wellbeing, growth and development at ten key ages and stages from birth to three and a half years of age. These visits focus on parenting, health and wellbeing, growth, development, promotion of health, health and wellbeing and safety, social supports, referrals and links with local communities.

My Health, Learning and Development Record

The My Health, Learning and Development Record is given to parents in hospital when their baby is born. It is designed for them to record their child's milestones, health and wellbeing, growth, development and immunisations. It also allows parents to add personal details about their child's development, with space for photos and plastic sleeves for important documents.

My Health, Learning and Development Record provides:

- a paper-based record of a child's health and wellbeing, growth and development
- a reminder for parents to attend maternal and child health visits and ask any health and wellbeing, growth and development questions
- important child health and wellbeing and development education
- a booklet for information to be recorded at each visit to a maternal and child health nurse
- a way of communicating between parents, healthcare professionals and other healthcare providers.

Maternal and Child Health Line

The Maternal and Child Health Line is a telephone service that is available 24 hours a day, seven days a week to families throughout Victoria with children from birth to school age. The Maternal and Child Health Line is staffed by qualified maternal and child health nurses who provide information, support and advice regarding child health and wellbeing, nutrition, breastfeeding, maternal and family health and wellbeing, and parenting. The Maternal and Child Health Line is able to link families with the Maternal and Child Health Service and to other community, health and wellbeing and support services.

9.2.6 Local government resources for new parents

Local governments implement a range of strategies and programs to promote the health and wellbeing and development of children, including:

- providing access to recreation facilities such as walking and cycling paths, parks, gardens and public swimming pools
- implementing community health and wellbeing plans that aim to address the needs of the local community and promote healthy lifestyles by encouraging healthy eating, exercise and social interaction
- implementing immunisation programs within the local community as part of the National Immunisation Program
- providing long daycare, which is a centre-based form of childcare service. Long daycare services provide all day or part-time care for children of working families and the general community. Local councils may run these services. Long daycare services may also provide care for school children before and after school and during school holidays.
- providing locally based maternal and child health services which give parents support, information and access to professional advice on a range of health and wellbeing-related concerns from child behaviour and nutrition to breastfeeding and family planning. The service is jointly funded by the Victorian Government and local councils and is usually operated by local councils.
- providing playgroups for infants, toddlers and preschoolers and their parents or caregivers. Adults stay with their children at playgroup, which gives them the chance to meet other people going through similar experiences while also learning about the community, health and wellbeing and support services available within the local community.

9.2 Activities

Test your knowledge

1. What is meant by the term ‘parenting’?
2. Outline the considerations that need to be made in the transition to parenthood about:
   (a) responsibilities
   (b) social and emotional support
   (c) resources.
3. Create a mind map to summarise the types of needs children have that parents and caregivers are responsible for satisfying. Make sure you provide examples of each type.
4. Why is social support important for a parent? What are the benefits for a child?
5. Why is emotional support important for a parent? What are the benefits for a child?
6. Describe how one family resource and one government resource support the parenting role.

Apply your knowledge

7. Access the **United Nations Convention on the Rights of the Child** weblink and worksheet in the Resources tab in your eBookPLUS then complete the worksheet.
8. Access the **Raising children** weblink and worksheet in the Resources tab in your eBookPLUS then complete the worksheet.
9. Through their Healthy Families website, beyondblue provides a range of resources for health professionals, women and their families to maintain mental health and wellbeing during pregnancy, after the baby is born all the way through to the teenage years. Access the **Healthy families** weblink and worksheet in the Resources tab in your eBookPLUS then complete the worksheet.
10. Debate the proverb ‘It takes a village to raise a child’.

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Resources Summary screens and practice questions

eBookplus RESOURCES

Explore more with this weblink: United Nations Convention on the Rights of the Child

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Explore more with this weblink: Raising children

Complete this digital doc: Raising children worksheet
Searchlight ID: doc-22640

Explore more with this weblink: Healthy families

Complete this digital doc: Healthy families worksheet
Searchlight ID: doc-22642

9.3 Fertilisation and the stages of prenatal development

KEY CONCEPT The process of fertilisation and prenatal development

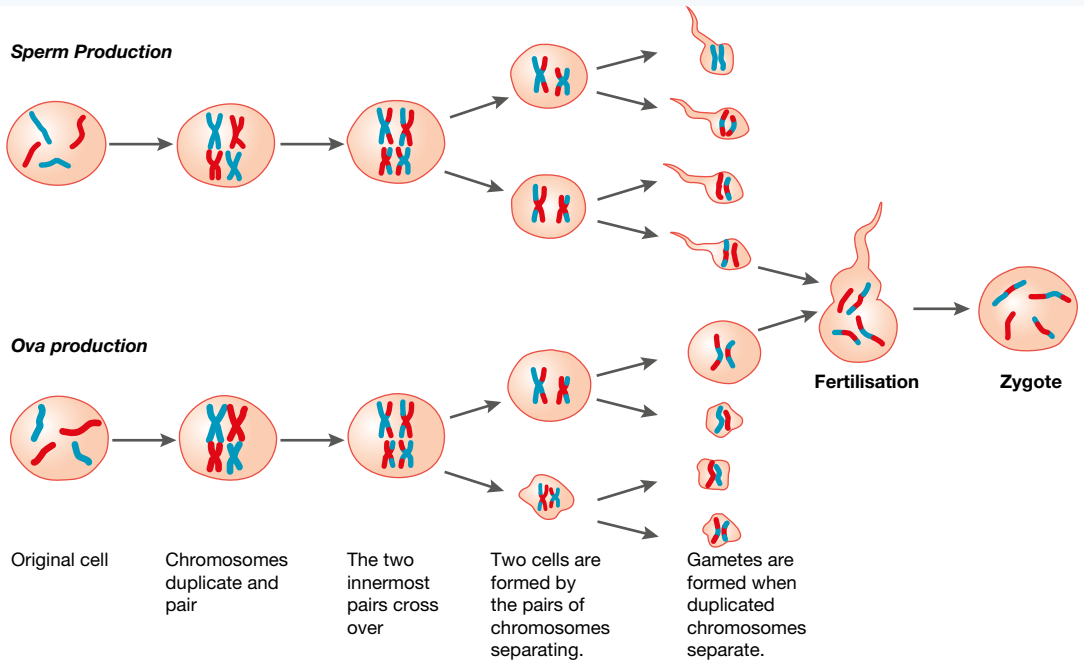
The start of human life is dependent upon the genetic material provided by each parent. In order to gain an understanding of the prenatal stage of development, we will first explore fertilisation and the cells required for this process to occur. Once fertilisation occurs, the prenatal stage of development commences. Even though the foundations of social, emotional and intellectual development start at this stage, the physical aspect of development is the most noticeable. Development during this stage is the most rapid of all lifespan stages. The prenatal stage is generally divided into three stages: the germinal, embryonic and foetal stages. This is a time of great opportunity in child development as well as being a time of high risk.

9.3.1 Sperm, ova and fertilisation

Most cells in the human body contain a 'nucleus', which is like the brain of the cell. It contains the genetic material or blueprints that allow human cells to keep reproducing throughout the lifespan, although some types of cells **regenerate** more than others. Sperm and ova (singular ovum, sometimes referred to as 'egg') are the names given to the male and female sex cells respectively. Sperm production in males starts during puberty, and sperm form in the testes at a rapid rate (over 12 billion per month). Ova form in the ovaries before the female is even born. Once born, the female already has all the ova that she will have for life. These ova will mature once puberty occurs.

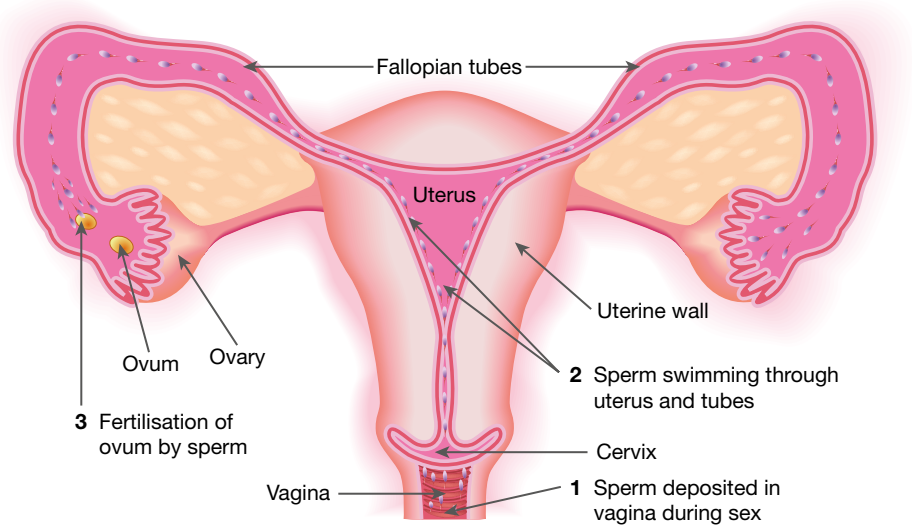
Fertilisation (sometimes referred to as conception) occurs when a sperm penetrates an ovum and the genetic materials fuse together to make a single cell called a zygote. The zygote contains 23 **chromosomes** from the sperm and 23 chromosomes from the ova and these carry the **genes** that will determine the rate and timing of development, whether the child is male or female and its characteristics. The individual resulting from this single fertilised cell will therefore display some characteristics of each of their parents.

FIGURE 9.11 Original cells split in different ways each time a sperm or ovum is created, resulting in the vast variation typically seen among siblings.



During sexual intercourse, sperm are deposited in the vagina and swim towards the fallopian tubes. (figure 9.12) If an ovum is present, any sperm that reach it will compete to break through the ovum's membrane. In order to do this, the sperm release an enzyme that breaks down the outer barrier of the ovum. Once a sperm has penetrated the membrane, other sperm are blocked from entering by changes to the outer surface of the ovum. If more than one sperm were to enter, the zygote would have an incorrect amount of genetic information and would not survive.

FIGURE 9.12 Fertilisation takes place in one of the fallopian tubes and the complete cell moves into the uterus where it implants in the lining of the uterus.



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Fertilisation Summary screens and practice questions

9.3.2 Germinal stage (0–2 weeks)

The germinal stage starts at fertilisation and ends with **implantation** (figure 9.13). Implantation begins around day 5 and ends around days 10–12. When fertilised, the newly formed cell (zygote) travels down one of the fallopian tubes while constantly dividing. Around three to four days after fertilisation, when there are about 16 cells, the zygote takes on a spherical shape and is now known as a morula. At around five days after fertilisation, when it is made up of around 64 cells, the **morula** transforms to include an outer cell mass, an inner cell mass and a hollow, fluid-filled centre called the blastocyst cavity. At this stage, the morula is known as a **blastocyst**. The inner cell mass of the blastocyst will become the embryo and the outer cell mass will eventually become the **placenta**. When it reaches the uterus, the blastocyst implants itself in the **endometrium** and at this point it becomes known as an 'embryo'. As soon as implantation occurs, the placenta begins to form.

FIGURE 9.13 The germinal stage of prenatal development sees the single-celled morula develop into a multi-celled blastocyst. Once implantation is complete, the germinal stage concludes.

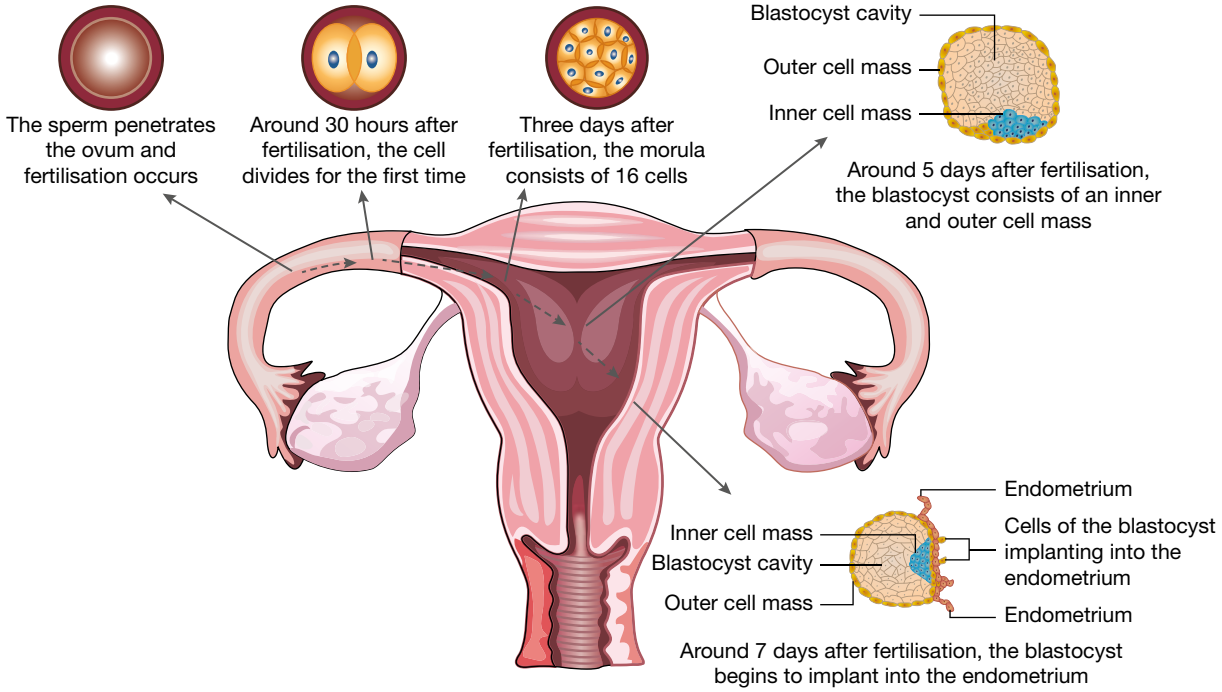


TABLE 9.1 Characteristics of development that occur during the germinal stage

Stage of prenatal development	Week of prenatal development	Characteristics of development
Germinal	1	• Thirty hours after fertilisation, the cell divides for the first time. This process of cell division will continue for life. • After three days, the zygote consists of 16 cells. • The zygote travels down the fallopian tube and into the uterus.
	2	• Around a week after fertilisation, and while smaller than a grain of rice, the blastocyst begins to implant into the endometrium.

9.3.3 Embryonic stage (3–8 weeks)

The embryonic stage starts at implantation and ends at the eighth week. This stage is characterised by **cell differentiation**. This is when the cells start taking on specialised roles such as heart cells, skin cells and bone cells. This stage is perhaps the most critical for development. While the embryo is only around 2 centimetres in length by the end of this stage, many of the internal organs and systems have begun to form in a process called **organogenesis**. These include the circulatory system, the stomach and kidneys, lungs, the nervous system and the digestive system. The brain and spinal cord are almost complete by the end of it (although they will grow in size and increase in complexity for years to come).

The blood and circulatory system, powered by the heart, is the first organ system to develop. The neural tube (brain, spinal cord and other neural tissue of the central nervous system) is also well formed at this stage. Bone starts to replace cartilage and limbs that start out as buds emerging from the torso and continue

to grow along with fingers and toes. By the eighth week, the embryo becomes distinctly human looking, although the head and neck still account for around half the embryo's total length, and the brain makes up almost half of its body weight.

Because major organs and systems are formed during this time, the embryo is very sensitive to environmental influences. For coordinated body systems to develop, the specialised tissues that are forming require specific connections from the brain and spinal cord to the muscles and outer parts of the developing embryo to occur. **Teratogens** such as tobacco, alcohol and medication are particularly influential during this stage of development. They are thought to interfere with the formation of these connections.

At the eighth week, the embryo has begun to form every major organ and system, and many are close to completion. In fact, 90 per cent of the structures found in an adult human can be found in an eight-week-old embryo. The remainder of the prenatal stage is characterised by rapid growth and the maturing of these organs.

TABLE 9.2 Characteristics of development that occur during the embryonic stage

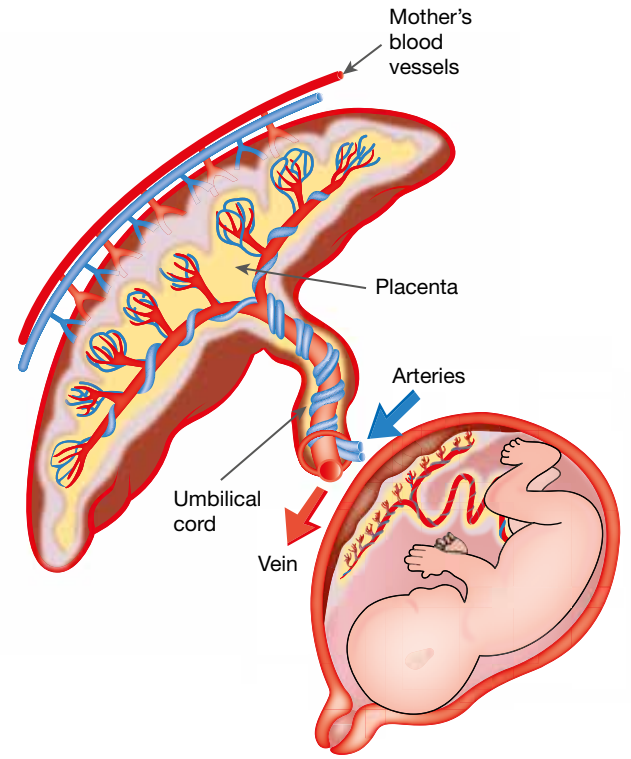
Stage of prenatal development	Week of prenatal development	Characteristics of development
Embryonic	3	• Implantation is complete and the developing baby is referred to as an embryo. • Cells continue to divide rapidly and start taking on specialised roles as the organs begin to develop.
	4	• The tissues that will become the brain and spine (called the neural tube) start to develop. • Around 3 mm in length, the embryo secretes hormones to maintain the endometrium and to prevent the mother from having a menstrual period.
	5	• Buds appear on each side of the embryo that will become the limbs. The heart begins to beat. • The placenta has begun to develop and attach to the endometrium so it will be able to access oxygen and nutrients from the mother's bloodstream. It will be a number of weeks until it is fully functional. • Brain cells are being generated at a rate of 100 per minute.
	6	• The spinal cord looks like a tail and the head is large in relation to the rest of the body. • The embryo is approximately 1.3 cm long.
	7	• Blood cells are being made in the liver. • Facial features such as the eyes and mouth are forming. • Tiny muscles have formed which allow the embryo to move.
	8	• The embryo is around 2.5 cm in length. • Fingers and toes are starting to form. • The brain is now active.

9.3.4 Foetal stage (9–38 weeks)

The foetal stage starts at the ninth week of pregnancy and continues until birth at around 38 weeks. During this stage the unborn baby is referred to as a 'foetus'. The foetus measures only a few centimetres in length at the beginning of this stage and about 50 centimetres by the end. Although this stage is characterised by rapid growth, many other developmental milestones occur as well.

All organs and systems formed in the embryonic stage — including the lungs, digestive system, liver and kidneys — mature and are functioning in the early stages of foetal development. By 14 weeks the placenta is fully developed and functioning. The placenta is a disc-shaped temporary organ, largely made up of blood vessels that facilitate the exchange of substances between mother and foetus. The placenta acts like a lung, digestive system and kidney for the foetus by supplying it with oxygen, nutrients and immune support, and removing wastes such as urine and carbon dioxide (see figure 9.14). The placenta also produces hormones, such as progesterone, that assist in maintaining the pregnancy by preventing ovulation of any more ova.

FIGURE 9.14 The placenta connects the foetus to the uterine wall of the mother, providing the foetus with nutrients and oxygen and removing its waste products.



Sex organs start taking shape and, by around the 15th week a female foetus will have produced millions of ova, but this number will be reduced by the time she is born. The testes of a male foetus will be producing testosterone.

Movement occurs in almost all parts of the foetal body and becomes more noticeable as the foetus grows. Reflexes such as sucking and grasping are highly responsive and continue to develop throughout this stage. The foetus displays a breathing movement but its lungs are filled with **amniotic fluid**, not air.

During the second half of the foetal stage tooth buds form in the gums. The bones, which mainly consist of cartilage, also start to harden or ossify around this time. This is a process that will continue until the end of puberty. The senses also begin to function around 25 weeks after fertilisation, and the foetus may respond to light, sound and touch. These senses become more sensitive throughout the remainder of the foetal stage.

Babies are considered premature if they are born three weeks before their due date. A baby born after 24 weeks may survive with intensive care. After the seventh month most babies are likely to survive. A number of changes happen during the final trimester of pregnancy that assist the baby to survive in the outside world. Surfactant is a substance that reduces the surface tension in the lungs and keeps the small air sacs in the lungs from collapsing when the foetus exhales. In preparation for breathing, a foetus begins making surfactant around week 24. By end of the foetal stage the lungs are fully developed. Fat is also deposited under the skin during the later weeks of the foetal stage. This assists with temperature regulation after birth.

TABLE 9.3 Characteristics of development that occur during the foetal stage

Stage of prenatal development	Week of prenatal development	Characteristics of development
Foetal	9–13	• The developing baby is now known as a foetus. • All of the body's organs are formed but not all are functioning at this point. • The foetus is around 7 cm in length in week 11. • Teeth are beginning to form in the gums. • Eyelids are fused over the eyes.
	14–18	• The foetus is around 14 cm in length in week 14. • The tongue develops tastebuds. • Ears are fully functioning and the foetus can hear muffled sounds from the outside world. • The sex of the foetus can be distinguished via an ultrasound.
	19–23	• The foetus is around 33 cm in length in week 22. • The foetus will swallow regularly but takes in only amniotic fluid. • The eyelids separate into upper and lower lids and the foetus can open and shut its eyes.
	24–28	• The foetus is around 37 cm long and weighs approximately 1 kg. • The fingers and toes grow nails. • The foetus's body has grown and it is now more in proportion with the size of the head but will take until childhood to completely catch up. • In preparation for breathing production of surfactant begins.
	29–33	• The foetus spends most of its time asleep. • Eyebrows and eyelashes grow. • Fat is laid down under the skin to assist with adjusting to life outside the uterus. • The foetus moves in a strong and coordinated way.
	34–38	• The foetus assumes the 'head down' position in preparation for birth. • The lungs develop at a rapid rate during this time. • The foetus is around 50 cm in length.

9.3 Activities

Test your knowledge

1. When does sperm production begin in males?
2. When are ova formed?
3. Use a flow chart to outline the process of fertilisation.
4. (a) Draw up a table with three columns, one for each stage of prenatal development. Provide examples that represent the key characteristics of physical development in each of the three stages of prenatal development.
   (b) Why is the embryonic stage critical in prenatal development?
5. Why is the placenta important for the developing embryo/foetus?

Apply your knowledge

6. One of the most common techniques used to assist with fertilisation is called in-vitro fertilisation. Access the **In-vitro fertilisation** weblink and worksheet in the Resources tab in your eBookPLUS to explain this process.
7. Access the **Fertilisation** weblink and worksheet in the Resources tab in your eBookPlus then complete the worksheet.
8. Using the **Prenatal development** weblink in the Resources tab in your eBookPLUS and the information in this subtopic, devise a timeline of prenatal development.

eBookplus RESOURCES

Explore more with this weblink: In-vitro fertilisation

Complete this digital doc: In-vitro fertilisation worksheet
Searchlight ID: doc-22634

Explore more with this weblink: Fertilisation

Complete this digital doc: Fertilisation worksheet
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Explore more with this weblink: Prenatal development

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Stages of prenatal development Summary screens and practice questions

9.4 The role of parents in achieving optimal prenatal development

KEY CONCEPT Understanding factors that influence development during the prenatal stage

Understanding the risk and protective factors that influence the health and wellbeing and development of a foetus during the prenatal stage allows parents, carers and the community to use or provide resources to optimise the health and wellbeing and development of unborn babies and, in turn, put the children on a pathway to enhanced adult health and wellbeing.

An important part of parental responsibility during pregnancy is seeking antenatal care. The National Antenatal Care Guidelines recommend that the first antenatal visit occur within the first ten weeks of pregnancy and that first-time mothers with an uncomplicated pregnancy attend ten visits. Antenatal care is important in order to monitor the health and wellbeing of the mother and baby, provide health education and advice to the mother, promote protective factors, identify any risk factors for the mother and baby, and provide medical interventions if necessary.

FIGURE 9.15 Maternal nutrition is important for the health and wellbeing and development of the growing baby.

9.4.1 Maternal diet

For women of child-bearing age, ensuring a healthy balanced diet prior to becoming pregnant is a protective factor, as the ongoing development of the foetus is dependent on the health and wellbeing of the embryo.

A woman's nutritional status during pregnancy is dependent on the nutritional reserves that are built up in her body prior to conception. Women who have nutritional deficiencies prior to conceiving a child are likely to have these deficiencies during pregnancy, particularly as the body faces additional nutritional demands because of the growing baby. It is particularly important that women consume the required amount of folate, iodine and iron prior to and during pregnancy.

Upon implantation, the embryo divides into two types of cells — those that form the foetus and those that form the placenta. In undernourished women, a greater proportion of cells are likely to form the placenta rather than the foetus, which means the foetus will be relatively small when it begins its growth, and its development in the uterus will be restricted. There is also an increased risk that the baby will be **low birthweight** when born.

Folate (folic acid)

Folate is a B-group vitamin that is required for the formation of red blood cells, which transport oxygen around the body. It also assists with DNA synthesis, cell growth and the development of the nervous system of the foetus. Adequate folate consumption before and during pregnancy reduces the risk of **neural tube defects** in the baby. The neural tube is a cylindrical structure that will house the brain and spinal cord of the embryo. Before the tube is formed, the outer cells of the embryo lay flat to make a neural plate.

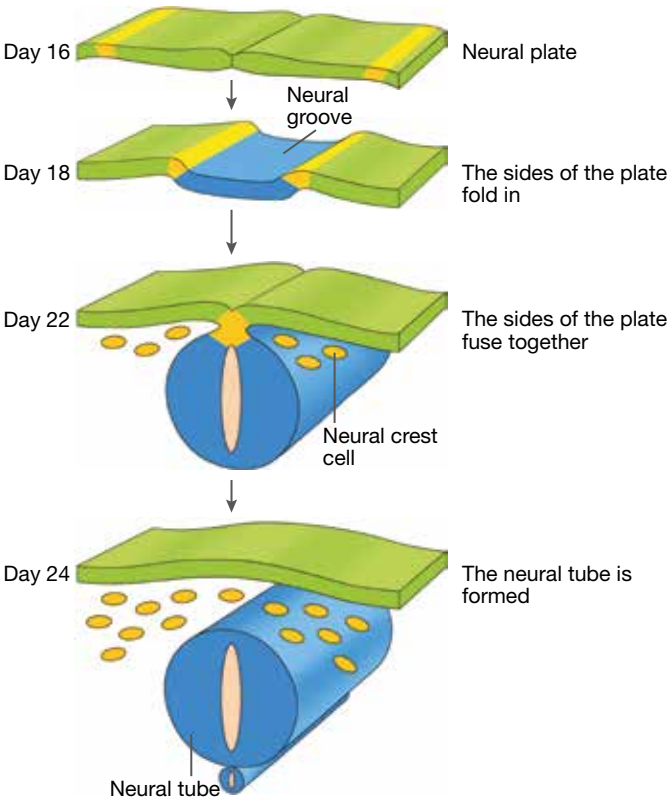
From around day 16 to 24 after fertilisation, the neural plate folds in on itself and the sides fuse together to form the neural tube. Neural tube defects involve damage to the brain and spine, and to the nerve tissue of the spinal cord. The vertebrae or skull may not close properly during development, which results in the spinal cord or brain being exposed and placed at risk of further damage. Spina bifida is the most common neural tube defect and occurs when the spinal nerves protrude through the gap in the unclosed vertebrae instead of growing down the middle of the spinal column.

Spina bifida may result in one or more of the following symptoms:

- walking difficulties, which may result in the inability to walk
- reduced sensation in the legs and feet
- increased risk of burns and pressure sores due to limited feeling
- urinary and faecal incontinence
- sexual dysfunction
- deformities of the spine, commonly referred to as scoliosis.

Good sources of folate include green leafy vegetables, poultry, eggs, cereals, citrus fruits and legumes. In Australia, the government has mandated that all wheat flour used in bread making must contain folic acid as a common and inexpensive source for pregnant women. Breakfast cereals and fruit juices sold in Australia may also have folic acid added.

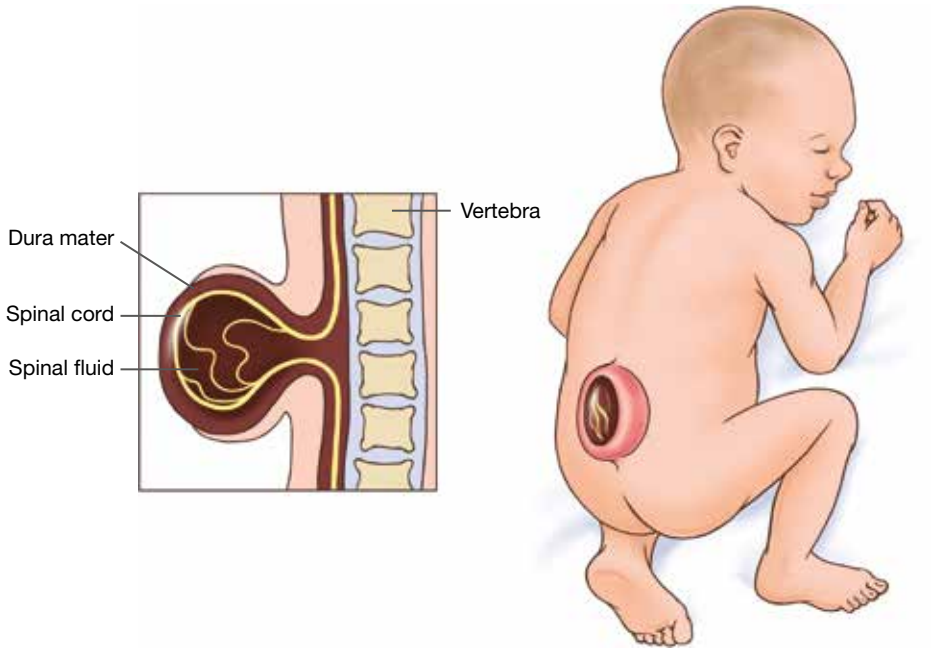
FIGURE 9.16 How the neural tube is formed.



The neural tube is a cylindrical structure that will house the brain and spinal cord of the embryo. Before the tube is formed, the outer cells of the embryo lay flat to make a neural plate. From around day 16 to 24 after fertilisation, the neural plate folds in on itself and the sides fuse together to from the neural tube.

Source: Reprinted by permission from Macmillan Published Ltd: 'The origin and development of glial cells in peripheral nerves' by Jessen & Mirsky, *Nature Reviews Neuroscience*, Vol 6, Iss. 9, pp. 671–682, © 2005.

FIGURE 9.17 Spina bifida occurs when the neural tube fails to close properly during the prenatal stage. As a result, the nerves of the spinal cord protrude out of the back instead of running down the middle of the spinal cord. The nerves become damaged, leading to moderate to severe disabilities.



Iodine

Iodine is a mineral that is required in greater amounts during pregnancy to promote optimal brain and nervous system development. If iodine is deficient during pregnancy, the consequences can be serious and include stunted growth and intellectual disability.

Countries that have a sufficient iodine concentration in the soil generally get enough iodine from crops grown on the land. In countries that do not have enough iodine in the soil (such as Australia), iodine is added to other food items. Due to the re-emergence of iodine deficiency in Australia, iodised salt is now added to all commercially sold bread in Australia. Australians are reducing their intake of salt as a result of the increasing rates of cardiovascular disease, so people are now at an increased risk of iodine deficiency and need to ensure their requirements are being met by other dietary sources, especially during pregnancy. Iodine is present in fish, seaweed, eggs, cow's milk and strawberries.

Iron

Iron is a mineral that is required in greater amounts during pregnancy due to the increased demand for oxygen for the developing foetus as well as the increased energy needs of the mother. During pregnancy, there is an increase in blood volume to cater for the developing baby as well as the enlarging reproductive organs of the mother. Iron is needed for haemoglobin, a component of blood that carries oxygen around the body. Additionally, the developing foetus draws iron from the mother to last it through the first five or six months after birth for its high growth demands.

Good sources of iron include red meat, fortified cereals, egg yolks, legumes, nuts and green leafy vegetables. Vitamin C assists with the uptake of iron from the small intestine. High-fibre diets, alcohol and tannic acid in tea can interfere with iron absorption. Lack of iron can lead to iron-deficiency anaemia, resulting in the body not having enough iron to form haemoglobin. In pregnant women, iron-deficiency anaemia can increase the risk of a premature birth and a low birthweight baby.

Foods pregnant women should avoid

Maternal diet can be a risk factor for the developing foetus. Some foods contain the bacteria *Listeria monocytogenes*, which can cause listeria infection and increase the risk of miscarriage, stillbirth or premature labour. For this reason, pregnant women should avoid the following foods:

- soft-serve ice-cream
- unpasteurised foods and soft cheeses such as camembert, brie and ricotta unless cooked and served hot
- pre-cooked or prepared cold foods such as quiches, delicatessen meats, salad from buffets, paté
- raw seafood such as sashimi, oysters and smoked seafood such as salmon.

Foods that contain high levels of mercury can put the baby at risk of delayed development in the early years. The effects may not be noticed until the child fails to reach developmental milestones at the expected age. It may also result in difficulties with memory, language and attention span. Women need to be selective about the type of fish they consume during pregnancy as some fish have significantly higher levels of mercury than others. Shark, swordfish, barramundi, gemfish, orange roughy and southern bluefin tuna should all be avoided.

9.4.2 Parental smoking and tobacco smoke in the home

Smoking during pregnancy is a significant risk factor for a number of conditions for both the mother and her unborn baby. Tobacco smoke contains thousands of chemicals, and acts to reduce oxygen flow to the placenta and exposes the developing foetus to numerous toxins. Maternal smoking increases the risk of a range of health and wellbeing and developmental conditions of the unborn baby including:

- low birthweight
- spontaneous abortion
- prematurity
- complications of the placenta
- birth defects
- lung function abnormalities and respiratory conditions
- perinatal mortality.

According to the Australian Institute of Health and Welfare (2012), there is evidence that the more cigarettes a mother smokes, the higher the risk of poor birth outcomes.

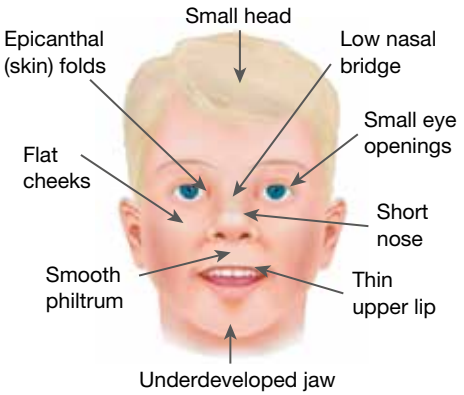
Tobacco smoke in the home increases the risk of passive smoking among pregnant women. Passive smoking means breathing in other people's tobacco smoke. Tobacco smoke cools quickly which prevents it from rising. As smoke is heavier than air, it tends to hang in mid-air rather than be dispersed into the atmosphere. This increases the amount of second-hand smoke people breathe as it is concentrated in the lower half of the room. For pregnant women who live with one or more smokers, the home can be a source of exposure to second-hand smoke. Exposure to environmental tobacco smoke can contribute to the same health and wellbeing and development effects as maternal smoking.

FIGURE 9.18 Tobacco smoke in the home can have similar impacts on the unborn baby as maternal smoking.

9.4.3 Alcohol use during pregnancy

Alcohol can cause problems for women even before pregnancy because it may interfere with fertility. Therefore, women who are trying to fall pregnant should limit their consumption of alcohol or stop it altogether. The consumption of alcohol during pregnancy can cause significant harm to the unborn child. When alcohol is consumed by a pregnant woman, it crosses the placenta from the mother's blood to the baby's blood. This can result in **foetal alcohol spectrum disorder** (figure 9.19).

FIGURE 9.19 Foetal alcohol spectrum disorder is seen in the facial features of affected children.



A foetus that is severely affected by foetal alcohol spectrum disorder is at risk of dying before birth. The alcohol may harm the development of the nervous system of the foetus, including the brain. It may also narrow the blood vessels in the placenta and umbilical cord, thereby restricting blood supply to the foetus. The impact of foetal alcohol spectrum disorder on the health and wellbeing and development of the unborn child is described in table 9.4.

Heavy consumption of alcohol, particularly in the first trimester (first three months) of pregnancy, is considered to be particularly dangerous to the foetus. The World Health Organization recommends that pregnant women consider not consuming alcohol at all.

TABLE 9.4 Impact of alcohol consumption on the health and wellbeing and development of the unborn child

Impact of alcohol consumption on health and wellbeing	Impact of alcohol consumption on physical development
• Increased risk of premature birth • Increased risk of stillbirth • Undernourishment of the growing baby due to alcohol blocking the absorption of nutrients • Reduction in the amount of oxygen available to the baby due to alcohol narrowing the blood vessels in the placenta and/or umbilical cord resulting in the restriction of blood supply	• Low birthweight • Smaller head circumference (microcephaly) • Small eyes and epicanthal folds • Flattened face, including the bridge of the nose due to earlier than normal cell changes in the baby's face during development • Underdeveloped vertical ridges between the nose and upper lip • Smaller lower jaw • Heart defects • Restriction of movement of elbow and knees due to tightening of ligaments, muscles, tendons and skin around the joints

Source: Adapted from 'Foetal alcohol syndrome', Better Health Channel, www.betterhealth.vic.gov.au.

9.4 Activities

Test your knowledge

1. Why is seeking antenatal care a responsibility of parenting?
2. Explain the difference between a risk factor and a protective factor.
3. How can the health and wellbeing of a baby be determined even before conception?
4. Create a concept map showing the risk and protective factors that influence prenatal development. Include in your concept map a brief description of the risk/protective factor and the effect on prenatal development.
5. Why does the government specifically choose bread as the food to fortify with folate?

Apply your knowledge

6. You have been appointed as a maternal and child health nurse. What advice would you give a first-time mother about nutrition, tobacco, alcohol and drug use?
7. Devise a one-day eating plan for a pregnant woman, taking into account the foods that should be consumed in greater amounts and those that should be avoided.

8. Access the **Environmental tobacco smoke** weblink and worksheet in the Resources tab in your eBookPLUS then complete the worksheet.
9. Access the **Teratogens** weblink in the Resources tab in your eBookPlus then complete the worksheet.

eBookplus RESOURCES

Explore more with this weblink: Environmental tobacco smoke

Complete this digital doc: Environmental tobacco smoke worksheet
Searchlight ID: doc-22644

Explore more with this weblink: Teratogens

Complete this digital doc: Teratogens worksheet
Searchlight ID: doc-22645

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Smoking and alcohol during pregnancy Summary screens and practice questions

9.5 Development in infancy

KEY CONCEPT Development in infancy

Newborns are relatively helpless. They cannot feed, maintain body warmth, or stay clean or hydrated without the assistance of others. Infants need an adult with whom to form an attachment who can understand and respond to their signals. They need things to look at, touch, hear, smell, taste and opportunities to play and explore their world. Appropriate language stimulation and support in acquiring new motor, language and thinking skills is essential. Parents and carers also need to offer infants a chance to develop some independence and help in learning how to control their own behaviour. Infancy is marked by significant developmental milestones such as learning to walk, talk, and interact with others. Infancy is the first stage of the lifespan after birth and lasts until the second birthday.

9.5.1 Physical development

Physically, the infancy stage is the second fastest period of physical development in the lifespan, second only to the prenatal stage. Birthweight doubles by six months and triples by twelve months. Exclusive breastfeeding for the first six months, timely introduction of safe and nutritious foods at the age of six months and continued breastfeeding provide the child with optimal nutrition and health and wellbeing benefits. A baby needs good health and wellbeing and energy to learn and grow, and parents and carers can help by taking care of basic needs. Regular weight checks and keeping immunisations up to date will assist with protection against serious diseases.

During infancy body proportions also start to change, reflecting the **cephalocaudal** pattern of development where development that occurs from the head downwards. The system of nerves that transmit

messages to and from the brain and between brain cells becomes more complex and a fatty material called myelin allows messages to be transmitted more rapidly and efficiently. The senses continue to develop and, although vision is still largely blurry, the infant will soon begin to recognise familiar faces and sounds.

Sleep is very important for the developing infant; therefore, establishing a bedtime routine is important. During sleep, a baby's brain cells lay down important connections and pathways that enable all learning, movement and thought. They are the keys to a baby's understanding of everything they see, hear, taste, touch and smell as they explore the world.

Bones continue to ossify during the first year; they increase in size and weight and harden further to enable the child to support its own weight, stand and walk by around the age of one. Reflexes that are present at birth (e.g. the grasping reflex) are gradually replaced by controlled movements as motor skills develop. A newborn infant does not have much control over its body but will soon learn to lift its head and roll over. At around six months, infants start crawling.

Motor development follows the **proximodistal** pattern. An infant reaches for a toy by using shoulder and torso rotation in order to move the hand closer to the object. A pincer grasp — where the thumb and first finger are used — is developed. An infant can place objects into a container and take them out and begin to do more functional activities, such as hold a spoon or turn pages in a book. In childhood, the elbow and wrist will be responsible for the main movements. By the age of one, the infant can support its own weight and many infants can stand and walk. By age two, they can usually throw and kick a large ball.

FIGURE 9.20 Breastmilk can supply more than half of the nutrients required by the child between six and twelve months of age, and up to a third of the nutrients needed between one and two years of age.

FIGURE 9.21 By the end of their first year, many infants can support their own weight.

9.5.2 Social development

The family is the most significant influence on social development at this stage of the lifespan. The infant is totally dependent on its parents or other caregivers, and will learn certain social skills by observing these people.

Breastfeeding promotes the social and emotional attachment between mother and child. The secretion of the maternal hormones prolactin and oxytocin encourages the development of a maternal bond with the child. Oxytocin plays a role in counteracting stress, which allows both mother and baby to feel comfortable and relaxed.

The infant begins to smile at around six weeks, and after around six months will begin to recognise the facial expressions of others, such as a smile or a frown. As infants develop and their motor skills improve, play forms an important part of interaction and social development. They enjoy games and become increasingly responsive to them.

9.5.3 Emotional development

Emotional development also revolves around the family at this stage of the lifespan. One of the first signs of emotional development is when the hurt or distressed infant can be comforted by its caregivers.

Emotional attachment is formed with the caregivers within months and this helps the infant to feel secure, safe and loved. It also helps to build trust. The emotional bond between caregivers and the infant may be so strong that the infant may become distressed when held by a stranger or when a caregiver leaves the room. Separation anxiety usually peaks between the ages of 9 and 18 months and fades before the second birthday. Stranger anxiety is a reaction of distress when an infant encounters a stranger. Fear may be shown when confronted by unfamiliar things such as a clown or a dog.

By eight months, the infant can express anger and happiness, and may become frustrated if interrupted in their activities (e.g. when playing games). This expression of frustration may result in tantrum-throwing in later months. By the age of 12 months the infant becomes sensitive to approval from parents or carers, and may become upset or distressed if approval is not given.

9.5.4 Intellectual development

From the time of birth, all senses are working (although they become more acute over time) and the baby is capable of learning. The senses are the means by which the baby understands the world around him or her. Many infants collect information around them by putting objects into their mouths. This is often where they learn about concepts such as hard, soft, bitter and sweet. This behaviour will often change as the infant develops and starts to use its other senses.

Within months, the infant will recognise its name and will respond when called. Over time, this word–object association progresses and the infant will begin to recognise the names of favourite people, toys, other objects and basic colours. They will use simple gestures, such as shaking their head for 'no' or waving for 'bye-bye'.

Reading aloud is important to building a child's vocabulary and boosting their imagination and language skills. When parents and other caregivers talk and interact with children in their first language, it helps them to develop the ability to think and express themselves. Children learn language quickly and easily through hearing and singing songs, having stories told or read to them, repeating rhymes and playing games.

For a child to learn about people, places, and things, they need to be exposed to them, as every new interaction gives them information about the world and their place in it. Early infancy also signifies an emerging understanding of cause and effect. Infants will begin to associate certain actions with particular outcomes. For example, if they cry, they get attention. If they reach for someone, that person may pick them up. If they kick their legs around, their caregivers might play with them.

The attention span of an infant is short and may last only a matter of seconds. The infant may give extra attention to games and objects that it finds interesting, but only for very short periods of time. At around six months of age, the infant can enjoy basic games such as peekaboo. At around six months of age, most infants have not grasped the concept of **object permanence**. In the mind of the infant, an object that is out of sight no longer exists. Therefore, a toy that is placed in a cupboard no longer exists. This contributes to the joy that most infants get out of playing peekaboo (figure 9.22). As the infant develops intellectually, it begins to understand that, although an object cannot be seen, it still exists.

All children need access to variety of simple play materials that are suitable for their stage of development and learning. Water, sand, cardboard boxes, wooden building blocks, and

FIGURE 9.22 The level of intellectual development experienced during infancy contributes to the joy many infants get out of playing peekaboo.

pots and lids are just as good for facilitating a child's play and learning as toys bought from a shop. Sometimes it is helpful to give toys and activities that are beyond a baby's abilities in order to encourage their development. When an activity doesn't come easily to a baby they have to work out a new way to accomplish it, which develops their problem-solving ability.

As language develops (intellectual development), infants can interact better with those around them. Language development is rapid during infancy. A three-month-old will make speech-like sounds ('goo' and 'gaa'), and will be able to say a couple of basic words by the first birthday ('dada' or 'mumma'). The development of language occurs very quickly after this point. This allows parents and carers to more easily guide the social development of their infant. By the end of infancy, the individual can say around 150–300 words, although there is still confusion in context and pronunciation. By 18 months, the infant can imitate and pretend in play activities. By observing others, the infant learns a lot about the world around it. Infants may imitate talking on a phone or having a dinner party.

9.5 Activities

Test your knowledge

1. When does the infancy stage of the lifespan begin and end?
2. Describe the pattern of growth during infancy.
3. List three characteristics for each type of development during the infancy stage.

Apply your knowledge

4. Using the concept of object permanence as the basis of your answer, discuss why infants may particularly enjoy a game of peekaboo.
5. Use the **Parenting counts** weblink in the Resources tab in your eBookPLUS to create a timeline or infographic of child development.

eBook*plus* RESOURCES

Explore more with this weblink: Parenting counts

9.6 Development in early childhood

KEY CONCEPT Development in early childhood

Early childhood lasts from the second birthday until six years of age, typically the preschool years. Although not long in years, significant development occurs during early childhood. Preschool-aged children need opportunities to develop fine motor skills as well as activities that will develop a sense of mastery and encourage creativity. Encouragement of language through talking, being read to, singing and experimentation with pre-writing and pre-reading skills can be promoted. Parents and carers need to facilitate opportunities to learn cooperation, helping, sharing and making choices as well as encouragement to develop self-control, cooperation, persistence and self-worth.

9.6.1 Physical development

Early childhood is characterised by slow and steady growth. Although the rate of growth is variable, height increases by around 6 centimetres per year and weight by around 2.5 kilograms per year. Bones continue to lengthen and ossify during early childhood, resulting in the increases in height experienced. Body proportions change during early childhood, and the limbs and torso become more proportionate to

the head. Body-fat levels also decrease, giving the child a leaner body. Brain growth slows down in the second year and reaches 75 per cent of adult size at age three and 90 per cent of adult size by age five. The first set of teeth is complete by the third year. Children may begin to lose baby teeth as the permanent teeth begin to develop.

In the preschool years, the large muscles develop extensively, particularly leg and arm muscles, and motor skill development continues at a rapid rate. Gross motor skills increase and the walking style becomes more fluid and refined. The child can climb stairs but will still need to place both feet on each step until towards the end of early childhood. Kicking, catching and throwing skills also develop, and the child might also learn how to skip. Coordination improves, allowing the child to pedal and steer a tricycle (figure 9.23). Fine motor skills progress, and the child can learn to manipulate zippers on clothing, hold crayons, use scissors and even tie shoelaces. As a result of these activities, left- or right-handedness starts to appear in certain activities.

During early childhood children's proportions change — from 3–5 years all children become less toddler-like and less top heavy as growth takes place in the trunk and legs. Being physically active is very important for young children. Movement develops their motor skills, helps them think and gives them an opportunity to explore their world. A child needs plenty of opportunities for active play, both inside and outside.

FIGURE 9.23 As children gain greater control over their body, more complex activities such as riding a tricycle become possible.

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Physical development in infancy and early childhood Summary screens and practice questions

9.6.2 Social development

The family remains the primary social contact during early childhood and is responsible for many achievements a child makes in social development. The child begins participating in a wider range of family routines, such as attending social functions, eating at the table and helping with the shopping. Communication skills and acceptable social behaviours increase as a result of these experiences.

As young children grow they need opportunities to learn and socialise with other children. The child may attend a playgroup, kindergarten or a childcare centre, and this provides many opportunities to further develop social skills such as sharing and taking turns. As the child becomes accustomed to spending short periods of time away from the family, independence starts to develop. The child may start wanting to do things for themselves, such as dressing or washing, although they may not be completely successful.

Many social skills are learnt about sharing and taking turns through play. This may occur with siblings and parents at home, and also with other children at childcare or playgroup. Through experiences such

as these, the infant also begins to learn culturally acceptable behaviours such as listening to parents and other caregivers and not hitting others. Social roles are also imitated such as pushing a pram with a doll in it.

Behaviours such as eating with a knife and fork are established during early childhood but they will be refined over time. Children at this age like to be accepted by others and may behave in a way that brings attention to them. This can include showing off or performing for family and friends.

Play is still an important aspect of social development, although it is more advanced than in infancy (figure 9.24). Children may have a friend they particularly like to play with and some will create an imaginary friend. Make-believe play also assists the child in learning roles and expected behaviours.

FIGURE 9.24 Play takes many forms, and is a great way of increasing social development.

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Social development in infancy and early childhood Summary screens and practice questions

9.6.3 Emotional development

Emotional development continues to occur at a fast pace during early childhood. The emotional development of a two-year-old is quite different from that of a six-year-old. A child will begin to develop a sense of empathy and may care for people who are crying or upset. Yet their way of dealing with emotions is still in its early stages, and children may use physical violence to express their frustration. This is particularly common with other children or siblings. Play often gives children a way of expressing their feelings.

Children take pride in their achievements and may want to show them off to everyone. As a result of enjoying positive feedback from others, they may become jealous when another child receives attention.

Children begin to develop an identity that will continue to form for years to come. They learn to see themselves as being separate from others, and begin to associate certain things with themselves such as ownership of a toy.

Children's moods can change quickly during this stage, as they often do not have the skills required to control their feelings. As a result, they can switch from being happy to being upset and then happy again in a very short period.

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Emotional development in infancy and early childhood Summary screens and practice questions

9.6.4 Intellectual development

Learning new words and how to use language occurs fairly rapidly during this stage and is a key part of the child's intellectual development. By the age of five, a child knows approximately 1500–2500 words.

As interest in the world around them increases, children begin to question many aspects of their environment. They ask parents or caregivers 'why?' and like to share their knowledge with others about colours, objects and animals. As their attention span lengthens and knowledge of language increases, children can remember and follow basic instructions such as getting a toy from the bedroom, bringing it back to the lounge room and sitting in a designated place with it.

In the first years of early childhood, the child can classify objects based on one aspect such as colour. For example, they can separate orange blocks from green blocks, but find it more difficult to classify items according to multiple aspects such as colour and size. These more complex skills develop over time.

Children in this lifespan stage may learn to write basic letters and read basic books. They can also learn to count to 10 or 20, although this is often memorised without really understanding the formation of numbers. Abstract thought and prediction of the outcome of events is still difficult, and children are more comfortable thinking about objects they have already encountered.

9.6 Activities

Test your knowledge

1. When does the early childhood stage of the lifespan begin and end?
2. Describe the pattern of growth during the early childhood stage.
3. List three characteristics for each of the following types of development during the early childhood stage:
   (a) physical
   (b) social
   (c) emotional
   (d) intellectual.

Apply your knowledge

4. Carolyn is four years old and lives in rural Victoria with her mother, father and three older brothers. Her father runs their farm and her mother is a stay-at-home mother. Her brothers all go to school so, for most of the day, it is just Carolyn and her mother at home. Carolyn's physical development has been very slow and her mother is worried because Carolyn is significantly smaller than other children her age. In order to assist with her social development, Carolyn's mother takes her to a local playgroup once a week.
   (a) Describe the physical development Carolyn would be experiencing at this stage of her life.
   (b) (i) What is the average growth during this stage of the lifespan?
   (ii) Explain why it is important to use these figures as averages only.
   (c) Identify the factors that may affect Carolyn's social development.
   (d) Explain ways that Carolyn's slow physical development might affect other dimensions of her development both in the short and long term.
5. Access the **ABC parenting** weblink and worksheet in the Resources tab in your eBookPLUS then complete the worksheet.

eBookplus RESOURCES

Explore more with this weblink: ABC parenting

Complete this digital doc: ABC parenting worksheet
Searchlight ID: doc-22641

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Unit 2 > AOS 1 > Topic 5 > Concept 8

Intellectual development in infancy and early childhood Summary screens and practice questions

9.7 Early life experiences and the intergenerational nature of health and wellbeing

KEY CONCEPT Intergenerational health and wellbeing

Health and wellbeing are considered to have an **intergenerational** impact. This means that the health and wellbeing and development of one generation influences the health and wellbeing and development of the next. For example, educated parents are more likely to place importance on the education of their own children, which promotes their health and wellbeing and intellectual development.

It also means that early life experiences are linked to health and wellbeing and development in the adult stage. For example, risk factors such as low birthweight or stress experienced in early life can have effects that accumulate over time to create adult chronic disease. The prenatal stage, infancy and childhood can set us on a path towards or away from good health and wellbeing and optimal development. Recognising that experiences in early life have an impact on later health and wellbeing and development can guide parents to make positive decisions about their children's upbringing.

9.7.1 Body weight

Low birthweight

Adequate birthweight generally indicates that the body's systems have developed optimally in the prenatal stage, leading to good adaptation and decreased risk of health and wellbeing issues after birth. Low birthweight, on the other hand, may indicate that the body's systems are underdeveloped and the risk of a range of health and wellbeing and development problems increases.

Babies are classified as 'low birthweight' if they weigh less than 2500 grams at birth. Low birthweight babies

FIGURE 9.25 Low birthweight can have an impact on a baby's health and wellbeing and development in a number of ways.

TABLE 9.5 The impact on health and wellbeing and development of very low or extremely low birthweight

Impact of very low or extremely low birthweight:	
on health and wellbeing	**on development**
• Reduced lung function • Increased risk of bronchiolitis (an inflammation of the small airways in the lungs) • Decreased exercise capacity • Feeding difficulties leading to lack of nutritional intake • Increased risk of bradycardia (a slowing of the heart rate) • Apnoea (a short-term suspension of breathing) • Jaundice (yellowing of the skin due to the immature liver being unable to process the compound bilirubin, which is found in the blood) • Increased probability of a lengthy hospital stay following birth • Increased risk of asthma during childhood	• Reduced muscle bulk • Reduced coordination • Poor sucking and swallowing reflexes • Greater likelihood of impaired growth and motor skill development • Greater likelihood of impaired learning capabilities • Damage to the retina of the eye resulting in sight difficulties including blindness • Increased risk of cerebral palsy • Increased risk of deafness

can be further classified as 'very low birthweight' if they weigh 1000–1500 grams, and as 'extremely low birthweight' if they are below 1000 grams. Babies can be born with low birthweight because they are born prematurely, or have experienced some disruption to their growth within the uterus due to parental smoking or poor nutrition.

Babies born with low birthweight may have a harder time feeding, gaining weight and fighting infection. Because they have so little body fat, low birthweight babies often have difficulty staying warm in normal temperatures. They may be more likely than normal weight babies to have certain health conditions later in life (see table 9.5). In 2014, around 1 in 15 Victorian babies was low birthweight. Babies of Indigenous mothers were significantly more likely to experience low birthweight; however, this trend is reversing.

Nutrition

Early childhood is characterised by a slowdown in the growth rate, which may result in a less reliable appetite. Children have small stomachs, so it is difficult for them to achieve their daily nutritional requirements with only three meals per day. Grazing and snacks might therefore be necessary.

Eating patterns in early childhood should ensure consumption of foods from all five core food groups and a variety of foods from within each group. The emphasis should be on healthy family foods and an environment around eating that encourages healthy food behaviours.

Overweight

Childhood obesity rates have increased significantly over the past two decades. A child is more likely to make healthy food choices and be active if they see caregivers eating healthily and being active. A dietary intake consisting of a large proportion of saturated fats and simple carbohydrates, or the overconsumption of carbohydrates, fats and protein, increased screen time, busy family lifestyles and lack of outdoor space all make it easy for young children to overeat and harder for them to be active.

Obesity during childhood is a strong predictor of adult obesity and the chronic diseases of diabetes and cardiovascular disease. About 80 per cent of obese youth will become obese adults. The earlier an individual is exposed to obesity, the earlier they may see the onset of complications, including type 2 diabetes, cardiovascular disease, metabolic syndrome and cancer. Research from The Netherlands indicates that being overweight during childhood triples the risk of developing depression in later life. Table 9.6 outlines the short- and long-term consequences of childhood obesity to health and wellbeing and development.

TABLE 9.6 Consequences of childhood obesity on health and wellbeing and development

Short-term consequences on health and wellbeing	Long-term consequences on health and wellbeing
• Physical discomfort • Bone and joint problems • Asthma or shortness of breath during exercise • Heat intolerance • Tiredness/lethargy • High blood pressure • Abnormal cholesterol levels • Interrupted sleep due to breathing difficulties (obstructive sleep apnoea) • Social and psychological distress as obese children often experience discrimination, bullying and teasing by their peers • Low self-esteem • Poor peer relationships	• Twice the risk of developing cardiovascular disease (high blood pressure, angina, heart attack) in adulthood • Three times the risk of developing type 2 diabetes in adulthood • Increased risk of premature death • Poor self-esteem can lead to an increased tendency to smoke and drink alcohol, resulting in health and wellbeing conditions such as lung cancer, cardiovascular disease and cirrhosis of the liver

9.7.2 Early relationships

Attachment is a strong, long lasting bond between a baby and his or her caregiver. A secure attachment develops in response to consistent and empathetic love and care in the first months of a baby's life. It builds a foundation for a sense of security, safety and good coping skills.

Attachments formed in infancy can support social, emotional and mental health and wellbeing throughout the lifespan and influence:

- the success or failure of future intimate relationships
- the ability to maintain emotional balance
- the ability to enjoy being ourselves and to find satisfaction in being with others
- the ability to rebound from disappointment and misfortune.

FIGURE 9.26 Parents or carers with positive mental and emotional health and wellbeing are better able to foster a healthy parent–child relationship.

Stress during pregnancy releases cortisol. In the first days of pregnancy, cortisol suppresses the mother's immune system, preventing the mother's body from attacking the foetus, and helps regulate blood flow between the placenta and the foetus. A pregnant woman with high stress, and therefore cortisol levels consistently higher than normal, has greater risk of premature birth and having a baby who displays a much higher sensitivity to stress. Research indicates that as these babies grow from infancy to early childhood, they may exhibit heightened levels of anxiety compared with other children, such as being scared of going to school.

When a young child is protected by supportive relationships with adults, they learn to cope with everyday challenges such as encountering new people or new situations or the frustration and pain of a minor fall. With loving care their stress response system returns to normal after a difficult event. Even with more serious difficulties, such as a frightening injury or parental divorce, a child surrounded by caring adults who help them to adapt is protected against the potentially damaging effects of abnormal levels of stress hormones. However, when frequent or prolonged adverse experiences, such as extreme poverty, maternal depression or family violence is experienced without adequate adult support excessive cortisol disrupts the development of the brain. Problems created by stressful environments in childhood include poor school readiness, poor literacy and communication, and social health and wellbeing issues. Problems created in adulthood include mental health problems, aggression and antisocial behaviour, poor literacy and the effects of substance abuse.

Parenting practices refer to the way in which the parents or carers interact on a daily basis with their child and how they model behaviour. It incorporates the type of discipline that is used and the way in which the parent/carer responds to the child in different situations. Some children may live in situations where the parents/carers use abuse as a part of their parenting practices. Children who are abused by their parents/carers are at greater risk of emotional and behavioural problems when compared with other children.

Short-term effects of abuse include the child:

- having sleeping difficulties
- regressing to earlier stages of development, such as bedwetting and thumb sucking
- being anxious or fearful
- displaying aggressive or antisocial behaviour or isolating themselves
- not attending social or school events
- becoming a victim or perpetrator of bullying or being cruel to animals

- suffering from stress-related illnesses such as headaches and stomach cramps
- displaying speech problems such as stuttering.

The long-term effects of exposure to abuse may result in the child growing up to be an abusive person from learning to solve problems through the use of violence. From witnessing the violent behaviours of their adult role models, children may grow up to behave in destructive ways in their own adult relationships.

Parents or carers with positive mental and emotional health and wellbeing are better able to foster a healthy parent–child relationship than those with poor mental health and wellbeing. For example, parental warmth means interactions between the parent and child are characterised by affectionate behaviours, interest and involvement in the child's activities, responsiveness to the child's moods and feelings, and positive expressions of approval and support. This supports better social health and wellbeing through successful interpersonal relationships with peers at school, at work and with friends and partners.

9.7.3 Early environment and learning opportunities

The human brain begins forming just three weeks after conception, but in many ways brain development is a lifelong journey. At birth, babies have approximately the same number of neurons as an adult but approximately ten times fewer connections. From birth to age three the number of connections multiplies by 20. A process of 'pruning' selectively eliminates connections that are not used. This process of pruning helps to structure the brain's architecture into organised efficient networks, resulting in every child's brain being unique depending on individual experiences. Repeated use and stimulation strengthens connections and contributes to the connectivity and efficiency of the networks that support learning, memory, and other cognitive abilities.

Parents or carers who are preoccupied with a daily struggle to ensure that their children have enough to eat and are safe from harm may not have the material resources, information or time they need to provide the stimulating experiences that foster optimal brain development. Infants and children who are rarely spoken to, who are exposed to few toys, and who have little opportunity to explore and experiment with their environment may fail to fully develop the neural connections and pathways that facilitate later learning.

FIGURE 9.27 Stimulating experiences and positive relationships with caregivers foster optimal brain development.

An aspect of the parenting role is to provide adequate play space and an assortment of play materials. Play has benefits for emotional, social, intellectual and physical development. The emotional benefits of play in childhood include a reduction in fear, anxiety, stress and irritability. Play can create joy, self-esteem and mastery. The social benefits of play in childhood include increased empathy and sharing. It improves relationships and attachment. The physical benefits of play include increased efficiency of immune, endocrine, and cardiovascular systems and increased agility, coordination, balance, and fine and gross motor skills. Intellectual benefits include creativity, problem solving and language skills

If a child has their safety needs met, they can focus their attention on play and exploring, allowing their brain to take in all the experiences around them. If, however, their needs are not met consistently and pleas for comfort are usually ignored or met with harsh words, the infant will continue to focus their energies on ensuring that their needs are met. They will have more and more difficulty interacting with people and objects in the environment, and their brain is more likely to shut out the stimulation it needs to develop optimal intellectual and social skills.

When there is no routine for eating and sleeping, and comforting occurs unpredictably, sleep–wake patterns and ability to settle do not develop well. This means there is less likelihood that the baby will form healthy routines and the ability to self-regulate. Secure, stable housing with quiet, predictable sleeping areas for babies are important for promoting optimal development in childhood and through to adulthood. Research suggests that inadequate amounts of sleep lead to disruptive behaviour patterns, diminished intellectual performance and a greater risk of obesity in childhood and adulthood.

9.7 Activities

Test your knowledge

1. Explain health and wellbeing as an intergenerational concept.
2. Briefly explain why low birthweight babies are more likely to experience ill-health than those of normal body weight.
3. Discuss four ways obesity in early childhood could affect health and wellbeing later in life.
4. Discuss three ways that early life experiences can affect health and wellbeing and/or development later in life.

Apply your knowledge

5. Access the **Healthy Mothers, Healthy Babies** weblink and worksheet in the Resources tab in your eBookPLUS then complete the worksheet.
6. Explain how any two of the following actions parents can take could put their child on the path to good adult health and wellbeing:
   - not smoking during pregnancy
   - consuming an optimal diet during pregnancy
   - promoting a healthy diet in infancy
   - engaging in positive and responsive parenting behaviours
   - joining a playgroup
   - breastfeeding
   - selecting good quality childcare.
7. UK research indicates rising numbers of infants lack the motor skills needed to play with building blocks because of an 'addiction' to tablet computers and smartphones. Many children aged just three or four can 'swipe a screen' but have little or no dexterity in their fingers after spending hours glued to iPads, it was claimed. Complete a presentation on the influence of the media or technology on child development. Include consideration of the impact on parent–child relationships.

eBookplus RESOURCES

Explore more with this weblink: Healthy Mothers, Healthy Babies

Complete this digital doc: Healthy Mothers, Healthy Babies worksheet
Searchlight ID: doc-22647

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Unit 2 > AOS 1 > Topic 5 > Concept 9

Intergenerational nature of health and wellbeing Summary screens and practice questions

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Unit 2 > AOS 1 > Topic 5 > Concept 10

Early life experiences Summary screens and practice questions

9.8 Topic 9 review

9.8.1 Key skills

KEY SKILL Analyse factors to be considered and resources required for the transition to parenthood

In order to demonstrate this skill, it is essential to show an understanding of the role parents play in meeting the needs of children. You also need to be able to examine in detail, and explain the importance of, social and emotional support and resources in assisting parents with this role.

The ability to use relevant examples to demonstrate this understanding is expected. When outlining the parental responsibilities and the availability of social and emotional support and resources, it is important to remember the various needs of a child. Consider the following example, which is a discussion of considerations required for the transition to the parenting role.

Parenting is the process of promoting the development and health and wellbeing of a child from infancy to adulthood. When individuals are thinking about parenthood they have to consider whether they can meet a child's needs.[1] These include physical (food, safety and shelter), emotional (security, stability), social (love, attention and achievement) and intellectual needs (mental stimulation and learning opportunities). They also need to consider whether they are ready to make any needed changes in their diet and lifestyle in order to have a healthy pregnancy and healthy child. Being prepared to eat a healthy diet, avoid smoking and alcohol are some of the changes that may need to be made when considering the parenting role.[2]

A further consideration relates to their level of support from family and friends and whether they are ready to accept responsibility for promoting an optimal environment for the development of their child. To undertake the parenting role social support is required. This refers to the informal, emotional or practical help that parents receive from relatives, friends, co-workers or neighbours. Parents with higher levels of social support are better able to cope with stress and be resilient. Parents also require emotional support. This is the feeling that others understand your needs and will try to help you. Having people who are willing to share ideas and advice and talk things over, particularly those who are in the same position, increases the ability to cope with problems related to parenting.[3]

When considering the parenting role, individuals should be aware of their level of family resources, such as time, income, knowledge and housing as well as access to government and community resources such as antenatal care.[4]

1 A consideration to be made about the role of parent is identified.
2 The types of needs are identified.
3 Further considerations about the role of parent are identified and the importance of social and emotional support is explained.
4 A range of resources is discussed.

Practise the key skill

1. Lois is eight weeks pregnant. Briefly describe the role she will play in her child's development.
2. Outline the social and emotional support that will enhance Lois's ability to be a parent.
3. What resources would be beneficial to Lois as a parent in the first month after the birth of her child?

KEY SKILL Explain factors that influence development during the prenatal and early childhood stages of the lifespan

In order to demonstrate this skill, a thorough understanding of the factors that influence the development that occurs during the prenatal and early childhood stages of the lifespan is essential. The ability to use relevant examples to demonstrate this understanding is expected. Examples include maternal diet, the effects of smoking and alcohol during pregnancy, and early life experiences.

When explaining how factors influence development during these stages, it is important to remember the following:

- To clearly demonstrate an understanding of the influence of a selected factor on development, it is important to be able to explain what the factor is.
- When explaining the influence of the selected factor, explain the way in which it influences development during the prenatal and childhood stages.

It is important to read the question carefully to determine which lifespan stage is the focus and if there are any limitations on the factors that can be discussed.

Consider the following example in which the influence of low birthweight is explained with regards to development during the early childhood stage of the lifespan.

Babies are classified as 'low birthweight' if they weigh less than 2500 grams at birth.[5]

Low birthweight indicates that the body's systems are underdeveloped; this can have significant impacts on the development of the child, including:

- reduced coordination,[6] which relates to physical development[7]
- greater likelihood of impaired learning capabilities,[8] which can reduce the ability to retain knowledge, which in turn relates to intellectual development.[9]

5 An explanation of the factor is provided.

6 A specific link is made between the factor and development during early childhood.

7 The area of development influenced is identified.

8 A second link is made between the factor and development during early childhood.

9 The second area of development is identified.

Practise the key skill

4. Explain how maternal diet can influence development during the prenatal stage of the lifespan.
5. Outline two aspects relating to early life experiences and explain how each can influence children's development.

KEY SKILL Explain health and wellbeing as an intergenerational concept

In order to demonstrate this key skill an understanding of the meaning of intergenerational health and wellbeing is required. This will be important to explaining why it is important for parents to provide an environment for optimal prenatal development. The ability to use relevant examples to demonstrate this is expected.

The factors that shape prenatal development also shape health and wellbeing and development between generations and over the lifespan. This means that parents' health and wellbeing influences the health and wellbeing of children, and conditions in prenatal development are linked to health and wellbeing outcomes later in life. [10]

Risk factors can be independent but they can accumulate and interact over time. Conditions such as stress that parents encounter or tobacco smoking during pregnancy affect prenatal development by leading to low birthweight. Low birthweight is linked to later development of adult chronic diseases such as diabetes, heart disease, high blood pressure and obesity.[11]

The decisions that parents make and the resources that they have access to are important to creating an optimal prenatal environment. A pregnant woman who makes use of social support such as advice or childminding help from grandparents and friends, can reduce stress levels, and therefore have less risk of a premature birth and a baby who displays a much lower sensitivity to stress. As the baby grows from infancy to toddlerhood, they will be less likely to exhibit high levels of anxiety when faced with new experiences such as going to school.[12]

10 The concept of intergenerational health and wellbeing is described.

11 An example of a factor in the mother during the prenatal stage affecting the child at birth is provided and a link made to the adult stage.

12 An understanding of how the health and wellbeing of one generation influences the health and wellbeing of the next generation is shown.

Practise the key skill

The authoritarian parenting style is when parents/carers use an overemphasis on discipline and little or no opportunity for the child to make decisions. Authoritarian parents/carers can be intimidating, with an expectation of obedience and respect. Expectations are not explained but simply demanded of the child, and the parent/carer will become angry and forceful if the expectations are not met.

6. Discuss the impact that this parenting style may have on the health and wellbeing and development of an infant.
7. What are the possible implications of this parenting behaviour for development later in life?

9.8.2 Topic summary

- Parenting is the process of promoting and supporting the physical, social, emotional and intellectual development of a child from infancy to adulthood.
- It is the responsibility of parents, other caregivers and family members, communities and governments to ensure that the rights that relate to a child's needs and an optimal environment for development are fulfilled.
- Children have physical, social, emotional and intellectual needs.
- Social support refers to the informal, emotional or practical assistance that parents and carers receive from relatives, friends, neighbours or the community.
- Emotional support refers to the feeling that others understand your needs and will try to help you.
- Parents/carers with higher levels of social and emotional support are better able to cope with stress and be resilient.
- Children whose needs are met and who have strong social and emotional skills are likely to become adults who find it easier to create and maintain a supportive social network. This increases the likelihood that they will engage in effective parenting with their own children.
- Resources available to parents/carers include time, energy, knowledge, Medicare, the Pregnancy, Birth and Baby Helpline, and Maternal and Child Health Services.
- Fertilisation is the process whereby the genetic material of the sperm and ovum fuse together to make a complete cell called a zygote. This process usually occurs in the fallopian tube.
- Fertilisation marks the beginning of the prenatal stage of the lifespan.
- The prenatal stage can be divided into the germinal, embryonic and foetal stages.
- Growth during the prenatal stage is the fastest of all lifespan stages.
- The germinal stage is characterised by rapid cell division.
- The embryonic stage is characterised by organ development, called organogenesis.
- Teratogens can have a large impact on the developing baby.
- The foetal stage is characterised by rapid growth.
- The placenta is an organ that facilitates the transfer of nutrients, liquids and gases from mother to baby.
- A neural tube defect is a condition that is sometimes diagnosed during pregnancy.
- Antenatal care is essential to monitor the health and wellbeing of the mother and baby
- A range of risk and protective factors have an impact on both pregnant women and their unborn babies during the prenatal stage of the lifespan.
- Adequate nutrition is important in ensuring that the nutrients required for optimal health and wellbeing and development of the unborn baby are present. Deficiencies in specific nutrients such as folate and iodine can contribute to health concerns, such as spina bifida and intellectual disability.
- Parental smoking causes toxic substances to cross the placenta. This increases the risk of birth defects and perinatal mortality.
- Alcohol use during pregnancy can lead to foetal alcohol spectrum disorder. Foetal alcohol spectrum disorder increases the risk of premature birth, heart defects, behavioural problems and a range of physical characteristics.

- Infancy is a rapid period of growth. All areas of development occur quickly during this stage and the family is a significant influence on health and wellbeing and development.
- Physical development during early childhood is described as being slow and steady.
- Gradual increases in height and weight are accompanied by increases in bone strength.
- As the child grows and gains strength, their motor development progresses and they become capable of more complex motor skills.
- Social development is facilitated by play and interaction with family members. Children often imitate the actions of older people as a way of learning social skills and roles.
- By the end of early childhood, the child is usually toilet-trained and can use a knife and fork.
- The child gains an increasing sense of self during the childhood years and may become self-conscious in certain circumstances.
- Intellectual development continues to progress and as the child ages language skills become increasingly complex.
- Health and wellbeing over the lifespan and over generations can be shaped through exposure to risks early in life that have effects that are independent, cumulative and interact over time.
- Early life experiences that include birthweight, presence or absence of stress, relationships and environments for learning will contribute to health and wellbeing and development in infancy and childhood and can determine the pathway to adult health and wellbeing.

9.8.3 Exam preparation

Question 1

Julian and Christie have been thinking about having a child. They both work full time and have an active social life that includes going to music venues, bars and restaurants with friends. Julian's parents live in France and Christie's parents live in the same city as Julian and Christie.

(a) Outline three things Julian and Christie will need to consider before becoming pregnant. **(3 marks)**

(b) Describe two risk factors and two protective factors that they need to consider in order to promote the health and wellbeing of their child. **(4 marks)**

(c) Explain two of their newborn's needs they will have to meet. **(2 marks)**

(d) Describe two examples of social support and two examples of emotional support that will assist them in their parenting. **(4 marks)**

(e) Discuss two resources that Julian and Christie can use in their parenting role. **(4 marks)**

(f) Discuss two examples that demonstrate why the early life experiences Julian and Christie provide for their child will be important to the child's adult health and wellbeing. **(4 marks)**

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Searchlight ID: doc-6861

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Sit Topic Test

TOPIC 10
Australia's health system

10.1 Overview

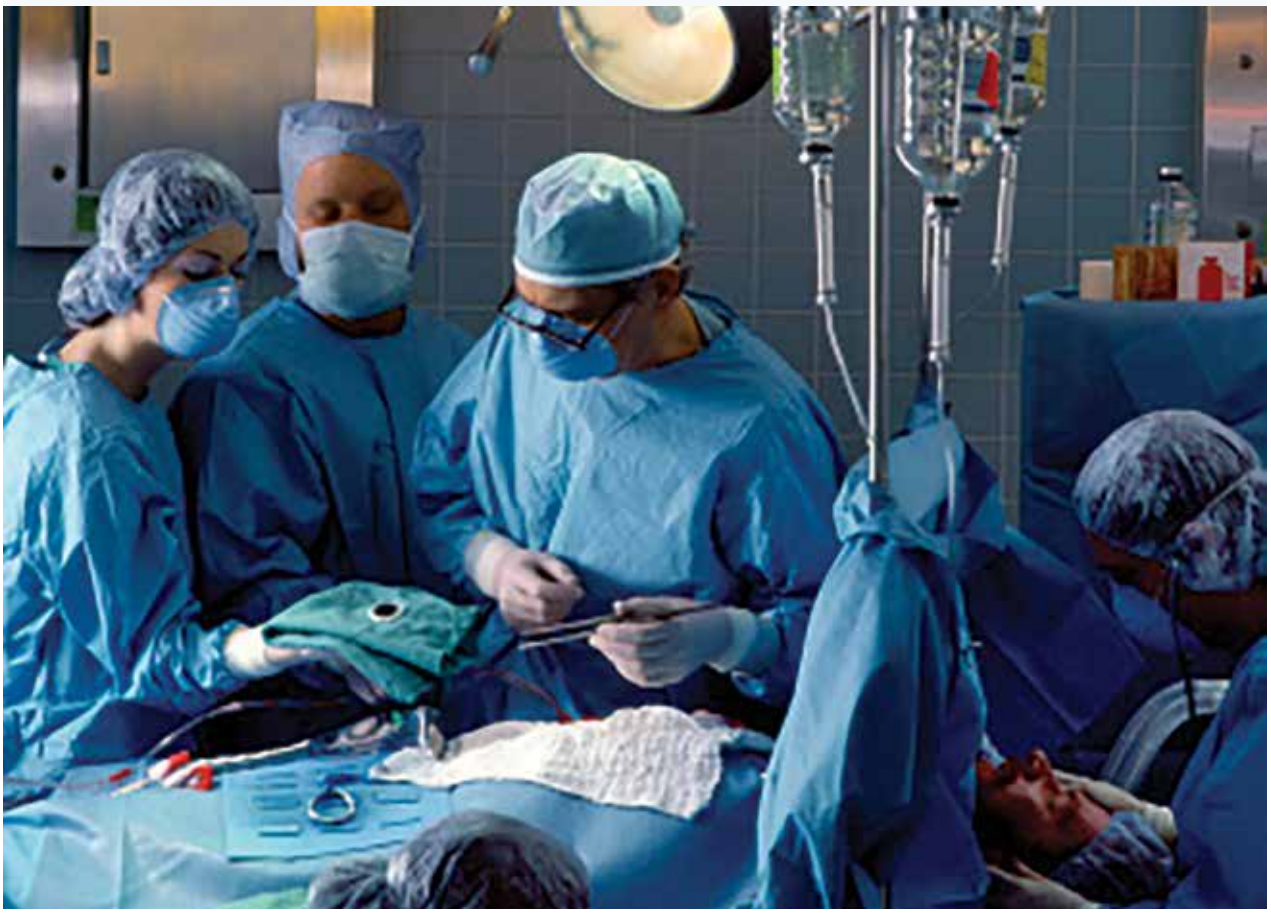
Key knowledge

- 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
- 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

Key skills

- Describe key aspects of the health system
- Research health services in the local community and explain which dimension/s of health and wellbeing each one supports
- Discuss rights and responsibilities of access to health services

FIGURE 10.1 Healthcare in Australia includes traditional medical services such as hospitals.



KEY TERMS

Bulk billing when the doctor or specialist charges only the Schedule fee. The payment is claimed directly from Medicare so there are no out-of-pocket expenses for the patient.
Incentive is something that motivates or encourages someone to do something
Income test a determination of whether an individual or family is eligible for government assistance based on their level of income
In-hospital expenses (Medicare) are costs for treatment and accommodation in a public hospital
Medical confidentiality means that anything discussed between a doctor and a patient must be kept private
Medicare levy 2 per cent tax for all Australian tax payers to fund Medicare
Medicare levy surcharge an additional 1–1.5 per cent tax on high income earners who do not have private health insurance
Medicare Safety-Net ensures that people who require frequent services covered by Medicare, such as doctor's visits and tests, receive additional financial support
Out-of hospital expenses (Medicare) are costs for services such as doctors, specialists, tests and x-rays
Out-of-pocket expenses are costs that patients must pay themselves
Patient co-payment the payment made by the consumer for health products or services in addition to the amount paid by the government
PBS Safety Net ensures that people who spend large amount of money on Pharmaceutical Benefits Scheme (PBS) medications receive additional financial support
Privacy in medicine means that all information relating to a patient, including their personal details and any stored information, must not be shared
Private health insurance an insurance policy that helps pay for services not covered by Medicare
Premium the amount paid for insurance
Responsibility what someone is required to do as part of a job, role or legal obligation
Right a moral or legal entitlement to have or do something
Schedule fee the amount that Medicare contributes towards certain consultations and treatments. The government decides what each item is worth and that's what Medicare pays
SIDS Sudden Infant Death Syndrome; deaths of babies usually up to around six months old, which have no real explanation.

10.2 Medicare and the Pharmaceutical Benefits Scheme (PBS)

KEY CONCEPT Understanding the Australian health system: Medicare and the Pharmaceutical Benefits Scheme

Australia's health system is a complex network of public and private services and providers.

Australia's health system is the responsibility of all levels of government — federal, state and local — as well as the private sector. It is comparable to other developed nations with regard to its structure and function, and generally provides a high level of care which ensures good health and wellbeing outcomes for Australians. Three key aspects of Australia's health system which aim to increase access to healthcare for all Australians are:

1. Medicare
2. the Pharmaceutical Benefits Scheme (PBS)
3. private health insurance.

These three key aspects will be explored in this subtopic and subtopic 10.3. Figure 10.2 shows what an average day in healthcare in Australia looks like.

FIGURE 10.2 An average day in healthcare in Australia

	616 000 subsidised prescriptions dispensed
	381 000 visits to a general practitioner (GP)
	246 000 pathology tests
	79 000 visits to a specialist
	27 000 hospitalisations — 59 per cent in the public sector
	27 000 allied health services provided
	24 000 contacts made at community mental healthcare services
	20 000 presentations to public hospital emergency departments — 30 per cent end up being admitted to hospital
	1 900 people admitted for elective surgery in public hospitals — 9 per cent cataract extraction

Source: Australian Institute of Health and Welfare 2016, *Australia's Health: in Brief,* Cat. no. AUS 201. Canberra: AIHW.

10.2.1 Medicare

Medicare is Australia's universal health insurance scheme. Established in 1984, Medicare gives all Australians, permanent residents and people from countries with a reciprocal agreement (New Zealand, the United Kingdom, the Republic of Ireland, Sweden, the Netherlands, Finland, Belgium, Slovenia, Italy, Malta and Norway) access to healthcare that is subsidised by the federal government. Medicare aims to provide access to affordable basic healthcare in what is known as the public health sector. Doctors often work in private practice (especially GPs) but consultations with them are partially covered by Medicare.

FIGURE 10.3 Every Australian citizen is entitled to receive Medicare benefits. Dependent children under the age of 18 are listed on their parent's or guardian's Medicare card.

10.2.2 What does Medicare cover?

Out-of-hospital expenses

Medicare will pay all or some of the fees relating to many essential healthcare services. This includes consultation fees for doctors (general practitioners or GPs) and specialists (e.g. dermatologist, paediatrician), tests and examinations needed to treat illnesses, such as x-rays and pathology tests, and eye tests performed by optometrists.

Most surgical and other therapeutic procedures performed by general practitioners are also covered.

FIGURE 10.4 Consultations with a GP are covered by Medicare.

Although most basic dental services are usually not covered by Medicare, some dental procedures can be covered, including:

- some surgical procedures performed by approved dentists
- services for some children aged 2–17.

Under the Child Dental Benefits Schedule, some children are eligible for Medicare-funded dental procedures. Medicare will provide $1000 worth of dental treatment over two years for those who qualify. In order to qualify, the individual must be eligible for Medicare and receive (or their family, guardian or carer must receive) certain government benefits, such as Family Tax Benefit Part A or Youth Allowance (forms of social security) for at least part of the calendar year.

Medicare will cover a limited number of consultations with a psychologist; however, the patient must be referred by a GP who will assess the patient and complete a Mental Health Treatment Plan

The **Medicare Safety Net** ensures that people who require frequent services covered by Medicare, such as doctor's visits and tests, receive additional financial support. Once an individual's or family's **patient co-payments** for out-of-hospital medical expenses reach a certain level ($2056 in 2017), services covered by Medicare become cheaper for that individual or family for the rest of the calendar year.

In-hospital expenses

As a public patient in a public hospital, treatment by doctors and specialists is completely covered by Medicare, including initial treatment and aftercare. The cost of staying in a public hospital is also completely covered by Medicare. If an individual chooses to be admitted to a private hospital or as a private patient in a public hospital, Medicare will pay 75 per cent of the **Schedule fee** for treatment by doctors and specialists.

WHAT IS THE SCHEDULE FEE?

The Schedule fee is an amount set by the federal government for each medical service. For most general practice consultations, Medicare now rebates 100 per cent of the Schedule fee. The Medicare Benefits Schedule is a document that lists the range of services covered and the amount that Medicare will contribute to each. The Schedule fees are based on the amount that is thought to be 'reasonable' on average, for that particular service. For example, the Schedule fee for a standard GP's visit in 2016 was $37.05. Based on this contribution, every time an individual goes to the doctor for a standard consultation, Medicare will contribute $37.05. This is the amount that the patient will receive back from Medicare regardless of how much the doctor charges.

What are out-of-pocket expenses?

As many doctors charge more than the Schedule fee, you may still have to pay a certain amount in 'out-of-pocket' expenses (a 'gap fee'). For an example of how this works in practice, a GP might charge $55 for a standard consultation. The Medicare rebate for this is $37.05, leaving a gap of $17.95 for you to pay. This is the gap or out-of-pocket expenses.

Example general practitioner's fees

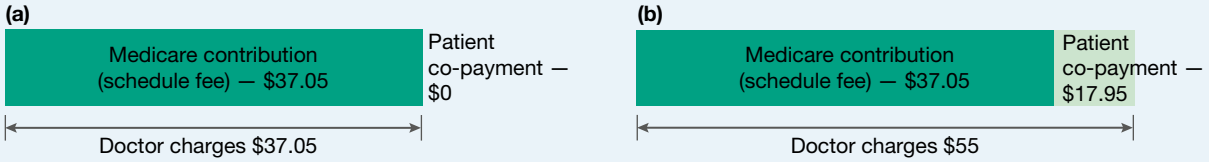
EXAMPLE: Standard consultation	Cost
Doctor's consultation fee	$55.00
Medicare Schedule fee	$37.05
Medicare rebate to patient (100 per cent of Schedule fee)	$37.05
Out-of-pocket expense to patient	$17.95

Unless you have been bulk billed, you used to have to pay the full consultation fee, and claim back the schedule fee from Medicare. This claim can now be made with Medicare electronic claiming, allowing you to claim your Medicare rebate when you pay your account at the doctor's surgery.

What is bulk billing?

Bulk billing is when the doctor accepts the Medicare benefit (the Schedule fee) as full payment for the services rendered. You don't have to pay any out of pocket expenses as the doctor has only charged the schedule fee (see figure 10.5). In this case, Medicare pays the doctor directly and the patient does not pay at all. Some clinics advertise that they are a bulk billing clinic, increasing access to free healthcare for all people. Other clinics may bulk bill patients who are pensioners, healthcare card holders or under 16 years of age.

FIGURE 10.5 (a) A bulk-billed GP consultation and (b) a GP consultation requiring patient co-payment



Source: www.health.gov.au

10.2.3 What is not covered by Medicare?

Medicare covers most 'clinically necessary' hospital and doctors' fees. Any cosmetic or unnecessary procedures are generally not covered. Other services not covered by Medicare include:

- costs associated with treatment in a private hospital. Medicare will pay 75 per cent of the Schedule fee for *treatment* in private hospitals but will not contribute to accommodation and other costs.
- most dental examinations and treatment. Although some children aged 2–17 can qualify for Medicare-funded dental care, most individuals are responsible for meeting their own costs associated with dental healthcare.
- home nursing care or treatment
- ambulance services.

A number of treatments that exist in addition to traditional medicine are generally not covered by Medicare. Often these are seen as 'alternative medicines' and include chiropractic services, acupuncture, remedial massage, naturopathy and aromatherapy. Medicare may contribute if these services are carried out or referred by a GP.

Allied health specialties such as physiotherapy, podiatry, or additional dental services such as orthodontics are not covered by Medicare. Health-related aids such as glasses and contact lenses, hearing aids and the cost of artificial limbs (prostheses) are also exempt from Medicare rebate. Pharmaceuticals are not covered under Medicare but may be subsidised under the PBS. Medical costs for which someone else is responsible (for example, a compensation insurer (e.g. TAC or WorkCover), an employer, or a government or non-government authority) do not qualify for a Medicare contribution as the person or organisation responsible is expected to pay the medical fees. Individuals and/or families can choose to purchase **private health insurance** to cover many of these services if they wish. This will be covered in a later section of this topic.

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Unit 2 › AOS 2 › Topic 1 › Concept 1

Medicare Summary screens and practice questions

10.2.4 The advantages and disadvantages of Medicare

The advantages and disadvantages of Medicare are summarised in table 10.1.

TABLE 10.1 The advantages and disadvantages associated with Medicare

Advantages	Disadvantages
• Reduced cost for essential medical services including free treatment and accommodation in a public hospital • Choice of doctor for out-of-hospital services • Available to all Australian citizens • Reciprocal agreement between Australia and other countries allows Australian citizens to access free healthcare in selected countries • Covers tests and examinations, doctors' and specialists' fees (Schedule fee only), and some procedures such as x-rays and eye tests • The Medicare Safety Net provides extra financial contributions for medical services once an individual's or family's co-payments reach a certain level.	• No choice of doctor for in-hospital treatments • Waiting lists for many treatments • Does not cover alternative therapies or allied health services • Often does not cover the full amount of a doctor's visit

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Unit 2 > AOS 2 > Topic 1 > Concept 2

Advantages and disadvantages of Medicare Summary screens and practice questions

10.2.5 How is Medicare funded?

In the 12 months from July 2015 to June 2016, Medicare paid out over $21 billion for services that it covers. Medicare is funded through three sources of income: general taxation — income collected through general income tax of all Australians; the Medicare levy; and the Medicare levy surcharge.

The **Medicare levy** is an additional 2 per cent tax placed on the taxable income of most taxpayers. Those with low incomes (below $20 000) or with specific circumstances (e.g. Government pension card holders) may be exempt from paying the levy.

The **Medicare levy surcharge** is an additional 1 to 1.5 per cent tax on the income of people without private hospital insurance earning more than a certain amount ($90 000 a year for individuals and $180 000 for families in 2014–18) The Medicare levy surcharge increases as income increases; for example, an individual without private hospital insurance earning more than $90 000 will pay an extra 1 per cent of their

TABLE 10.2 Medicare services and benefits July 2015 to June 2016

	Number of patients	Number of services provided by Medicare	Number of services per person	Benefits paid by Medicare ($)	Benefits paid by Medicare per person ($)	% of services bulk billed	Average out of pocket expenses per service $ (out of hospital services)
Males		161 441 536		8 949 447 626			
Females		222 602 457		12 158 302 620			
Total	21 739 178 (89.3% of the population)	384 043 993	17.1	21 107 750 246	971	78.2	58.49

income to Medicare, and an individual without private health insurance earning more than $140 001 will pay an extra 1.5 per cent of their income to Medicare. The Medicare levy surcharge aims to encourage individuals to take out private hospital cover and, where possible, to use the private system to reduce the demand on the Medicare-funded public system. The revenue collected from the Medicare levy and Medicare levy surcharge does not meet the full operating costs of Medicare; therefore, some of the general income tax is also used to help fund the cost of Medicare.

10.2.6 Pharmaceutical Benefits Scheme (PBS)

Along with Medicare, the Pharmaceutical Benefits Scheme (PBS) is a key component of the federal government's contribution to Australia's health system. The PBS has been evolving since 1948 when the government provided free medicines to pensioners and 139 lifesaving and disease-preventing medications to the rest of the community free of charge. The aim was to provide essential medicines to people who needed them, regardless of their ability to pay. The purpose of the PBS remains the same today, but instead of being free, medicines are now subsidised and consumers must make a patient co-payment. From 1 January 2017, you pay up to $38.80 for most PBS medicines or $6.30 if you have a concession card. The government pays the remaining cost of the medicines.

FIGURE 10.6 Over 4000 essential medicines are subsidised by the Pharmaceutical Benefits Scheme.

These costs are adjusted each year on 1 January to stay in line with inflation. In addition to the initial subsidy, individuals and families are further protected from large overall expenses for PBS-listed medicines through the **PBS Safety Net**. Once they (or their immediate family) have spent $1494.90 (2017) within a calendar year on PBS-listed medicines, the patient pays only a concessional co-payment rate of $6.30 rather than the normal $38.80. Currently, over 4000 brands of prescription medicine are covered by the PBS. This includes different brands of the same medicine. There are also a number of drugs not covered by the PBS. These drugs require the patient to pay the full amount. Available medications are reviewed regularly by the Pharmaceutical Benefits Advisory Committee (PBAC). The PBAC is an independent committee made up of health professionals who review and consider new medications for inclusion in the PBS. In 2016, more than $10.8 billion was paid in subsidies for PBS listed medications and there were 208 million medicines issued on PBS prescriptions.

MANY CANCER DRUGS ARE TOO COSTLY FOR PATIENTS TO ACCESS THEM WITHOUT THE ASSISTANCE OF THE PBS.

More Australian women will have access to a preventative breast cancer drug that has today been listed on the Pharmaceutical Benefits Scheme, the federal government says.

The drug, known as Tamoxifen or Novaldex-D, which had until now been used only as a breast cancer treatment, could cut the risk of getting the disease by 30 to 40 per cent.

Previously, only women who were actually suffering from a certain type of breast cancer could access subsidies for the medication.

But Federal Health Minister Sussan Ley said that system had now been broadened to include women who were also at a moderate to high risk of getting breast cancer.

'The drug Tamoxifen will be available on the PBS from today and it's part of a risk reduction strategy in a really important area of cancer,' the Minister said.

'The pharmaceutical company that's developed Tamoxifen has provided additional evidence, additional research to make it available to women who don't have breast cancer but are at high risk of contracting it.'

The Government said evidence from the makers of the drug had shown that if you take Tamoxifen for five years, it substantially reduces your risk by as much as 30-40 per cent, even after you stop taking it in a preventative way.

Ms Ley said the drug was the first preventative breast cancer treatment to be listed on the PBS, amid expectations that more than 16 000 new cases of breast cancer would be diagnosed this year.

'This month is breast cancer awareness month, so I'm making sure we get the message out about screening and treatment,' Minister Ley said.

This PBS month's listing also includes new drugs for type 2 Diabetes, HIV and psoriasis.

Source: Brooks, L 2016, 'Breast cancer drug Tamoxifen listed on the Pharmaceutical Benefits Scheme from today, *ABC Online.*

10.2 Activities

Test your knowledge

1. (a) Define Medicare.
   (b) What does Medicare cover?
   (c) What does Medicare not cover?
2. What is meant by the following terms?
   (a) Schedule fee
   (b) Bulk billing
   (c) What percentage of the Schedule fee does Medicare pay if individuals are treated as private patients?
3. (a) Name the three ways in which Medicare is funded
   (b) What is the Medicare levy?
   (c) What is the Medicare levy surcharge?
4. (a) What is the Pharmaceutical Benefits Scheme (PBS)?
   (b) Outline one difference and one similarity between Medicare and the PBS.

Apply your knowledge

5. Explain how Medicare and the Pharmaceutical Benefits Scheme improve the health status of Australians.
6. (a) According to table 10.2, what is the difference in the numbers of Medicare services accessed by males compared with females?
   (b) Suggest two possible reasons for this difference.
7. Access the **PBS** weblink and worksheet in the Resources tab in your eBookPLUS then complete the worksheet.
8. Access the **Medicare** weblink and worksheet in the Resources tab in your eBookPLUS then complete the worksheet.

eBook*plus* RESOURCES

Explore more with this weblink: PBS

Complete this digital doc: PBS worksheet
Searchlight ID: doc-22648

Explore more with this weblink: Medicare

Complete this digital doc: Medicare worksheet
Searchlight ID: doc-22649

study on

Unit 2 > AOS 2 > Topic 1 > Concept 3

Pharmaceutical Benefits Scheme Summary screens and practice questions

10.3 Private health insurance

KEY CONCEPT Understanding the Australian health system: private health insurance

Private health insurance is a type of insurance for which members pay a premium (or fee) in return for payment towards health-related costs not covered by Medicare. It is an additional insurance product that people can choose to purchase to cover the costs of medical services in addition to Medicare. Private health insurance forms an important part of Australia's health system. As well as giving individuals more choice with regard to their healthcare, private health insurance also helps to significantly reduce the burden on the public health system.

FIGURE 10.7 Medibank, NIB and Bupa are large private health insurance providers in Australia.

As well as contributing some of the necessary funding for Australia's health system, it gives Australians choice in the sort of care they wish to access. Consumers can purchase cover for private hospital insurance and/or 'extras' cover. Private hospitals (which are largely funded by private health insurance companies) provide about one-third of all hospital beds and 40 per cent of hospital separations. Extras cover can cover services provided by dentists, physiotherapists and chiropractors and other services not generally covered by Medicare.

Like all insurance policies, private health insurance works by participants paying a premium, which can vary depending on how many people are covered by the policy and the options the policy includes. The basic benefit of most policies is being able to be admitted as a private patient in a public or private hospital with many of the expenses met by the insurance company. Medicare will still pay 75 per cent of the doctor's Schedule fee, but not the costs of staying in the private hospital.

People with private health insurance generally have greater choice in terms of hospitals and doctors. As private hospitals charge much more than public hospitals, generally only people with insurance tend to use them. In private hospitals, patients get their choice of doctor, can have their own room if available and generally don't have to wait for extended periods for elective surgery (e.g. knee reconstruction), which can happen in the public system. Private hospitals usually charge more than the Schedule fee for services.

Generally, private health insurance companies pay the additional costs, but sometimes the total bill may exceed the amount contributed by the insurance company. In these cases, the patient has to pay the rest (known as 'the gap'). Many health insurance companies have partnership arrangements with hospitals to ensure that gap payments are kept to a minimum.

FIGURE 10.8 Breakdown of fees paid for using private hospitals

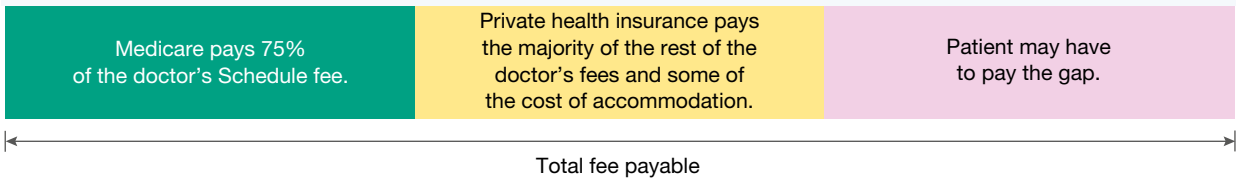


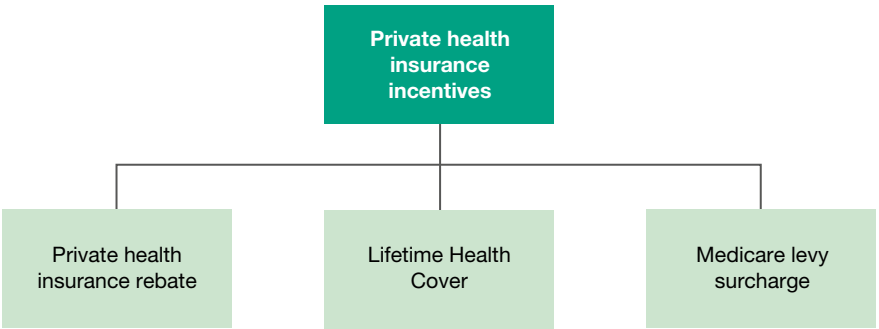
TABLE 10.3 Advantages and disadvantages of private health insurance

Advantages	Disadvantages
• Enables access to private hospital care • Choice of doctor while in public or private hospital • Shorter waiting times for some medical procedures such as elective surgery • Depending on the level of cover purchased, services such as dental, chiropractic, physiotherapy, optometry and dietetics could be paid for • Helps to keep the costs of operating Medicare under control • High income earners with private health insurance do not have to pay the additional tax, called the Medicare levy surcharge • Government rebate for eligible policy holders • 'Lifetime Health Cover' incentive	• Costly in terms of the premiums that have to be paid • Sometimes have a 'gap', which means the insurance doesn't cover the whole fee and the individual must pay the difference • Qualifying periods apply for some conditions (e.g. pregnancy)

10.3.1 Private health insurance incentives

The proportion of people who have private health insurance has varied over the years. When Medicare was introduced, many people opted out of private health insurance as they could access essential treatments without having to pay expensive private health insurance premiums. This put a strain on the public health system as fewer people were using private hospitals. In order to encourage people back into private health insurance the government introduced three main financial **incentives** to people who purchase hospital cover (see figure 10.9).

FIGURE 10.9 The three incentives put in place to encourage people to take out private health insurance



Private health insurance rebate

In 1999, the government introduced the 30 per cent rebate incentive. Under this scheme, policy holders received a 30 per cent rebate (or refund) on their premiums for private health insurance. In 2012, this rebate became **income tested**. In 2017, under this arrangement, individual policy holders under the age of 65 received the following rebates:

- individuals with an income under $90 000 received a 25.9 per cent rebate
- individuals with an income between $90 001 and $105 000 received a 17.3 per cent rebate
- individuals with an income between $105 001 and $140 000 received an 8.6 per cent rebate
- individuals with an income of more than $140 001 received no rebate.

The threshold amounts are higher for families to reflect the extra expenses families have compared to individuals. In 2017:

- families earning under $180 000 received a 25.9 per cent rebate
- families earning between $180 001 and $210 000 received a 17.3 per cent rebate
- families earning between $210 001 and $280 000 received an 8.6 per cent rebate
- families earning more than $280 001 received no rebate.

Eligible policy holders aged between 65 and 70 received approximately an extra 5 per cent rebate, and those aged over 70 received an extra 9 per cent rebate.

Eligible private health insurance policy holders can opt to pay a reduced premium based on their rebate amount (with the government contributing the remainder) or pay the total and reclaim the rebate in their tax return. Although the government is paying a substantial amount to fund this incentive, it raises much-needed funds for the health system that would not have been generated otherwise.

Lifetime Health Cover

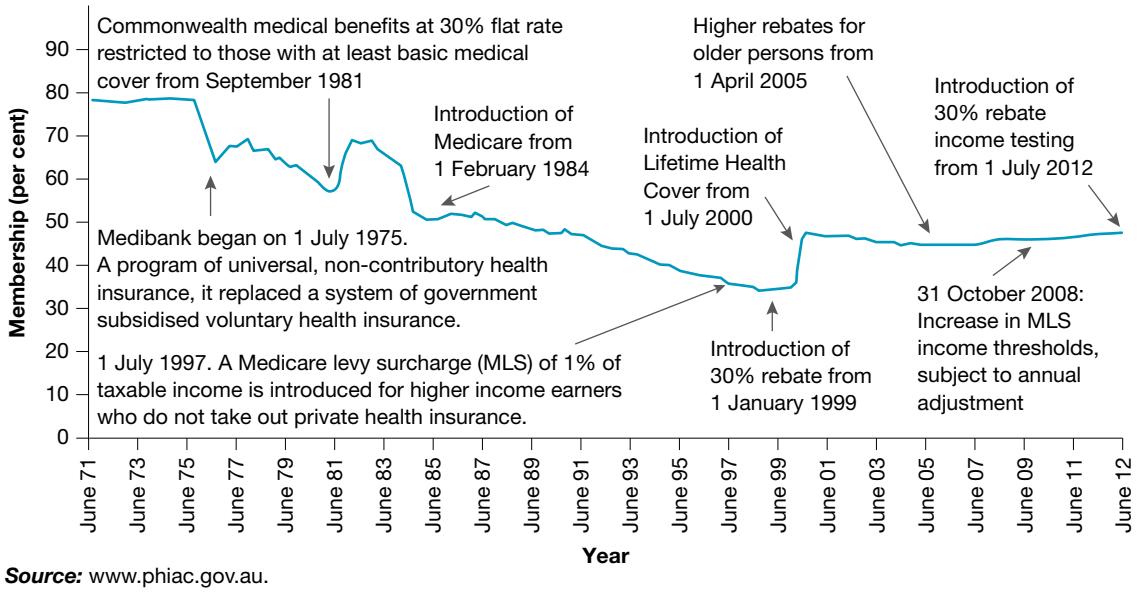
A second incentive is referred to as Lifetime Health Cover. People who take up private hospital insurance after the age of 31 pay an extra 2 per cent on their premiums for every year they are over the age of 30. For example, a person who takes out private health insurance at age 40 will pay 20 per cent more than someone who first takes out hospital cover at age 30. The additional 2 per cent cost for the premium lasts until the person has had hospital cover continuously for 10 years. After that time, the premium returns to the normal cost. This encourages younger people to take up private health insurance when they are less likely to claim, and keep it for life.

Medicare levy surcharge

A third incentive is the Medicare levy surcharge. People earning more than $90 000 a year ($180 000 for families) pay an extra tax as a Medicare levy surcharge if they do not purchase private health insurance. The Medicare levy surcharge is calculated according to income and ranges from 1 per cent to 1.5 per cent. This encourages high income earners to take out private health insurance.

Figure 10.10 demonstrates the changes in private health insurance membership over time from 1971 to 2012. After the introduction of Medicare in 1984, private health insurance membership gradually declined as people were able to access good quality, affordable essential healthcare. This decline slowed after the introduction of the health insurance rebate in 1999 and in 2000 when lifetime health cover was introduced, private health insurance membership rose sharply, showing the effectiveness of government incentives.

FIGURE 10.10 Changes in private health insurance membership over time



Source: www.phiac.gov.au.

10.3 Activities

Test your knowledge

1. Explain private health insurance.
2. Identify reasons for the declining membership in private health insurance.
3. Describe the three incentives used to encourage people to take up private health insurance.
4. What is a premium?
5. What is 'the gap'?
6. Identify three advantages and three disadvantages of private health insurance.
7. Identify five services that are usually covered by private health insurance but are not covered by Medicare.
8. Suggest reasons why an individual or family may take out private health insurance.

Apply your knowledge

9. Explain how private health insurance can promote:
   (a) the health and wellbeing of individuals
   (b) health status in Australia.
10. Why do you think the government provides incentives for people to take out private health insurance?
11. Why is private health insurance an essential part of Australia's health system?
12. Can people without private health insurance use private hospitals? Explain.
13. Outline two differences between Medicare and private health insurance.

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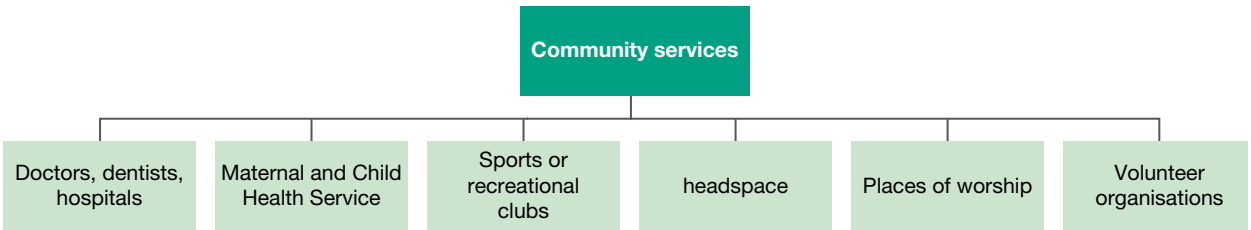
Private health insurance Summary screens and practice questions

10.4 The range of community services to support the dimensions of health and wellbeing

KEY CONCEPT Services provided within communities that support optimal health and wellbeing

There are a large number and wide range of services within communities that support the dimensions of health and wellbeing. Six different examples are discussed in this subtopic.

FIGURE 10.11 A selection of services available in the community to support health and wellbeing



10.4.1 Conventional medical services

Most communities have access to a range of medical services, such as general practice clinics, medical specialists, public and private hospitals, ambulance services and dental services. These more conventional medical services generally support people in taking care of their physical health and wellbeing. Patients who are

ill or injured can seek treatment from a GP or at the emergency room of a public hospital. Sometimes specialist treatment may be required and patients can be referred to these services by their GP. Dental health is a major consideration in maintaining physical health and well-being, so accessing dental services in the community is essential for optimal health and wellbeing. Mental health and wellbeing is also promoted through these conventional medical services as people can access psychologists or counsellors to help reduce stress and anxiety levels at critical times.

FIGURE 10.12 Dental hygiene is an important and often neglected aspect of physical health and wellbeing.

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Community services: Conventional medical services Summary screens and practice questions

10.4.2 Maternal and Child Health Service

The Maternal and Child Health Service is a service provided by the Victorian Government and the local council to support families in parenting, health and wellbeing and development of children from birth up to beginning primary school. All consultations with the maternal and child health nurse are free, and there is also a help line available 24 hours a day, 7 days a week. The maternal and child health nurse records children's growth and developmental progress from birth through scheduled consultations up to 3.5 years old. With monitoring, the nurse can detect any abnormalities in the child's development and implement strategies or medical interventions as necessary. At each visit, parents receive 'tip sheets' on topics such as safe sleeping and **SIDS**, making the most of childhood, vaccination, developmental milestones, play, dental hygiene and many more relevant topics. These are produced in several languages appropriate to the local population for each council area. When parents are educated about SIDS and vaccination, death and serious illness can be avoided, increasing the physical health and wellbeing of their children.

FIGURE 10.13 The Maternal and Child Health Service offers health and wellbeing and developmental monitoring of children from birth up to the age of 3.5 years of age.

Being the parent of a young baby or toddler can be a stressful and challenging time. The Maternal and Child Health Service is particularly directed towards the health and wellbeing of the mother and the child. For the mother, this service can be extremely beneficial in supporting mental and emotional wellbeing. The mother can express her fears and concerns and gain knowledge about her child, including what is within the normal range

of development, which helps to reduce her stress and anxiety. One of the most stressful experience in early parenthood is a baby who doesn't sleep well. This causes exhaustion in the parents and is detrimental to many dimensions of health and wellbeing. The Maternal and Child Health Service offers assistance and advice on helping the baby to settle and sleep, restoring the parents' ability to function fully, both physically and mentally.

Many new mothers struggle with their sense of identity. They may have left lengthy, meaningful careers to have children. The Maternal and Child Health nurses are trained to identify mothers who struggle with this change to their emotional health and wellbeing. An important function of the service is to organise mothers' groups, which promote and support the emotional and social health and wellbeing of new mothers. Often women feel trapped at home with a new baby and meeting up with other mothers in similar situations with shared understanding of the challenges of motherhood helps promote social health and wellbeing. As the children of the group get older, their social health and wellbeing is also supported as they learn to interact with others.

FIGURE 10.14 An important role of the Maternal and Child Health Service is organising mothers' groups.

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Community services: Maternal and child health service Summary screens and practice questions

10.4.3 Sporting and other recreational clubs and associations

Although not thought of as traditional health services, many people satisfy large areas of their health and wellbeing needs through sporting and recreational activities. These clubs often provide outlets for social and mental wellbeing as well as physical health and wellbeing through physical activity and social interaction. Being part of a sporting club or other recreational association, such as a music or theatre group, provides many people with a strong sense of belonging and helps to shape their identity, which are both key aspects of emotional and spiritual health and wellbeing. Outside the direct social interactions that a sports club provides, members also learn resilience and appropriate expression of emotions through winning and losing matches. Playing sport directly supports physical health and wellbeing through promoting physical fitness and helps to maintain a healthy body weight, cardiovascular health and a well-functioning immune system.

The role of sporting clubs in supporting overall health and wellbeing can be significant, particularly for males, young people building relationships

FIGURE 10.15 Sports clubs can be very effective in promoting many dimensions of health and wellbeing, particularly in rural areas such as Shepparton in country Victoria.

with people outside of their immediate family and those in rural areas where other health-supporting facilities may be limited. For example, men who typically choose not to seek medical intervention for health problems might share stories or personal issues with teammates after a game of football. These casual social interactions might help improve the mental health and wellbeing of these men and in some cases, even help to prevent suicides. Other examples of recreational associations that have benefits in supporting the dimensions of health and wellbeing include Scouts or Guides, musical groups such as community orchestras or choirs, amateur theatre groups and community organisations such as Lions or Rotary Clubs.

BALD EAGLES FOOTBALL CLUB

The Bald Eagles are a group of men all over the age of 35 who get together to relive the glory days of their youth playing football. They train through freezing Sunday mornings and play all over the outer reaches of Melbourne in the quest for physical fitness and mateship. While far from the medical clinic, the health and wellbeing benefits for this group of 'blokes' is astounding. They have often been referred to as a men's health group who happen to play footy. Many have lost weight and improved their physical fitness through the increased physical activity, some have rehabilitated after heart attacks or major surgery and almost all have built strong social connections, which can be missing for men of this age as work and children's activities take priority over time to socialise.

FIGURE 10.16 A social get-together after training for bacon and egg breakfast and a chance to chat

The footy is secondary to the social outlet this group provides. For many of these men, playing and training for football is the only social interaction they have with other men their age with shared interests. Like all men, these blokes don't like going to the doctor and will put it off as long as possible. However, the advantage for these men is that in this group, problems are discussed. Mental health issues are openly supported and more than one of these players admits that they might not still be here if not for the support of the footy team. Middle age can sometimes be a lonely time for men as many activities centre on the family, but the football club offers a strong sense of belonging and support through hard times. This football team play hard, train reasonably hard and finish off with breakfast and an opportunity to catch up, solve their problems and go home happy for another week.

10.4.4 headspace

headspace is the National Youth Mental Health Foundation, which provides mental health services to 12- to 25-year-olds. Information and services for young people can be accessed through the headspace website, their online counselling services and at headspace centres, which are located across metropolitan, regional and rural Australia. These centres are designed and built with input from young people and don't have the same feel and look as traditional health services. Through these centres, young people can access a range of health workers including GPs, drug and alcohol workers, psychologists, social workers and counsellors. These services are provided free or at low cost.

The primary focus of headspace is to support mental health and wellbeing. Its focus is on reducing stress and anxiety and lowering the incidence of mental disorders among young people. Headspace aims to implement early intervention strategies to reduce the burden of youth mental health issues and suicide. Through access to GPs and counselling services, young people can address issues of identity, gender and sexuality, which may be sources of low self-esteem and self-confidence. Help with discovering who they are and what their purpose is in life can promote the emotional and spiritual health and wellbeing of youth.

FIGURE 10.17 headspace is an important health service available to young Australians in urban and rural communities.

Source: © headspace National Youth Mental Health Foundation Ltd

10.4.5 Places of worship

Spiritual health and wellbeing is not the same as religious belief; however, many people feel a strong sense of belonging and emotional support from a place of worship such as a church, mosque, temple or synagogue. Places of worship can provide a purpose and meaning for many people and this supports spiritual health and wellbeing. Religious organisations are founded on shared beliefs and values, and helping people to determine what is important to them is a key role of a church or religious group. These community organisations also promote social health and wellbeing as people with shared opinions, values and beliefs can interact on a regular basis. Through places of worship, people are able to build a supportive social network that involves communication and productivity with others. For example, it is common for church groups to help others in the community such as refugees or new immigrants to Australia. This gives members healthy and meaningful social interactions and a sense of purpose in life.

FIGURE 10.18 Places of worship fulfil the spiritual, emotional and social wellbeing needs of many Australians.

10.4.6 Volunteer organisations

Meals on Wheels is a volunteer community group that aims to assist the elderly and those with disabilities to remain living independently for as long as possible. Many people cannot cook for themselves for a variety of reasons, and Meals on Wheels provides meals on either a short term or ongoing basis. Volunteers have regular contact with their clients and provide monitoring of social welfare as well as physical health and wellbeing and nutritional needs. Meals on Wheels supports the health and wellbeing of both the elderly clients and the volunteers who provide the meals. For the elderly, their physical health and wellbeing is supported by ensuring that they have adequate and nutritional meals provided if they cannot cook for themselves. This ensures that the elderly do not skip meals, lose weight and suffer reduced immune system functioning. Just as importantly the social health and wellbeing of these clients is also promoted with regular visits from volunteers. Ageing can be a lonely time so regular social interactions are vital to social health and wellbeing.

FIGURE 10.19 Meals on Wheels supports the social health and wellbeing of both the elderly and volunteers.

10.4 Activities

Test your knowledge

1. Make a concept map of all of the local services or resources in your area that support the dimensions of health and wellbeing.

2. (a) Using Google maps or a Melways street directory, choose a postcode in Victoria and then identify all the resources within that postcode that support the five dimensions of health and wellbeing.
   (b) Draw a table like the one below to record the information from your research and identify the dimension(s) of health and wellbeing supported by each service.

   Postcode: 3016

Community service or resource	Dimension of health and wellbeing
Manningham Templestowe Leisure Centre (basketball and netball courts)	Physical Social Mental
Physiotherapy Clinic Templestowe	Physical
Lavarin and Lawrence Orthodontists	Physical Emotional

3. After identifying the range of health and wellbeing promoting services in a community or suburb, describe how four of these services or resources support each of the dimensions of health and wellbeing.
4. Access the **Meals on Wheels Victoria** weblink and worksheet in the Resources tab in your eBookPLUS then complete the worksheet.
5. Access the **Meals on Wheels calcium** weblink and worksheet in the Resources tab in your eBookPLUS then complete the worksheet.

Apply your knowledge

6. Research the range of services available in your local community. Choose one service each that addresses the health and wellbeing of adults and children in the local community. Describe each of these services, then explain how the service supports at least two dimensions of health and wellbeing.
7. Design a brochure advertising a local community or suburb focusing on the health and wellbeing benefits of living in that location. Include a range of health promoting services for a variety of age groups which together completely cover all five dimensions of health and wellbeing.
8. Access the **Maternal and Child Health Service** weblink and worksheet in the Resources tab in your eBookPLUS then complete the worksheet.

eBookplus RESOURCES

Explore more with this weblink: Meals on Wheels volunteering

Complete this digital doc: Meals on Wheels volunteering worksheet
Searchlight ID: doc-22650

Explore more with this weblink: Meals on Wheels calcium

Complete this digital doc: Meals of Wheels calcium worksheet
Searchlight ID: doc-22651

Explore more with this weblink: Maternal and Child Health Service

Complete this digital doc: Maternal and Child Health Service worksheet
Searchlight ID: doc-22654

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Community services: Meals on Wheels Summary screens and practice questions

10.5 Rights and responsibilities of access to healthcare

KEY CONCEPT Understanding rights and responsibilities of patients and providers when accessing healthcare

10.5.1 Australian Charter of Healthcare Rights

FIGURE 10.20 Patients have rights and responsibilities when accessing health services such as public hospitals and ambulances.

The Australian Charter of Healthcare Rights outlines the rights of patients, consumers and other people using the Australian healthcare system. These **rights** are essential to ensure that no matter where healthcare is provided within Australia, it is of high quality and is safe for patients and practitioners. The charter was developed by the Australian Commission on Safety and Quality in Healthcare (a federal government organisation) in 2007 and 2008 after considerable consultation within the healthcare system. The charter applies to the provision of healthcare in all settings within Australia, including public and private hospitals, general practice and other community environments. The aim of the charter is to allow patients, families, carers and service providers to have a common understanding of the rights of people receiving healthcare. This charter is available in 17 different languages, braille and audio format to ensure accessibility for a wide range of the population, increasing overall accessibility of healthcare for all Australians.

The charter of healthcare rights has three guiding principles that describe how the charter applies in the Australian health system:

1. Everyone has the right to be able to access healthcare and this right is essential for the Charter to be meaningful.
2. The Australian government commits to international agreements about human rights, which recognise everyone's right to have the highest possible standard of physical and mental health and wellbeing.
3. Australia is a society made up of people with different cultures and ways of life, and the Charter acknowledges and respects these differences.

The charter of healthcare rights has been condensed into easy-to-understand posters and brochures as in figure 10.21. These posters explain the rights of all people accessing healthcare in Australia.

FIGURE 10.21 Posters such as this one briefly outline the healthcare rights to which all Australians are entitled.

These basic rights are:

- access
- safety
- respect
- communication
- participation
- privacy
- comment.

The following table explains what each of these seven rights actually means to individuals accessing healthcare in Australia.

TABLE 10.4 What can I expect from the Australian health system?

My rights	What this means
Access I have a right to healthcare.	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 healthcare 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.

Source: Australian Commission on Safety and Quality in Healthcare, 2017.

Patient rights

In accordance with those outlined in the Australian Charter of Healthcare Rights, a patient has the right to:

- information about their diagnosis
- information from the doctor or health service on the costs of the proposed treatment, including any likely out-of-pocket expenses
- seek other medical opinions about their condition
- information on visiting arrangements for family and friends while they are in hospital
- privacy of and access to their own medical records
- treatment with respect and dignity
- care and support from nurses and allied health professionals
- participate in decisions about their care
- make a comment or complaint about any aspect of their hospital or medical treatment.

Patient responsibilities

Along with their rights, patients also have certain responsibilities when accessing healthcare. It is a patient's responsibility to:

- provide information about their past and present illnesses, hospitalisations, medications and other matters relating to their health history
- ask questions when they do not understand explanations given about the risks and benefits of the proposed healthcare, treatments or procedures
- follow the instructions and medical orders of their doctors, nurses and medical support staff to bring about the best outcomes from treatment
- report any safety concerns immediately to their doctor, nurse or healthcare support staff
- treat medical staff with respect
- ask questions about costs before treatment.

Where there are out-of-pocket expenses, it is the responsibility of the patient to ensure that all expenses are paid in the required time frame.

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Right to access healthcare Summary screens and practice questions

10.5.2 Privacy and confidentiality

There are laws that outline how a patient's medical records and information can be stored and shared in order to protect their personal privacy and confidentiality. All healthcare professionals are bound by these laws and cannot discuss a patient's health information without their consent. The storage of medical information and records must also reflect these privacy laws. With the consent of the patient, their health information may be shared with other healthcare providers to help them make decisions about the correct treatment. Every patient has the right for the confidentiality of their condition and treatment to be maintained. Every patient also always has a right to access their own health information.

FIGURE 10.22 Medical practitioners and staff have responsibility for patient privacy and confidentiality.

Medical confidentiality is a set of rules that means that anything discussed between a doctor and patient must be kept private. This is known as doctor–patient confidentiality. When a patient consults a new doctor, they can choose whether to share their previous medical records with them.

Privacy in healthcare means that what a patient tells their doctor, any information the doctor stores, medications prescribed and any other personal information is kept private. There are exceptions to this: if the patient is a child then their parents have access to their own child's medical information, and carers may be authorised to access the information of adults under their care.

Exemptions to privacy laws

There are two situations where a health service such as a doctor, pharmacy, hospital, maternal and child health centre or other may be required to share medical information without the patient's consent:

- if the patient or someone else's health and wellbeing or safety are seriously threatened (e.g. if a patient is unconscious and a paramedic, doctor or nurse needs to know whether the patient is allergic to any drugs)
- when the information will reduce or prevent a serious threat to public health or safety (e.g. warning the public if there is an outbreak of a serious contagious illness).

CASE STUDY

Smartphones raise privacy issue in healthcare

We've all heard the urban legend of the patient who turns up in hospital emergency with something inserted where it shouldn't be. But is the easy availability of camera phones encouraging doctors and nurses to take a souvenir snap of the occasion?

A study of one big Australian hospital has found about half of all doctors and nurses take photos of patients in hospital — and one in five using their personal smartphone.

Study author and researcher at RMIT University in Melbourne Kara Burns said the easy availability of camera phones was improving patient care and medical training, but raised serious privacy issues.

'Everybody that you talk to that works in healthcare will have an experience of seeing a doctor pulling out a phone, or even being the patient who is being photographed,' said Ms Burns, a medical photographer. 'Doctors definitely feel that it is part of good practice to document a patient's condition.'

Yet nearly 40 per cent of doctors and nurses surveyed did not always obtain consent for their photos. And 'non-compliance with written consent requirements ... was endemic,' she wrote in the journal *Australian Health Review*.

She said the photos were overwhelmingly taken for inclusion in a patient's file, or for medical education, but it was clear there was also immense public interest in medical photographs.

A recent story in *The Canberra Times* documenting a medical report of a 70-year-old man who had a fork stuck in his penis was shared more than 21 000 times on Facebook.

And the respected *New England Journal of Medicine* runs a popular 'Image Challenge' on its website where viewers can guess what caused often gruesome medical conditions.

Fairfax Media is not suggesting these images violate patient consent or privacy.

Australian Medical Association head Steve Hambleton said it was taking the issue extremely seriously, with three committees now developing guidelines for doctors.

'These new technologies have been really great for helping patients,' he said. 'For example, if a patient has a fracture, that can be photographed and transferred to [other doctors] and that makes the job of deciding who comes in and what sort of care is required much more simple.'

He said if images were used for teaching or medical case reports, doctors went to great lengths to ensure the patient could not be identified. But doctors needed guidance on how best to protect images they took.

'Does it go straight to the patient's medical file, or does it stay on the phone, and does the phone have the right level of security?' he said. 'Doctors need to be aware of the magnitude of the risk.'

Source: Corderoy, A 2013, 'Smartphones raise privacy issue in healthcare', *Sydney Morning Herald*, 12 September.

Case study review

1. How many doctors are reported to have taken photographs of patients in hospital on their private smartphones?
2. What percentage of surveyed doctors and nurses obtained consent from their patients to take photographs?
3. Outline the positives of new technologies such as smartphones in healthcare. What applications of taking photographs of patients would be helpful in treating patients and training doctors?
4. Describe the possible impacts on any of the dimensions of health and wellbeing of the improper collection and sharing of images taken by medical staff on their personal smartphones.

10.5 Activities

Test your knowledge

1. List five rights of patients when accessing healthcare
2. List five responsibilities of patients when accessing healthcare.
3. What are the three guiding principles of the Australian Charter of Healthcare Rights?
4. What is meant by the term medical confidentiality?

Apply your knowledge

5. Explain how knowledge of patient rights and responsibilities could improve:
   (a) the health and wellbeing of individuals
   (b) health status in Australia.
6. Why do you think it is necessary for the government to have written the Australian Charter of Healthcare Rights?
7. Choose three of the rights outlined in table 10.4 and, for each right, describe how it could improve the health and wellbeing of individuals.
8. Explain why it is important to have certain exemptions to the medical privacy laws.

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Responsibilities when accessing healthcare Summary screens and practice questions

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Unit 2 › AOS 2 › Topic 1 › Concept 10

Privacy and confidentiality Summary screens and practice questions

10.6 Topic 10 review

10.6.1 Key skills

KEY SKILL Describe key aspects of Australia's health system

This skill requires a detailed understanding of the key aspects of Australia's health system including:

- Medicare
- PBS
- private health insurance.

Detailed knowledge of all aspects of Australia's health system should include specific information about each of the aspects listed above.

This includes:

- what Medicare is
- the services covered by Medicare
- the services not covered by Medicare
- how Medicare is funded
- what the PBS is and what it covers
- how Medicare and the PBS contribute to better health and wellbeing of Australians
- the contribution private health insurance makes to the health system
- the incentives used to encourage people to take out private health insurance.

Again, a summary table can be a useful tool for collating information about the various components of Australia's health system. An example of this skill could be explaining the role that Medicare plays in improving the health and wellbeing of Australians.

A possible response could be as follows.

Medicare is Australia's universal health insurance scheme that provides subsidised or free access to selected health services for all Australians, permanent residents and visitors from countries with a reciprocal agreement with Australia.[1] Medicare provides subsidised consultations with doctors and treatments in public hospitals at no cost to the user. This means that Australians with medical problems can be checked and treated if necessary, thus substantially improving the health and wellbeing of many Australians and contributing to increased life expectancy.[2]

1 This statement gives a brief overview of Medicare and the function it performs.

2 This statement relates directly back to the role Medicare plays in improving health and wellbeing outcomes. It highlights an advantage of the system.

Practise the key skill

1. What is Australia's universal health insurance scheme called?
2. Explain the PBS.
3. Discuss the contribution private health insurance makes to Australia's health system.
4. Explain how Medicare is funded.
5. Explain how Medicare and the PBS can promote the health and wellbeing of an individual with cardiovascular disease

KEY SKILL Research health services in the local community and explain which dimension/s of health and wellbeing each one supports

The first part of this key skill requires research into the range of services in local communities that provide support for the dimensions of health and wellbeing. It is important to identify that community services or resources are not confined to medical services and include anything which supports a number of the

dimensions of health and wellbeing. For example, in this topic the following services/resources have been identified as supporting the dimensions of health and wellbeing:

- Conventional medical services — these include hospitals, ambulances, GP clinics, dentists, psychologists, counsellors.
- Maternal and Child Health Services — these centres are provided by municipal councils.
- Sporting and recreational clubs or associations — for example, football, netball, soccer, hockey club, musical or theatre associations and many other community groups such as Scouts and Girl Guides.
- headspace — which has services located throughout many suburban and rural areas
- Places of worship — including churches, mosques, synagogues and other temples.
- Volunteer organisations such as Meals on Wheels.[3]

3 A range of services and resources that support the dimensions of health and wellbeing in local communities. There may be many more in the communities researched by individual students.

It is important to identify that in this sense the community means local services and resources that most people within a common municipal area can access.

The second part of this skill requires an explanation of the role of the services previously identified in supporting the dimensions of health and wellbeing. Each service may support more than one dimension of health and wellbeing. A detailed explanation of how the service supports any dimension of health and wellbeing should be provided. This discussion should focus on the actual outcomes achieved in each dimension of health and wellbeing.

In the following example the role of a local football club in supporting the dimensions of health and wellbeing is discussed.

The local football club is a support to many people, particularly males, who otherwise often choose not to access healthcare. Playing a team sport such as football has many benefits for achieving physical health and wellbeing. Being physically active improves physical fitness and cardiovascular health and helps maintain a healthy body weight. Increased physical fitness also improves the functioning of the immune system and reduces the chances of getting sick with common infections, such as colds.[4]

The football club is also a good support to the player's mental and social health and wellbeing. Developing and improving skills increases self-esteem and results in improved mental health and wellbeing. Playing sport also helps to reduce stress and anxiety, also improving mental health and wellbeing. Social health and wellbeing is improved through playing team sports such as football as it offers a range of social interactions, which can result in friendships. Interactions before or after the game or at training can strengthen social relationships with players and coaches.[5]

4 Physical health outcomes as a result of playing football are discussed.

5 A range of mental and social health benefits are discussed.

A summary table may be useful to condense the information required in this key skill.

Practise the key skill

6. In relation to services researched in a local community:
   (a) List the services found that support the dimensions of health and wellbeing.
   (b) Identify which dimension(s) of health and wellbeing each service supports.
   (c) Discuss how these services support each of the dimensions of health and wellbeing.

KEY SKILL Discuss rights and responsibilities of access to health services

This key skill requires an understanding of the general rights patients have when accessing health services and the responsibilities that patients must remember when accessing these services.

All patients have the right to:

- information about their diagnosis
- information on the costs associated with treatment

- seek another opinion
- treatment with respect and dignity
- privacy of and access to medical records
- make comment or complaint about treatment or services.[6]

Patients also have responsibilities to:

- provide information about their medical history
- ask questions about their proposed healthcare
- follow instructions and orders of doctors and nurses
- treat medical staff with respect
- ask questions about the cost of treatment.[7]

6 A range of rights for patients accessing health services are discussed.

7 A number of responsibilities are discussed.

For example, a question might ask how patient confidentiality and privacy might improve the health status of Australians. A suggested answer could be:

If patients are assured that everything they tell their doctor will be kept private and not shared in any way with other people, they would be more likely to seek medical attention[8], even for conditions that might seem awkward or embarrassing. If patients know that the doctor will not disclose any part of the consultation and they seek help earlier, a potentially serious health condition could be caught earlier, increasing life expectancy and reducing morbidity.[9]

8 This links the knowledge of patient confidentiality to seeking medical help.

9 This part of the question links earlier medical treatment with improved health outcomes of life expectancy and morbidity.

Practise the key skill

7. What is the name of the document developed by the Australian Commission on Safety and Quality in Healthcare that outlines the rights of all Australians accessing healthcare?
8. What are the seven rights identified in the above document?
9. Explain how knowing these rights could improve the health and wellbeing of a person suffering a mental disorder such as depression.

10.6.2 Topic summary

- Australia's health system is complex and includes public and private services.
- Medicare is Australia's universal health insurance scheme. It provides essential treatment from doctors and specialists and in-hospital treatment in public hospitals.
- Bulk billing is when the government covers the full cost of seeing a GP because the GP only charges the Schedule fee.
- Medicare is funded by general taxes, the Medicare levy and the Medicare levy surcharge.
- The PBS subsidises the cost of over 4000 essential medications.
- Private health insurance plays an important role in healthcare in Australia.
- People pay a premium to purchase a policy for hospital and/or extras cover to pay for services not covered by Medicare.
- To encourage people to take out private health insurance, three incentives were created by the federal government: the private health insurance rebate, Lifetime Health Cover and the Medicare levy surcharge.
- Communities offer a wide range of resources that support the dimensions of health and wellbeing.
- Conventional medical and dental services support physical and mental health and wellbeing.
- The Victorian Maternal and Child Health Service supports the health and wellbeing of mothers and children up to 3.5 years of age.
- Sporting clubs and associations can be very beneficial for physical, mental and social health and wellbeing, particularly for some population groups.
- headspace supports the mental and emotional health and wellbeing needs of young people from 12–24 years of age.
- Places of worship cater for the spiritual health and wellbeing needs of many in the community and also offer opportunities for improved social health and wellbeing.

- Volunteer organisations such as Meals on Wheels support the health and wellbeing of both the volunteers and the clients.
- Australians have a range of rights and responsibilities when accessing healthcare.
- Patient rights are outlined in the Charter of Healthcare Rights.
- There are laws to protect patient privacy and confidentiality.

10.6.3 Exam preparation

Question 1

Towards the middle of every year, there are a large number of advertisements on TV and radio advising people to take out private health insurance before they turn 30.

(a) What is private health insurance? **(1 mark)**

(b) Why would private health insurance companies be advising people to take out private health insurance prior to turning 30? **(2 marks)**

Question 2

Cosmetic surgery is not generally covered by Medicare. List two other services that Medicare does not cover. **(2 marks)**

Question 3

Explain the role that the Pharmaceutical Benefits Scheme (PBS) plays in improving the health and wellbeing of Australians. **(1 mark)**

Question 4

(a) Describe a community service that promotes health and wellbeing. **(2 marks)**

(b) Explain how this service acts to promote the dimensions of health and wellbeing **(2 marks)**

Question 5

Privacy and confidentiality are important rights for patients accessing healthcare. Explain how the provision of privacy and confidentiality can improve the health and wellbeing of an obese person. **(2 marks)**

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Sit Topic Test

TOPIC 11
Health information, technology and complaints

11.1 Overview

Key knowledge

- Factors affecting access to health services and information
- 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
- 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

FIGURE 11.1 3D printing of body parts has applications but raises issues in medicine.

KEY TERMS

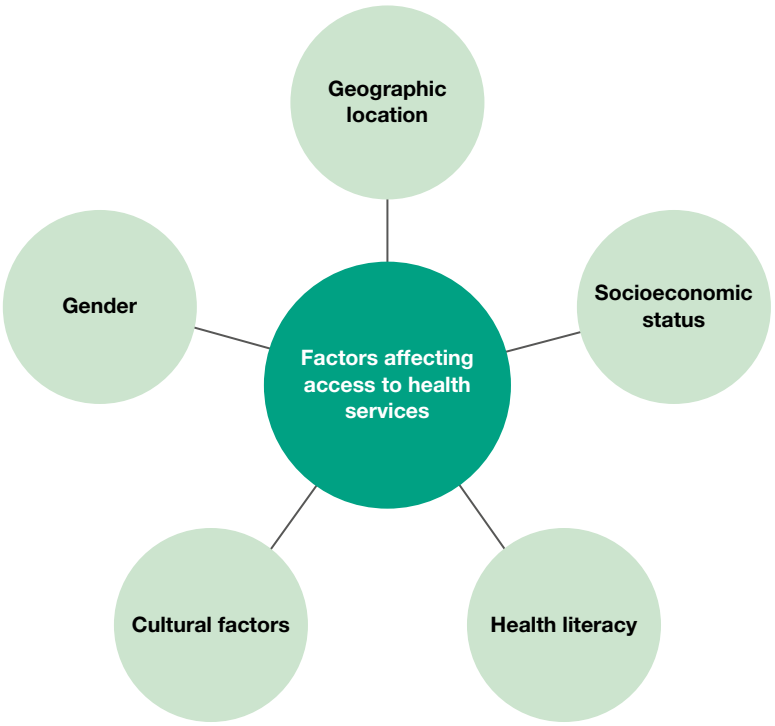
Artificial intelligence the development of computer systems that are able to perform tasks normally requiring human intelligence
Cell-based therapies treatment in which stem cells are induced to differentiate into the specific cell type required to repair damaged or destroyed cells or tissues
Cyberchondria a term used to describe people who search medical symptoms online and believe they have the worst-case scenario for their symptoms
Differentiation the process whereby an unspecialised embryonic cell acquires the features of a specialised cell such as a heart, liver, or muscle cell
Equity achieving the same outcome for everyone
Health services all services associated with the diagnosis and treatment of disease or the promotion of health and wellbeing
Nanotechnology the science and technology of extremely small things, smaller than 100 nanometres in size
Redress to remedy something that has been judged to be wrong and/or compensate for it
Self-diagnosis the process of diagnosing or identifying medical conditions in one's self using books, online resources or past personal or family experiences
Self-medication a behaviour in which an individual uses a medication or substances to self-administer treatment for physical or psychological ailments. The most widely used substances for self-medication are over-the-counter medicines used to treat common health issues at home.
Stem cells cells that have the potential to become many different types of cells in the human body

11.2 Access to health services and information

KEY CONCEPT Understanding the factors that affect access to health services and information

There are many factors that affect a person's ability or desire to access **health services** and use health information. Some of these factors are geographic location, socioeconomic status (SES), levels of health literacy, cultural factors and gender.

FIGURE 11.2 Factors affecting access to health services



11.2.1 Geographic location

Australia is a large country with a relatively small population. Although the majority of Australians live in major cities or regional centres, about one-third of the population lives in rural and remote areas of the country. People living in rural and remote regions of Australia have difficulty accessing the level of health services available to those living in major cities, often simply because of the large distances that need to be covered to access doctors and hospitals. Access to healthcare for rural and remote Australians is not only limited by lower numbers of doctors, specialists and hospitals, but also by the reduced availability of current technology for diagnosis and treatment of patients with both emergency and chronic health needs. The Australian Institute of Health and Welfare reports that the overall rate of medical practitioners, including specialists, was 253 per 100 000 population in rural and remote areas compared with 409 per 100 000 population in major cities. The number of GP services provided per person in very remote areas during 2010–11 was about half that of major cities.

Access for some people might be improved by services such as the Royal Flying Doctor Service, but treatment for emergency health needs is still considerably slower than for those living in major cities where access to emergency medicine is facilitated by ambulances and close proximity to hospitals. Preventative health services such as cancer screening are also difficult to access for people living in rural and remote areas, which means they might have to travel to a large regional hospital or the city. Time taken away from work and family and the stress of travelling large distances are a major barrier for rural and remote populations in accessing health services.

FIGURE 11.3 Australians living in rural or remote areas may need to travel vast distances to access medical services.

FIGURE 11.4 Access to health services for rural and remote populations in Australia is limited compared with those living in major cities.

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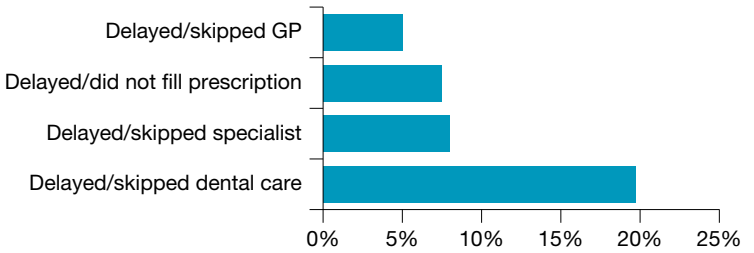
Unit 2 > AOS 2 > Topic 2 > Concept 1

Geographic location Summary screens and practice questions

11.2.2 Socioeconomic status

FIGURE 11.5 The percentage of Australians who delayed or skipped healthcare because of cost (2014–2015)



Socioeconomic status refers to a person's position in society relative to other people based on the factors of income, occupation and education. All three of these factors, particularly income, can affect a person's ability to access health services and information. Many Australians face barriers to accessing health services based on cost. Many health services are unavailable to families and individuals on low incomes because they are simply too expensive. Despite Medicare offering bulk billing GP services and free treatment and accommodation in a public hospital (see topic 10), there can still be large out-of-pocket expenses for prescription medication, specialists, surgery and dental care. About 1 in every 20 Australian people who needed to see a GP skipped the visit or delayed it because of cost in 2014–15. The number of people who delayed or skipped dental care because it was too expensive was almost one in five.

Private health insurance may be out of reach for people on low incomes, which means they may face long waiting times for elective surgeries accessed through the public hospital system, and there are still out-of-pocket expenses associated with treatment by a specialist. Private health insurance premiums can cost over $3000 per year for families. Many families on low incomes are not able to afford these premiums.

Limited financial resources can also cause reduced options for transport. Without easy access to transport, such as a car or affordable public transport, it can be very difficult for some people to access health services. This can become a significant barrier particularly for older Australians and those living in rural and remote areas.

A person's occupation can also affect their ability to access medical services. Occupation is linked to income, which has been discussed; however, the occupation itself can be a factor for access. For example, people who work long hours, do shift work or travel for their occupation can probably afford the medical services if they earn a high income, but do not have the time to seek medical treatment outside their work hours. Many people in well-paying jobs with high levels of responsibility feel that they cannot take time off from work to seek medical services. Some people may not have provisions for sick leave in their employment, for example, casual workers or those who are self-employed. For these people taking time off work to access medical services means that they would not get paid. This is a barrier that prevents some people from accessing the health services they may need.

Education is the third aspect of socioeconomic status and its impact on the ability to access health services and information is significant. This will be discussed in the following section on health literacy.

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Socioeconomic status Summary screens and practice questions

11.2.3 Health literacy

Overall levels of education are important in accessing and understanding health information; however, health literacy is a specific factor that can affect access to health services and information. Health literacy is the degree to which individuals have the capacity to obtain, process and understand basic health information and services needed to make appropriate health decisions. The need for health consumers to be 'health literate' in

FIGURE 11.6 Health literacy is an important factor in accessing health services and using information to promote health and wellbeing.

today's society is greater than ever before. Health consumers are required to participate in more complicated preventative healthcare and self-care regimes, understand more complex health information and navigate more complex health systems. Low levels of health literacy are a significant problem in Australia — only 40 per cent of adults have the level of individual health literacy needed to meet the complex demands of everyday life.

Health literacy is not just about reading and interpreting information about health problems and issues, but using the information to make good decisions based on a thorough understanding of the health services available and how best to access and use these services. Low levels of health literacy are associated with lower rates of participation in preventative health approaches such as cancer screening, vaccinations and mismanagement of medications. The likelihood of a person experiencing barriers to health literacy occurs where there are low levels of general education, socioeconomic disadvantage and existing language barriers. High levels of health literacy help people access a greater range of health services and use health information to make better decisions to promote their health and wellbeing. As a result, overall levels of health and wellbeing are improved for those people.

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Health literacy Summary screens and practice questions

11.2.4 Cultural factors

There are many different cultural factors that may affect a person's ability to access health services and information. These factors include language barriers, religious beliefs, values and expectations of the services provided. People from different cultural backgrounds may have different reasons that prevent them from accessing healthcare; however, a language barrier is a consistent and significant factor common in limiting access to medical

services and information. Australia is a culturally diverse country with many residents originating from non-English speaking backgrounds. These residents may be Indigenous Australians, migrants or refugees, all of whom do not use English as their first language at home. Those with a language barrier are much less likely to access medical services and information because they don't understand the information they are given and may not feel that they are in a safe or culturally appropriate environment.

FIGURE 11.7 Indigenous Australians may not access health services and information due to language and cultural barriers.

For Indigenous Australians, the predominantly western-oriented health system is staffed by non-Indigenous practitioners who may lack understanding of Indigenous culture and concepts of health and wellbeing. This can leave patients feeling disempowered and less likely to access health services. Indigenous Australians, particularly in very remote areas experience difficulties communicating with medical staff and as a result are less likely to access medical services, even when they are available.

Religious beliefs and values also contribute to barriers to some Australians accessing medical services. In some religions, beliefs prevent patients from receiving some available treatments. For example, members of the Jehovah's Witness religion are not allowed to receive blood donations from others, limiting their ability to access a full range of medical services if needed during an emergency or surgery. Other religions may prohibit women from consulting with male doctors and requirements for dressing modestly may make some patients reluctant to expose parts of their body for examination. This may prevent some people from seeking medical assistance at all. Religious beliefs around food and fasting may also act as a barrier for people to access necessary services such as in-hospital treatment where meals may need to be provided.

11.2.5 Gender

Australia's population of 24.3 million is roughly half male and half female and yet there is a large disparity in the use of medical services between these two genders. In 2015–2016, males accessed 40 per cent of the total Medicare services claimed while females accessed 60 per cent. Compared with females, males made a smaller proportion of GP consultations and hospitalisations. Sixteen per cent of males enrolled with Medicare in 2008–2009 did not access any Medicare-provided services at all.

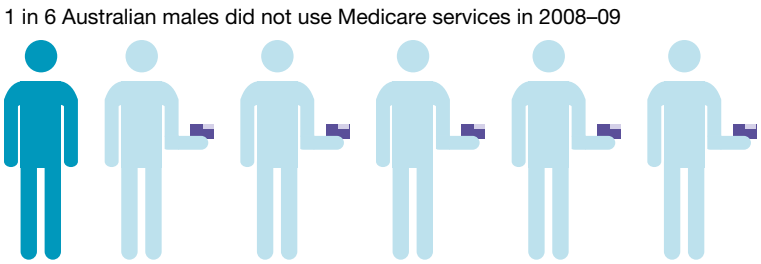
FIGURE 11.8 Males face significant barriers to accessing medical services.

Several key factors have been identified as major barriers to males accessing health services. These include:

- limited opening hours outside of work hours
- lack of male health professionals and embarrassment at discussing sensitive, emotional issues or reproductive health services with female health professionals
- discomfort in the waiting room and having to state the reason for the visit
- social norms and values associated with a traditional view of masculinity including self-reliance and perseverance in the face of pain.

These factors among others mean that males are often reluctant to access medical services and ignore preventative health measures that may be offered.

FIGURE 11.9 Australian males use fewer Medicare services than females.



Source: Australian Institute of Health and Welfare 2011, *The Health of Australia's Males*. Cat. no. PHE 141. Canberra: AIHW.

CASE STUDY

Pit Stop Men's Health Check

Pit Stop is a men's health screening tool delivered in a variety of rural settings, including field days, shows, car displays and workplaces. Pit Stop invites men to have their roadworthiness (health status) assessed by running through a series of brief stations (health checks), for example:

- chassis check (hip to waist ratio)
- fuel additives (alcohol consumption)
- oil pressure (blood pressure)
- shock absorbers (coping skills).

If participants fail more than two stations, a 'Work Order' sticker is issued that requires the participant to have a 'tune-up' before being considered roadworthy. Men are encouraged to make lifestyle changes or consult a doctor if needed. There are over 150 sites throughout Australia including Pit Stop in their health programs. A 2005 evaluation, funded by the Australian government, found that in rural areas Pit Stop successfully reached men with significant health risk profiles and resulted in nearly half of the men changing their behaviour and/or seeing a health professional. Pit Stop is a WA Country Health Services initiative. In 2006–07, the Australian government provided funding to Gascoyne Population Health Regional Health Services to update and reprint the Pit Stop material and develop the Pit Stop website. This initiative has spread to other rural areas outside of WA and is successful in reaching some men who would otherwise not access medical services.

Source: Australian Institute of Health and Welfare, 2011 *The Health of Australia's Males*. Cat. no. PHE 141, p. 45, Canberra: AIHW.

Case study review

1. Why is the Pit Stop program delivered in settings such as field days, car displays and shows?
2. Why do you think the program uses car parts to describe parts of the body and to assess men's health and wellbeing in terms of roadworthiness?
3. Do you think this program would be successful for men who are not based in rural Australia? Justify your answer.

11.2 Activities

Test your knowledge

1. List the factors that affect a person's ability to access health services and information.
2. What factors contribute to the reduced ability to access health services for Australians living in rural and remote areas?
3. How does lower socioeconomic status have an impact on a person's ability to access health services?
4. (a) List the cultural factors that can act as a barrier to accessing health services.
   (b) Explain how religious beliefs might affect the ability of a pregnant woman to access appropriate health services.
5. (a) What is meant by health literacy?
   (b) What factors can contribute to low levels of health literacy?
   (c) How does health literacy affect the accessibility of health services?

Apply your knowledge

6. Research the Royal Flying Doctor Service and explain using specific examples how this service increases access to health services for Australians living in rural and remote areas.
7. There are many reasons why Indigenous Australians have poorer health status than the Australian population overall. In terms of access to health services, explain why there is such a difference in health status between these two population groups.
8. Access the **General Practice Rural Incentives Program** weblink and worksheet in the Resources tab in your eBookPLUS then complete the worksheet.
9. Surveys of men indicate that a major reason why males don't use medical services as often as females was that they suffered discomfort in the waiting room. Design a waiting room with features that would make males more comfortable and therefore more likely to use medical services such as the GP. This could be presented as text, a model, diagram or video.
10. Brainstorm recommendations you would make to help increase the health literacy of Australian adults.

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Unit 2 › AOS 2 › Topic 2 › Concept 5

Gender Summary screens and practice questions

11.3 Digital media and health and wellbeing

KEY CONCEPT Understanding the opportunities and challenges for health and wellbeing presented by digital media

11.3.1 What is digital media?

The world we live in is filled with digital media products, which enable and deliver experiences in many industries, including health and wellbeing. Digital media refers to audio (sound), video and photographic

content that has been converted into a digital media file. After this conversion, the information can easily be manipulated, distributed and played by computers and transmitted to others over computer networks.

Examples of digital media products include:

- websites
- mobile apps
- social media
- games
- data and databases
- digital audio (MP3)
- digital images and video
- computer software
- e-books.

FIGURE 11.10 Digital media in its many forms is a part of everyday life.

Digital media and its applications are expanding at a great rate, and one area where there has been a large uptake of this technology is in the health and wellbeing industry. There are many applications for the use of digital media in providing and distributing health and wellbeing information in a number of different formats.

These include:

- technology-based patient consultations
- symptom checkers
- general health and wellbeing websites and mobile apps
- search engines such as Google.

Technology-based patient consultations

These are doctor–patient consultations that use any form of technology, including video conferencing, internet or telephone as an alternative to face-to-face consultations. These services are increasingly being used by all medical specialties in Australia in addition to normal medical practice where the patient and

their medical history is well known to the doctor. This type of consultation does not replace a face-to-face consultation where there often needs to be a physical examination; however, this technology can increase access to care for patients and increase efficiency and effectiveness of the medical practice.

Symptom checkers

Many Australian websites and mobile apps including Healthdirect and myDr and overseas-based websites such as mayoclinic.org have web based 'symptom checkers'. People can access these 24 hours a day and either search for various symptoms they may be suffering or answer a number of basic questions to determine the best action to take when feeling unwell or experiencing certain specific symptoms. Healthdirect is an Australian government website which has a symptom checker that advises whether to see a GP, pharmacist or go to an emergency department of a hospital after users answer a number of questions about their symptoms. It also provides some basic self-care information to follow as a result of answers that were provided to the questions initially asked.

myDR provides a drop-down menu of symptoms to choose from. Opening a symptom, for example back pain, gives general information on this problem, causes of the condition and some advice on relieving the problem.

FIGURE 11.11 Symptom checker websites help people to determine a course of action when they are feeling unwell.

Mobile apps

Mobile apps can be can be used to access specific health information on a wide range of topics including food ingredient lists for people with allergies, exercise trackers, menstrual period trackers and skin checks for moles. There are many health and fitness apps which help to motivate people to be more physically active such as Couch to 5K which encourages people to start running for fitness, weight loss or enjoyment and offers beginner running programs for first time runners. In this category, there are many apps which people use to gain knowledge of their own levels of physical activity and share their physical activity goals and achievements with others.

Many government and non-government organisations that focus on specific health conditions have also established apps to assist consumers. For example:

- Beyondblue produced the BeyondNow app for people experiencing suicidal thoughts and feelings. This app provides a mobile, personalised safety plan that people can carry at all times in their pocket to help them through tough times or to get help when needed.
- On Track with The Right Mix is an app developed by the Department of Veterans' Affairs which allows people to keep track of their drinking over time and provides information on the short- and long- term health effects of drinking alcohol.
- SkinVision is an app designed evaluate moles and other skin lesions for skin cancer risk. The user takes a photo of any moles or skin conditions they are concerned about, then the app analyses the photo and gives a recommendation based on a traffic light system. The app allows people to track any changes in their skin over time, share this information with doctors and together assess their risk of skin cancer and any actions to be taken.
- My QuitBuddy is a free app from the Australian National Preventive Health Agency which helps people get, and stay, smoke free. It's with smokers through the hardest times with helpful tips and distractions to overcome cravings, tracking systems to chart progress towards quitting smoking and the facts needed to understand the impact smoking has on health and wellbeing.

General health and wellbeing websites

There are many websites globally that provide general health and wellbeing information. In Australia, there are both government and independent organisations that make large volumes of health and wellbeing information available through their websites.

- Healthdirect (www.healthdirect.gov.au) is a service from the Federal government providing free Australian health advice on the internet. In addition to the symptom tracker already mentioned, this website provides an extensive A–Z listing of health information based on conditions, symptoms or common health experiences for different life stages. Hundreds of topics are covered, from abdominal pain through to Zika virus. A section on medications is included and assistance with finding an appropriate health service based on location is also available. Healthdirect also has a mobile app which provides similar information and assistance.

FIGURE 11.12 There are many health and wellbeing based websites on the internet.

- The Better Health Channel (www.betterhealth.vic.gov.au) is a health and wellbeing and healthy living website provided by the Victorian Government. This website provides a comprehensive information from an A–Z list of health conditions and treatments. This information can be browsed by condition, tests and treatments or affected body part. Information and articles are also provided on healthy living, including topics such as healthy eating, family violence, pregnancy and parenting, immunisation and sexual health. Tools such as a BMI calculator and health-related apps are available from the Better Health Channel. An initiative of the Better Health Channel available through the website is the Vax On Time app which has been developed by the Victorian Department of Health and Human Services to help remind parents and carers when their child's vaccinations are due. By having this app available directly from the website, parents are made aware of the resource without having to search for it specifically. The Better Health Channel also has a free app which lets people set personal health alerts and notifications for pollen, UV levels and smog. A range of healthy recipes and articles on other healthy living topics are provided on the website. The app and the website both assist users to locate health services, such as doctors, dentists, pharmacies and others within Victoria.
- myDr.com.au, a project of DrMe Pty Ltd, is an independent website which claims to provide reliable Australian health information, health tools and calculators covering symptoms, diseases, tests and investigations, medicines, treatments, nutrition and fitness. myDr includes current health news, featured health topics such as dehydration and hot weather, ten tips to quit smoking and travel tips for staying safe during overseas travel. Health information is categorised by age and gender and can be browsed for common concerns. Like the Better Health Channel, myDr has a section on healthy lifestyle including information on sleep, alcohol, exercise, healthy eating and immunisation. Tools provided include a BMI calculator and calories burned calculator which gives information on energy used doing a particular physical activity for a specified period of time. Again, this website has a search engine to find a GP for people needing access to medical assistance.

Search engines

One in twenty Google searches are for health-related information. In 2016, the company responded by adding medical facts about common ailments, including symptoms, treatments and useful facts when basic

health conditions are searched for through their search engine. Google's idea was for users to be able to easily access a single reliable source of health information that has been checked by doctors from the Mayo Clinic and Harvard Medical School, instead of numerous poor or unreliable websites. This basic information should assist users to gather more relevant information and decide which course to take. For example, searching 'headache on one side', on Google will result in a list of associated conditions such as 'migraine', 'common cold or tension headache'.

FIGURE 11.13 One in twenty Google searches are for health-related issues.

For general searches, such as 'headache', the company will also give an overview description along with information on self-treatment options or symptoms that warrant a doctor's visit. It is not designed to take the place of one-on-one consultations with medical professionals. Google was quoted as saying on news.com.au, 'By doing this, our goal is to help you to navigate and explore health conditions related to your symptoms, and quickly get to the point where you can do more in-depth research on the web or talk to a health professional'.

Around one quarter of all Australians regularly seek health information online. A 2010 study showed that searching for health and medical information was among the top ten internet activities for Australians aged over 16. This increasingly popular practice of using digital media in the provision of health and wellbeing information presents many opportunities but also some notable challenges.

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Digital media Summary screens and practice questions

11.3.2 Opportunities for health and wellbeing created by digital media

The benefits of this easily accessible form of health information are numerous, especially for those Australians whose access to healthcare services is limited by distance (those living in rural and remote areas), cost (low socioeconomic status) or language barriers. For people who live long distances from medical services, using reliable health websites or apps to assess health conditions and gather information on possible causes or treatments may save time and money travelling long distances away from work and family in order to see a health professional. Apart from the cost of the internet or phone connection, large amounts of information through websites and apps is free, meaning that it is accessible for people who struggle with the cost of individual health appointments with professional services. People who have limited access to health information or services because of language barriers can increase their understanding as most websites offer information in lots of different languages, and internet translations can be used to access information immediately in a language other than English.

Information from websites can be useful to confirm or expand on a diagnosis provided by a health professional. This is useful if the consultation time with a doctor is limited or when the doctor has provided

a large amount of information that might be difficult to process all at once. The patient can return home and search for information related to what the doctor has told them and process it in their own time.

Online support groups are also a positive opportunity created by the use of digital media in the health industry. Through the internet or social media sites, people can share their experiences, treatments or offer advice and support to people with certain health conditions. This may also be helpful for people living in rural or remote areas of Australia who may feel isolated from the medical community. They can connect with people and ask questions without having to travel long distances to seek personal support.

Overall, using the internet as a source of health and wellbeing information can help patients to be more informed and make better decisions about health issues; however, it is an additional resource, not a substitute for seeing a doctor or health professional in person.

11.3.3 Challenges for health and wellbeing

With so much health-related information available through a wide range of digital media, there can be significant challenges for users. One issue that applies to internet research in any field is knowing whether the information found is reliable. Online sources are not always accurate, truthful, reliable or even honest, and users rarely know exactly who is providing the information or advice. Information may look professional and credible, but a website can be made by anyone, whether they are qualified to give medical advice or not. Because of the nature of medical advice about conditions or treatments, misinformation can be particularly harmful as it may directly affect a person's health and wellbeing.

With 60 per cent of Australians considered to have low levels of health literacy, the problems associated with internet-provided health information are compounded. Many people do not have the skills or knowledge to seek reliable advice, and therefore act on ill-informed opinions or information. High levels of health literacy are needed to sort through the massive amount of information available and decide what is useful, accurate and safe. As discussed earlier, people with low SES generally have lower education and health literacy levels, but are also likely to seek information from digital media sources due to its low cost, creating a high probability of acting on misinformation.

Many people who search for health information online fall into the trap of **self-diagnosis**. Self-diagnosing using medical websites can be problematic, because information may be either very specific to a particular medical condition or it can be too general and vague to make an accurate diagnosis. When a medical professional is consulted, they would ask questions about experiences associated with the condition to get background information, and about the issue itself, as there may be many causes of a particular complaint with different implications for treatment.

Internet resources give information only and can't ask the questions required to accurately diagnose or identify a health condition. For example, searching the internet for information about a persistent headache could lead the patient to believe that they have a brain tumour when, in reality, if they saw doctor who asked questions and did any necessary tests they may be given a diagnosis of a migraine and prescribed appropriate medication. Another issue with self-diagnosis is that a simple search can often generate remarkably different diagnoses across several websites. This may result in people dismissing

FIGURE 11.14 Many internet users self-diagnose their medical conditions.

serious symptoms as nothing of concern, or beginning inappropriate treatments for symptoms that may have been misdiagnosed. The table below shows results of internet searches on three different websites for common health complaints.

TABLE 11.1 Different diagnoses found through internet searches

	Potential health conditions suggested by different websites for one symptom		
Symptom	**Website A**	**Website B**	**Website C**
Pins and needles	Vitamin B12 deficiency	Sciatica	Multiple sclerosis (MS)
Stomach cramps	Indigestion	Appendicitis	Heart disease or angina
Earache	Common cold	Ear infection	Brain abscess
Blurred vision	Presbyopia	Glaucoma	Cataracts
Rash	Contact dermatitis	Psoriasis or eczema	Meningitis

Source: Bupa Health Pulse, 2011.

Results of internet searches such as those presented in table 11.1 could cause people to panic and assume the worst possible scenario, or they may choose to believe the least catastrophic diagnosis and miss the opportunity to treat a potentially serious condition.

Safety issues associated with self-diagnosis include:

- misdiagnosis
- delay in seeing a doctor
- in the case of a serious condition, delay in appropriate treatment could cause serious complications or death
- **self-medicating** based on the self-diagnosis may mean the real condition is not treated or the medication chosen may cause health problems itself.

With the high probability of misdiagnosis based on research from digital media sources, a new phenomenon called '**cyberchondria**' has emerged. This term describes people who can research any and all symptoms of a rare disease, illness or condition, and cause themselves a state of medical anxiety. People who fear catastrophic injuries or diseases may search their symptoms online and become even more anxious because of the (often dubious) information they have found. Overcoming these side effects of the availability of information is a considerable challenge for the health industry as more people become reliant on digital technology.

CASE STUDY

The Ultimate test: Dr Google vs an actual doctor

You have a sore throat. It could be the start of a cold, or it could be that rare neck-eating cancerous parasite you've heard about. How do you find out? You ask Dr Google.

I do it. You do it. Sometimes even doctors do it. We all consult the internet when we want to know about our mysterious symptoms, and whether we'll still be alive by lunchtime. It's so much more convenient than making an appointment with a doctor, sitting in a germ-splattered waiting room and going through the rigmarole of describing your symptoms in actual words to an actual person. Ugh. What a hassle.

Clearly, the internet has transformed the way we approach so many of our problems. Whatever your particular issue, you can probably find a solution for it just by tapping a screen. The success of this wonderful world wide web is due to the fact that humans are inherently lazy. If there's a faster, easier, more couch-centred way of doing things, we will do it. And healthcare is no different. But how good is online healthcare?

There are some promising online health care services available, like healthdirect.gov.au, an Australian government health services gateway, or internetdr.com.au, which provides discreet sexual health pathology

testing via an email service. But how does internet health care information rate against seeing a three-dimensional, flesh-and-blood, university trained doctor?

I did a little experiment. I entered three symptoms into Google, one by one. For each symptom, I recorded the first three possible diagnoses that came up in my search results, regardless of where they came from. Then I compared those possible diagnoses with advice from a range of medical experts. I asked the doctors, 'What would you ask the patient?', 'What tests would you do?' and 'In your experience, what is the most common diagnosis for this symptom?'

Symptom 1: three-day headache

What Google suggested:

Brain tumour, aneurysm or migraine.

What the experts would ask:

What other symptoms do you have? What medications or alternative therapies do you use? Have you had a headache like this before? What's your medical history?

What tests would an expert do?

Neurological tests for weakness or abnormal reflexes. Checking for fever and infections. Depending on medical history, CT or MRI scans.

Most common diagnosis:

Migraine or tension headache.

Symptom 2: swollen ankles

What Google suggested:

Heart disease, kidney failure or liver failure.

What the experts would ask:

Have you injured your ankles recently? Do you have a history of heart disease or varicose veins? Is it worse at a certain time of day? What medications or alternative treatments do you use?

What tests would an expert do?

Listening to the heartbeat with a stethoscope and checking the pulse. Checking the legs for DVT. Checking lungs, skin and eyes for inflammation. If heart problems are suspected, further cardiac tests like an echocardiogram or electrocardiograph.

Most common diagnosis:

Varicose veins or build-up of fluid.

Symptom 3: sharp pain in the stomach

What Google suggested:

Appendicitis, pregnancy or gallstones.

What the experts would ask:

How long have you had the pain? Do you have any other symptoms? When is it worst? What have your bowel movements been like? What medications or alternative therapies do you use? What's your diet like? What's your medical history?

What tests would an expert do?

Feeling the abdomen. Listening for bowel sounds. If infection is suspected, a stool sample might be taken.

Most common diagnosis:

Gastro or constipation.

It's clear to see that the kinds of questions and tests that medical experts employ to diagnose the cause of symptoms are detailed, complex, and rely on seeing, examining and listening to their patients.

Doctors often use a complex 'symptom tree' model to diagnose patients. Initial questions, tests and observations lead to secondary questions and tests, and so on until all but one diagnosis can be ruled out.

Internet-based health information can be valuable. But our health depends on so much more than what we can read and interpret online.

Dr Google is no substitute for thorough, face-to-face consultation with a qualified medical expert. How else will you know for sure you're not pregnant with a liver-eating brain tumour?

Source: Stocken, S 2016 'The Ultimate test: Dr Google vs an actual doctor', 2 September, news.com.au.

Case study review

1. According to the article, why do many people resort to consulting the internet instead of a real doctor for health-related concerns?
2. What were the suggestions Google provided when 'sharp pain in the stomach' was searched? What was actually the most common diagnosis for this symptom?

3. For each of the three symptoms given, was the Google suggestion usually more or less serious than the most common diagnosis. Outline the differences between the Google diagnosis and the most common diagnosis for each.
4. What do you think the effect of searching for symptoms on Google might be for some people? For example, if the diagnosis for a three-day headache is a brain tumour?
5. (a) Overall, how accurate and effective do you think the internet is in providing health advice and information?
   (b) Do you think getting health information this way is a good thing? Justify your answer.

11.3 Activities

Test your knowledge

1. (a) What is meant by 'digital media'?
   (b) Give some examples of digital media.
2. List the uses of digital media in the health industry.
3. How can digital media increase access to health services and information?
4. Explain the benefits and challenges of accessing health information from digital media resources.
5. What is meant by cyberchondria?

Apply your knowledge

6. Research health and wellbeing mobile apps and make a brochure advertising your top five. Describe each app, what it aims to do and how it improves health and wellbeing for users. Discuss any potential negative impacts of each app.
7. Outline some guidelines that could be implemented to help users increase the reliability of the health information they find from digital media sources.
8. Access the **Australian government health information** weblink and worksheet in the Resources tab in your eBookPLUS then complete the worksheet.
9. Analyse the health information provided by government and independent websites. Which types of website provide more reliable information? Suggested websites include those discussed in this subtopic and those listed in the Resources tab in your eBookPLUS:
   - Know Your Noise
   - Seniors' health
   - Federal Department of Health
   - Eat for health.

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Opportunities and challenges of using digital media Summary screens and practice questions

eBookplus RESOURCES

Explore more with this weblink: Australian government health information

Complete this digital doc: Australian government health information worksheet
Searchlight ID: doc-22653

Explore more with this weblink: Know Your Noise

Explore more with this weblink: Seniors' health

Explore more with this weblink: Federal Department of Health

Explore more with this weblink: Eat for health

11.4 Issues in health services

KEY CONCEPT Understanding the issues relating to the use of new and emerging health procedures and technologies

There have been rapid and beneficial advances in medical procedures and technologies; however, there are several issues that accompany the use of new medical processes.

Advances in medicine include:

- assisted reproductive technologies such as in-vitro fertilisation (IVF)
- 3D printing of body parts
- **nanotechnology**
- robotics
- **artificial intelligence**
- **stem cell** use.

Using these technologies and procedures is associated with issues such as ethics, privacy, **equity** of access, invasiveness and freedom of choice. Each of these is briefly explained below.

- Ethics are the moral principles that govern a person's behaviour, decisions or how they conduct an activity. Ethics relates to what people believe is essentially right or wrong. As a society we have certain general beliefs about what is right and wrong, but individual ethics on particular issues can vary greatly.
- As discussed in topic 10, privacy associated with health is primarily related to personal details and information being kept private between a patient and their doctor.
- New medical procedures and technologies may not be available to all, based on cost or other factors such as sexuality. Equity of access addresses this issue as it refers to all people being able to achieve the same outcome.
- Some procedures can be extremely invasive due to the need for incision or insertion of an instrument. The issue of invasiveness may be addressed by new technologies.
- Freedom of choice means that people have the right to do what they want, when they want as long as they don't infringe on other people's rights.

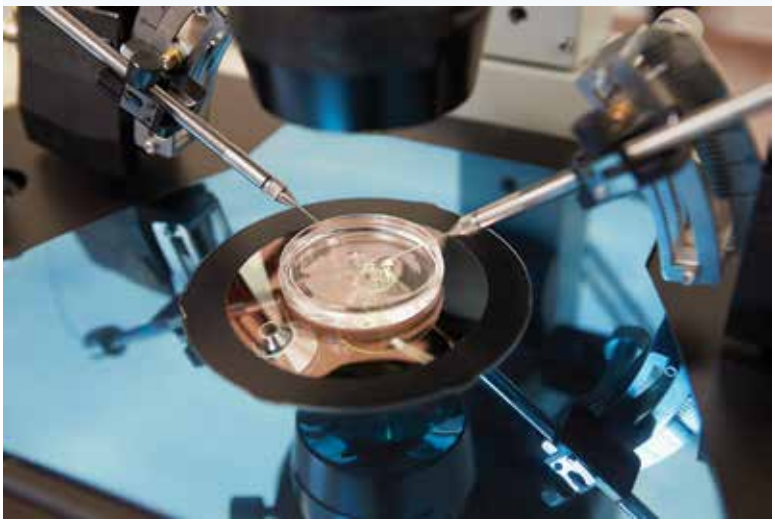
11.4.1 New health procedures and technologies

Assisted reproductive technologies

In-vitro fertilisation (IVF) is not a new technology — the first baby conceived using this technique was born in 1978. However, IVF continues to be refined and modified to improve success rates. IVF is the process of fertilisation by manually combining an egg and sperm in a laboratory dish, and then transferring the embryo to the uterus.

Women are given hormones to increase the production of eggs, several of which are harvested, fertilised and implanted in the mother. IVF is recommended for healthy heterosexual couples who have been unable to conceive a baby naturally after 12 months. Approximately 8–10 per cent

FIGURE 11.15 Between 8 and 10 per cent of healthy couples have problems conceiving and turn to IVF to have a baby.



of couples have reproductive problems and may wish to try to have a baby through IVF. Same-sex couples and single women can also access IVF if they are wanting to have a baby without the involvement of a male partner. Success rates for pregnancies from IVF treatment are about 40 per cent per embryo for women under the age of 30. This drops to 8.5 per cent per embryo for women over the age of 40 and only 2 per cent by the age of 44.

Assisted reproductive technologies raise many ethical issues and, because of the wide range of opinions on the subject, a consensus cannot be reached by society as a whole. Some people believe that nothing should stop people from fulfilling their desire to have children; others question the fundamentals of the procedure, saying that the idea of artificially creating life is not morally right. Some religions do not agree with IVF and do not allow it. There are questions about whether IVF should be offered to older women wanting to become mothers, particularly after reports of women in their 60s and 70s in Spain and India having babies through IVF. Many people believe that it is not fair on the children to have such old mothers, who may not live long after the birth of their child.

One of the pressing ethical questions relates to the embryos that are created but not used in each IVF cycle. A number of embryos are created for IVF but only two or three are usually transferred to the woman's uterus, leaving a number of embryos unused if a pregnancy results. These embryos are frozen and stored in case the couple wants to try for more babies in the future. In 2000, there were already 71 176 frozen embryos in Australia and New Zealand. There is an ethical dilemma about what happens to these embryos after they have been stored for a number of years. Not all people feel that it is morally right to create these potential lives but then destroy them after a period of time if they are not used.

Equity of access is also an issue raised by the use of IVF. Assisted reproductive technologies are expensive medical procedures with an average cycle of IVF costing around $5000, with ongoing costs for services such as embryo storage. The high cost of this procedure puts it out of reach for some Australians.

In Australia, fertility treatment and the procedures involved in IVF may be eligible for a Medicare rebate if there is a medical cause of infertility. This may mean that single women and same-sex couples who wish to access IVF treatment can't, because they might not be eligible for the Medicare rebate for the high costs involved. Many people object to the public health system funding assisted reproductive technology, particularly for older women because the success rates are so low.

There is a great deal of controversy over the issue of freedom of choice in relation to 'designer babies'. Many people argue that it is unethical and unnatural to be able to create your own baby by selecting certain characteristics or gender. Scientists have found ways to genetically alter human embryos created through IVF. In the years since this technology has been developed some people have used this process to have children that will be an exact match to an older sibling who is terminally ill. This way there is always someone who can donate organs, blood, bone marrow and other such body parts.

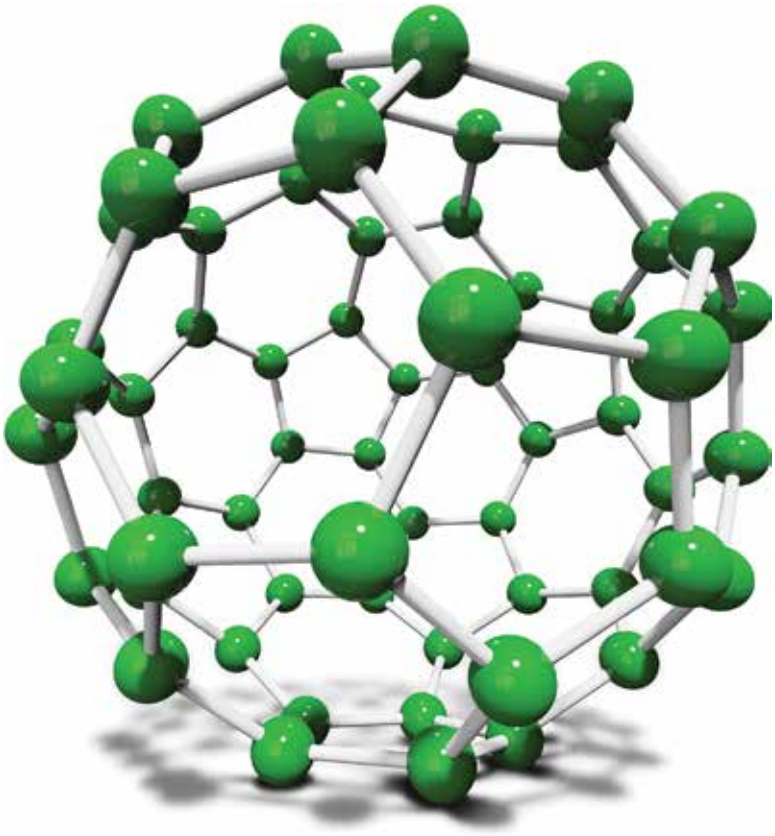
Nanotechnology

The science of the extremely small holds enormous potential for healthcare, from delivering drugs more effectively, diagnosing diseases more rapidly and sensitively, and delivering vaccines via aerosols and patches. This type of technology is evolving rapidly and has the potential to reduce the issue of invasiveness in medical treatment. Diagnosing some diseases can be very invasive, with a battery of blood tests, scans and procedures needed to identify the cause of ill health. Diagnosing diseases such as cancer and HIV can be achieved using nanotechnology with barely a drop of blood drawn.

Vaccinations and drug delivery can also be revolutionised using nanotechnologies. Drugs can be more effectively absorbed and targeted to the specific site where they are needed and vaccinations can be delivered without having to use an injection. There are significant costs involved with developing these medical advances; however, the cost savings made by increasing the effectiveness of medications and reducing the number of health practitioners needed to vaccinate children, particularly in low-income countries, is significant and increases equity of access to healthcare. For example, aerosol or skin-patch delivery systems for vaccinations reduce the need for refrigerated transport and nursing services required to vaccinate large numbers of people.

There are ethical questions involved in the use of nanotechnology. What is technically possible and what is ethically appropriate is a matter of heated debate. For some people, nanomedicine evokes similar ethical issues to genetically modified foods, and people are more concerned with the technologies rather than the benefits they might provide.

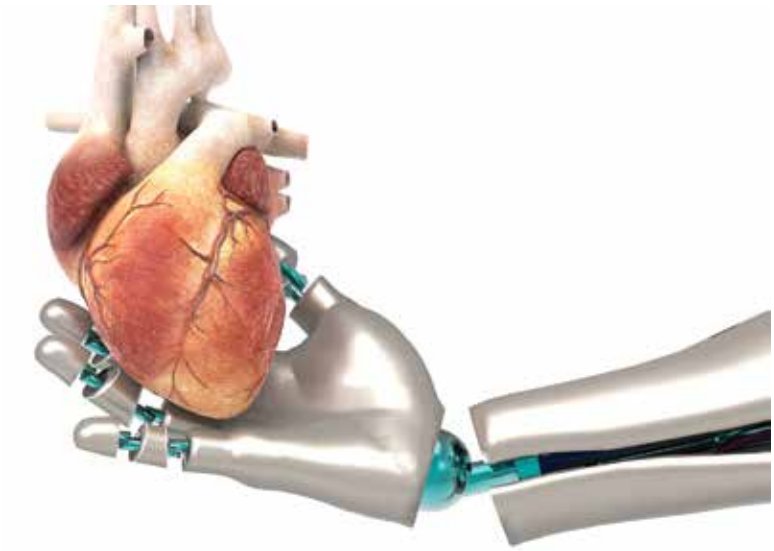
FIGURE 11.16 Nanotechnology is the science of extremely small things.



Artificial intelligence and robotics

Artificial intelligence and robotics in healthcare is no longer the subject of futuristic dreams. It is already being used in some forms in mainstream medicine, and its potential uses are many and varied. Artificial intelligence refers to the development of computer systems that are able to perform tasks normally requiring human intelligence, such as visual perception, speech recognition, decision making and translation.

FIGURE 11.17 Robots and artificial intelligence have important roles to play in the future of healthcare.



Currently artificial intelligence and robots are used to augment rather than replace human medical staff, but the potential for hospitals to become 'doctorless' in the future does exist. In the current medical context, artificial intelligence involves computers that are able to access and analyse vast amounts of data to identify patterns that humans don't have the processing power to do. The benefit is that doctors are saved from impossible amounts of reading and researching to find information to assist with a diagnosis. The computer programs use complex algorithms to provide information in a very short period of time. The computers can take full advantage of masses of electronic medical files and turn them into a resources goldmine for doctors almost immediately. This is a major step in diagnosis, especially for rare health conditions. Without artificial intelligence, doctors might make several incorrect diagnoses and perform unnecessary tests, lengthening the time before an accurate diagnosis can be made.

Artificial intelligence and its ability to rapidly analyse stored health data can also be used to determine an appropriate medication to prescribe to each patient. This could make healthcare more tailored to individual circumstances and improve treatment effectiveness. At this stage, however, computers are not good enough to tell doctors with 100 per cent certainty a diagnosis or treatment. They only add to the information the doctor has gathered to help them make a decision. The computer can only make recommendations or offer suggestions. The doctor needs to use their own judgement to decide on a course of action.

Despite the obvious benefits of this technology, the biggest concern is privacy. Although online medical records and data have enormous potential for researchers and doctors, the door is open for hackers to walk through and access patients' private and confidential records. This information could be made public or used for other unintended and unsanctioned purposes. In 2016 numerous high-profile Olympic athletes had their medical records released publicly after hackers broke into the World Anti-Doping Agency's (WADA) database. In 2015, over 112 million American citizens had their health data hacked to some degree. The possibility for the hacking of personal medical information and the resulting invasion of privacy is a large barrier for people accepting this technology in medicine.

In conjunction with artificial intelligence, some surgeons also use robots to assist with surgery in the operating theatre. Currently the surgeon remains in control and uses the robot as a tool only. However, with advances in the technology, there is the potential for robots to be completely in control of surgeries and dispensing medications, with humans still making the decisions.

Artificial intelligence and robots could ultimately reduce costs in healthcare for patients, which could open up access to health services for lower socioeconomic status populations. This technology could also address equity of access to health services by providing specialised services where a doctor is unavailable to go. Accepting artificial intelligence and robots into mainstream medicine could be of great benefit to many people; however, with privacy a major stumbling block, many people are unwilling to do so.

3D printing of body parts

The applications of 3D printing in medicine are numerous and currently largely untapped. Some applications of 3D printing of body parts have already been realised, but the potential for benefit and advancement of medicine is enormous. This is a field of research that is rapidly expanding. Scientists have spent many years developing biologically compatible materials that do not degenerate over time and printers precise enough to complete the tasks required for the smallest of body parts, such as blood vessels and heart valves.

Currently the largest application of 3D printing is for bones and hard tissue. Soft tissue required for organs and muscles are still being developed. Bones can be printed from titanium, which is already used in surgical implants such as screws and plates used to repair badly broken bones. Already implants are being printed to provide replacement 'bones' to reconstruct body parts damaged through serious injury or surgical removal. In England in 2014, surgeons repaired the face of a man who was seriously injured in a motorcycle accident two years prior. Conventional reconstructive surgery was not able to completely fix his face and the man was embarrassed to be seen in public because of the shape of his damaged face. Surgeons repaired his facial structure by printing titanium bone implants to reconstruct his cheek bones and eye sockets. In doing so, they significantly improved the man's face shape and reduced his anxiety about going out in public.

Australia is leading many of the advances in 3D printing in medicine. In 2014, surgeons replaced the heel bone of a man diagnosed with an aggressive cancer with a titanium, 3D printed bone. Traditionally, the tumour in the heel bone of this patient would have required the amputation of leg below the knee. Instead, a Melbourne biotechnology company printed a titanium bone implant which was used to rebuild the foot after the cancer containing bone was removed. This type of technology is not only lifesaving but far less invasive than traditional treatments such as amputation of a limb.

In the near future, the medical applications of 3D printing is the use of printed 'living' body parts. Research and development continues in an attempt to produce muscle, cartilage and skin that can be printed and implanted in the human body. Fully functioning organs have not been developed yet, but functional

organ structures such as heart valves have been produced. If organs or replacement organ parts could be successfully printed and implanted, the need for organ donors would be reduced. This would reduce ethical and privacy issues associated with traditional organ donation, as a donor and their family would not need to be involved in the process. This could also speed up treatment for sick patients who are usually on long waiting lists for a compatible organ to be donated.

There are issues in relation to equity of access associated with treatments of this kind. Development of technological applications such as 3D printing has high costs, and most treatments are still considered somewhat experimental. The high costs of treatment could put this technology out of reach financially for some people. As discussed earlier, people in rural and remote areas of Australia may not be able to access this type of treatment, as cutting edge technology and medical personnel trained in its use are not available in the hospitals in rural areas or even regional centres.

3D PRINTED HEEL SAVES MAN FROM AMPUTATION

Australia continues to be a happening place for 3D printing in medicine. Not only does the nation offer the world's first Masters in Bioprinting program, but doctors there are continually in the news for aiding patients with 3D printing. Most recently, doctors at St Vincent's Hospital have saved a man from amputation with the technology.

According to the *Herald Sun*, 71-year-old Len Chandler was diagnosed with cartilage cancer in April. The tumour had already taken over the calcaneus, or heel bone, on his right foot. Because the complex bone moves in conjunction with the shin and foot bones, such a tumour would have typically resulted in a leg amputation below the knee. Professor Peter Choong at St Vincent's had other plans. Chandler, relays, 'Prof. Choong said we could take the risk, and I had nothing to lose. I was hesitant and I didn't know whether it would work, but I had to try it.'

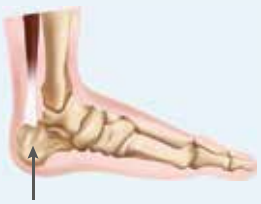
Working with Melbourne biotech company Anatomics and the nation's federal science research institution, CSIRO, Prof. Choong was able to provide Chandler with a 3D printed implant. First, the medical team scanned the patient's intact heel bone form his left foot. Anatomics was then able to create a mirror image for his right foot. The resulting 3D model was sent to CSIRO, which 3D printed an exact replica in titanium using an Arcam 3D printer. After the tumour was removed, the doctors were able to successfully implant the new heel bone.

FIGURE 11.18 Anatomics biomedical technician Stuart Hall with a prototype heel of the revolutionary implant used to save Len's leg.

FIGURE 11.19 The process that saved Len's foot

1. A cancerous tumour in Len's right heel bone (calcaneus) needed to be removed before it spread.

2. An exact copy of the left heel bone, reversed to simulate the right, was created in titanium using a CSIRO 3D printer.



Calcaneus

3. The titanium heel was fitted by Professor Choong to Len's foot. The muscles and Achilles tendon were re-attached.

4. Holes in the 3D heel allowed tissue to grow through, and helped reduce weight.

The CEO of Anatomics, Andrew Batty, said, 'This is very much a pioneering procedure.' The procedure was a world first, as most 3D printed implants are not load-bearing to the extent that this heel bone will be. In the past, 3D printing has been used to create implants in the skull or, more rarely, the hip. In Chandler's foot, however, it will be bearing an even greater amount of weight. Additionally, the implant required both a smooth surface, to work with his other foot bones, that was also porous, so that tissue could grow inside it and allow the body to accept it.

FIGURE 11.20 Len and his new foot

Prof. Choong said of the procedure, 'Science advances have allowed us to consider 3D printing of bones and we were able to get information from Len's foot and use that to tell the computers precisely how big his foot is, and reproduce that using the new 3D technology. Going from the possibility of an amputation to where you preserve the limb on account of one (replacement) bone is rewarding if you can achieve it.'

John Barns, a spokesperson for CSIRO, added, 'Prof Choong was really taking the risk and Anatomics were coming up with the design, and we were willing to back them up.'

After his surgery on July 11, Chandler, a construction worker, is already on the path to recovery and can carry more than half of his own weight. By Christmas, Prof. Choong believes he will no longer need crutches. Chandler said, 'I didn't know how good it was going to be — I don't think Prof Choong knew how good I'd be — but I'm going very well.' If the researchers can secure the $180 million in federal funding, they may be able to perform more such procedures through the planned Aikenhead Centre for Medical Discovery.

Source: Molitch-Hou, M 2014, '3D printed heel saves man from amputation', *3D Printing Industry*, 20 October.

Case study questions

1. Why did Len need a 'new' heel bone?
2. What is the usual treatment for such a tumour?
3. Outline the series of processes needed to replicate Len's heel bone.
4. Why was this procedure considered to be 'pioneering'?
5. How does this case study reflect the issue of invasiveness?

Stem cells

Stem cell science is a fast-moving field of research, with advances made almost every day. Stem cells are a type of unspecialised cell that has the potential to **differentiate** into many different cell types in the early stages of embryonic development. There are a number of types of stem cells that occur naturally in humans and have different roles depending on their type and location. Scientists primarily work with two kinds of stem cells: embryonic and adult. Embryonic stem cells are derived from human embryos 3–5 days after fertilisation. These embryonic stem cells are the most potent form of stem cell, as they can differentiate into any type of cell in the human body. Adult stem cells can also come from embryos or adult tissue. Adult refers to the fact that these stem cells have already differentiated to a degree and can make new cells of certain types only. For example, adult stem cells in bone marrow can differentiate into different types of blood cells. Generally the role of adult stem cells is to generate replacement cells for those that are lost through normal degeneration and as a result of disease.

There are many ways in which human stem cells can be used in the future. The potential for disease treatment is almost endless because of the unique regenerative abilities of these cells and their use in **cell-based therapies**. Stem cells offer great potential for treating diseases such as diabetes, heart disease and multiple sclerosis by replacing damaged cells with new ones derived from stem cells grown in the laboratory. For example, the insulin producing cells of the pancreas are destroyed when a person has diabetes, leaving them unable

to regulate blood glucose levels. These cells could be replaced with new functional cells grown from embryonic stem cells. As yet, this type of therapy is not available in mainstream medicine, but this is the hope of researchers for future stem cell applications.

One of the most important potential applications of stem cells is the replacement of cells in organs that are failing. Currently, donated organs are used to replace failing ones, but the demand for organ transplants is far greater than the supply. Stem cells could be used as a renewable source of replacement cells rather than needing to replace the entire organ through transplantation. For example, it may be possible to use stem cells to generate healthy heart muscle tissue to repair a heart after a heart attack or as a result of heart disease. This would reduce the need for organ donors and the issues surrounding organ donation. These applications have not been realised yet, but this is the future of stem cell research.

FIGURE 11.21 Stem cells grown in the laboratory have many applications in medicine.

There are many potential benefits of using human stem cells; however, there is controversy around the ethics of using and destroying human embryos. Generally, the embryos used for research are provided by unused embryos created through IVF treatment. When they are no longer needed for reproductive purposes, these embryos can be donated for research. The ethical dilemma associated with stem cell research involves two conflicting moral principles: to prevent or alleviate suffering and the duty to care for and value human life. Human life is considered by many to begin at the moment of fertilisation. Therefore, using embryos for stem cell research and therapies is considered to be destroying human life. Like other advanced technologies, there are also issues of equity of access due to the cost of these potential therapies and the resources available at health services in rural or remote areas as discussed earlier.

11.4 Activities

Test your knowledge

1. Make a mind map with an explanation and a picture to illustrate each of the issues outlined in this subtopic.
2. Create a summary table like the one below to link these issues to each of the medical procedures and technologies.

Medical technology	Description	Issues				
		Ethics	Privacy	Equity of access	Invasiveness	Freedom of choice

3. Explain the potential health and wellbeing benefits and challenges of:
   (i) nanotechnology
   (ii) 3D printing of body parts
   (iii) artificial intelligence.

Apply your knowledge

4. Research one of the procedures or technologies. Produce a brochure that a GP could use to inform patients about the potential use of the therapy, the potential for success and any other ethical issues.

5. Cait and Shaun are both healthy and aged in their late twenties. They have been trying to conceive a baby naturally for 12 months without success. Research IVF in Australia and answer the following questions.
   (a) Explain the process of IVF, including any medication needed and success rates for Cait and Shaun.
   (b) Outline the potential costs of IVF, including doctors' fees, embryo storage and medications.
   (c) Describe any ethical issues the couple may face throughout and after their IVF experience.
6. James had a serious motorcycle accident five years ago and due to a spinal injury has been unable to walk. Research the possible use of stem cell therapy to repair James's spinal cord so that he might be able to walk again.
   (a) What type of stem cells would be used?
   (b) How likely is it that stem cell therapy could work in spinal injuries?
   (c) Is this type of therapy available? If not, when do researchers think stem cells could be used in this way?

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Issues relating to the use of health procedures and technologies Summary screens and practice questions

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In-vitro fertilisation Summary screens and practice questions

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Artificial intelligence Summary screens and practice questions

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Unit 2 > AOS 2 > Topic 3 > Concept 6

Stem cells Summary screens and practice questions

11.5 Health system complaints

KEY CONCEPT Understanding the options for complaints and redress within the health system

As discussed in topic 10, patients have the right to make a complaint about a health service provider if they feel they have reason. In Victoria, individuals have the right to make a complaint through the Health Complaints Commissioner (HCC). The HCC is an independent, fee-free organisation whose role it is to receive and resolve complaints about health service providers through an impartial and confidential process. On February 1 2017, the Office of the Health Services Commissioner was replaced by the Health

Complaints Commissioner who works under the new *Health Complaints Act* (2016). This new legislation allows the Health Complaints Commissioner to undertake work in dealing with complaints in the health system with greater investigative powers and a broader definition of what qualifies as a health service. The commissioner will play a greater role than the Health Services Commissioner in protecting the public and supporting safe and ethical healthcare in Victoria.

FIGURE 11.22 Complaints are resolved by the Office of the Health Complaints Commission

Anyone can make a complaint to the HCC about any health service provided in Victoria, or about any organisation that holds health records, including schools, gyms and other non-health service providers, about how they handle personal information. Complaints may be made by patients, their friends, family or guardians or another health service provider. Even concerned community members can make complaints to the HCC.

The HCC manage complaints related to:

- access to services
- quality and safety
- care and attention
- respect, dignity and consideration
- communication about treatment, options and costs
- the level of involvement in healthcare decisions
- access, privacy and confidentiality of personal health information
- complaint handling by the health service provider.

People may complain about health service organisations, such as a public or private hospital, GP clinics or community health services or about an individual health practitioner. Complaints can be lodged about both registered and non-registered practitioners. Examples of these include:

- **Registered health practitioners**
  Doctors, dentists, nurses, surgeons, midwives, physiotherapists, chiropractors, psychologists, pharmacists, Chinese herbalists, occupational therapists, optometrists, osteopaths, podiatrists, radiographers and Indigenous health practitioners
- **Non-registered health practitioners**
  Audiologists, naturopaths, dietitians, speech pathologists, homeopaths, counsellors, paramedics, masseurs, alternative therapists and other providers of general health services

Wherever possible it is advised that the issue be **redressed** directly with the health service provider, but if this does not work then the HCC receives the complaint in writing, over the phone or through an online form to begin the process of resolution. The HCC is independent and does not take sides. It works with the person who made the complaint and the provider to resolve complaints cooperatively, quickly, fairly and effectively. Depending on the details of the complaint, the outcomes a person may be able to obtain are:

- an explanation about what happened, and why it happened
- an apology
- access to treatment
- access or amendment to health records

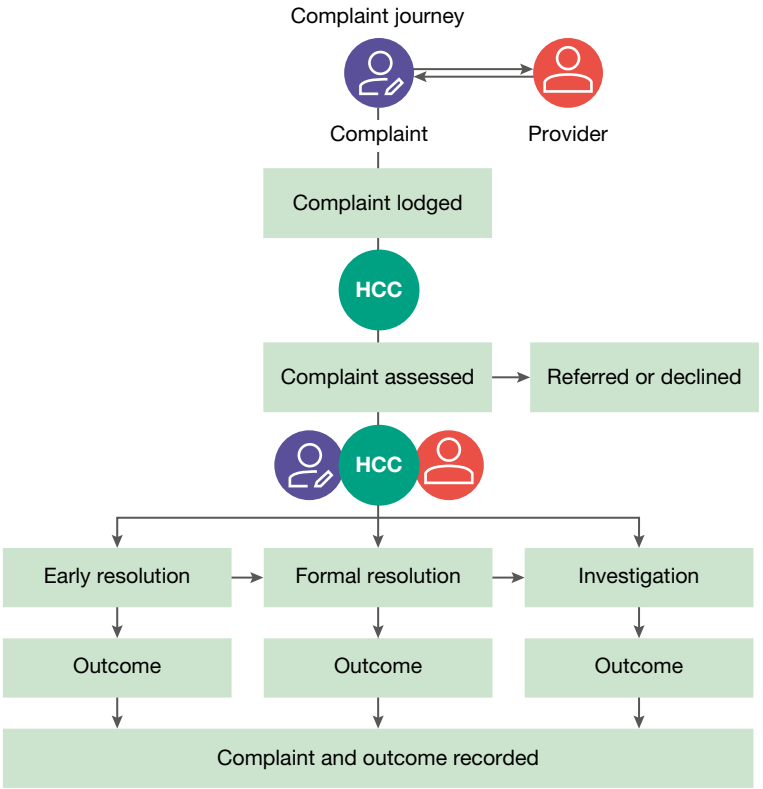
- a refund or compensation
- a change in policy or practice to prevent future problems.

The HCC can also launch formal investigations and warn the public about dangerous health service providers.

11.5.1 The complaint process

When a complaint is received, the first step is to decide whether the HCC should deal with the complaint or if another agency is more appropriate. The next step is to confirm that the person making the complaint has tried to resolve their issue directly with the service provider. This is often the quickest and easiest way to resolve an issue and the HCC are legally required to recommend this happens before any further action will be taken. Once the HCC accepts the complaint, they are recommended to take the least formal course of action possible to efficiently resolve the issue.

FIGURE 11.23 Flowchart outlining the progression of a complaint through the HCC



Once a complaint has been assessed and accepted by the HCC, there are three courses of action possible: early resolution, formal resolution or investigation. Early resolution is the least formal (and often the quickest) way to resolve complaints. In most cases, the complaint is discussed with both parties over the phone to clarify the problem and to identify an acceptable solution. If no resolution is reached through this process, the HCC may be unable to assist further. However, if the complaint is too complex to resolve over the phone, but it can be resolved, the HCC may attempt a formal resolution. They may also decide to initiate a formal investigation.

The formal resolution process involves a series of documented steps, each leading towards finding an acceptable solution. This process begins by working with the complainant to write a formal description of the complaint, which is then sent, along with a resolution plan, to the health service provider. The resolution plan may include requests for meetings, medical records, reports or independent opinions. Any improvements the provider agrees to make in response to the complaint will be documented and shared with all parties. If no resolution is reached the HCC may be unable to assist further. The complaint may also be considered for investigation.

An investigation is a formal and detailed examination, often used in handling large or highly complex matters. The HCC may investigate public and private organisations as well as individual practitioners. Following an investigation into a registered or non-registered practitioner, the HCC may issue a public warning statement to alert people to serious risks to their health, life, safety or welfare.

In the 2015–2016 reporting year, the former organisation for handling complaints about the health system (the Office of the Health Services Commissioner) received 4407 complaints, 73 per cent of which were resolved through informal processes. Together with resolving complaints, the Health Complaints Commissioner uses any information supplied in the complaints to help improve health services in the future.

11.5 Activities

Test your knowledge

1. In Victoria, what is the name of the organisation to which health service complaints are directed?
2. Who can make a complaint?
3. Which services can patients make complaints about?
4. Why might a person make a complaint about a health service provider?
5. What are the possible outcomes of making a complaint about a health service provider?

Apply your knowledge

6. Why do you think it is a right of a patient to make a complaint about a health service provider?
7. What are the possible implications for Australia's health status of people making complaints about health service providers?
8. (a) Research the office of the Health Complaints Commissioner and outline the processes involved in making and resolving a complaint.
   (b) Draft a letter that could be sent to the Health Complaints Commissioner complaining about a hypothetical health service provider and outline the outcome that you hope to achieve.

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Making a complaint about a health service provider Summary screens and practice questions

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Unit 2 > AOS 2 > Topic 3 > Concept 8

Outcomes of making a complaint Summary screens and practice questions

11.6 Topic 11 review

11.6.1 Key skills

KEY SKILL Identify and explain factors that affect people's ability to access health services and information, including digital media, in Australia

This key skill requires being able to identify factors that affect people's ability to access health services and information. Some factors that can affect access to health services and information include:

- geographic location
- socioeconomic status
- health literacy
- gender
- cultural factors.

Digital media is another factor that can increase access to health services and information; however, despite the many benefits of this source of information there are many challenges associated with gathering health information in this way. Digital media for the provision of health information includes:

- websites
- mobile apps
- search engines such as Google
- technology-based consultations.

Once these factors have been identified explain how each factor increases or decreases the ability to access health services or information. A possible response might be:

Indigenous Australians have difficulty accessing health services and information for many reasons. Because many Indigenous Australians live in rural or remote areas[1], their access to doctors, hospitals and health technologies is limited by the relatively small number of medical services in areas outside of major cities. The long distances that need to be travelled to access health services in major cities or regional centres means that many Indigenous people choose not to do so. Cultural factors and health literacy also limit access to health services and information. Indigenous cultures have different beliefs and expectations surrounding healthcare, which often prevent them from accessing health services. Indigenous people may also have language barriers if English is not their preferred language[2], which means that health information is not understood. Therefore, Indigenous Australians often do not seek the health services they need. Lower levels of education in the Indigenous population reduces health literacy, which means people do not seek out the information or health services they need or do not understand the information they are given.[3]

1 Geographic location is discussed.

2 Cultural factors decrease access to health services and information for indigenous populations.

3 Health literacy and its impact on accessing health information is discussed.

Practise the key skill

1. What factors affect Australians' ability to access health services and information?
2. What is meant by digital media?
3. Explain the challenges and opportunities for health and wellbeing that are created by using digital media to access health information.
4. Explain how each of the factors identified can have an impact on a person's ability to access health services and information.

KEY SKILL 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/or technologies

This key skill requires knowledge of new medical procedures and technologies and an understanding of the issues that may be associated with these advances in medicine.

The medical procedures and technologies include:

- assisted reproductive technologies
- nanotechnology
- 3D printing of body parts
- artificial intelligence and robotics
- stem cell use.

The issues investigated are ethics, equity of access, privacy, invasiveness and freedom of choice. Each procedure or technology needs to be analysed for any of these issues that may apply. It is not necessary to discuss every issue for each procedure or technology. The negative aspects of issues do not always have to be discussed. For example, 3D printing of body parts has the potential to reduce the invasiveness of certain medical outcomes such as amputation of a limb. (There are some positive outcomes of medical advances that reduce the issue in question.)

An example of an answer could be:

The use of stem cells is very valuable in the treatment of diseases such as multiple sclerosis, cancer and diabetes. However, there are issues of ethics and equity of access involved with these treatments. To generate a source of stem cells, embryos are created, raising the ethical issue of creating embryos only as a source of stem cells for the treatment of another person. Many people think it is morally wrong to create a potential human life simply to take cells from it to treat someone else.[4] After the stem cells have been used, there is no potential for the embryo to survive and become a baby. Other people may not be able to afford the cost of stem cell therapy, or may not be able to access a source of embryos, creating inequity of access to these forms of treatment.[5]

4 The issue of ethics is discussed.

5 The issue of equity of access to the use of stem cells is discussed.

Practise the key skill

5. What is meant by ethics?
6. Which medical technologies and procedures raise ethical questions about their use?
7. Select one procedure or technology (other than stem cell use) and thoroughly discuss the issues it raises or addresses.

KEY SKILL Explain the options for consumer complaint and redress in the health system

This key skill requires knowledge of the complaint process and possible outcomes from a complaint made in the health services sector.

Complaints in Victoria are handled by the Office of the Health Complaints Commissioner. Any patient, family, friend or other health practitioner can make a complaint. Any health services can be the subject of a complaint.[6] A complaint may result in the care being dismissed, compensation, apology or professional consequences for the medical practitioner.[7]

6 Aspects of the complaint process are outlined.

7 Possible outcomes of the complaint process.

Practise the key skill

8. Who can make a complaint about a health service?
9. Who can complaints be made about?
10. Which organisation deals with complaints about health services?
11. What are the likely outcomes from a complaint?

11.6.2 Topic summary

- Factors that affect a person's ability to access health services and information include geographic location, socioeconomic status (SES), cultural factors, gender and levels of health literacy.
- People who live in rural and remote areas of Australia have less access to health services than those in major cities.
- There are fewer health practitioners, infrastructure and medical technology available in rural and remote areas.
- People with low SES have less access to health services because of the cost of those services and private health insurance.
- Language barriers, religious beliefs and other cultural factors can reduce the ability to access health services and information.
- Indigenous Australians have less access to health services and information due to geographic location, low SES, and language or cultural misunderstandings.
- Males are less likely to access health services and information than females.
- Health literacy is about understanding information and using it to make informed decisions about health and wellbeing.
- Only about 40 per cent of adult Australians are considered to have adequate levels of health literacy.
- Low levels of education contribute to low health literacy.
- Digital media is a part of everyday life for most Australians.
- Digital media includes websites, mobile apps, games, social media, digital photos, videos and audio, and computer software.
- The health industry is rapidly expanding its use of digital media.
- Applications of digital media in health and wellbeing include technology-based patient consultations, health related websites and mobile apps, symptom checker websites and apps, and Google.
- All forms of digital media can increase access to health information and can present many opportunities for improving health and wellbeing.
- People who live in rural and remote areas of Australia can access large amounts of health information without having to travel large distances.
- People with low SES can increase their access to health information through the use of free websites and mobile apps.
- There are challenges associated with accessing health information from digital media sources.
- Online information is not always reliable or accurate.
- Low levels of health literacy make deciphering large volumes of online health information difficult.
- Self-diagnosis based on digital media resources can lead to high levels of fear and anxiety.
- Serious conditions can be missed due to self-diagnosis
- New and emerging medical procedures and technologies provide advances for medicine and treatments of disease or injury.
- Procedures and technologies include assisted reproductive technologies such as IVF, nanotechnology, 3D printing of body parts, artificial intelligence and robotics and stem cell use.
- Despite the benefits, there are issues associated with medical advances.
- Some procedures may address some of these issues positively; others may have negative implications.
- Many medical advances raise ethical questions.
- Other issues associated with new technologies and medical advances are privacy, equity of access, freedom of choice and invasiveness.
- Patients have the right to complain about health service providers (e.g. doctors, nurses, hospitals, dentists, specialists, paramedics and allied health providers).
- In Victoria, complaints are made to the Office of the Health Complaints Commissioner.
- Complaints can be made by patients, family, friends or another health practitioner.

- The Office of the Health Complaints Commissioner resolves disputes when initial attempts between the person making the complaint and the doctor have failed.
- In 2017 the Office of the Health Services Commissioner changed to the Health Complaints Commissioner.
- The Health Complaints Commissioner uses information gathered from complaints to improve the health industry in Victoria.

11.6.3 Exam preparation

Question 1

Indigenous Australians have poorer health and wellbeing outcomes than other Australians. One reason for this is because they have limited access to health services and information.

(a) Identify three factors that would contribute to the limited access to health services and information for Indigenous Australians. **(1 mark)**

(b) Select one of the factors identified in 1a and explain how it would have an impact on the ability of Indigenous Australians to access health services and information. **(2 marks)**

Question 2

Digital media is a significant source of health information, and many Australians prefer to search their symptoms on Google rather than see a doctor. Outline the opportunities and challenges presented to the patient by accessing health information from digital media sources. **(4 marks)**

Question 3

Artificial intelligence is a rapidly expanding technology that has the potential to revolutionise the health-care industry.

(a) What is meant by artificial intelligence? **(1 mark)**

(b) Identify and explain an issue presented by the use of artificial intelligence in healthcare. **(3 marks)**

Question 4

Aaron had weight loss surgery, but he has not been satisfied with the results. He overheard the doctors talking about how enormously fat he was before they came into the operating theatre. Aaron claims that the doctors were laughing and joking about him and did not respect him as a patient. Outline the process that Aaron should follow if he wishes to make a complaint about his surgeon's behaviour before his weight loss surgery. **(3 marks)**

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