INQUIRY QUESTION
What are the key factors that promote an active lifestyle?
In this chapter we take a look at the social-ecological model and the Youth Physical Activity Promotion Model in order to analyse physical activity initiatives in a range of settings.

**KEY KNOWLEDGE**
- Components of the social-ecological model (individual, social environment, physical environment and policy) and/or the Youth Physical Activity Promotion Model
- Settings (schools, workplaces and community) based approaches to reducing sedentary behaviour and promoting physical activity
- A range of physical activity promotion and sedentary behaviour reduction initiatives and strategies that target different populations based on factors such as age, sex, gender, people with disabilities, cultural and indigenous groups

**KEY SKILLS**
- Apply a social-ecological model and/or the Youth Physical Activity Promotion Model to critique physical activity initiatives and strategies aimed at increasing physical activity and/or reducing sedentary behaviour for a range of populations in a variety of settings

**CHAPTER PREVIEW**

- **Social-ecological model**
  - **Settings**
    - School
    - Community
    - Workplace
  - Youth Physical Activity Promotion Model

- Systems thinking approach
  - Increase in physical activity
  - Decrease in sedentary behaviour
KEY CONCEPT There are many factors that impact on the physical activity and sedentary behaviour of people.

In recent times experts have started to use a *systems thinking* approach to comprehend the complex nature of many things, including human behaviour. A system can be described as something that consists of elements that:
- interact
- are interrelated
- are interdependent.

This way of looking at systems has led to a field of study known as social ecology, which explores and tries to understand complex and ever-changing interrelations between people and their environment. Since the 1970s, experts in many fields including education, psychology and health have developed theoretical models and frameworks that attempt to explain such interrelationships and their impact on behaviour. Such models and frameworks have evolved and been adapted in line with understanding of the multiple factors that influence behaviour. Consequently, there are a variety of models and frameworks used. For the purposes of VCE Physical Education, the Victorian Curriculum and Assessment Authority (VCAA), in conjunction with Dr Helen Brown, Professor Jo Salmon and Associate Professor Amanda Telford, has advised that the social-ecological model can be used and applied to physical activity.

**Components of the social-ecological model**

There are four components of the *social-ecological model*. The individual is at the centre, followed by the social environment, the physical environment and policy. The social-ecological model is seen as a series of circles that overlap and interrelate, with each circle representing a different component or layer of the model.

**The individual**

Right at the centre of the model is the individual component. It incorporates all the personal factors that influence physical activity and sedentary behaviour. Some of the factors within the individual layer are described in the next section.
Knowledge and level of education
Having knowledge about the benefits of being physically active and the consequences of inactivity is a powerful force in influencing an individual's behaviour. There is a strong correlation between the level of formal education and activity levels: those with a high level of education are more likely to be involved in physical activity.

Attitudes and beliefs
People's attitudes and beliefs shape their view of being active. Many people have a positive view of physical activity and believe that it is an important part of being healthy. These attitudes and beliefs can shape behaviour.

Perceived barriers
There are many perceived barriers that affect whether or not a person is active. Commonly cited perceived barriers include lack of time, money or resources, and being too tired to exercise. Other barriers include too much time consumed by school, family, homework and lack of interest. The term ‘perceived’ means that it is the view of the person. It doesn’t necessarily correlate to reality, as many people’s perceptions are incorrect and can be used as an easy excuse not to be active.

Motivation and enjoyment
Many people have a natural desire to move and be active. This innate drive is a powerful influence on whether people incorporate physical activity into their daily lives. This internal drive is also known as intrinsic motivation, which is a desire to do something for its internal rewards such as learning and exploring, rather than a desire to do something due to an external reward or to please another person. Intrinsic motivation to be active is strongly associated with higher levels of activity over a person’s lifetime.

Motor skills
An individual’s motor skills are linked to increased levels of success and higher levels of physical activity. It is natural for people to enjoy things that they are good at; hence the acquisition of motor skills is vital for young people so that they are more likely to continue pursuing sports and recreational activities as they enjoy experiencing success.
Age and gender
Age and gender are both influences on an individual. For both of these influences, there are factors that increase the likelihood of being active or inactive. For example, adolescent males are more likely to be active than adolescent girls, perhaps due to greater intrinsic motivation and encouragement from others.

Socioeconomic status
Socioeconomic status (SES) is a term used to describe the social and economic situation of an individual. It incorporates levels of education, employment status and income.

There is a strong relationship with increased SES and increased healthy behaviour choices, such as being physically active. For example, a university trained full-time worker on a high income is more likely to engage in physical activity than a school graduate who works part time and earns a small income.

Self-efficacy
Self-efficacy is a term used to describe an individual's belief that they can perform at a level where specific tasks can be achieved and goals attained. Individuals with high degrees of self-efficacy are likely to show more resilience when completing a task, particularly when overcoming barriers, leading to persistence and success.

Injuries and disabilities
Short-term injuries and long-term or permanent disabilities often impact negatively on the opportunities individuals have to be active. Injuries restrict the types of activity possible for an individual and can make it more difficult to engage in sufficient activity levels to meet the Australian Physical Activity and Sedentary Behaviour Guidelines (see chapter 11).

Social environment
The next layer in the social-ecological model is the social environment, which has a significant influence on the individual. Many of the social environment factors that influence an individual's level of physical activity are discussed in the following sections.

Family
The family is a strong influence on an individual's physical activity level, particularly for children and adolescents. If adults in the family are inactive, this behaviour is observed by their children as they serve as role models. Their children's exposure to a variety of activity opportunities, as well as an understanding of the enjoyment of participating in activity, is limited. Similarly, siblings play an important role in influencing each other to be active.

Family support is another influence on physical activity. Parents who pay membership fees, provide sports equipment and uniforms and transport their children to these sporting and leisure time commitments are demonstrating high levels of support for physical activity.

Spouse or partner
Couples spend a lot of their leisure time together. If both of the individuals in the relationship enjoy being active, they can not only encourage each other to keep fit and healthy but they can also spend time together being active. Many couples walk, ride and go to the gym together, having a healthy and reciprocal impact on each other.
Peers
Peers are those people around you of similar age and include friends. Peers influence each other positively and negatively in relation to their behaviour. Examples include an individual deciding to take on a new sport because their friends have encouraged them to join, and another who drops out of a sport because their friends have left.

Institutions and organisations
Common institutions and organisations are schools, workplaces and communities. For many younger people, school plays a significant role in influencing children and adolescents’ activity levels. Workplaces can have a similar impact on adults’ physical activity behaviour. Examples of community organisations include local sports centres and local sports teams and clubs.

Social support
Individuals living in areas where there are strong social support networks are more likely to engage in greater levels of physical activity. This includes social support from local residents through to more organised social support networks, such as rotary groups. For many who live in social isolation, their lack of social support is a barrier to engaging in healthy levels of physical activity.

Healthcare professionals and educators
Healthcare professionals and educators, such as doctors, coaches and teachers, have the capacity to influence an individual’s behaviour. Examples include a doctor who advises a patient of the benefits of being active, a teacher who encourages a student to pursue a sport outside of school hours, and a coach who supports the skill development of players.

Community norms and cultural background
Community norms are the behaviours and views that are considered normal within a given community. For example, a community that embraces sport and physical activity as a normal behaviour is likely to be a powerful influence on an individual’s behaviour. For many communities, there are strong cultural influences that may have a positive or negative impact on its members’ levels of physical activity. In some cultures, women are discouraged from engaging in physical activity. For girls and women in those communities it can be difficult to be active.

Socioeconomic status of a community
The socioeconomic (SES) status of a community relates to the levels of income, education and employment. Similar to the SES of individuals, there is a direct correlation between higher community SES and higher levels of physical activity.

Physical environment
The physical environment is the natural and human-made environment in which physical activity can take place. Like other factors, it can have either a negative or positive impact on an individual’s physical activity levels. The physical environment can determine the type and duration of activities that an individual undertakes.
Natural factors
Natural factors, such as the weather and geography, provide environments conducive to some sports and activities and not others. Increased sunlight is correlated with increased exercise. People who live in places where it is warmer and sunnier for more hours of the day are more active, due to increased opportunity and accessibility. Conversely people who live in places where it is cold, windy and there is less daylight are less likely to engage in healthy levels of activity.

People who live near the beach have the opportunity for more water-based activity while those living in cold, mountainous areas have easier access to snow skiing and other snow-based activities.

Availability and access to sport and recreation facilities
Parks, playgrounds, bicycle and walking tracks, gymnasiums and specific sports facilities, such as soccer fields, all provide an incentive for individuals to be active. In urban areas there is greater access to sport and recreation facilities and therefore a greater range of activities is available to the community. In rural areas facilities can be limited, which decreases opportunities to be active.
Aesthetics
Aesthetics refers to the perceived qualities of a particular facility or environment. An aesthetically appealing running track would be one that looks and feels attractive. A flat walking track surrounded by flowers and trees that provide shelter from sun and wind is likely to increase physical activity levels.

Safety
Safety encompasses a range of factors such as crime rates, traffic and terrain. People are discouraged to be active in areas deemed to be unsafe, such as dark and unlit areas. The volume and speed of traffic can be a barrier to people engaging in physical activity, particularly active transport such as riding or walking to work or school. Making street environments safer by introducing signs that display a reduced speed limit and other traffic control measures such as traffic lights, speed humps and roundabouts can encourage more physical activity.

Community design and public transport
How certain communities are designed can promote or deter physical activity. When there is easy access to shops, public transport and sports facilities, people can find it easier to incorporate walking and riding into their everyday life instead of using their cars. Designing urban spaces with physical activity in mind can enable and motivate individuals and enhance the likelihood of participation. In areas where there are foot and bike paths that are well lit and properly maintained for easy access, people will be more likely to use them.

Policy
This layer of the social-ecological model includes all recommendations, procedures, regulations and legislation that have the potential to affect physical activity. These can include informal local policies or rules, or formal legislation and policies developed by governments (local, state or federal).

Urban planning policies
Many local and state governments legislate that a portion of land be reserved for parks and gardens. Having these policies increases the recreational facilities available to communities and the likelihood that people will use them. Other urban planning schemes include providing footpaths for pedestrians, bike paths for cyclists and designing built environments that encourage physical activity.
Each school has its own rules and policies that can promote or deter physical activity. Those that promote movement include compulsory PE class time, provision of sports equipment and access to bike racks and lockers to store equipment. Conversely policies which prevent students wearing their sports uniform to and from school, making certain grounds out of bounds and denying students access to a weights room for safety reasons can deter physical activity.

**Workplace policies**

Similar to schools, workplaces have their own policies that can impact on employees’ physical activity levels. Some workplaces encourage the use of walk and talk meetings, discourage the use of elevators and provide standing desks — all of which reduce sedentary behaviour.

**Funding policies**

In any government or non-government sector, funding policies play a significant role in whether physical activity initiatives are successful. For example, if a local government wants more people to walk, then funding must be available to provide safe and inviting walking conditions. A state government spending significant money on developing bike lanes is another example of how funding policies can encourage a community to be active.

**TEST your understanding**

1. Name the four components of the social-ecological model.
2. Discuss the link between an individual’s socioeconomic status and their level of physical activity and sedentary behaviour.
3. Define self-efficacy.
4. Provide an example of the influence of parents on children’s physical activity levels. Identify the layer of the social-ecological model that the family is part of.

**APPLY your understanding**

5. The social-ecological model has been designed as a framework for explaining the complex nature of human behaviour, in which many elements interact, are interrelated and interdependent. What do the terms ‘interact’, ‘interrelated’ and ‘interdependent’ mean?
6. Investigate each component of the social-ecological model. Select the five most significant positive influences from the model that promote physical activity for you.
7. Investigate each component of the social-ecological model. Select the five most significant negative influences from the model that act as barriers to physical activity for you.
The social-ecological model provides a framework for understanding the many factors that influence physical activity and sedentary behaviour. These factors may act as either enablers or barriers. The model helps to comprehend a specific problem in a certain context, situation or setting. The social-ecological model can be used to:

- inform strategies or programs aimed to have a positive influence on physical activity levels (these are often referred to as strategies)
- support the implementation of such interventions
- guide the evaluation of these strategies or programs.

The social-ecological model is based on four core principles, each of which is discussed in the following sections.

**Core principle 1: multiple factors influence behaviour**

The first core principle acknowledges that behaviour is influenced by a wide range of factors. Attempts to change physical activity behaviour must therefore be wide ranging and target all four levels of the social-ecological model. Interrelationships exist between the four layers of the model: each of the four layers (individual, social environment, physical environment and policy) all have an impact on each other.

There is evidence to suggest that interventions to promote physical activity are more successful when multiple components of the model are targeted. For example, a program that includes education about the benefits of an activity (individual level), encourages peers to exercise together (social environment level), promotes physical activity that can be done in any location (physical environment level) and provides equipment as part of a government funding program (policy level) is more likely to be successful than one that is missing one or more of these levels.

**Core principle 2: environments are multidimensional and complex**

This core principle highlights that both the social and physical environments contain a vast array of features and characteristics. This includes attributes such as size, temperature, facilities, safety, community norms, cultural backgrounds and accessibility.

As a consequence of these variables, environments are unique and include features that can both encourage physical activity or act as a deterrent. For example, planting attractive flowers and trees may increase the appeal of using a walking track for some, while for others the pollen may trigger hay fever, and hence be a deterrent.
Core principle 3: human–environment interactions can be described at varying levels of organisation

The social-ecological model recognises that human interaction with the environment occurs at many levels. This includes interactions between individuals, small groups, community groups and larger populations. Consequently, interventions can be targeted towards these different levels. For example, physical activity strategies could include targeting individuals to be more active, encouraging workplaces and schools to promote healthy behaviour and population-based programs. The effectiveness of such programs is enhanced when targeting different levels of human–environment interaction.

Core principle 4: interrelationships between people and their environment are dynamic

There is a dynamic relationship between people and their social, physical and policy environments. Individuals can have an impact on the health of these environments and these environments can have an impact on the behaviour of individuals, groups and populations. The environment can determine, help or hinder the type and amount of physical activity people undertake. Changes in the environment can enhance the opportunity for movement and physical activity. Some examples of such interrelationships between people and their environment include the following:

- A physical environment that is regularly cold, wet and windy reduces people’s capacity to engage in activities such as swimming and walking (environment affecting behaviour)
- If many people are walking to and from the town centre this behaviour could encourage a local council to build safe, flat and well-lit walking paths (behaviour affecting the physical environment)
- A social environment that encourages people to ride to work or school is likely to influence more people to use active transport (environment affecting behaviour)
- Role models, such as sports stars, health professionals and educators, engaging in physical activity is likely to promote a culture in which sport and recreation are seen as positive and desired (behaviour affecting the environment)

**FIGURE 12.12** Provision of footbridges and running tracks can promote engagement in physical activity.
A school policy environment that allows students to wear their runners at lunch time and recess to play sport may increase the level of activity among the students (environment affecting behaviour).

The presence of many school students playing downball at school may influence school leaders to build more downball courts for the students (behaviour affecting environment).

There is much evidence to suggest that if the physical environmental is conducive to physical activity then other strategies and programs aimed at increasing physical activity are likely to be more successful. Conversely, there have been many examples of theoretically good interventions adopted which ultimately end up unsuccessful due to poor physical environmental conditions.

Understanding the core principles of the model is an important part of appropriately applying the social-ecological model to design, implement and critique interventions aimed at promoting physical activity and reducing sedentary behaviour.

**Figure 12.13** A physical environment that encourages opportunities for safe experiences when being active can have a powerful influence on reducing sedentary behaviour.

**TEST your understanding**

1. The social-ecological model provides a framework for understanding the many factors that influence physical activity and sedentary behaviour. These factors may act as either enablers or barriers. Make a list of three enablers of and three barriers to physical activity.
2. How many core principles guide the social-ecological model? Name each principle.
3. Describe why multiple components of the social-ecological model are targeted when designing physical activity and sedentary behaviour interventions.
4. Core principle 2 highlights that both the social and physical environments contain a vast array of features and characteristics. List three examples of these.

**APPLY your understanding**

5. Provide an example in which a physical-activity intervention may act as a barrier to physical activity.
6. The social-ecological model recognises that human–environment interactions can be described at varying levels of organisation. Provide two examples of such human–environment interaction.
7. Discuss the link between physical environment interventions and physical activity. Provide an example at your school of such a relationship.
A settings-based approach involves strategies aimed to encourage healthy behaviour in specific environments known as settings, such as school, work and community settings.

Applying the social-ecological model: a settings-based approach

The social-ecological model is used by health-promotion educators and experts to design strategies and programs to promote healthy lifestyle choices, such as increasing the level of physical activity and decreasing inactivity within individuals, populations and sub-population groups. Examples of subpopulation groups include those based on gender, ethnicity, indigenous status, people with disabilities and age.

A popular method of targeting interventions to enhance physical activity is via a settings-based approach. A setting can be defined as a place within which physical activity can occur and a strategy can be targeted. The three most common and relevant settings for physical-activity promotion initiatives are schools, workplaces and communities.

There are many stakeholders interested in promoting healthy behaviours. These include schools, workplaces and specific community groups and organisations. In addition, there is a range of local, state and national organisations that implement a settings-based approach. Examples include government-funded organisations such as VicHealth and local councils and non-government organisations including the National Heart Foundation and Women’s Health Victoria.

There is an increased understanding within the community that an inter-sectorial approach is more effective than organisations working in isolation. The term inter-sectorial refers to different sectors (distinct groups, organisations and people) working together for the same purpose of increasing physical activity and decreasing sedentary behaviour.

A settings-based approach: schools

Schools are a great setting to be targeted for physical activity interventions because they reach most children. There are many organisations that provide advice, curriculum resources and a range of programs designed to promote increased physical activity and decrease sedentary behaviour. Schools often select a range of strategies to promote these healthy behaviours. Schools themselves are a powerful influence on students and therefore can implement not only other organisations’ ideas but...
their own. When doing so, the core principles of the social-ecological model need to be adhered to in order to have the greatest chance of behaviour change. In particular, targeting multiple layers of influence is essential to ensure that the environment is conducive for physical activity.

**Individual interventions**

In the following list are some of the school-based initiatives to promote physical activity and reduce sedentary behaviour that focus on the individual:

- Providing education programs aimed to promote an understanding of the physical, social, emotional and mental benefits of being active
- Providing education programs aimed at helping students to understand the poor health outcomes associated with sedentary behaviour
- Providing fundamental motor skill programs to enhance all-round physical ability
- Giving sport-specific skill training
- Implementing mentoring programs that focus on improving an individual’s skills as well as their beliefs and attitudes about physical activity
- Providing a Physical Education curriculum that creates enjoyment and engagement for students
- Offering activities that develop self-efficacy and motivation
- Offering activities that have an appropriate degree of modification to enable injured or disabled students to participate in sports and recreational activities. For example, a student who is injured and cannot run may still be able to play as a goalkeeper in European handball, while a visually impaired student may participate in cricket using modified rules and equipment.

**Social environment interventions**

Some of the school-based initiatives to promote physical activity and reduce sedentary behaviour that focus on the social environment include the following:

- Providing community education programs that educate students’ families about the benefits of increasing physical activity and reducing sedentary behaviour
- Engaging community groups to promote healthy behaviours, such as working with local sports clubs
- Developing peer programs, such as older students working with younger students in Physical Education classes and other intra-school activities
- Developing social marketing campaigns, such as promoting ride to school day via the school website, Facebook page or Twitter feed
- Teachers role-modelling healthy physical activity behaviour by riding to and from work and walking around at lunch time
- Teachers using active learning strategies to minimise students sitting and promoting movement during class time
- Using guest speakers such as local healthcare professionals or athletes to increase student motivation

**Physical environment interventions**

Some of the school-based initiatives to promote physical activity and reduce sedentary behaviour that focus on the physical environment include the following:

- Providing bike racks and shower facilities to encourage active transport to and from school
- Distributing sports equipment at recess and lunch

![Figure 12.15](http://example.com/figure12.15.png) Organised sporting competitions provide a strong social influence in local communities.
12.3 Applying the social-ecological model: a settings-based approach

- Providing safe, age appropriate and attractive sports grounds and facilities for use during the school day
- Reducing seats available during recess and lunch to discourage sedentary behaviour
- Providing standing desks in classrooms and maximising learning areas to encourage movement during class
- Providing large lockers for students to enable them to bring in sports equipment for storage while in class

Policy interventions

Some of the school-based initiatives to promote physical activity and reduce sedentary behaviour that focus on the physical environment appear in the following list.

- Implementing school policies that allow students to wear their PE uniform to and from school have been shown to not only increase physical activity levels to and from school, but also at school and at home after school
- Opening up sports facilities such as ovals, gymnasiums and weights room for students to use during breaks
- Increasing break time for unstructured play during school hours
- Funding for provision of sports equipment and safe facilities for use
- Mandating more PE and sport time during the school week
- Providing timetables that promote student movement between classes rather than remaining in the same room for the entire day

Outside organisations

There are many examples of outside organisations supporting schools by providing access to specific programs that aim to promote physical activity and reduce sedentary behaviour. Following are two examples of such programs operating in Victoria.

National Heart Foundation’s Jump Rope for Heart

Jump Rope for Heart is a program developed by non-government, not-for-profit organisation the National Heart Foundation (NHF). It has been a highly successful program. Since its inception in 1983, over 8 million students and 90 per cent of all Australian schools have participated. Approximately 280,000 students and 1400 schools participate annually.
Jump Rope for Heart has mutually beneficial outcomes for both schools and the NHF. Jump Rope for Heart supports students to get fit and learn new skills; it teaches students about community and compassion and raises funds for schools to purchase sports equipment. At the same time the NHF raises funds to further its ability to deliver heart health messages to the Australian population.

This physical-activity intervention targets the multiple layers of influence in the social-ecological model in the following ways:

- Individual
  - Jump Rope for Heart provides awareness and education about the link between exercise and improved health outcomes.
  - Jump Rope for Heart teaches students how to skip, increasing their skill level, self-efficacy and motivation.

- Social environment
  - Skipping with peers is used as a motivational tool to get more students involved.
  - Teachers are used to provide encouragement and support for students.

- Physical environment
  - Skipping can be done any time of the year, indoors or outdoors, on virtually any surface.
  - The school provides the facilities for the students.

- Policy
  - The NHF fully funds the provision of skipping ropes and resources, ensuring there is no cost to the school.
  - The NHF donate some of the funds back to the school, making it more attractive for schools to get involved.

**VicHealth’s Walk to School**

VicHealth is an organisation fully funded by the Victorian government. The VicHealth Walk to School program is an annual event that has been in existence since 2006. It provides awareness to students about the physical, social and environmental benefits of active transport via walking. It encourages students to walk to and from school more often.

The program takes place each October, encouraging students to walk to school from the first day of term 4 to the end of October. It is hoped that the experiences of walking during this time encourage students to continue walking throughout the remaining school months. In addition to this program, VicHealth has developed a range of walk-to-school programs and funds Victoria Walks.
This physical-activity intervention targets the multiple layers of influence in social-ecological model in the following ways:

- **Individual**
  - The program provides awareness of the physical health benefits of walking to and from school and links the program to the National Physical Activity and Sedentary Behaviour Guidelines.
  - Walk to School increases awareness of the other benefits of walking, including the better social and environmental outcomes of walking instead of driving.

- **Social environment**
  - Walk to School encourages students to walk together.
  - VicHealth uses local councils to provide support, education and funding for schools, increasing the use of the community in encouraging walking.

- **Physical environment**
  - Some local councils have made changes such as increased lighting on walking paths and tracks to enhance perceived safety when walking to and from school.
  - Less traffic leads to decreased congestion and reduced environmental impact.

- **Policy**
  - VicHealth provides $10,000 of funding to local councils to increase the opportunities for schools to get involved with the program.
  - VicHealth provides free resources, such as stickers, pamphlets and an app, that schools and students can use to enhance the awareness and opportunities for students to walk to and from school.

**A settings-based approach: workplaces**

There is an alarming trend as people enter the workforce; their overall physical activity levels reduce, leading to increased chances of poor health outcomes that not only have a negative impact on the individual, but also on society.

There are many workplaces that encourage their employees to be active, while many believe that they have no responsibility or reason to do so. There is, however, ample evidence that promoting physical activity and reducing sedentary behaviour can significantly benefit the employer. Some examples include:

- reduced staff illness
- decreased staff turnover (people leaving and having to be replaced)
- increased productivity
- fewer injuries
- increased happiness
- speedier recovery from illness
- a better image for the company.

**Individual interventions**

Some examples of workplace-based initiatives to promote physical activity and reduce sedentary behaviour at the individual level appear in the following list.

- Providing education programs aimed to promote an understanding of the physical, social, emotional and mental benefits of being active
- Providing education programs aimed to get employees to understand the poor health outcomes associated with sedentary behaviour
- Providing information about safe walking or cycling routes to and from work
- Asking staff about what strategies could be adopted to make the workplace a healthier and safer place to be

**Social environment interventions**

Some examples of workplace-based initiatives to promote physical activity and reduce sedentary behaviour at the social environment level appear in the following list.

- Using guest speakers such as local health care professionals or athletes to increase employee motivation
• Providing walk and talk opportunities, so that people can exercise during meeting time instead of being sedentary, e.g. sitting
• Encouraging staff to exercise together during breaks
• Encouraging team sports to take place at lunch breaks as an alternative to sitting down
• Allowing employees to bring their dogs into work

Physical environment interventions
Some examples of workplace-based initiatives to promote physical activity and reduce sedentary behaviour at the physical environment level appear in the following list.
• Providing bike racks and shower facilities to encourage active transport to and from work
• Having sports equipment available for use during breaks
• Providing safe facilities for use by staff, such as a gym
• Giving access to standing work stations
• Making lockers available for staff to store work clothes
• Having safe and well-lit floor plans to encourage movement around the workplace

Policy interventions
Some examples of workplace-based initiatives to promote physical activity and reduce sedentary behaviour at the policy level appear in the following list.
• Subsidising or paying for work-based sports teams such as Futsal or Volleyball
• Supporting staff to enter a corporate challenge triathlon
• Allowing more flexible work times for staff to accommodate physical activity, including longer lunch breaks and later starting times to allow for active transport time
• Discouraging the use of emails as an internal communication tool while encouraging people to walk to each other to communicate

Outside organisations
There are many examples of outside organisations supporting workplaces by providing access to specific programs that aim to promote physical activity and reduce sedentary behaviour.
Heart Foundation Walking @ Work

An initiative by the National Heart Foundation, Heart Foundation Walking @ Work is one of many walk-promotion initiatives as part of the Heart Foundation Walking program. It is specifically tailored to promote increased levels of walking in workplace settings. It offers workplaces the opportunity to work in collaboration with the Heart Foundation to promote walking as an alternative to sedentary behaviour, e.g. sitting, at work. Some examples of how this program is mapped to the social-ecological model are described.

- **Individual strategies**
  - Distribution of regular e-newsletters educates participants about the health benefits of walking.
  - Access is provided to the ‘walker recognition scheme’ which gives incentives and rewards for individuals.
- **Social environment strategies**
  - Collaboration between individual workplaces and the Heart Foundation ensures there is internal and external support for staff.
  - Encouragement to walk together as part of the program aims to promote both physical and social health.
- **Physical environment interventions**
  - Workplaces are encouraged to be physical environments that are conducive to movement via walking.
- **Policy interventions**
  - After a small donation from a workplace, the Heart Foundation funds access to a range of human and digital support.

**A settings-based approach: community**

In addition to work and school-based interventions, there are many community-based strategies and programs that aim to get people more active. These are initiated by a wide variety of stakeholders including government and non-government organisations, private companies, sports clubs, and formal and informal groups.

Local councils, in particular, play a significant role in supporting communities to be more physically active, and have a vested interest in the health and wellbeing.
of their constituents. Largely funded by local taxpayers, councils provide a range of services, many of these aiming to promote a healthy lifestyle. Some examples of how local councils use the social-ecological model to promote physical activity and reduce sedentary behaviour are listed in the following sections.

**Individual interventions**
Below are some of the community-based interventions to promote physical activity and reduce sedentary behaviour that focus on the individual.
- Delivering education programs through council-funded healthcare centres
- Using physical activity behavioural prompts, such as street signs promoting walking and bike riding as an alternative to driving

**Social environment interventions**
Some of the community-based initiatives to promote physical activity and reduce sedentary behaviour that focus on the social environment appear in the following list.
- Using local healthcare professionals to engage the community in promoting physical activity
- Working with local businesses and sports clubs to promote sport and recreation activities
- Providing fun runs and other events that promote physical activity

**Physical environment interventions**
Some of the community-based initiatives to promote physical activity and reduce sedentary behaviour that focus on the physical environment include the following:
- Maintaining safe and aesthetically appealing grounds, parks, walking and bike paths
- Providing many different types of physical activity facilities to cater for subpopulation groups, such as a skateboard rink for children and adolescents and lawn bowls for older people
- Designing urban spaces that enable people to easily move around from place to place via walking, running, cycling or riding scooters
- Making council halls and gymnasiums available for use by locals

**Policy interventions**
Some of the community-based initiatives to promote physical activity and reduce sedentary behaviour that focus on policy appear in the following list.
- Funding initiatives that invest money into sports facilities
- Enforcement of speed control measures such as 40 km speed limits, roundabouts and speed humps that increases perceptions of safety and use of active transport
- Providing subsidies for concession card holders, such as pensioners, at local government-funded gymnasiums and recreation centres

**VicHealth as an example of community-based interventions**
VicHealth uses a variety of different community-based interventions that operate alongside each other to engage more people in sport and recreation. VicHealth targets all layers of the social-ecological model. In addition, multiple components within each layer increase the likelihood of positive outcomes across all dimensions of health.

**VicHealth’s Active Club Grants**
VicHealth’s Active Club Grants offer community-based groups, such as recreational and sports clubs, funding to purchase equipment, sports uniforms or injury-prevention items such as padding for goal posts or shin guards. Clubs are selected on their capacity to provide opportunities to engage more people in safe and enjoyable physical activity. There are two tiers of funding for sports and recreation clubs, with Vic Health currently offering grants of either $3000 or $10 000.
VicHealth’s Changing the Game: Increasing Female Participation in Sport Initiative

VicHealth is funding six sporting codes to work alongside women and girls who are not normally involved with traditional sports clubs and competitions. The program features high-profile sports people who were interviewed about their views on female participation, with the aim of raising the awareness and profile of female sport.

AFL Victoria (AFL)

AFL Active is an activity-based program that aims to develop fitness components using a total body workout that is aimed to appeal to females. It can be delivered anywhere using AFL-specific non-contact skills over a designated time frame.

Cycling Victoria

Cycling Victoria has developed a Social Spin program providing female-only spin classes in aesthetically appealing locations such as local parks. Pitched to promote enjoyment, skill and confidence, normal bikes are put onto wind trainers (a machine that enables a cyclist to pedal without the bike moving) before progressing to short-distance bike rides as the program develops.
Gymnastics Victoria
Gymnastics Victoria aims to motivate women to develop dominant movement patterns to enhance their strength, flexibility and overall health and wellbeing. Short videos have been produced so that women can learn fundamental movement skills in their own time, at their own pace, in their own home or even via a social club program. The program is called Move My Way.

**FIGURE 12.27** Move My Way is a VicHealth and Gymnastics Victoria initiative to promote physical activity in the community.

Netball Victoria
Netball Victoria has developed Rock Up Netball, which is a ‘pay as you go’ program aimed at girls and women over 15. It aims to engage females of all abilities under the supervision of skilled coaches who conduct skill drills and game play.

**FIGURE 12.28** Rock Up Netball encourages people to get involved in community-based netball games.

Surfing Victoria
Coasting is a beginners’ program that delivers Stand Up Paddleboarding (SUP) sessions for both women and girls of school age. The focus is on the fun and social aspects of water-based activities. Surfing Victoria’s introductory program Coasting delivers SUP sessions for women in beach, bay and inland locations across the summer. Sessions are tailored for women who may be trying SUP for the first time. Both the introductory sessions and the SUP school sessions have a focus on having a fun, enjoyable and social experience out on the water.

**FIGURE 12.29** Stand Up Paddleboarding provides the opportunity for individuals to learn new skills through this aquatic-based activity.
Tennis Victoria (Tennis Australia)
Get into Cardio Tennis is a program targeting women who are sedentary or have low levels of physical activity. The program incorporates low impact movement patterns using tennis racquets and balls in a fun, social environment. It can be delivered to large groups and run in a variety of settings such as workplaces and local parks.

VicHealth’s TeamUp
TeamUp is a free app that promotes structured physical activity and recreational opportunities to the community. It aims to make physical activity enjoyable, accessible and social. TeamUp aims to remove many of the barriers that prevent people being active, including cost, transport, time and social connections. Both individuals and sporting organisations can use the app.

How VicHealth’s initiatives target the social-ecological model
Some ways that VicHealth’s community-based physical activity interventions target the different layers of the social-ecological model appear in the following list.

- Individual interventions
  - VicHealth’s programs target a wide range of activities to motivate a broad group of individuals as well as removing individual barriers, such as cost, time and lack of education about the benefits of exercising.
  - Motor skills and self-efficacy are promoted.
- Social environment interventions
  - The programs work alongside a wide variety of community groups and sporting organisations in an inter-sectorial approach to promote safe physical activity.
  - The social aspect of engaging in physical activity is fostered in formal and informal sports and recreational activities.
Physical environment interventions
- Many programs are implemented in any physical environment, increasing the access to appropriate places to exercise in all communities.
- Sports clubs are given funding to purchase safe and functional sports equipment, and training and playing facilities for the community to enjoy.

Policy interventions
- Money is provided for the funding of free apps that promote physical activity.
- Funding is spread across a wide variety of interventions, increasing the likelihood of more people responding positively to one or more of these strategies.

TEST your understanding
1 List the three most common settings used for physical activity programs.
2 For each of the settings listed in the first question, give an example of an external program that is offered to schools to support movement and physical activity.
3 In what type of setting do local councils predominately aim to promote healthy levels of activity?
4 Describe how policies can have an impact on the level of physical activity in a setting of your choice.

APPLY your understanding
5 You are a principal of a primary school. Use the social-ecological model to describe two strategies for each layer of the model that will promote greater levels of moderate to vigorous exercise at the school.
6 You are a principal of a primary school. Use the social-ecological model to describe two strategies per layer of the model that will reduce levels of sedentary behaviour in the classroom.
7 You join a new company as an employee and notice that many of your colleagues are engaging in unhealthy behaviour, such as sitting down most of the day and driving to and from work. List the benefits your employer may gain if people are more active and less sedentary.
8 You are the president of a local sports or recreation club and want to offer members of the community who are disabled a chance to play at your club. Your task is to:
   - select the type of sports or recreation club
   - visit the Disability and sport weblink in your eBookPLUS
   - select a category of disability you would like to target (e.g. visually impaired, hearing impaired, paraplegics, intellectual impairment)
   - visit the Play by the Rules weblink in your eBookPLUS
   - use the seven pillars of inclusion to help you plan how you are going to include your target group into your club
   - present your findings to the class using an appropriate presentation tool.

9 Indigenous Australians are often less active than non-Indigenous Australians. Use the Closing the Gap weblink in your eBookPLUS to research an existing program that aims to promote physical activity within this disadvantaged population group. Explain how the program works.
10 Use the Sports Without Borders weblink in your eBookPLUS to answer the following questions in your own words.
   - What is the aim of this non-profit organisation?
   - Describe one initiative this organisation has implemented to encourage people from culturally diverse backgrounds to be physically active. Explain what benefits the initiative brings to the participants and the wider community.
   - Devise a sports program for your community that could encourage people from culturally diverse backgrounds to participate.

For more information on programs for culturally and linguistically diverse communities see chapter 16.
In recent years, health promotion experts have increasingly used an alternative model when tracking the physical activity levels of younger people. Youth are motivated and influenced in different ways to adults and as such, a separate model is used in an attempt to explain and influence their behaviour. This model is called the Youth Physical Activity Promotion Model (YPAP). The YPAP is similar to the social-ecological model in many ways, highlighting the many personal, social and environmental factors that influence physical activity behaviour. Other similarities between the social-ecological model and the YPAP include the following:

- There are multiple influences on behaviour.
- Both models support and embed a range of alternative theories.
- Both models recognise the complexity of human behaviour.
- Both models acknowledge there are direct and indirect factors that influence behaviour.
- Both models recognise that the relationship between an individual and the environment is a reciprocal one (i.e. an individual can affect the environment and the environment can influence an individual's behaviour).

The YPAP is a simpler model than the social-ecological model, which is why it appeals to researchers and other groups who aim to improve the physical activity levels of younger people. The term youth in this model relates to any child or adolescent of primary or secondary school age. The YPAP acknowledges the unique characteristics of children in relation to their physical, mental and emotional development. The YPAP Model is constructed using three broad factors that collectively affect children and adolescents' physical activity behaviour. These include:

- predisposing factors that reflect the desire and interest to be active
- enabling factors that allow young people to be active
- reinforcing factors that support a child or adolescent to be active.

Figure 12.33 The YPAP is a conceptual framework designed to support the design, implementation and critique of physical-activity promotion initiatives and strategies for youths.
Predisposing factors

Predisposing factors are viewed as the predominant influence on youth physical activity levels. The YPAP Model focuses primarily on two key questions: Am I able? and Is it worth it?

<table>
<thead>
<tr>
<th>Am I able?</th>
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<tbody>
<tr>
<td>This question focuses on the perceived competence of an individual to engage in physical activity. Perceived competence is the individual’s own opinion of how good they are at a particular activity. This question also covers variables such as self-efficacy and how an individual values their own physical self-worth.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Is it worth it?</th>
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</thead>
<tbody>
<tr>
<td>This question focuses on the benefits and costs to the individual. These include both cognitive and affective factors. Cognitive factors include perceived benefits, attitudes and beliefs about the value of physical activity. Affective factors include how individuals feel about being active. This includes enjoyment and interest in being physically active.</td>
</tr>
</tbody>
</table>

There are many people who understand the importance of being active and value it. Many, however, do not actually engage in physical activity. The question Am I able? is a vital link between thought and action.

Children and adolescents who believe that they are able to participate in sport and other forms of physical activity are far more likely to persist. This persistence will increase the likelihood of improved skill, enjoyment and success (that can be measured in a variety of ways) and subsequent continuation of physical activity into adulthood. Youths who can answer yes to both questions are therefore far more likely to be physically active for life.

Enabling factors

Enabling factors by themselves are not sufficient to ensure higher levels of physical activity. They do, however, provide the opportunity for physical activity and are therefore an important aspect of the YPAP Model. Enabling factors can be broadly classified as either biological or environmental.

<table>
<thead>
<tr>
<th>TABLE 12.1 Enabling factors of the YPAP Model</th>
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<tbody>
<tr>
<td>Biological enablers</td>
</tr>
<tr>
<td>Physical fitness</td>
</tr>
<tr>
<td>Healthy body fat level</td>
</tr>
<tr>
<td>Skill level</td>
</tr>
<tr>
<td>Programs that promote physical activity</td>
</tr>
<tr>
<td>Good weather</td>
</tr>
<tr>
<td>Access to equipment</td>
</tr>
</tbody>
</table>

Youths that possess the biological enablers such as being physically fit, having a healthy level of body fat and good skill levels are more likely to have a positive body image. These youths are more likely to pursue opportunities to be active, are
more likely to persist in activity for longer durations and be more successful in the activity.

Environmental enablers are an important part of any initiative to promote physical activity. Some climates are much more conducive to physical activity. There is evidence indicating that the more sunshine there is, the more likely children and adolescents will pursue physical activity opportunities outdoors. Two significant environmental enablers are access to safe and user-friendly spaces in which to be active and access to community-based programs, particularly in rural areas. This includes programs that promote awareness of the benefits of being active, and sports and recreation clubs.

**Reinforcing factors**

Reinforcing factors are predominantly social variables that have a direct influence on youth physical activity levels. The prime reinforcing factors are family, peers and coaches, but could extend to other role models such as teachers. Along with other factors there are direct and indirect influences on behaviour.

Direct reinforcement includes parents driving children to sports training and games, families exercising together, parents paying registration fees and encouraging physical activity. This encouragement is also seen in peer and coach interactions.

Although encouragement is a direct reinforcement tool, it often results in indirect promotion of physical activity via a youth's perception of their competence (more important than the actual level of competence). Studies show a clear link between perceived competence and increased physical activity levels. Although role modelling of physical activity by parents can influence behaviour, children are more likely to be physically active if their parents encourage them to see being active as part of their own identity.

**Personal demographics**

Demographics are at the base of the YPAP Model as they lay the foundation for how the various influences combine to impact on physical-activity behaviour. Personal demographics included in the model include age, gender, ethnic/cultural background and socioeconomic status. There are considerable cultural factors in addition to differences between development levels that influence physical activity. All other factors being equal there is inequality in the levels of physical activity in young people, with males more likely to be active than females. This is linked to an increased intrinsic motivation in boys (predisposition) and more consistent encouragement to be active (reinforcement).

Strategies to promote physical activity in boys should therefore continue to be linked with reinforcement that promotes intrinsic motivation. Girls, on the other hand, tend to be more active through consistent reinforcement (from families, peers and coaches) and react more positively than boys to extrinsic rewards (e.g. encouragement, recognition, certificates and medals).
Using the Youth Physical Activity Promotion Model

The YPAP Model can be used to design, implement or evaluate programs aimed to increase youth physical activity levels. Promotional strategies include direct and indirect influences that:

- improve perceptions of competence (I am able)
- improve attraction to physical activity (It is worth it)
- strengthen enabling factors
- strengthen reinforcement factors
- cater for the personal demographics within a population.

Schools play a valuable role by ensuring that PE classes promote skill and fitness development (I am able) via a wide variety of activities in an engaging and fun environment (It is worth it). Other initiatives to promote activity during the school day should also be embraced.

Community programs reach large sections of the community, including children, in a cost-effective way. These programs increase access to both facilities and programs. Facilities include bike parks, sports halls and ovals, recreation centres, walking tracks and playgrounds. Programs that focus on improvement and self-mastery are key aspects of initiatives aimed to promote development and enjoyment in children. Many sports organisations, for example, understand the positive impact that modified rules have on children — minimising competition while maximising opportunities for children to have successful and fun sporting experiences. This increases the probability of ongoing participation in sports and other physical activities.

An example of applying the YPAP Model in a primary school setting

Schools provide an ideal setting for use of the YPAP Model. The following is an example of how a primary school could adopt a school-wide approach of increasing physical activity.

1. Improve levels of competence (I am able) by:
   - employing appropriately trained PE teachers and coaches who aim to promote skill acquisition
   - focusing on what students can do rather than what they cannot
   - providing an environment via modified games and activities where success can be achieved by all (focussing on other ways that success can be measured instead of winning)
   - setting achievable targets and encouraging students to show persistence and patience throughout their learning journey
   - providing a range of activities to enable a breadth of skills to be developed.

2. Improve attraction to physical activity (It is worth it) by:
   - developing a culture in which engagement in physical activity is associated with enjoyment rather than competition
   - educating students about the links between movement and all dimensions of health
   - providing education about the potential consequences of sedentary behaviour.

3. Strengthen enabling factors by:
   - developing aerobic fitness in PE and Sport classes
   - promoting skill acquisition in PE and Sport classes
   - ensuring students have access to equipment and facilities during breaks
   - providing access to equipment and facilities during before- and after-school programs
   - providing safe and appealing play spaces.

4. Strengthen reinforcement factors by:
   - educating parents about the links between physical activity and health
   - encouraging walk or ride to school programs that encourage families to engage in active transport together
using peers to encourage greater levels of physical activity in those likely to be sedentary during free time
- teacher modelling of healthy behaviour by organising staff versus student sports games, joining in a game at break time or walking around during yard duty supervision instead of remaining in a stationary position
- PE teachers encouraging students to be active by joining sports or recreational groups at school or in the community
- Principals or other teachers celebrating sports achievements and involvements at assemblies and in newsletters.

5. **Cater for the personal demographics within a population by:**
- offering a wide range of sport and physical activity opportunities that appeal to both genders
- selecting activities that not only appeal to children but are also appropriate for the relevant year levels
- understanding the socioeconomic status of the community and mapping activities that are accessible for the student population and their families
- offering programs to potentially disadvantaged students, such as the disabled or those from different ethnic backgrounds
- considering the given population’s specific needs prior to initiation of a program.

These suggestions provide examples of how the YPAP Model could be used as a framework to promote physical activity within a particular setting. Via the predisposing, enabling and reinforcing factors, children are more likely to engage in healthy levels of physical activity and sedentary behaviour if they feel that *Yes, I am able* and *Yes, it is worth it!*

*FIGURE 12.36* PE classes at school need to be fun, engaging and accessible.
CHAPTER 12 REVISION

KEY SKILLS

- Apply a social-ecological model and/or the Youth Physical Activity Promotion Model to critique physical activity initiatives and strategies aimed at increasing physical activity and/or reducing sedentary behaviour for a range of populations in a variety of settings.

UNDERSTANDING THE KEY SKILLS

To address this key skill, it is important to remember the following:

- when applying the social-ecological (SE) model or the Youth Physical Activity Promotion Model (YPAP) a critique of how effective specific initiatives and strategies have been in increasing physical activity and/or reducing sedentary behaviour is required.
- the term ‘critique’ is used when asked to evaluate a practice in a detailed and analytical manner.
- a stem will provide clues to what has been done to promote physical activity — reading this carefully is vital.

PRACTICE QUESTION

Jump Rope for Heart is a program developed by non-government, not for profit organisation the National Heart Foundation (NHF). It has been a highly successful program. Since its inception in 1983, over 8 million students and 90 per cent of all Australian schools have participated. Approximately 280,000 students and 1400 schools participate annually. Jump Rope for Heart has mutually beneficial outcomes for both schools and the NHF. The school supports students to get fit and learn new skills, and it teaches students about community and compassion while raising funds for the school to purchase sports equipment. It provides free resources to get the program started. The program can be delivered at any time of the year in any venue that the school chooses. It uses teachers to encourage students to join.

Use the social-ecological model to critique why the NHF’s Jump Rope for Heart program has been successful. In your critique, explain why this program has been successful, using examples from the information provided above.

Sample response

This program has been successful as it has targeted all layers of the social-ecological model. It has targeted the individual by promoting new skills. It has used teachers as a source of encouragement, therefore using the social environment. By running a program that can delivered at any time of the year in any venue that the school chooses, it can be done in any physical environment. From a policy perspective it provides free resources for schools, enabling all to participate as cost is no barrier.

PRACTISE THE KEY SKILLS

1. Select any VicHealth program aimed at promoting physical activity in the community. Use the social-ecological model to critique the chosen program.
2. Select any National Heart Foundation program aimed at promoting physical activity in the community. Use the social-ecological model to critique the chosen program.
3. Select a setting (school, work, community). For your chosen setting design a physical-activity promotion or sedentary behaviour reduction strategy. Use either the social-ecological model or the Youth Physical Activity Promotion Model to support the proposed design and implementation of your strategy.

KEY SKILLS EXAM PRACTICE

1. Healthy Primary School Principal Mrs Smith is always looking for opportunities to improve the health and wellbeing of the students that attend this school. There are terrific before-and after-school activity programs and great opportunities for the students to be active during lunch. Mrs Smith, however, is concerned about the levels of sedentary behaviour within class time during the day.
   (a) Give an example of a type of sedentary behaviour likely to be seen within class time. 1 mark
   (b) With reference to Australia’s Sedentary Behaviour Guidelines, explain what the aim of Mrs Smith should be regarding reducing sedentary behaviour. 2 marks
   (c) Using the social-ecological model as a guide, come up with four strategies (one for each layer of the model) that may reduce sedentary behaviour in the students. 4 marks

HOW THE MARKS ARE AWARDED

- 1 mark — for identifying that this program has been successful as it has targeted all layers of the social-ecological model
- 1 mark — for highlighting that it targeted the individual by promoting new skills
- 1 mark — for highlighting that it targeted the social environment by using teachers as a source of encouragement
- 1 mark — for highlighting that it targeted the physical environment by using a program that can be delivered at any time of the year in any venue
- 1 mark — for highlighting that it targeted the policy environment by providing free resources for schools
A systems-thinking approach to behavioural change, such as decreasing sedentary behaviour and increasing physical activity levels is adopted, with support from models and used across a range of disciplines.

Two models are used in VCE Physical Education: The social-ecological model and the Youth Physical Activity Promotion (YPAP) Model.

The social-ecological and YPAP models are used to design, implement and analyse (critique) strategies and programs aimed at promoting physical activity and discouraging inactivity.

There are four components of the social-ecological model: individual, social environment, physical environment and policy.

The first of four core principles of the social-ecological model is that multiple factors influence behaviour.

The second of the four core principles of the social-ecological model is that environments are multidimensional and complex.

The third of the four core principles of the social-ecological model is that human–environment interactions can be described at varying levels of interaction.

The last of the four core principles of the social-ecological model is that the interrelationships between people and their environment are dynamic.

A settings-based approach is a common way that physical-activity and sedentary-behaviour interventions are implemented.

The three most common settings are the school, workplace and community.

The YPAP Model is a simple one and is particularly relevant when used for school-aged children, who are referred to as ‘youths’.

The YPAP Model is constructed using three broad factors that collectively have an impact on children and adolescents, grouped as predisposing, enabling and reinforcing factors.

There are two prime questions within the YPAP Model: Am I able? and Is it worth it?

If the answers to the two prime questions are Yes! then physical activity levels are likely to be higher.

Enablers include biological and environmental factors.

Reinforcers include family, peers and coaches, who encourage and support physical activity.

Demographics are at the base of the YPAP Model as they lay the foundation for how the various influences combine to impact on physical-activity behaviour.

Promotional strategies to increase physical activity levels include direct and indirect influences.

When using the YPAP Model perceptions of competence must be improved; physical activity must be made attractive for participants, enabling and reinforcing factors must be strengthened while catering for the needs of the targeted population.

**MULTIPLE CHOICE QUESTIONS**

1. There are four components of the social-ecological model. Which component is at the centre of the model?
   - (A) Policy
   - (B) Social environment
   - (C) Physical environment
   - (D) Individual

2. Being encouraged by a PE teacher to join a sports team is an influence from what level of influence within the social-ecological model?
   - (A) Social environment
   - (B) Policy
   - (C) Physical environment
   - (D) Individual

3. There is a strong relationship between increased socioeconomic status (SES) and increased healthy behaviour choices, such as being physically active. SES incorporates
   - (A) level of income, assets including money in the bank and house etc.
   - (B) level of education, income and employment status.
   - (C) level of intelligence, level of education, employment status.
   - (D) level of education, level of intelligence, income.

4. Out of the following options what is the first priority if the aim is to promote physical activity?
   - (A) Educate people about the side effects of sedentary behaviour.
   - (B) Get friends to persuade each other to be active.
5 School rules can have a negative influence on students’ levels of physical activity, such as not allowing them to wear runners during breaks. This is an example of a barrier imposed by
(A) social environment decisions.
(B) policy decisions.
(C) physical environment decisions.
(D) individual decisions.

6 The first core principle of the social-ecological model acknowledges that
(A) behaviour is influenced by a wide range of factors and not simply a few.
(B) the relationship between humans and the environment is reciprocal.
(C) the environment impacts on people’s behaviour.
(D) intrinsic motivation is the main influence on the success of programs.

7 Programs that target schools, communities and workplaces to promote physical activity take a
(A) holistic-based approach to health promotion.
(B) targeted approach to health promotion.
(C) individual-based approach to health promotion.
(D) settings-based approach to health promotion.

8 The state government funds a range of health promotion strategies via
(A) National Heart Foundation.
(B) YMCA Victoria.
(C) Local councils.
(D) VicHealth.

9 The YPAP Model is specifically designed for use when designing, implementing or evaluating programs for
(A) school-aged students.
(B) 0 to 18-year-olds.
(C) children.
(D) adolescents.

10 The YPAP Model highlights predisposing factors that can influence behaviour, such as
(A) encouragement from family.
(B) skill level.
(C) a desire and interest to be active.
(D) fitness.

EXAM QUESTION

Question 1
You are a school teacher who is worried about the lack of physical activity of your students during class. You want to improve their health by reducing sedentary behaviour.

a. Describe what sedentary behaviour is. (1 mark)

b. Apply the Youth Physical Activity Promotion Model to your aim of reducing sedentary behaviour during scheduled class time. Two examples are required for each section.

• Improve perceptions of competence (*I am able*) (2 marks)
• Improve attraction to physical activity (*It is worth it*) (2 marks)
• Strengthen enabling factors (2 marks)
• Strengthen reinforcement factors (2 marks)
• Cater for the personal demographics within a population (2 marks)

Total: 11 marks