

Introduction

Revising Component 3 of your BTEC Tech Award

This Revision Guide has been designed to support you in preparing for the externally assessed component of your course.

Component 3, Health and Wellbeing, builds on the knowledge, understanding and skills developed in Components 1 and 2. For your assessment, you will be given a case study and will assess an individual's health and wellbeing, drawing on your understanding of life events from Component 1. You will then design a health and wellbeing improvement plan that draws on your knowledge of services and care values from Component 2. A 'Revise it!' feature shows where you are revising content from Components 1 and 2 within Component 3.

Your Revision Guide

This Revision Guide contains two types of pages, shown below.

Content

pages help you revise the essential content you need to know for Component 3.

Skills

pages help you prepare for your assessment.

Skills pages have a coloured edge and are shaded in the table of contents.

Content Had a look ☐ Nearly there ☐ Nailed it! ☐

Personal hygiene

Personal hygiene describes the cleanliness of a person's body. Good personal hygiene is essential for health and wellbeing. Poor personal hygiene can result in bad health.

Bacteria, fungi and viruses

The human body provides the right conditions (food, moisture) to grow and viruses to multiply. Some microbes can be harmful to the body and cause disease. They can also spread from one person to another.

Negative effects of poor personal hygiene

People with poor personal hygiene may experience negative physical effects, such as catching and spreading diseases. Examples of illnesses are food poisoning, sore throat, meningitis and athlete's foot. They may also have body odour, bad breath and tooth decay.

People with poor personal hygiene may experience negative social and emotional effects, such as social isolation and loss of friendships. They may also be bullied and have poor self-concept.

Effective hand washing

Bacteria and viruses can be spread from person to person, especially to prevent the spread of infection. Thorough hand washing is essential to prevent the spread of infection. Always wash hands before and after eating, after using the toilet, after coughing or sneezing, after touching surfaces, and after touching people.

Good personal hygiene

- handwashing
- bathing or showering
- using a tissue
- washing your face
- brushing teeth
- wearing clean clothes
- brushing your hair

Now try this

Write a short paragraph to explain why personal hygiene is important for health and wellbeing.

Skills Had a look ☐ Nearly there ☐ Nailed it! ☐

Explaining physiological data: peak flow

You may be asked to interpret data on a service user's peak flow, and give a clear and detailed explanation about their current health and possible physical health risks.

The nurse has worked out a target peak flow based on Naomi's age, height and health conditions. Her target is 80% of normal readings because of her asthma. The nurse first measures Naomi's height and then asks her to use the peak flow meter and expel air from her lungs.

Physiological data

Peak flow	Height
385 L/min	165 cm

This guidance will help you interpret Naomi's data.

Look at page 24 for more information on peak flow measurements.

To interpret peak flow data it is important to know the person's age and height. This learner has remembered or checked Naomi's age (35) from the introductory case study.

The learner has interpreted the data correctly. Remember, when interpreting physiological data you should take into consideration other factors such as height, gender and health conditions. Naomi's asthma means that her peak flow may be lower than expected for her height and weight.

Sample response extract

Naomi's peak flow is more than 80% of normal values. This means that the medication she uses is controlling her asthma and her lungs are reasonably healthy. If Naomi's peak flow reading falls below her target, it indicates that she is at risk of an asthma attack. A poor reading could also indicate conditions such as chronic bronchitis, emphysema or cancer.

The learner understands that lower than expected readings might indicate Naomi's asthma is not being controlled, or other lung problems.

Now try this

Use guidance to interpret peak flow data for the following people.

Person	Age	Height (cm)	Peak flow reading
Clive (male)	65	183	555 L/min
Aria (female)	20	160	420 L/min
Beck (male)	47	175	648 L/min

Use the graph on page 24 to help you interpret data for men and women.

Use the **Now try this** activities on every page to help you test your knowledge and practise the relevant skills.

Look out for the **sample response extracts** to example assessment tasks on the skills pages. Post-its will explain their strengths and weaknesses.

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A small bit of small print

Pearson publishes Sample Assessment Material and the Specification on its website. This is the official content and this book should be used in conjunction with it. The questions in *Now try this* have been written to help you test your knowledge and skills. Remember: the real assessment may not look like this.

Health and wellbeing

Health and wellbeing is a combination of physical health and social, emotional and intellectual (mental) wellbeing, not just the absence of disease or illness. Health professionals must understand the needs of the whole person to be able to support them.

The whole person

PIES stands for:

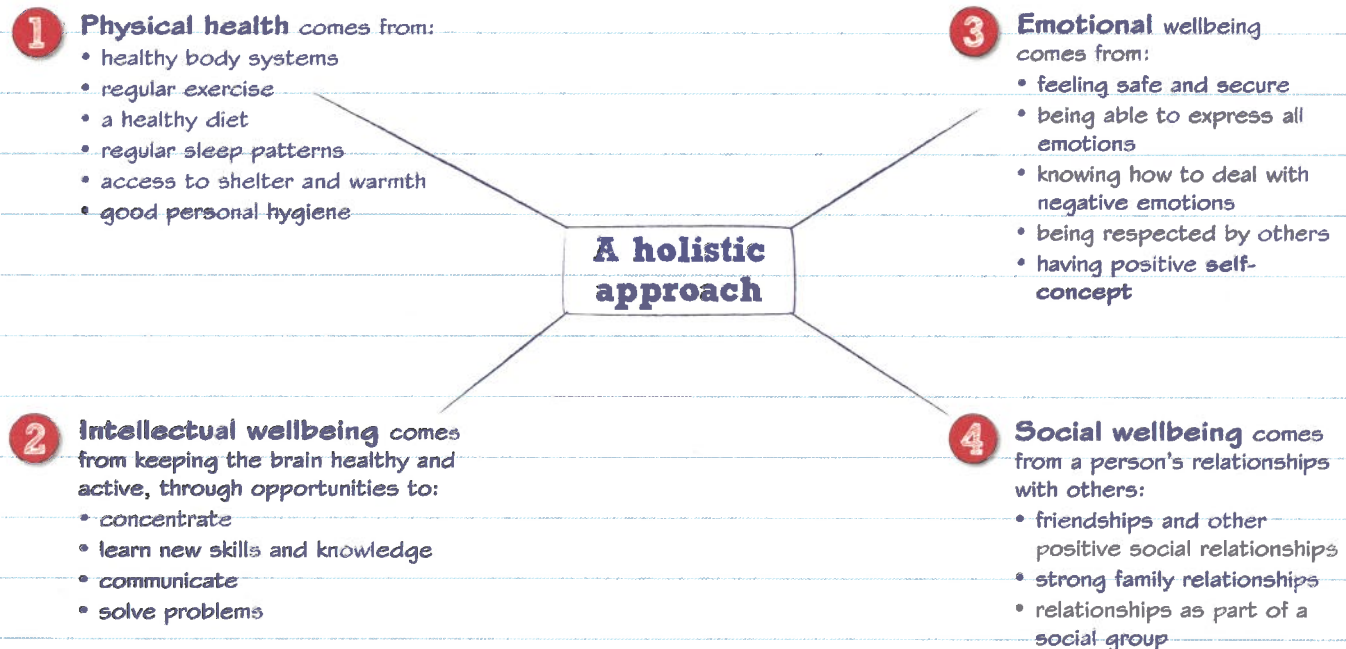
- Physical
- Intellectual
- Emotional
- Social.

It will help you to remember that health and wellbeing is about the **whole person**. A **holistic** approach is about meeting the needs of the whole person.



Social isolation has a negative effect on health and wellbeing.

Wellbeing comes from recognising the importance of all aspects of health.



Now try this

Explain what is meant by a holistic approach to health and wellbeing.

The World Health Organization (WHO) states that health and wellbeing is not just the absence of disease.

Genetic inheritance

Genes are inherited by children from both their birth parents. Genetic inheritance is a physical factor that can have positive and negative effects on a person's health and wellbeing.

Inherited physical characteristics

Children inherit many physical characteristics from their parents, such as height, skin and eye colour, and hair type and colour. These characteristics can affect social and emotional wellbeing because they influence a person's **self-concept**, which is composed of their:

- **self-image** (how a person sees themselves)
- **self-esteem** (how they feel about themselves).

Genes and environment

Chromosomes carry **genes** that determine aspects of a person's physical makeup. A **gene** is a section of DNA that carries a **code**. Different versions of a gene, which code for variations of the same characteristic (such as blue eyes and brown eyes), are called **alleles**.

Environmental factors, such as diet, also have an effect on physical appearance. For example, a person may not grow to their full, genetically determined height if they do not have enough food.

Inherited conditions

Sometimes alleles can be faulty. Conditions may be inherited when faulty alleles are passed from one parent (if dominant) or both parents (if recessive). Conditions can also be caused by whole chromosome abnormalities, for example Down's syndrome. This most commonly occurs when a child inherits an extra chromosome 21.

Condition	Effects	Allele type
Huntington's disease	Involuntary movements and gradual loss of intellectual ability	Dominant
Neurofibromatosis (NF1)	Tumours grow along nerves	Dominant
Cystic fibrosis	A build-up of sticky mucus damages the lungs	Recessive
Sickle cell anaemia	Blood disease causing episodes of pain	Recessive

Genetic predisposition

Some people are **predisposed** (more likely) to develop conditions because of their genetic makeup, for example heart disease, cancer and diabetes.

Whether a person *actually* develops these conditions depends on **lifestyle and environmental factors**, such as diet and exercise, air quality and level of stress.

Effects of inherited disorders

Inherited conditions can affect the whole person:

- **Physical** health – body systems, growth and mobility.
- **Intellectual** wellbeing – learning, thinking, problem solving and decision making.
- **Emotional** wellbeing – how people feel about themselves.
- **Social** wellbeing – the ability to build relationships.

Now try this

Gemma, aged 14, has the inherited condition cystic fibrosis. She has regular physiotherapy to help clear her lungs of mucus and frequently spends time in hospital.

Describe possible effects of cystic fibrosis on Gemma's physical, intellectual, emotional and social wellbeing.

As well as the physical effects, think about the impact of missing school and how Gemma feels about herself.

Ill health

Ill health is a physical factor that can have a negative effect on health and wellbeing. Ill health may be described as **acute** or **chronic**.

Chronic illness

Chronic illness comes on more slowly and lasts for a long period of time, sometimes a lifetime. Often physical symptoms can be treated with medication, but not usually cured. Examples include:

- diabetes
- arthritis
- asthma
- heart disease
- bipolar disorder.

Managing chronic illness

The key to managing **chronic illness** is to address the negative impacts on the whole person – to make sure physical, intellectual, emotional and social needs are met. For example, for a child with a chronic condition, this might mean using medication to control symptoms, continued schooling while in hospital, counselling to help with negative emotions and opportunities to socialise with other young people.

Possible negative effects of chronic illness

Long-term illness affects the whole person.

Physical	Poor rate of growth Unusual physiological change during puberty Restricted movement
Intellectual	Disrupted learning because of missing school Difficulties in thinking and problem solving Memory problems
Emotional	Negative self-concept Stress
Social	Isolation Loss of independence Difficulties developing relationships

Acute illness

Acute illness starts quickly and lasts for a short period of time. Examples include bacterial and viral infections and heart palpitations. Since acute illnesses are short-lived, any negative effects are usually short term and usually people recover completely.



Chickenpox is an acute viral infection that usually affects young children. It goes away quickly and long-term negative effects are rare.

Managing acute illness

Physical symptoms of acute illness, such as bacterial infection, pain and fever, can often be treated in the short term with medication.

Links between acute and chronic illness

Long-term conditions, such as chronic heart disease, may lead to acute illness, such as heart attack.

Now try this

Give one negative effect of arthritis in each category of health and wellbeing: physical, intellectual, emotional and social.

It might help to consider how arthritis has affected someone you know.

Accident and injury

An accident is a physical factor that happens unexpectedly. An injury from an accident may affect a person's health and wellbeing in the short or long term, causing acute or chronic illness.

Acute negative effects of injury

Minor injuries may have **acute** (temporary) negative effects on a person's health and wellbeing, such as pain and immobility. Recovery may take from a few weeks to a few months. When injuries heal, people often return to life as usual.

Injury	Treatment
Broken bones	Immobilisation in a plaster cast, possibly after surgery
Minor burns	Regular changes of dressings
Cuts	Dressings and sometimes stitches
Sprains	RICE – Rest, Ice, Compression, Elevation

Negative effects of chronic illness from serious injury

Some more serious injuries have **chronic** (permanent and life-changing) negative effects on all aspects of a person's health and wellbeing.

Physical effects • Loss of mobility • Loss of sight • Serious scarring	Intellectual effects • Brain damage • Concentration and memory problems • Missed education
Emotional effects • Depression • Poor self-concept • Stress	Social effects • Loss of independence • Social isolation • Inability to work

Managing chronic negative effects

Positive outcomes after serious injury are possible with appropriate support of physical, intellectual, emotional and social aspects of a person's health and wellbeing.

Accidents can cause people to reevaluate their lives and they may work hard to make positive changes. Individuals can adapt to long-term health problems by learning new skills and hobbies or by beginning new careers.



With specialist equipment, training and support, these women are successful athletes. All have lost limbs.

Now try this

Kareem, aged 27, is married with two children. He works as a motorcycle courier. He enjoys playing cricket for a local team, but recently lost a leg in an accident.

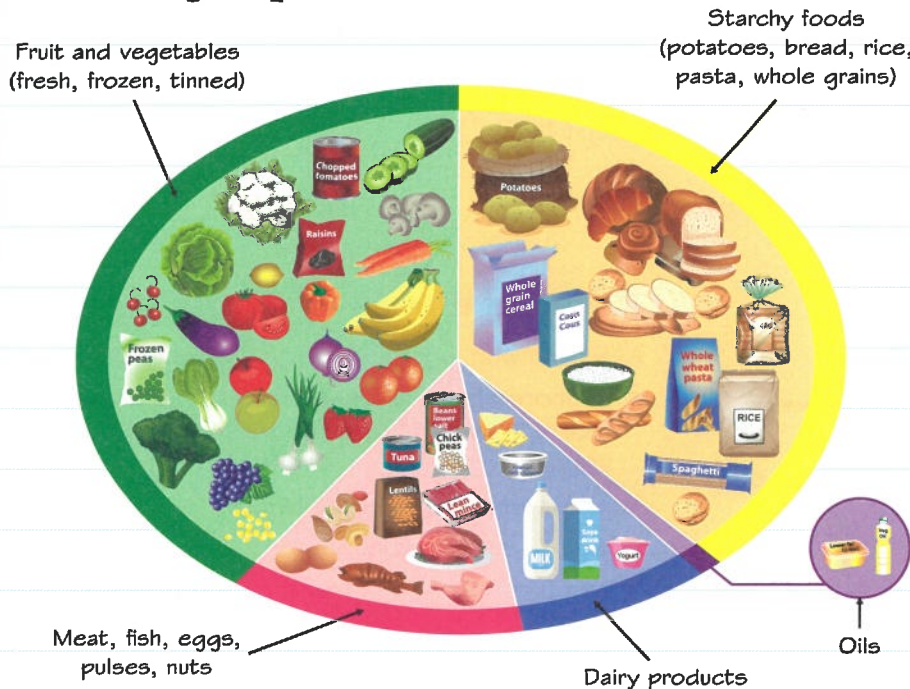
Explain two effects that Kareem's injury could have on his emotional wellbeing.

Although the injuries will affect Kareem's physical mobility, the question asks about his emotional wellbeing – how the accident makes him feel.

Balanced diet

Diet is usually a lifestyle choice. It means the balance of different food types that a person usually consumes, as well as the quality and quantity. A balanced diet maintains health and wellbeing because it contains all the nutrients the body needs in the correct proportions.

Food groups



Fibre and water

As well as a range of nutrients from different food groups, a balanced diet also includes fibre and water.

✓ Fibre is important in the diet to lower the risk of heart disease and maintain a healthy digestive system.

✓ Water is used in all cells, helps regulate body temperature and also aids digestion.

This is the Eatwell plate. All food can be divided into these groups and the plate shows the proportions of these food groups it suggests you should eat in one day. For example, fruit and vegetables should make up just over a third of your diet.

Quality of foods and nutrients

Fresh, unprocessed foods are the most nutritious, or contain the most nutrients. The table shows the major **nutrients** found in each food group.

Food groups	Main nutrients
Fruit and vegetables	Vitamins, minerals
Starchy foods	Carbohydrates, minerals, vitamins
Meat, fish, eggs, pulses	Protein, fats, iron (mineral)
Dairy products	Protein, fats, vitamins, calcium (mineral)
Oils	Fats

Types of nutrient

This table shows how different nutrients contribute to physical health.

Nutrient	Purpose
Vitamins	Healthy immune system, skin and eyes
Carbohydrates	Boost energy levels
Protein	Growth and repair of tissues
Minerals	Healthy teeth, blood, skin and hair
Fats	Energy, healthy cell structure, help vitamin absorption

Now try this

Explain two risks to health of not following government guidance on eating sufficient fruit and vegetables.

Remember that fruit and vegetables contain essential vitamins and fibre.

Effects of an unbalanced diet

A diet that does not contain a balance of nutrients will have a negative impact on health and wellbeing.

Energy in foods

All foods provide energy but some food types provide more energy than others. Fats provide the most energy, then carbohydrates.

Energy can be measured in calories. The maximum recommended number of calories is about 2,000 kcal for moderately active adult women and 2,500 kcal for men. This includes food and drinks. Exact energy requirements vary according to size (height and weight) and level of activity.

Negative effects of nutrient deficiency

A lack of certain nutrients may lead to illnesses such as:

- anaemia (reduced numbers of red blood cells)
- rickets (a bone disease)
- poor growth
- depression
- tiredness
- anorexia (excessive weight loss).

Quantity of food

It is important to eat the right **amount** of food to meet our energy demands. If people take in too much energy-containing foods, the body will store this as fat and gain weight; consuming too little energy-containing food to meet needs causes weight loss.

Negative effects of excess nutrients

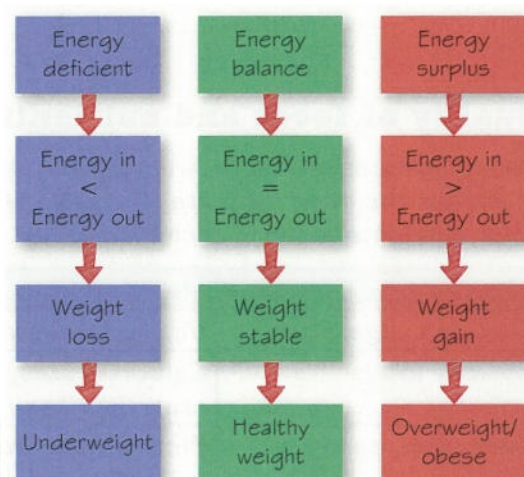
A person who is **obese** (very overweight) may:

- be more prone to illnesses, such as diabetes, heart disease, high blood pressure, cancer and stroke
- have reduced life expectancy
- be less able to exercise
- have poor self-concept.

Energy balance

People who take in as much energy as they use maintain a healthy weight, whereas those who eat an excess of energy-containing foods gain weight, become overweight and may eventually become obese. Those whose energy consumption doesn't meet their needs lose weight. Very muscular people may weigh more than expected for their height, but are fit. They may require a high-energy diet if they do a lot of exercise.

In general terms, there is often a relationship between someone's energy intake, their energy use and their weight.



Now try this

Bob is obese and eats more calories than the recommended daily allowance for men.

What types of food should Bob reduce in his diet?

You may find it helpful to refer to information on food groups on the previous page.

Exercise

Exercise is usually a lifestyle choice. The amount of exercise a person regularly takes affects their health and wellbeing.

Types of exercise

There are different types of exercise, which can be carried out at **gentle**, **moderate** or **vigorous** pace.

Type	Examples
Everyday activities	Walking, cycling, gardening, housework
Recreational activities	Swimming, dancing, bowls, running, climbing, exercise classes
Competitive sport	Football, rugby, netball, tennis, rowing

Negative effects of not exercising

Just as exercising has positive effects on all aspects of health and wellbeing, not exercising affects the whole person negatively:

- **Physical** – obesity and associated health problems.
- **Intellectual** – reduced brain performance.
- **Emotional** – poor self-concept and reduced ability to cope with stress.
- **Social** – fewer opportunities for social interaction.

Positive effects of exercise

1 Physical benefits

Exercise helps maintain a healthy weight and can reduce Body Mass Index (BMI), as well as boosting energy levels. It can improve flexibility, stamina and endurance, and strengthen bones and muscles. It can also reduce the risk of heart disease and diabetes.

2 Intellectual benefits

Studies show a link between levels of exercise and brain function, such as memory and thinking skills, at every stage of life.

3 Emotional benefits

Exercise improves confidence and mood and reduces stress. It can aid relaxation and sleep and can lead to better self-concept.

4 Social benefits

Certain types of exercise (such as competitive sports or exercise classes) encourage social interaction, reducing isolation and improving social skills.

Government recommendations

Vigorous exercise, for example running, raises the pulse rate more than moderate exercise, for example walking briskly (see also page 28).

Children and young people (5–18 years)	Adults (19–64 years)	Older adults (65+ years)
Moderate to vigorous activity: 60 mins per day Vigorous activity: three times a week (minimum) Activity for strength: three times a week	Moderate activity: 30 mins five times a week Moderate to vigorous activity: 150 mins spread over a week Activity for strength: twice a week	Moderate to vigorous activity: 150 mins spread over a week, active daily Activity for strength: twice a week

Now try this

Give one example for each aspect of health and wellbeing (physical, intellectual, emotional, social) to show how **lack** of exercise may affect people.

People who do not exercise will not experience the positive effects outlined on this page.

Personal hygiene

Personal hygiene describes the cleanliness of a person's body. Good personal hygiene is essential for health and wellbeing. Poor personal hygiene can result in bad odours and infections.

Bacteria, fungi and viruses

The human body provides the right conditions (food, moisture and temperature) for bacteria and fungi to grow and viruses to multiply. Some **microbes** can be harmful. Good personal hygiene reduces the numbers of microbes on the body and decreases the risk of infection.

Negative effects of poor personal hygiene

People with poor personal hygiene may experience negative **physical effects**, such as catching and spreading diseases. Examples of illnesses are food poisoning, sore throat, meningitis and athlete's foot. They may also have body odour, bad breath and tooth decay.

People with poor personal hygiene may experience negative **social and emotional** effects, such as social isolation and loss of friendships. They may also be bullied and have poor self-concept.

Good personal hygiene

Good personal hygiene has a positive effect on health and wellbeing. It helps to prevent the spread of infection. It also improves self-concept as people feel good about themselves when they are clean and groomed.

Good personal hygiene habits include:

- handwashing
- bathing or showering
- keeping nails clean
- using a tissue when coughing or sneezing
- washing and brushing or combing hair
- brushing teeth regularly
- wearing clean clothes
- flushing the toilet.

Effective hand washing

Bacteria and viruses can be spread from person to person, often on hands. Regular hand washing is essential to prevent the spread of infection. Thorough hand washing removes bacteria and viruses.

Always wash hands before and after caring for others, after going to the toilet or sneezing, before and after preparing food, and after touching pets.



Now try this

Write a short paragraph to explain why personal hygiene is important for health and wellbeing.

Try to summarise the information on this page.

Alcohol

The use of alcohol is a lifestyle choice. There is government guidance on safer limits. Consuming more than the recommended amount has negative effects on health and wellbeing.

Government guidance

Current UK government guidance on alcohol consumption aims to lower the risks to health and wellbeing.

- Men and women should consume no more than 14 units of alcohol per week.
- People should avoid drinking a large number of units in a short time or **binge drinking**.
- Pregnant women should avoid alcohol.
- Any alcohol consumption increases the risk of cancer.

Understanding units



A unit relates to the size (volume) of the drink and the amount of alcohol it contains.

- ✓ Small (125 ml) glass of wine = 1.5 units
- ✓ Pint of beer = 3 units
- ✓ Small (single) glass of spirits = 1 unit

Negative effects of excessive alcohol consumption

Excessive use of alcohol can have a negative effect on health and wellbeing.



Now try this

What recommendations would you give to these people?

- Sean doesn't drink alcohol in the week and drinks no more than 14 units during the weekend.
- Grace is pregnant so she is cutting her alcohol intake to less than 14 units per week.
- Zara, aged 62, has a small glass of wine with her meal three evenings a week.

Read through the government guidance again to remind yourself of safer levels of alcohol consumption for different people.

Smoking and nicotine use

Smoking and the use of nicotine is a lifestyle choice. Nicotine is an addictive drug. It is found in tobacco products such as cigarettes, cigars and chewing tobacco. These products carry a health warning as they can have serious effects on health and wellbeing.

Harmful chemicals

Cigarette smoke contains harmful chemicals that are absorbed in the lungs.

- **Nicotine** causes addiction, raised pulse rate and blood pressure, and thrombosis (blood clots).
- **Tar** causes cancers of the nose, throat, tongue, lungs, stomach and bladder.
- **Carbon monoxide** reduces the amount of oxygen in the blood, straining the heart.
- **Soot** particles cause bronchitis and emphysema.

Reasons people smoke

People give different reasons for smoking, often related to the **addictive** nature of nicotine, such as:

- feeling unable to quit
- to overcome addictions to other drugs or alcohol
- to relieve stress and relax
- because friends smoke (peer pressure)
- to reward themselves
- fear of putting on weight (nicotine stops people feeling hungry).

Negative effects of smoking

1 Physical

Smoking increases the risk of life-threatening diseases such as cancer, stroke, coronary heart disease, emphysema, bronchitis and pneumonia. Smoking during pregnancy carries an increased risk of having a low birth weight baby, or a premature birth or stillbirth.

2 Intellectual

Addiction to nicotine causes cravings, irritation, distraction and stress when the smoker is unable to smoke. Smokers are more likely to develop depression and anxiety over time.

3 Emotional

Being unable to quit smoking may lead to poor self-concept. Smokers may worry about the negative effects on their health and about the cost of cigarettes.

4 Social

Smokers may feel socially excluded when they have to leave social spaces to smoke outside. People may avoid smokers because of the smell of their hair, breath and clothes.

Passive smoking

Breathing in the smoke from other people's cigarettes carries some of the same risks as smoking. In the UK, smoking is banned in all public indoor spaces and some public outdoor spaces, and it is illegal to smoke in a car in the company of someone who is under 18. This protects people against passive smoking.

Other nicotine products

Smokeless tobacco, nasal snuff or chewing tobacco is absorbed through the membranes of the nose and mouth. It can cause oral cancer and gum disease, as well as increasing the risk of heart disease.

Recently, people have been using 'electronic cigarettes' to inhale nicotine (vaping). The long-term health effects are not yet known.

Now try this

Write a short paragraph to explain why smoking can have negative emotional and social impacts on health and wellbeing.

Remember an emotional effect is about feelings and a social effect is about how you relate to others.

Drugs

All drug use has an effect on health and wellbeing. Drugs include legal substances such as nicotine, alcohol, prescription and over-the-counter medicines, and illegal substances such as cannabis and cocaine. Drug misuse has a negative effect on health and wellbeing.

Prescription drugs

Prescription drugs are those recommended by a doctor or practice nurse. When taken correctly, they have beneficial effects on health and wellbeing, such as reducing pain or fighting infection.

Their misuse can have negative effects on health and wellbeing.

Misuse of prescription drugs

The use of prescription drugs must be monitored by a health practitioner. Prescription drugs are misused when people:

- take them for non-medical (recreational) reasons
- become addicted to them
- take more or less than the prescribed dose
- take drugs that belong to another person.

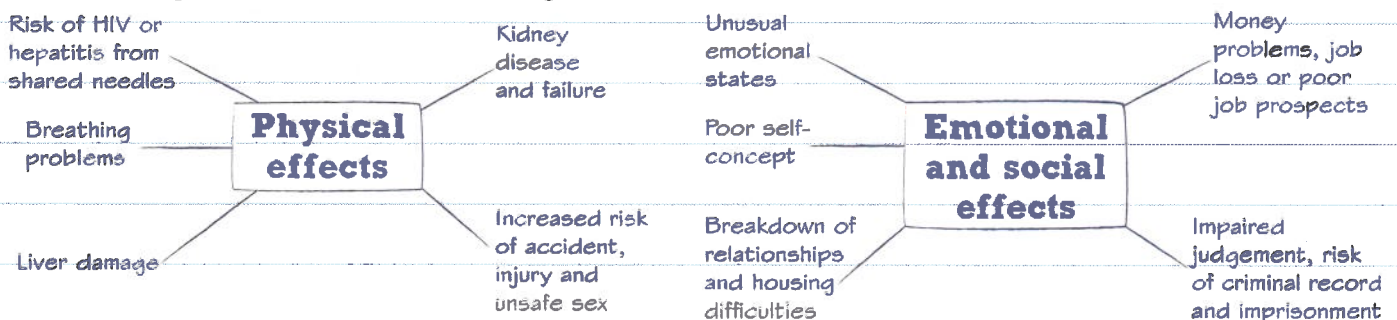
Negative effects of drug misuse on intellectual health

The three main types of recreational drugs are shown in the table. All are **addictive**.

People take these to change their mental state. Some drugs may give an immediate feeling of wellbeing, or even euphoria, but all have longer-term negative effects on intellectual (mental) health.

Drug type	Possible short-term effects	Possible long-term effects
Stimulants nicotine, cocaine, caffeine	Active, alert, excited	Paranoia, aggressiveness, schizophrenia, depression, suicidal feelings
Depressants cannabis, alcohol, solvents, heroin	Calm, relaxed, reduced tension, poor concentration	Sleep problems, anxiety, memory loss, depression
Hallucinogens LSD; ketamine	Hallucinations, altered sense of space and time, mood swings	Anxiety, memory loss, depression, panic attacks, flashbacks

Other negative effects of drug misuse



Now try this

Liam, 16, has recently started taking stimulant drugs as a result of peer pressure.

Give two possible effects on his emotional and/or social wellbeing.

Think about how drug use may affect his behaviour and the impact this has on his relationships.

Social interaction

Social interaction is the process of acting and reacting to people around us, by communicating and forming relationships. It is a factor that can have a negative or positive effect on health and wellbeing.

Social integration

Social integration is when people feel they belong to a group and can interact with others. Social interactions happen between:

- family members and friends
- work colleagues
- school or college learners
- members of interest groups, such as sports teams or social clubs
- community members, such as members of a church or cultural group.

Culture

This is the characteristics of a particular group of people, defined by their language, religion, cuisine, social habits, music and arts, for example.

Social isolation

Social isolation occurs when people do not have regular contact with others. This may be because they do not get out much, because of reasons like physical illness, reduced mobility or unemployment.

A person may have difficulty in communicating with friends, family and acquaintances if they have a mental illness, such as depression, or a condition that affects communication, such as autism.

Life changes such as bereavement and relationship breakdown leave big gaps in people's lives. Homelessness is extremely isolating.

A person may be discriminated against because of their culture or religion, or other reasons, leading to isolation.

Effects of relationships on health and wellbeing

Supportive relationships can provide:

- 1 Physical support** – day-to-day care and practical assistance
- 2 Intellectual support** – shared experiences, supported learning and thinking
- 3 Emotional support** – unconditional love, security and encouragement
- 4 Social support** – companionship.

Negative effects of social isolation

Social isolation can cause:

- difficulty in building relationships
- feelings of insecurity
- depression, stress and anxiety
- reduced ability to use thinking skills
- poor lifestyle choices, such as smoking and drinking.

Supportive relationships

Supportive relationships may result in:

-  positive self-concept
-  feeling of contentment
-  ability to build good relationships with people outside the family
-  independence and confidence.

Unsupportive relationships

Unsupportive relationships may result in:

-  negative self-concept
-  feelings of hurt, loneliness and distrust
-  difficulties in building relationships
-  lack of independence
-  difficulty in controlling emotions.

Now try this

Mark is 58 years old and lives alone since his divorce. Last year he was made redundant from his job and now he rarely leaves home.

Give two possible effects of not being able to socialise on Mark's health and wellbeing.

Mark's situation will make him feel socially isolated.

Relationships

The quality of relationships may positively or negatively affect health and wellbeing.

Types of relationship

Relationships can be **formal** (such as between work colleagues) or **informal** (such as between friends and family).

REVISE IT!

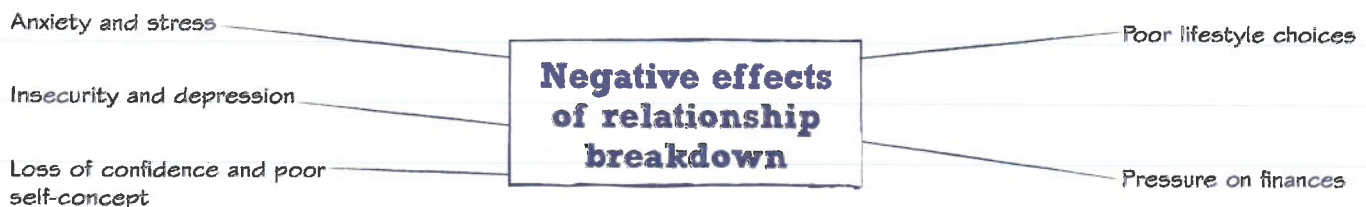
You might need to use this Component 1 knowledge in your assessment.

Positive effects of relationships

Relationship	Possible effects
Close friendships	From around the age of three, children start to build friendships outside the family group. These can: • give feelings of security and confidence • promote positive self-concept • provide encouragement to take part in leisure and physical activities • influence life choices negatively or positively (peer pressure).
Family relationships	Close family relationships can provide: • unconditional love, which benefits self-concept • security and support • encouragement to learn and develop new skills • shared family, social and leisure experiences • confidence to build relationships with others.
Parenthood	Babies and children can bring: • happiness and contentment • opportunities to meet other new parents • worry and anxiety about responsibilities • tiredness.
Marriage or partnerships	Marriage and intimate partnerships provide: • feelings of security and contentment • benefits to self-concept • a wider social circle.

Relationship breakdown

Friendships, family relationships, marriages and partnerships can break down. This may adversely affect health and wellbeing.



Now try this

Give examples of how your own relationships have had positive effects on your health and wellbeing.

You might like to think about how you have benefited from relationships with family or friends.

Stress

The word **stress** is used to describe feelings of mental and emotional tension. Stress can affect physical, intellectual, emotional and social health and wellbeing in the short and long term.

Causes of stress

Stress happens when people experience:

- pressures at work
- exams
- financial difficulties
- life events such as:
 - illness
 - relationship changes (marriage, divorce)
 - moving home
 - bereavement.

Physical effects

Short-term

- Increased heartbeat
- Increased breathing rate
- Tension in muscles
- Sweaty hands
- Dry mouth
- 'Butterflies' in stomach

Long-term

- High blood pressure
- Loss of appetite
- Sleeplessness
- Digestive problems and ulcers
- Heart disease

The body's response

The body's response to stressful situations is a rise in the hormones **cortisol** and **adrenaline** (giving the **fight-or-flight response**). Low-level or short-term stress can be positive, helping people to function better by boosting their concentration and thinking skills. Intense stress or stress over a longer period has negative, unhealthy effects on the body.



One of the possible long-term physical effects of workplace stress is sleeplessness.

Other negative effects of stress

Intellectual effects	Emotional effects	Social effects
• Forgetfulness • Poor concentration • Difficulty in making decisions	• Difficulty controlling emotions – crying or getting angry • Feeling insecure • Negative self-concept • Feeling anxious and frightened	• Difficulty in making friends and building relationships • Breakdown of close relationships • Loss of confidence • Social isolation

Now try this

Identify a situation in which you felt stressed, for example before an exam or when you experienced a challenging life event. List the effects it had on you.

Think about your physical, intellectual, emotional and social wellbeing to identify all the effects.

Asking for help

Most people need to seek help from health and social services at various stages in their lives. Being reluctant to ask for help has negative effects on health and wellbeing.

Barriers to seeking help

People give different reasons for finding it difficult to ask for help. These often include factors associated with:

- culture
- gender
- education.

1 Cultural reasons

Cultural reasons are to do with social behaviours, values, traditions, customs and beliefs of communities. Examples include:

- Some people may have experienced cultural discrimination when accessing other services.
- Some people may not speak English well enough to discuss their health issues.
- People may feel their values and traditions are not understood by health professionals.
 - Eye contact is a sign of respect in some cultures but in others appears rude.
 - Particular dietary requirements are very important in some cultures.
- In some cultures women should be treated by a female health worker or accompanied by another woman if this is not possible.
- In some communities men do not talk openly about health matters.
- People have different perceptions about ill health and ageing.
 - Alternative therapies are widely used in some communities.
 - Caring for older people within the family at home is the norm for some cultural groups.

Effects of not seeking help

If people are unwilling to seek help, physical and mental health issues may become much worse, having negative impacts on all aspects of wellbeing.

REVISE IT!
You might need to use this Component 2 knowledge in your assessment.

2 Gender

Research shows that men are less likely to seek help than women. Men are:

- often less open about their feelings
- sometimes reluctant to appear vulnerable by asking for help
- less frequently the targets of health education campaigns, so are not aware of poor health signs
- sometimes unhappy about being examined by a female health worker.

3 Education

Research shows that people who are better educated are more likely to seek help.

Better-educated people are more likely to:

- research symptoms and know when help is needed
- understand the importance of early diagnosis and treatment
- know how and where to access services.

Stigma

In some cultural groups there is a **stigma** attached to certain conditions, for example depression. 'Stigma' is a word to describe something that people feel ashamed about.

Now try this

Ron is 67 years old and lives alone. Ron missed out on education when he was young and has worked as a labourer most of his life. Now he is retired, he has become isolated and is feeling depressed.

Give three reasons why Ron may be reluctant to seek help for his depression.

Consider the reasons why men and people who are less educated are less likely to seek help.

Economic factors

Economic factors relate to a person's employment situation and financial resources. Economic factors can determine a person's lifestyle, which may positively or negatively affect health and wellbeing.

Financial resources

A person's financial resources may depend on their:

- **wealth** – level of income or amount of personal wealth, including non-essential, valuable **material possessions**, such as jewellery, cars and property
- **occupation** – job role, job status (such as level of responsibility, expertise and salary level)
- **employment / unemployment** – part-time, full-time, self-employed, not being able to find work, being disabled or redundant, being reliant on state benefits.

Poverty

People with very limited financial resources live in **absolute poverty** and do not have enough money to meet their basic needs.

People with reduced financial resources live in **relative poverty** and can only afford the essentials.

Poverty limits people's life chances and has a negative effect on health and wellbeing.

REVISE IT!

You might need to use this Component 1 knowledge in your assessment.

Effects of economic factors on health and wellbeing

Aspect	Positive effects	Negative effects
Physical	👍 Better financial resources can result in good housing conditions and healthy diet. 👍 Manual jobs may improve muscle tone and stamina.	👎 Low wages can affect diet and housing, leading to poor health. 👎 Manual jobs can cause muscular and skeletal problems. 👎 Desk jobs lead to less activity and weight gain.
Intellectual	👍 Better financial resources can result in more leisure time for intellectual activities. 👍 Work, education or training helps to develop problem-solving and thinking skills.	👎 Some people work very long hours to improve their financial position, leading to less leisure time and reduced learning opportunities. 👎 Being unemployed can result in poor mental health.
Emotional	👍 A well-paid job gives a feeling of security. 👍 Being financially secure promotes positive self-concept.	👎 Financial worries can result in stress and breakdown of relationships. 👎 Unemployment or low-status work can lead to low self-concept.
Social	👍 Better financial resources provide opportunities for socialising. 👍 Work gives opportunities for socialising with colleagues.	👎 Lack of financial resources reduces opportunities for socialising. 👎 Unemployment reduces opportunities for relationships, leading to social isolation.

Now try this

Explain, giving two reasons, why a person's occupational and employment statuses can affect their emotional development.

Give reasons for your answer, making links to positive and negative effects.

Environmental factors

Environmental factors refer to the air, water and land around us. Pollution in the environment affects health and wellbeing.

Pollution

Pollution is the **contamination** of the environment (air, water, land) and living organisms by harmful chemicals. Noise and light pollution also affect health and wellbeing.

One type of pollution is outdoor air pollution. Research shows that outdoor air pollution causes 40 000 deaths each year in the UK. Children and older people are most at risk from the negative effects.

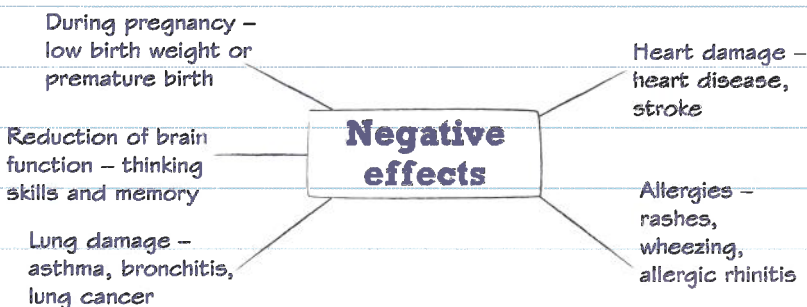


Types of pollution

Type	Causes
Outdoor air pollution	Chemicals from factories, particles and nitrogen dioxide from vehicle exhausts
Indoor air pollution	Aerosols (deodorants and cleaning products), mould spores, cigarette smoke, carbon monoxide from faulty boilers
Water pollution	Farm fertilisers and pesticides, factory waste, sewage leaks
Land contamination	Landfill, intensive farming resulting in soil pollution
Food pollutants	Pesticides and fertilisers, and chemicals used in food processing
Noise pollution	Machinery, traffic, loud music
Light pollution	Excessive artificial light, for example street lights at night

Negative effects of pollutants

Chemical pollutants are taken into the human body through the nose, mouth or skin.



Effects of noise pollution

- Stress
- High blood pressure
- Hearing loss
- Disrupted sleep

Now try this

Neville is 82. He used to live in a large city and worked in a car repair shop, but retired to the country. Neville has never smoked although his wife used to. He has been diagnosed with chronic bronchitis.

Explain two likely causes of Neville's bronchitis.

Remember that, although the environment Neville lives in now may be healthy, the pollution he breathed in earlier may have had a long-lasting effect.

Housing

Housing is an environmental factor. The quality of the home in which a person lives is an important factor in determining their health and wellbeing.

Good living conditions

Good housing has a positive effect on health and wellbeing. It is often:

- located in areas with less pollution
- quiet and safe
- spacious
- warm and dry
- close to or has safe outdoor space.

REVISE IT!
You might need to use this Component 1 knowledge in your assessment.



Poor living conditions

Poor housing has negative effects on health and wellbeing.

Condition	Effects on health and wellbeing
Damp and mould spores	Respiratory (breathing) problems, for example asthma
Overcrowding	Anxiety and depression, difficulty concentrating and studying, sleeplessness, pressure on relationships leading to arguments
No open spaces	Physically less fit because of lack of exercise and physical play
Poor heating	Poor health (colds, flu), heart disease
Vermin	Rats carry a bacterial infection affecting the organs of the body (Weil's disease); cockroaches trigger asthma and allergies and carry diseases



Comparing the city to the countryside

There are pros and cons to living in either a city or a rural location.

City locations

- 👍 Better transport links
- 👍 Close to facilities like shops, sports centres, libraries, theatres, museums
- 👍 Easy access to social events
- 👍 Close to health and social care services
- 👎 Polluted (air, noise, light)
- 👎 Some people may feel isolated

Rural locations

- 👍 Sense of community
- 👍 Access to outdoors and fresh air
- 👎 Long commutes to work
- 👎 More difficult to access health and social care services
- 👎 Some people may feel isolated

Now try this

Use the information about negative effects of housing from this page and sort them under the headings **Physical, Intellectual, Emotional** and **Social**.

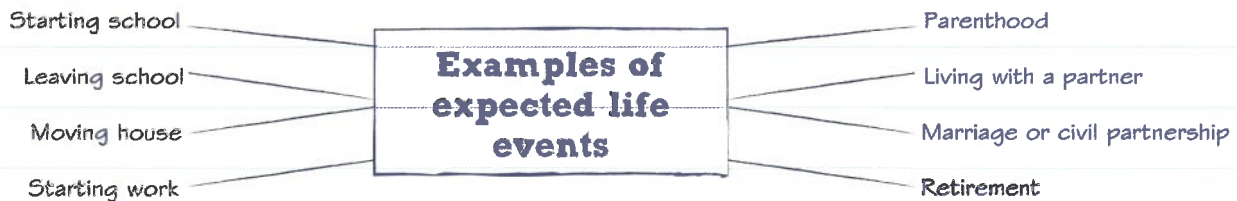
Use the table on this page to help you.

Expected life events

Events can change life circumstances in positive and negative ways. Some life events, such as starting school, are expected.

Managing expected events

Expected life events happen to most people and can be **predicted**. This makes it easier to plan for, and manage, their effects.



Positive and negative effects

Expected life event	Positive effects on health and wellbeing	Negative effects on health and wellbeing
Starting school, college or university	- Build new friendships - Extend knowledge and learning - Develop new skills - Improve confidence	- Anxiety about new routines and meeting new people - Insecurity about leaving parents and other familiar people
Starting a new job or career	- Develop independence - Improve thought processes (creative thinking, problem solving) - Improve self-concept	- Stress about learning new skills and routines - Anxiety about meeting new people
Moving to a new house or area	- Excitement - Develop new friendships and relationships	- Unhappiness at loss of old life - Stress of moving - Social isolation
Retirement	- Reduced stress - Time to socialise with family and friends - Opportunities for leisure or physical activities	- Loss of relationships with colleagues - Possible loss of fitness and mobility - Loss of intellectual stimulation and status

REVISE IT!

You might need to use this Component 1 knowledge about life events in your assessment.

Now try this

Krysta, aged 62, lives with her husband Stefan. She has two children and three grandchildren. Krysta recently retired from her job at a local supermarket.

Explain one possible positive and one possible negative effect on Krysta's health and wellbeing.

Remember that Krysta may miss her old job, but she will have more time to make her own leisure choices.

Unexpected life events

Events can change life circumstances in positive and negative ways. Some life events, such as accidents and injury, are unexpected and cannot be predicted. As it is not possible to prepare for these events, they often have a greater impact on health and wellbeing.

Sudden death of someone close (bereavement) (see page 13)

Ill health (see page 3)

Accident or injury (see page 4)

Examples of unexpected life events

Exclusion or dropping out of education

Redundancy (job loss) (see page 16)

Imprisonment

REVISE IT!
You might need to use this Component 1 knowledge in your assessment.

Negative effects of bereavement on health and wellbeing

1 Physical – digestive problems, high blood pressure

3 Emotional – difficulty sleeping, grief, insecurity, stress and anxiety

2 Intellectual – depression, difficulty thinking and making decisions, memory problems

4 Social – social isolation, loss of social contacts and friendships

Positive and negative effects of unexpected events

Life event	Possible negative effects	Possible positive effects
Imprisonment	- Depression - Loss of contact with family and friends - Social isolation - Restrictions on physical activity	- Opportunity to study - Improvement in health through balanced diet, lack of alcohol, reduced use of nicotine
Redundancy	- Poor self-concept - Anxiety about finances - Fewer opportunities for socialising	- Opportunities to study or train for new job - More time to spend with family and friends
Exclusion or dropping out of education	- Loss of contact with friends - Social isolation - Poor self-concept - Lack of learning opportunities	- Catalyst for change of behaviour - Opportunities for a more suitable study or work situation

Now try this

Write down some of your own life experiences, then identify which were expected events and which were unexpected. Identify some effects of these events on your health and wellbeing.

Expected life events are those that happen to most people and unexpected life events only happen to some people.

Health indicators

Health professionals measure a range of indicators to assess risks to health and wellbeing. Indicators may be physiological measurements such as blood pressure, or lifestyle data such as alcohol consumption.

Indicators

Indicators may be **physiological**, such as:

- pulse
- blood pressure
- peak flow
- Body Mass Index (BMI)

or indicators may relate to **lifestyle**, such as:

- smoking
- alcohol consumption
- level of exercise.

Importance of understanding indicators

Measuring and monitoring indicators helps health professionals to:

- detect health problems at an early stage
- track improvements or deterioration in health
- make recommendations about health and treatments
- give advice about future health risks
- support individuals to make different lifestyle choices.

Physiological indicators

Physiological indicators show how well the body's systems are functioning. Health professionals check a person's health by taking measurements. They compare the results with **published guidance** from reliable sources such as the National Health Service (NHS), Royal College of Nursing or charities such as the British Heart Foundation or Asthma UK.

Lifestyle indicators

Health professionals collect information about lifestyle choices by asking about a person's:

- weekly alcohol consumption
- smoking habits, if any
- levels of physical activity and exercise.

These indicators can be used to assess risks to an individual's health and wellbeing now and in the future.

Measuring physiological indicators

1 Pulse



Measures the number of heart contractions in one minute.

3 Peak flow



Measures how well the lungs can expel air.

2 Blood pressure



Measures the pressure of blood as it circulates in the body.

4 BMI



Indicates proportion of body fat using measurements of a person's height and weight.

Now try this

Milena, aged 26, has been feeling dizzy. She has booked an appointment with her GP.

Give two physiological measurements that the GP is likely to make and suggest two questions that the GP may ask Milena about her lifestyle.

Dizziness can be caused by heart conditions. Think about measurements and questions most relevant to Milena's heart health.

Pulse

You can feel the pulse in the wrist or neck. It is used to measure how fast the heart beats in beats per minute (bpm). Pulse rate is a physiological indicator of the level of a person's health and physical fitness.

Resting pulse rates

A **resting pulse rate (RPR)** is measured when a person has been still for about five minutes.

The pulse can be measured placing fingers on the inside of the wrist at the base of the thumb and counting the beats for one minute. NHS guidance states the average RPR for an adult is between 60 and 100 beats per minute. Lower or higher rates are abnormal and may indicate health problems.

Gender – men often have a lower RPR than women

Age – babies and children usually have a higher RPR than adults.
For example:

- babies 110–160 bpm
- children 80–120 bpm
- adult 60–100 bpm

Factors that affect RPR

Size – overweight people usually have a higher RPR than lean people

Level of physical activity – fitter people often have a lower RPR pulse rate than less active people. For example, an athlete may have an RPR of 40–60 bpm

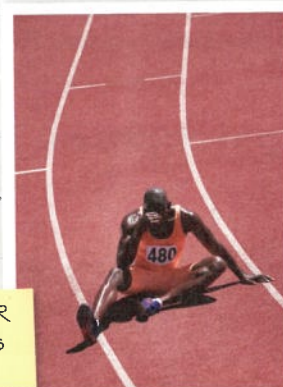
Pulse rate during exercise

Pulse rate increases during exercise.

- ✓ The **maximum** number of heart beats per minute is 220 minus a person's age.
- ✓ A **healthy** pulse rate during or just after exercise is between 60% and 80% of the maximum.

Recovery after exercise

Pulse rate gradually returns to RPR after exercise.



After exercise, an athlete's pulse rate returns to their RPR more quickly than in someone who is unfit. The athlete has a faster **recovery rate**.

Abnormal readings

Abnormal readings are those above guideline levels when at rest (RPR) or during exercise. Risks arising from raised pulse rate:

- ✗ Dizziness
- ✗ Heart attack
- ✗ Stroke
- ✗ High blood pressure

Ways to lower RPR

- ✓ Regular exercise
- ✓ Healthy diet
- ✓ Lower stress levels
- ✓ Stopping smoking

Now try this

Pauline is 65 and healthy.

- 1 What should Pauline's maximum RPR be?
- 2 What is the expected range of Pauline's pulse rate when exercising?

To work out the maximum RPR and healthy pulse rate during or just after exercise, look back over this page.

Blood pressure

Blood pressure is an important indicator of health. Blood pressure that is too high puts strain on the heart.

Blood pressure readings

Blood pressure is the pressure exerted by blood against the artery walls. It is measured in millimetres of mercury (mm Hg) and is shown as two numbers:

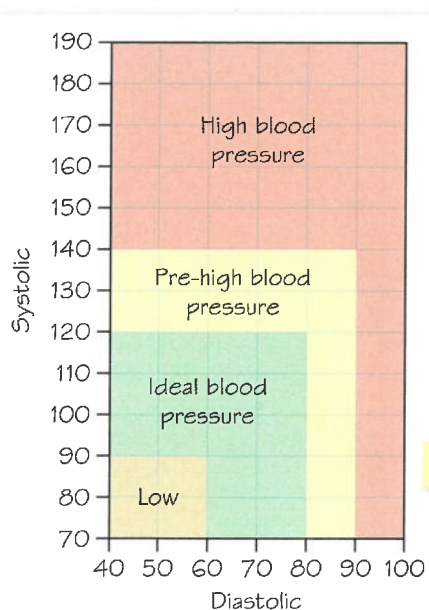
- **Systolic pressure** (the top number) is the maximum pressure in the blood vessels as the heart pushes out blood.
- **Diastolic pressure** (the bottom number) is the minimum pressure in the vessels when the heart relaxes between beats.

Published guidance

The NHS and Blood Pressure UK provide charts giving guidance on interpreting blood pressure readings.



Blood pressure can increase with stress, so measurements should be taken several times and an average recorded.



Blood pressure chart for adults

Interpreting readings

- ✓ High blood pressure is 140/90 mm Hg or above.
- ✓ Low blood pressure is 90/60 mm Hg or lower.
- ✓ Only one number (systolic or diastolic) has to be higher or lower than the guidelines to be abnormal.

Abnormal readings

Risks of **hypertension** (high blood pressure) are:

- heart disease
- kidney disease
- stroke
- dementia.

In many people, **hypotension** (low blood pressure) does not cause health problems and can indicate a healthy heart. However, in some people it may cause dizziness.

Low blood pressure can result from health conditions such as diabetes. Low blood pressure can link to aging or result from the use of some medications.

Possible causes of high blood pressure

- Lifestyle – smoking, use of alcohol, drugs (look at pages 9–11)
- Diet – unhealthy diet, high salt intake (look at page 5)
- Genetic inheritance – people can be predisposed to high blood pressure (look at page 2)
- Lack of exercise (look at page 28)
- Being overweight (look at page 6)
- Stress (look at page 14)

Changing to a healthy lifestyle is one of the best ways to reduce blood pressure.

Now try this

Betty's blood pressure reading is 130/85.

Give three recommendations to help Betty lower her blood pressure.



Betty cannot change her genetic inheritance, but she can change her lifestyle.

Peak flow

Peak flow is short for **peak expiratory flow (PEF)**. This is the speed at which a person can expel air from their lungs. PEF tests are used to assess the health of a person's lungs.

How peak flow is measured

PEF readings show the maximum rate at which air can be expelled from the lungs, measured in litres per minute (L/min). People with breathing problems have lower readings.

Peak flow meters help people to monitor their lung health. If a person's reading is lower than 80% of their expected best flow rate, health professionals will advise changing or increasing their medication, or taking more exercise.



The person fills their lungs with air, then breathes out into the meter as hard as they can. The peak flow reading is displayed on the side of the meter. The highest reading of three attempts is recorded.

Abnormal readings

Lower than expected PEF readings indicate lung problems such as:

- asthma – condition causing narrowing of airways
- emphysema – chronic lung degeneration
- chronic bronchitis – inflammation of the bronchi (tubes entering the lungs)
- cystic fibrosis – a genetic lung disorder (see page 2)
- lung cancer.

Keeping a diary

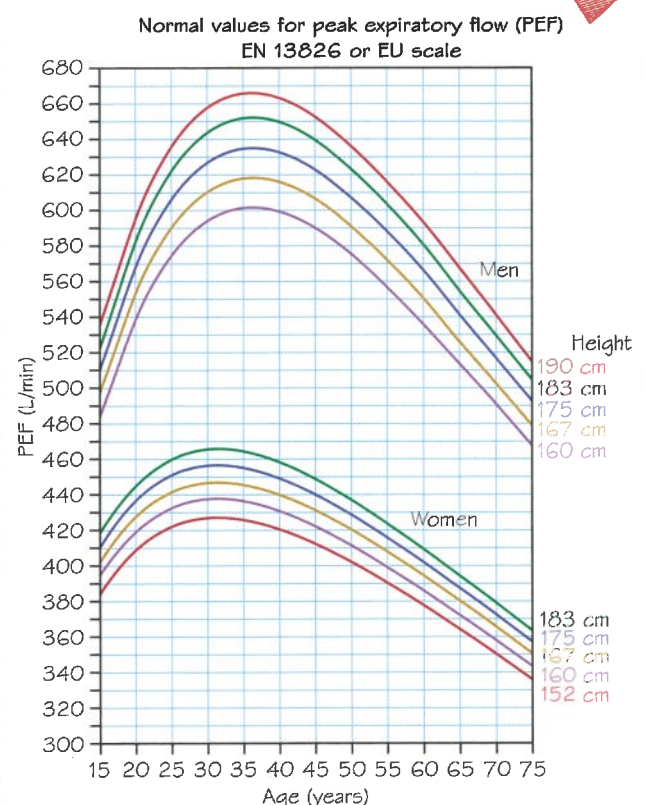
Patients are advised to measure and record their peak flow results regularly. This helps health professionals to:

- monitor a patient's air flow
- check that medication is working
- make recommendations on treatments
- understand which factors, e.g. environmental, may affect (trigger) their condition (see pages 17 and 18).

Interpreting readings

PEF rates vary between people because they have different lung capacities. Health professionals use published charts to work out the expected best flow rate for individuals based on their gender, height and age.

Published charts give an adult's expected best flow rate when PEF is measured using an EU standard meter.



Now try this

Jennie has asthma.

Explain, giving three reasons, why it is important for Jennie to use a peak flow meter regularly.

Jennie should keep a diary of the readings and events that might affect them.

Body Mass Index

Body Mass Index (BMI) is a way of measuring the amount of fat in the body. Being overweight or obese puts a strain on body systems and seriously affects physical health.

Measuring BMI

BMI is based on height and weight, and can be found on a **published chart**. Health professionals can advise people about lifestyle changes based on their BMI and use readings to track progress. A combination of a healthy diet and exercise helps to lower the risks of being under or overweight. Individuals fall into one of six categories based on their BMI.

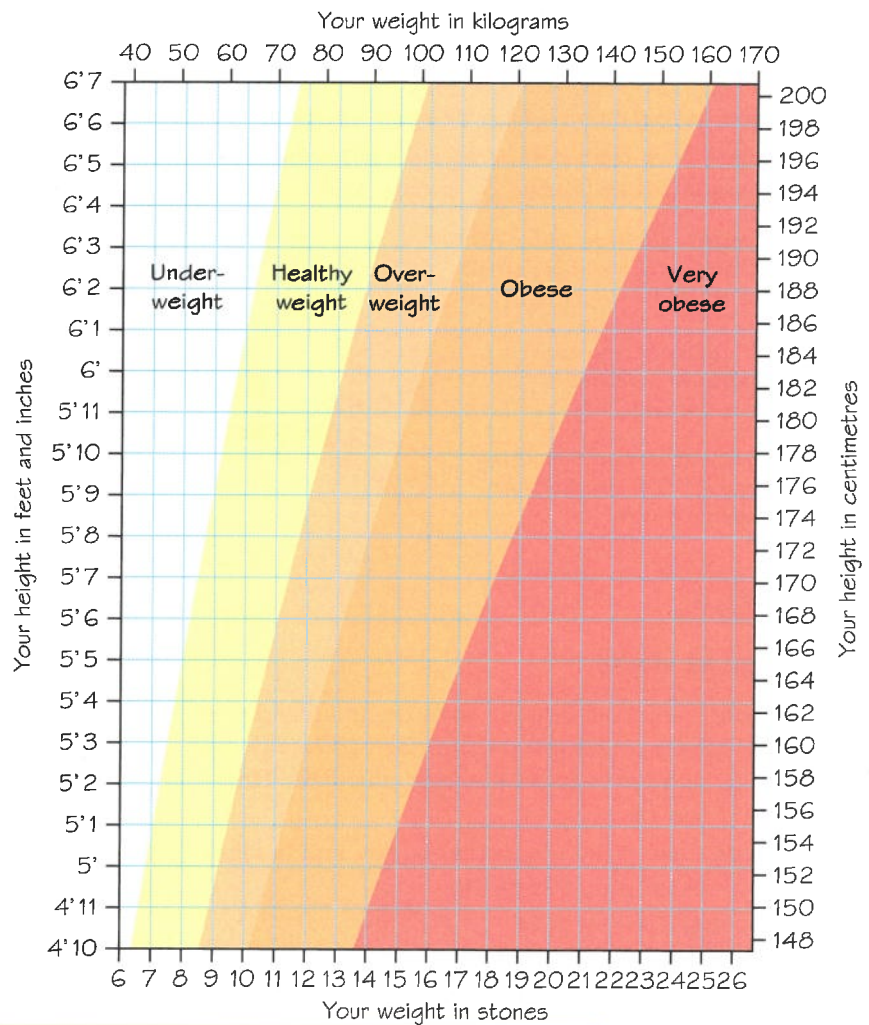
Category	BMI
Underweight	<18.5
Healthy weight	18.5–24.9
Overweight	25–29.9
Obese	30–34.9
Severely obese	35–39.9
Morbidly obese	>40

Risks to health

Underweight	Overweight
Anaemia (causing tiredness), osteoporosis (fragile bones), weak immune system (more colds and flu)	Heart disease, high blood pressure, type 2 diabetes, stroke, arthritis

Published guidance

A chart gives the BMI of an individual, using measurements for their height and weight.



NHS guidance for men and women over 18 years of age.

Limitations

Although BMI is a suitable guide for a healthy weight for most people, it does not take account of:

- muscle mass – athletes have more muscle and may be heavy for their height
- bone density – this may decrease with age or lack of physical activity
- age – older people may lose muscle and have more fat. For those under 18, BMI is shown on separate charts for boys and girls, with measurements expressed in centiles.
- gender – the same chart is used for men and women over 18, although women may have more body fat

Now try this

In which BMI category are these people?

- 1 Conran weighs 70 kg and is 1.8 m tall.
- 2 Sadie weighs 90 kg and is 1.7 m tall.

Read the information you need from the BMI chart.

Smoking

Research data on smoking shows that there are significant risks to physical health from any level of smoking. Quitting smoking at any stage has a positive effect on these risks.

The role of health care organisations

In the UK, health care organisations:

- gather data (statistics) about smoking
- analyse data and advise on health risks
- set targets to reduce smoking
- support people to reduce or stop smoking
- influence laws that discourage smoking (no smoking in public places or in cars with children).

Heart attack – smokers under 40 have five times a non-smoker's risk of a heart attack

Cancers – 80% of lung cancer and a quarter of all cancers result from smoking

Respiratory problems – smoking causes one-third of deaths from respiratory problems

Fitness – people who smoke are usually less fit

Risks to physical health

UK smoking facts

- Smoking is the major cause of preventable death.
- On average, long-term smokers die 10 years earlier than non-smokers.
- Half of all smokers die because of smoking.
- Twice as many poor and disadvantaged people smoke than others.
- E-cigarettes may be safer than cigarettes.

Sick leave – because of ill health caused by smoking, teenagers are more likely to have time off school or college and adults are more likely to take time off work

Infertility – smoking can lead to sperm abnormalities

Miscarriage – smokers are more likely to have a miscarriage, a stillborn child or to lose a child to sudden infant death (SID, cot death)

Personal data

Health professionals collect data on an individual's smoking habits to advise on the risks to health and wellbeing, and to support lifestyle changes. They may ask if the person:

- smokes, how many cigarettes a day and in what situations (social, stressful)
- has smoked in the past
- uses nicotine substitutes
- is exposed to second-hand smoke.

Positive effects of quitting

Stopping smoking reduces health risks:

- Within weeks, circulation and immune systems improve.
- After a year, the risk of heart attack falls by 50%.
- After 15 years, all health risks fall to the same level as a non-smoker.

Support for quitting smoking

- Nicotine replacement therapy (NRT) (skin patches, gum)
- E-cigarettes
- Medication (e.g. varenicline)
- Understanding craving triggers
- Support from family and friends

Barriers to quitting

- Being addicted
- Family and friends smoke
- Fear of gaining weight
- Lack of awareness of support services
- Failing to quit in the past

Now try this

Give three reasons why it is important that GPs ask their patients about their smoking habits.

The GP's role is to support lifestyle changes, as well as to provide treatment for health conditions.

Alcohol consumption

Research data on alcohol consumption shows there are risks to physical health from drinking more than recommended limits. Reducing alcohol consumption to within safe limits has a positive effect on these risks.

Risks to physical health

Addiction – some people are unable to stop drinking despite the negative effects on their health and wellbeing.

Liver disease – in 2013–2015 around 49% of deaths from liver disease in England were as a result of alcohol.

Heart disease – drinking alcohol increases the risk of raised blood pressure.

Cancer – 4% of cancers are linked to alcohol consumption.

Recommended limits

Current advice is that:

- adults should consume no more than 14 units of alcohol per week
- people should avoid **binge drinking**
- pregnant women should avoid alcohol.

UK alcohol consumption facts

- ✓ Of people who drink alcohol, 55% of men and 53% of women drink more than the recommended daily amount (NHS statistic).
- ✓ Drinking too much alcohol is the biggest risk factor for death, ill health or disability for 15–49 year olds.
- ✓ There were around 14 alcohol-related deaths per 100,000 people in 2015.
- ✓ Between 2013 and 2016 around 37.4 people per 100,000 were admitted to hospital because of alcohol.

Positive effects of reducing alcohol consumption

Stopping drinking or reducing alcohol intake to below recommended levels can lead to improved **physical health**, by reducing the risk of cancer, liver and heart disease and helping weight loss. **Intellectual, emotional and social health** benefit from improved mood, concentration and sleep. The likelihood of making unsafe decisions reduces.

The role of health care organisations

In the UK, health care organisations:

- gather data (statistics) about alcohol consumption
- analyse and advise on health risks
- set targets to reduce alcohol consumption
- provide advice on safe limits of alcohol
- support people to reduce their alcohol intake or to stop drinking
- influence laws that discourage drinking (places alcohol can be drunk, alcohol limits for drivers).

Personal data

Health professionals collect data about an individual's drinking habits to advise on the risks to health and wellbeing, and to support lifestyle changes. Health professionals may ask:

- if the individual drinks alcohol
- the number of units they drink per week
- how the units are spread over the week and whether the person binge drinks
- if the person is alcohol dependent (addicted).

Now try this

Give three reasons why it is important that GPs ask their patients about their drinking habits.

The GP's role is to support health and wellbeing improvements, as well as to provide treatment for health conditions.

Inactive lifestyle

Data on different lifestyles shows that inactivity has significant health risks. Being active is an important way that individuals can improve their physical health.

Physical effects of inactivity and activity

Inactivity	Recommended level of activity
 increases risk of breast cancer by 17.9% and colon cancer by 18.7%	 lowers the risk of breast and colon cancer by 20%
 increases risk of type 2 diabetes by 13%	 lowers risk of developing type 2 diabetes by 40%
 increases risk of coronary heart disease by 10.5%	 lowers the risk of heart disease by 35%
 leads to obesity	 helps to maintain a healthy weight
 leads to joint pain	 builds strong bones and healthy muscles

The role of health care organisations

In the UK, health care organisations:

- gather data (statistics) about levels of activity and inactivity
- analyse data and advise about the health risks associated with inactivity
- encourage people to take part in physical activity
- advise on activity levels for improving the health of the whole population.

UK facts about inactivity

- Inactivity contributes to a wide range of health conditions.
- 16.9% of all premature deaths are caused by an inactive lifestyle.
- Active people have a lower risk of premature death.
- People who are inactive visit their GP more often.
- Inactive adults are likely to spend 38% more time in hospital.

Personal data

Health professionals may ask:

- how often the person takes exercise
- the type of exercise a person takes.

Collecting data about an individual's activity levels helps health professionals to advise on the risks to an individual's health and wellbeing, and to support lifestyle changes.



Now try this

Give three reasons to explain the importance of gathering lifestyle data.

Use information on this page and what you have revised on pages 26 and 27 to answer this question.

Person-centred approach

The person-centred approach is **holistic** and puts the individual at the heart of health care planning, so that the whole range of physical, intellectual, emotional and social health needs are met.

Partnership

In a person-centred approach there must be a partnership between the individual and the health professional. In this approach, the partnership also extends to include family members and carers.

The approach is rooted in the **care values** (standards or rules) that health professionals must follow.

Health professionals should use a person-centred approach and care values when working with a person to devise their health improvement plan (a plan to benefit an aspect of health or wellbeing).

Care values

Care values inform the person-centred approach (see pages 30 and 31).

Care values are:

- 1 Empowerment
- 2 Dignity
- 3 Respect
- 4 Communication
- 5 Anti-discriminatory practice
- 6 Confidentiality
- 7 Safeguarding

REVISE IT!
You might need to use this Component 2 knowledge in your assessment.

Needs, wishes and circumstances

Effective planning for health improvement takes into account the person's needs, wishes and circumstances.

Needs	Physical, intellectual, emotional and social health needs
Wishes	Likes and dislikes, choices, desired health goals
Circumstances	Illness or disability, access to facilities, previous experiences, family and relationships, responsibilities

Benefits of a person-centred approach

When a person-centred approach, based on the care values, is used to devise a health improvement plan, the person:

- 👍 will feel involved
- 👍 is more likely to trust a health professional who listens to them
- 👍 will feel more secure
- 👍 is more likely to follow the plan and achieve the targets
- 👍 will take responsibility for their own health.

A family member or responsible person can empower a person by helping them to express their needs and wishes.



Now try this

Vicky is a single mother with two children under three years old. She has been feeling tired, so visited her health centre. BMI results show that Vicky is obese and her blood pressure is slightly raised. After looking at the results the practice nurse gave Vicky a diet sheet, told her to follow it and return in one month.

Give three examples of how the practice nurse could have taken Vicky's needs, wishes and circumstances into account.

Try to give one example for each aspect – needs, wishes and circumstances.

Care values 1

When planning for health and wellbeing improvements, health professionals must use excellent communication skills to make sure that people are empowered and treated with dignity and respect. A range of professional organisations agreed the seven care values (see page 29) as the standards for all work in health and social care. The overall aim of the values is to improve an individual's quality of life by ensuring that each person gets the care that is most appropriate for them.

1 Empowerment

Empowerment means being **independent**, making choices and doing things for yourself. When planning for health improvements it is important to:

- support people with correct, easy-to-understand information about health risks and treatments so they can make their own **informed decisions**
- give people choices about support services
- encourage people to do things themselves or with appropriate support, such as using mobility aids
- help people feel confident in their ability to succeed.

2 Dignity

People have dignity when they have high self-concept and when they are treated with respect. Health professionals must work hard to preserve a person's dignity when delivering care, for example by asking permission before proceeding with a treatment.

REVISE IT!
You might need to use this Component 2 knowledge about care values in your assessment.

3 Respect

Listening to and respecting an individual's opinions and feelings, without imposing a view of what is best for them, is essential when planning health improvements.

Although it is important to be approachable and friendly, health workers should always use professional and respectful language, addressing a person by their preferred name.

4 Communication

Good communication skills, both **verbal** and **non-verbal**, can be used to:

- convey respect for people, allowing them to maintain their dignity
- offer information and choices to people, empowering them
- encourage and support people, giving them the confidence to succeed.

Some people may have particular communication needs and preferences, such as Makaton or British Sign Language.

(See also pages 32 and 45.)

Barriers to empowerment

When planning for health improvements, it is important to recognise potential barriers to empowerment:

- **Physical** – restricted movement may make exercise or self-care very difficult.
- **Intellectual** – mental health conditions can affect decision-making abilities and some people have communication difficulties.
- **Emotional** – people may feel unable to make changes in their lives due to depression.
- **Social** – family members may or may not be supportive.

Now try this

Saeed lives in a home for people with physical disabilities. He smokes, but would like to stop, and has breathing problems. Sara, a health professional, plans to visit Saeed to discuss the risks to his health and to suggest ways to help him stop smoking.

Give four ways that Sara can demonstrate care values.

To be empowered to make his own decisions, Saeed will need to know the risks to his health and the choices he has.

Care values 2

Other important care values to be used in a person-centred approach are the right to confidentiality, to be kept safe from harm and not to experience discrimination.

5 Anti-discriminatory practice

In order to promote anti-discriminatory practice, in which all people are treated **fairly** and **equally**, according to their individual needs, it is important to know about:

- **stereotyping** – making assumptions about groups of people based on their gender, nationality or culture, age, sexuality, religion
- **prejudice** – a judgement, usually negative, about someone because of their background.

Stereotyping and prejudice can result in **discrimination**, which means people are treated differently to others because they belong to a certain group.

Care values in planning

When working with people to plan health improvements, it is important to:

- ✓ treat them fairly
- ✓ take account of their culture and religion
- ✓ be free of stereotyping
- ✓ guard their privacy
- ✓ protect them from harm.

REVISE IT!
You might need to use this Component 2 knowledge in your assessment.

6 Confidentiality

People have rights in law to have their information kept private.

Dos	Don'ts
- Keep written and electronic information safe, for example in a locked cabinet or by using a password on an electronic device. - Speak to people in private where information they share can't be overheard.	- Discuss an individual's case or pass on information, including to family members, without their permission. - Talk about personal information where others can overhear.

7 Safeguarding

Safeguarding means protecting people from harm, abuse or neglect. Health professionals must know how to prevent people coming to harm, how to respond if they suspect harm and who is most likely to be at risk of harm.

Preventing harm	Responding to harm	Knowing who may be at risk
- Work safely by following care values and any workplace rules and procedures. - Never do something to put a person at risk or suggest they take risky actions. - Make sure people are able to make their own decisions. - Help people to understand the risks relating to the choices they make.	- Be aware of signs of harm, abuse or neglect. - Report concerns of possible harm, abuse or neglect for managers to investigate. - Monitor plans and make changes if treatments or services are not meeting people's needs.	Be aware that some people are more at risk of harm than others, including those who: - are isolated - have a physical disability - have learning difficulties - have mental health problems - are children.

Now try this

Explain why stereotyping may mean that people are unsuccessful in meeting their health improvement targets.

Stereotyping is making assumptions about someone because they belong to a particular group.

Communication

The care value of effective communication is essential in a person-centred approach. It shows that the health professional is listening and values a patient's views.

Types of communication

Communication can be:

- **Verbal** – speaking and listening
- **Non-verbal** – eye contact and body language
- **Sign language** – BSL or Makaton
- **Written** – plans, letters
- **Electronic** – emails, texts.

British Sign Language (BSL) is a form of communication for deaf people. **Makaton** uses simple hand signs for people with communication difficulties because of learning disability.

REVISE IT!
You might need to use this Component 2 knowledge in your assessment.

Non-verbal communication



Leaning forward, nodding, making eye contact and using encouraging facial expressions all show the listener is engaged and has **empathy** with the person (can understand their feelings).

Communication in planning for health improvements

Effective communication is used in all steps of planning for health improvements (see page 33), such as when gathering lifestyle data, setting a goal, agreeing targets, sharing recommended actions and possible supports, and discussing obstacles to progress.

When health professionals communicate well with people, **trust** develops and people feel their wishes, needs and circumstances have been understood and incorporated into the plan.

How to communicate effectively

People are much more likely to **succeed** in reaching their targets if the plan is the result of effective two-way communication.

Communication should be:

- adapted to the needs of each individual
- clearly written and/or spoken
- at a suitable speed for understanding, with pauses that give time for responses
- free of jargon (specialised language)
- supported by positive body language that indicates the listener is fully engaged.

Effects of communication

Positive effects of good communication are better relationships and trust in health care professionals. People feel consulted and reassured if they are able to ask questions. They are able to make their own choices.

Negative effects of poor communication are that people feel health improvements are being forced on them. They may not understand the steps to better health or know that support is available. They are also more likely to fail without encouragement.

Barriers to communication

Some circumstances make effective communication more difficult, highlighting the need to tailor communication to each individual. For example:

- a home language that is not English
- intellectual issues such as dementia or autism
- hearing or visual loss
- anxiety or stress
- a drug or alcohol problem.

Now try this

Explain two ways in which poor communication may affect a health and wellbeing improvement plan.

Poor communication does not put the person at the centre of planning.

Health and wellbeing plans

Health and wellbeing improvement plans are often based on an individual's physiological and lifestyle indicators. Plans should be person-centred and include goals, actions and targets, and possible sources of support.

Planning for better health and wellbeing

A health and wellbeing improvement plan usually focuses on physical health, but can address any kind of health problem. Plans might include making changes in some or all of these areas:

- **Physical** – lifestyle changes in diet, exercise, smoking or drinking habits
- **Intellectual** – gaining mental stimulation through a new job or hobby
- **Emotional** – treatment for phobias, counselling
- **Social** – joining a group activity.

Using physiological and lifestyle indicators

Physiological indicators and lifestyle data can be very useful in identifying physical health issues, in setting the goal, actions and targets for a health improvement plan and in monitoring progress.

- A person with high BMI would benefit from an exercise and healthy eating plan to improve this indicator (see pages 25 and 54).
- Someone who drinks more alcohol than the recommended safer limit would benefit from a plan to support a reduction in their drinking (see page 9).

Steps to health improvement

When devising a health improvement plan, professionals work with individuals to identify:

- 1 the **health issue** and **goal**
- 2 the **recommended actions** to take (see pages 34 and 58)
- 3 a set of **targets** for health improvement (see pages 35 and 58)
- 4 the **supports** that are needed (see page 58)
- 5 possible **obstacles** to progress and ways to **overcome** them (see pages 39 to 41 and 60).

An outline plan to stop smoking

Step	Example
1	Health issue and goal Smoker's cough Improved respiratory health
2	Recommended action Stop smoking
3	Target Progressively cut down number of cigarettes smoked, to 5 per day in 4 weeks, then to 0 per day in 6 months
4	Support Action on Smoking and Health (charity)
5	Overcoming obstacles Use nicotine patches to overcome nicotine cravings

Positive effects of a health improvement plan

People who follow a plan for a physically healthier lifestyle will be fitter, lose weight and have improved self-concept. They will also have lower blood pressure, a healthier heart and reduced risk of cancers.

People who follow other types of health improvement plan will benefit from taking control of their health outcomes and reaching their health goals.

Now try this

Use a table or write a paragraph to outline the steps in creating a health improvement plan to reduce BMI.

Remember there are five steps.

Goals and recommended actions

For each goal in a health improvement plan there must be at least one **recommended action**. Actions are what the person needs to do to achieve their goal.

Meeting health goals

Recommended actions are in a health improvement plan to show how to reach the goal.

Goal	Example action	The actions must ...
Reduced BMI	Eat healthily and exercise	take account of the person's physiological and lifestyle health needs
Improved mobility	Start an exercise routine	be safe and suitable for the person's age and ability
Stop drug use	Join a local support group	provide appropriate support
Stop smoking	Use nicotine substitutes	take account of the availability of medication, equipment and aids

Recommended actions

Here are more examples of possible actions to meet health and wellbeing improvement goals.

To lower blood pressure:

- 👍 eat five or more portions of fruit and vegetables each day
- 👍 cut out salt
- 👍 use relaxation techniques to reduce stress
- 👍 join a gym
- 👍 drink water alongside alcohol to reduce consumption.

To increase peak flow reading:

- 👍 half the number of cigarettes smoked each day
- 👍 use nicotine replacement therapies
- 👍 join an exercise or dance class.

To reduce BMI:

- 👍 reduce fat and sugar intake
- 👍 do not exceed the recommended daily calories
- 👍 get off the bus a stop early and walk the rest of the way
- 👍 drink water instead of sugary drinks.

To reduce pulse rate and improve recovery time after exercise:

- 👍 walk for half an hour at lunchtime
- 👍 drink decaffeinated drinks
- 👍 take up a physically active hobby
- 👍 join a yoga group.



Changing behaviour

Actions to meet goals involve changing behaviour. For example, taking regular exercise, eating healthier foods, eating less, avoiding drugs or nicotine, socialising more or practising relaxation techniques.

Yoga is a great way to relax.

Now try this

Identify five essential features that must be included in a health and wellbeing improvement plan.

Look back at page 33 to help you remember.

Targets

Targets are challenges to help a person complete the action to reach their goal for health and wellbeing improvement. People who are working towards **SMART** targets are more likely to be successful. SMART targets are **S**pecific, **M**easurable, **A**chievable, **R**ealistic and **T**ime-related.

Targets for health improvements

Health improvement plans set out targets for an individual's health and wellbeing.

SMART targets

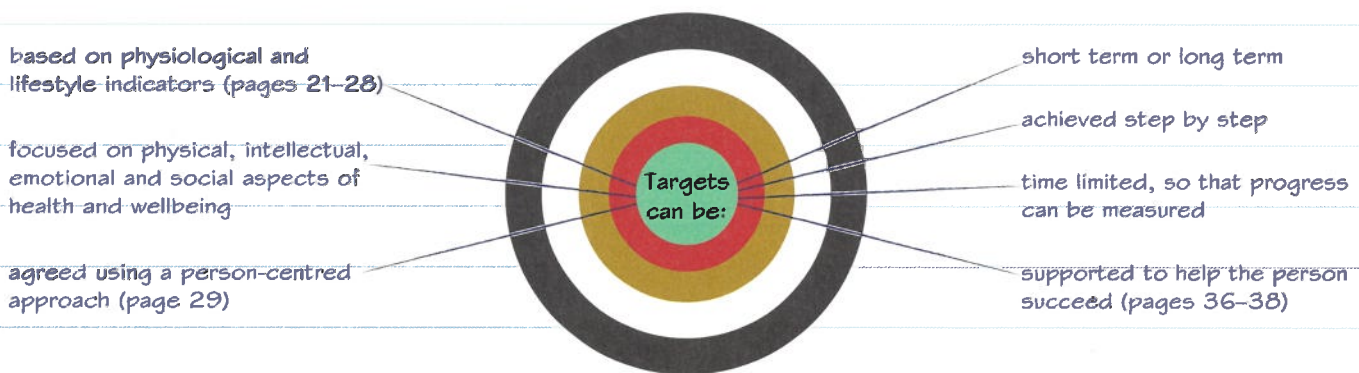
Specific – an **exact** goal, clearly explained

Measurable – so that **progress** can be assessed

Achievable – **possible** for the individual

Realistic – **suitable** for the person's needs and circumstances

Time related – with a **deadline**



Long-term and short-term targets

A health plan should have short-term and long-term targets. It is easier to achieve a long-term target if it is broken down into a series of smaller steps (short-term targets).

Action	Short-term targets (less than 6 months)	Long-term targets (6 months to a year)
Stop smoking	Cut down to 5 cigarettes a day within 1 month	Stop smoking completely within 10 months
Drink alcohol within safer limits	When out for a meal at weekends, drink water alongside an alcoholic drink, starting immediately	Reduce alcohol consumption to less than 14 units per week and not binge drink
Feel less isolated	Within 6 weeks, be able to leave the house every day and have a short conversation with another person	Join a social club and be able to attend regularly within 6 months

Now try this

Nigel is 48 and has two sons aged 4 and 6 years. Nigel works long hours and often grabs a takeaway on his way home. Walking even a little way makes him short of breath. It upsets Nigel when he has to sit and watch his sons play football instead of joining in. On a visit to his health centre the practice nurse found that Nigel is obese and his blood pressure is raised.

Think about what Nigel most wants to achieve and what would benefit his weight and blood pressure.

Suggest one short-term and one long-term SMART target that would help Nigel lose weight and lower his blood pressure.

Formal support 1

Formal support is provided by health professionals who are paid and have been trained, for example doctors and practice nurses. Formal support includes **primary**, **secondary** and **tertiary** care services.

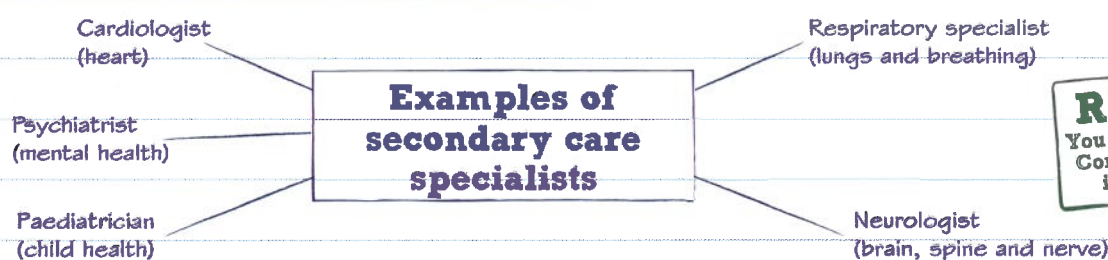
Primary care services

Primary care services are usually people's first point of contact with health professionals. They include health centres (with GPs, practice nurses and midwives), pharmacies, dental surgeries and opticians (both optometrists and opticians).

Service	Functions
Health centre	- Measuring and interpreting physiological indicators, such as pulse, blood pressure, peak flow and BMI - Advising on lifestyle health risks, such as smoking, drugs and alcohol - Working together with people to produce health improvement plans and monitoring progress - Prescribing drugs and treatments - Referring patients to other health professionals (secondary and tertiary care services)
Pharmacy	- Giving advice on medication - Offering health promotion and advice - Providing aids such as nicotine replacement therapies, blood pressure monitors
Dental surgery	- Providing treatment for teeth and gums - Giving advice on how to keep teeth and gums healthy
Opticians	- Assessing and monitoring the health of the eyes, and providing glasses - Giving advice on how to keep eyes healthy

Secondary and tertiary care services

Patients who require hospital care for a health condition will be referred to a secondary care service by their primary health care provider. Tertiary care services provide specialist support in dedicated units, such as stroke rehabilitation, oncology and secure mental health units.



REVISE IT!
You might need to use this Component 2 knowledge in your assessment.

Now try this

Vincent is worried about his health so visits his GP. He has had a cough and sometimes finds it difficult to breathe. Vincent smokes 10 cigarettes each day.

Give four examples of the actions that his GP is likely to take.

Smoking can affect peak flow, blood pressure and pulse. (See also pages 22, 23, 24, 53, 54, and 55.)

Formal support 2

Allied professionals, charities and other organisations work alongside primary, secondary and tertiary services to provide formal support and specialist advice to help people plan for improvements in health and wellbeing.

Allied health roles

Allied health professionals can help individuals make health improvement plans and support them in achieving their goals. Some allied health professionals can also diagnose conditions in their specialist area.

Service	Functions
Dietician	Advises on risks of an unhealthy diet and benefits of a healthy diet, and on diets to help manage certain conditions
Physiotherapist	Advises on exercise and movement for people with breathing or mobility problems, may provide mobility aids
Art or music therapist	Provides support for people with emotional and communication problems
Speech and language therapist	Works with people with communication difficulties to improve communication skills
Advocate	Speaks on behalf of people who are not able to express their wishes
Domiciliary care worker	Supports older people and people with disabilities with everyday care in their own homes
Clinical support staff	Health care assistants, dietetic assistants, phlebotomists (specialist blood collectors) who may also be involved in formal support

Types of formal support

Formal support can take many forms:

- **Physiological measuring aids**, such as blood-pressure testing kits or weighing scales for people to monitor change themselves.
- **Medication**, such as prescriptions for tablets to lower blood pressure and nicotine replacement inhalers.
- **Practical support**, such as healthy menu plans, suggested exercise DVDs and routines.
- **Advice** and leaflets on lifestyle health risks, such as recommended alcohol levels.
- Introductions to **support groups**, such as those shown in the table opposite.
- **Emotional support**, such as providing encouragement to achieve targets.

Other organisations that provide formal support

Some charities and organisations provide specialist support and advice in particular areas. Some run support groups.

Area	Example organisation
Alcohol	Alcoholics Anonymous
Diet	Weight Watchers
Diet and exercise	Change4Life
Smoking	Action on Smoking and Health QUIT
Drugs	Action on Addiction Talk to Frank
Social isolation of older people	Age UK

Now try this

Explain why physiological measuring aids, such as blood pressure testing kits and weighing scales, can help people to meet their health improvement plan targets.

If people can see their own progress they are more likely to achieve their targets.

Informal support

Informal support is provided by people who are not paid to provide help.

Informal support providers

People are more likely to be successful in following a health improvement plan if they have the support of the people who are closest to them. It can be hard to make lifestyle changes if family and friends do not also change their behaviour.

People who could provide informal support are:

- partners
- family members
- friends.
- neighbours
- work colleagues

Partners

Partners can give support by:

- following the same health plan, such as taking exercise or stopping smoking
- praising progress and complimenting improvements
- providing reassurance when it is hard to stick to the plan and encouragement to resume the plan if necessary
- helping overcome barriers to following the plan, such as giving financial or practical support. For more information on obstacles see pages 39, 40 and 60.

Family support

For many people the family is an important source of informal support.

Lifestyle change	Family members can ...
Lose weight	help to prepare low-fat meals, stop buying takeaways and unhealthy snacks
Improve financial management	research money advice services, suggest alternative sources of income, such as benefits
Do more exercise	suggest opportunities for walking rather than taking the car, take up a sport or an active hobby the family can do together
Stop smoking	stop smoking near the person, agree not to smoke in the home, stop buying and offering cigarettes
Stop using drugs	research support services, accompany the person to appointments, give encouragement

Friends

Friends can also be helpful in providing support and encouragement.

Lifestyle change	Friends can ...
Lose weight	join a fitness programme together, attend a support group together, give mutual encouragement, share low-calorie snacks
Reduce alcohol to recommended limits	reduce their own alcohol intake, offer non-alcoholic alternatives at social occasions, suggest social activities that do not involve alcohol
Become less isolated	visit regularly, accompany the person to social events
Quit smoking or smoke less	also quit, stop offering cigarettes
Take more exercise	go on runs and walks together, take up joint activities such as dance classes or tennis

Now try this

Copy and complete the table below.

Goal	Informal support	Formal support
Eat more healthily		
Quit smoking		
Become less isolated		

Re-read pages 36 and 37 to remind yourself of types of formal support.

Potential obstacles

Obstacles are problems or difficulties that people may face when trying to follow the recommended actions in their plan. Obstacles can prevent them from reaching their goal of improving their health and wellbeing.

Examples of obstacles

Health professionals must be aware of a range of obstacles to progress.

Type of obstacle	Examples
Emotional/psychological	Low self-concept, lack of motivation, acceptance of current health and wellbeing situation
Time constraints	Lack of time because of work and study commitments or family responsibilities
Availability of resources	Lack of financial resources, equipment or opportunities
Unachievable targets	Targets that are too ambitious, not broken down into small steps or have unrealistic timescales
Lack of support	Lack of informal support from family and friends, lack of formal support, not able to access support services
Specific to the individual	Factors that are specific to the individual, such as their age, gender, disability/ability, illness, addiction
Barriers to accessing identified services	Geographical location, culture and language, psychological obstacles, such as the perceived stigma of accessing a service

REVISE IT!
You might need to use this Component 2 knowledge in your assessment.

A person-centred approach

If a person-centred approach is used to devise a health and wellbeing improvement plan, obstacles are less likely to arise as the plan will be tailored to the person's:

- **needs** – recommended actions will be suitable
- **wishes** – if the person wants to make improvements they are more likely to succeed
- **circumstances** – their abilities and time constraints.

If a person-centred approach is not used, the plan will not take into account the person's level of motivation, time issues, resources, support structures, age, gender, culture and ability, and obstacles in any of these areas could prevent progress. See page 29 to remind yourself of the person-centred approach.

Mitigation

Obstacles can be prevented from occurring by knowing as much about the person as possible when devising the plan.

Obstacles that arise during implementation of the plan can be mitigated, for example:

- **Emotional** – offering encouragement and pointing out progress
- **Time** – suggesting ways to fit new activities into daily routines
- **Resources** – suggesting sources of second-hand equipment or providing resources to borrow, pointing out free classes or an outdoor gym
- **Support** – encouraging family to be supportive, suggesting formal support groups
- **Specific** – adjusting the plan to the individual's own needs, wishes and circumstances.

Now try this

Give three reasons why a person-centred approach helps health professionals to overcome possible obstacles when planning actions for health improvements.

Think of a reason related to each of these aspects: needs, wishes and circumstances.

Emotional and psychological obstacles

A person's emotional and psychological (mental) state influences their motivation and affects their confidence in their ability to follow a health improvement plan and reach their target.

Lack of motivation

Reasons for a lack of motivation could include:

- a conflict between choices such as worrying that giving up smoking could result in weight gain
- other priorities in a person's life – such as getting married or bereavement
- having a negative attitude – believing change will be too difficult
- lack of progress for example losing weight quickly in the first weeks, but then slowing down
- having a 'blip' – thinking there is no point in continuing the plan after a brief return to an old lifestyle, such as smoking a cigarette after giving up.

Self-concept

People with poor self-concept don't value themselves. They may feel powerless to change their lifestyle or that there's no point in starting because the task seems too big.

Some people think that because they have not been successful in other aspects of their life they won't achieve their health goals.

People with poor self-concept may not feel they have support and approval from family and friends, even if they really do.

Motivation

Motivation is the drive to continue with something. It is usually higher at the start of a new health and wellbeing improvement plan, when results can show more quickly. Over time, people may find it harder to maintain their commitment to the plan.

Acceptance of current state

People may:

- accept their present health problems or lifestyle choices, as it is easier to stay the same than to make changes
- have no incentive to make a change because they do not understand the health risks
- have no desire to change, for example if they are happy with their weight or don't want to give up smoking.

Overcoming emotional obstacles

Health professionals can help people to overcome emotional and psychological obstacles.

Staying motivated	• Suggest new ways to meet people, such as voluntary work to prevent isolation • Plan rewards, such as buying new clothes after dropping a clothing size • Record the money saved by not smoking or drinking less alcohol
Building self-concept	• Make sure targets are achievable (Look at SMART targets on page 35) • Break down targets into small steps so that progress can be seen • Give reassurance, encouragement and regular feedback on progress
Challenging acceptance of the current state	• Encourage the person to think about the possibility of change • Help the person understand the longer-term health risks of staying the same and the benefits of making change

Now try this

Harri has been following a diet and exercise plan to reduce his BMI. He made good progress in the first three weeks, but is struggling to get back on track after Christmas.

Give three reasons why Harri may have lost the motivation to follow his health and wellbeing improvement plan over Christmas.

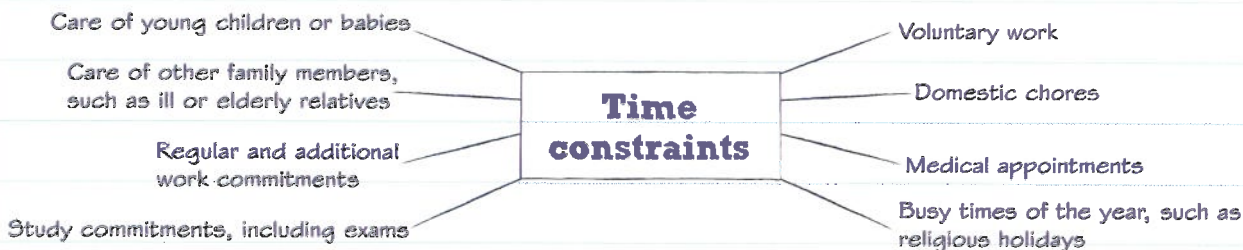
Think about how festivities make it hard to stick to the plan, and how this could cause Harri to lose motivation.

Time constraints

A major obstacle to achieving health improvement targets is time. Health professionals must understand an individual's time constraints and consider ways to help overcome these.

Possible time constraints

Lack of time is a big obstacle to a healthy lifestyle.



Making time to exercise

Health professionals can help people to fit exercise into their routines by suggesting:

- 1 regular, convenient times to exercise and clubs to join, such as Zumba or 'New to running'
- 2 how exercise can be incorporated into the daily routine, for example by walking or cycling to work, or getting off the bus one stop early
- 3 exercising while watching TV, for example using an exercise bike or doing lunges and planks during the adverts
- 4 exercising at home using a DVD or mobile phone app.



Everyone who works at a desk should take regular time out to stretch arms and legs.

Making time to eat healthily

Cooking healthy meals doesn't have to take up a lot of time. Health professionals can share ideas such as:

- cooking a healthy casserole or soup in a large quantity and freezing portions
- using quick and healthy recipes from supermarkets or the internet.

Support

Health professionals can help people understand that they do not have to do everything themselves. Individuals might need to delegate for the sake of their own health. Getting supportive family members to take on more tasks helps to free up time – drawing up a family rota can be a good idea.

Now try this

Josh, aged 16, is studying GCSEs and has a part-time job. He has reached an unhealthy weight, often going to a fast-food place at lunchtime. He has agreed actions that include at least one hour of daily exercise and eating a balanced diet.

Give three suggestions that would help Josh find time to follow his plan.

Think about how family members could help Josh, as well as how he can find time himself.

Availability of resources

Many people need resources to be able to carry out the recommended actions in their health improvement plans. Resources may be financial, such as payment for fitness classes, or equipment, such as weighing scales or a peak flow meter.

Financial obstacles

Carrying out recommended actions may incur additional costs.

Financial obstacles can include:

- gym membership, entry fees for a swimming pool or leisure centre
- cost of attending exercise classes
- costs of travel to the gym or pool, or to attend health appointments
- cost of travel to a social group
- higher costs of some healthy foods.

REVISE IT!
You might need to use this Component 2 knowledge in your assessment.

Lack of facilities or equipment

People face obstacles if they do not have the necessary resources to support actions.

Individuals who live in rural locations may not have access to pools, gyms and fitness classes, or to social support groups.

It is not possible to track health improvements without access to health monitoring equipment, such as weighing scales, blood pressure monitors or peak flow meters.

People may need access to equipment for exercise at home, such as DVDs, weights and exercise balls.

Those who wish to stop smoking may need supplies of nicotine patches and gum.

Overcoming obstacles

Anticipating obstacles and planning for their mitigation is part of the health improvement planning process.

Obstacle	Suggestion
Lack of access to fitness facilities (cost or location)	• Some councils run free fitness classes for people with particular health issues, like obesity or heart problems • Run, walk or take up gardening • Use free fitness phone apps or DVDs
Cost of healthy food	• Look for price reductions and special offers in supermarkets • Cook food instead of buying ready meals • Cook in bulk and freeze portions • Make packed lunches instead of buying lunch out
Cost of transport	• Combine visits to the health centre with other trips (for example, shopping) to reduce travel costs • Share lifts to social clubs with others
Lack of equipment	• Use weighing scales at the local pharmacy or sports centre • Borrow fitness DVDs from the library or buy at a charity shop • Look for second-hand equipment

Now try this

Paulo's goal is to improve his peak flow reading through exercise. He lives rurally and doesn't have access to a gym.

What three pieces of advice could be given to Paulo to overcome these obstacles?

Think about ways to exercise without access to special facilities.

Unachievable targets

Short-term and long-term targets for health improvement must be achievable or people will give up trying to reach them.

Reasons

There are various reasons why targets may be difficult to achieve:

- expectations are set too high
- targets are not clear
- there are too many targets
- timing is wrong
- targets are not suitable for the individual
- fear of not being able to meet targets
- not being in the right frame of mind to commit to the plan, perhaps due to depression.

Any target that is not SMART (specific, measurable, achievable, realistic and time-related) will become unachievable.

(See also page 35.)

1 High expectations

If targets are set too high, they will be unachievable. People will be reluctant to start the plan if they feel they can't succeed, or they may give up when they fail to see progress towards the target.

Unrealistic expectations arise when:

- planned targets do not allow enough **time** – people need time to make changes, for example gradually reducing the number of cigarettes smoked rather than quitting immediately
- planned targets are too **large** – large weight-loss targets may be daunting. Step-by-step weight loss is healthier and more sustainable
- planned targets cause **anxiety** – expecting a person to socialise in a large group may be overwhelming. Meeting with individuals or in small groups could be the first step.

2 Unclear targets

Targets must be clearly defined. The person will give up if they don't know what they need to do. People with communication or learning difficulties may require special presentation of their targets, so that the information is clear to them.

3 Too many targets

Multiple targets are overwhelming. People don't know where to start if they are expected to change different aspects of their lifestyle all at once.

Stopping smoking, reducing alcohol intake and losing weight at the same time could be unachievable.

4 Poor timing

Both the **start time** of the plan and **time allowed for each target** will affect the person's chances of success. Targets may be unachievable if:

- the start date of the plan is inappropriate – stopping smoking or drinking alcohol may be more difficult during the holiday season
- there is not enough time to achieve each target.

5 Unsuitable targets

Targets must be suitable for each individual person in order to be achievable. An exercise plan for an older person with mobility difficulties will be very different from one for an active younger person.

(See also page 35.)

Now try this

Use each of the five headings on this page relating to why targets may be unachievable. Give one way in which each type of obstacle could be overcome.

Use the examples given on the page to help you think of ways to minimise obstacles.

Lack of support

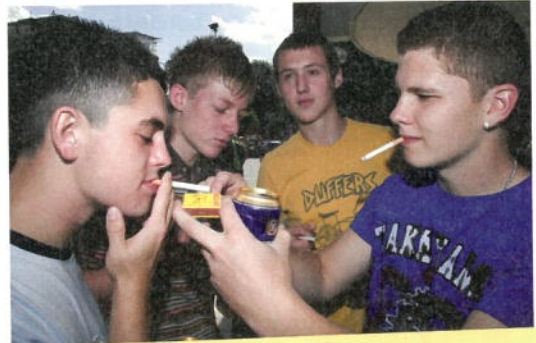
The level of support from family and friends has an impact on the success of a health and wellbeing improvement plan.

Lack of family support

A major obstacle to success is lack of support from family. Family members may:

- continue an unhealthy lifestyle, for example not taking exercise
- make unhealthy food choices, for example buying unhealthy foods and fizzy drinks, and ordering takeaways
- smoke
- drink alcohol over the recommended level or binge drink
- not understand health risks of lifestyle choices or the benefits of making changes
- not encourage the person.

Lack of peer support



It is difficult to keep to a plan if friends put temptation in the way.

Overcoming obstacles

Health professionals can try to include family members when planning actions with a person, so the whole family understands the risks of not making lifestyle changes and the benefits of sticking to the health and wellbeing improvement plan. It is important to explain the obstacles the person may face and the ways in which the family can give support. This might include suggesting meal plans that the whole family can enjoy or practical ways in which family members can help, such as by taking on chores to free up time to carry out the plan's actions. (See also pages 39 and 40.)

REVISE IT!

You might need to use this Component 2 knowledge in your assessment.

Encouraging support

Health professionals can guide family and friends to offer appropriate support.

Family members can:

- 👍 also adopt healthy lifestyles
- 👍 be encouraging
- 👍 buy healthy foods
- 👍 make sure there are no unhealthy foods in the home
- 👍 give practical or financial help.

Friends can:

- 👍 plan alcohol-free nights out
- 👍 stop offering cigarettes or recreational drugs
- 👍 join a sport or hobby club together
- 👍 motivate by complimenting achievements.

Now try this

Steve, aged 68, lives alone. He has a sister and a son living nearby. Since his wife died two years ago, Steve has neglected himself. This has resulted in frequent infections. When visiting his GP, Steve agreed a health and wellbeing improvement plan with a target to improve his personal hygiene.

Give two reasons why Steve's family may find it difficult to support him to achieve his target.

Steve's poor personal hygiene may have isolated him from his family, leaving him without support (see page 8).

Factors specific to the individual

Some obstacles to the success of an individual's health and wellbeing improvement plan are specific to their situation.

Specific factors

An individual's **abilities** or **disabilities** influence whether they are able to follow a health improvement plan to completion. If an individual has the physical skills and mental capacity to follow the plan, they are more likely to meet their targets. Conversely, a physical or mental difficulty can stop an individual following the actions in their plan.

Addiction is another potential obstacle that is specific to the individual. When a person craves an addictive substance (or activity), carrying out lifestyle changes becomes very difficult.

Disability

A person with a disability may face many obstacles. The role of the health professional is to anticipate and identify obstacles and to suggest ways to overcome these.

Effect of disability	Possible way to overcome the obstacle
Difficulty attending health services	Arrange transport to and from home, enlist the help of family to accompany the person
Unable to read improvement plan because of sight or hearing impairment	Give plan in a suitable form, such as in British Sign Language, braille or audio form
Feel unable to make changes because of disability	Enlist family and friends to offer encouragement and practical support
Can't understand the benefits of actions because of a learning disability	Explain in a way that is appropriate to the individual's level of understanding
Embarrassed about joining a support group	Suggest attending with a friend or using an online support group
Difficulty in exercising because of mobility problems	Suggest appropriate actions, such as sitting exercise routines

REVISE IT!
You might need to use this Component 1 knowledge in your assessment.

Addiction

People who are addicted to substances such as drugs, cigarettes and alcohol find making changes difficult. Health professionals can help individuals to overcome obstacles related to addiction.

(See also pages 9 to 11.)

Effect of addiction	Possible way to overcome the obstacle
May struggle to admit addiction	Suggest joining a support group, such as Alcoholics Anonymous
Thinking clearly is difficult	Give leaflets explaining the effects of addiction that can be referred to when feeling confused
Cravings	Ask friends and family not to offer addictive substances or keep them around the home
There may be peer pressure to continue with damaging lifestyle	Enlist support of family and friends to encourage new friendships and leisure activities
Poor self-concept affects motivation to change	Boost the person's self-concept by pointing out their positive qualities

Now try this

Give two reasons why an addiction to recreational drugs could be an obstacle to a target of quitting drugs.

Write a full sentence to explain each reason given.

Barriers to accessing identified services

Being unable to access a particular service is a barrier to following a health and wellbeing improvement plan.

Possible obstacles to accessing services

There are lots of reasons why people may have difficulty accessing services. The role of the health professional is to anticipate and identify potential obstacles and to suggest ways to overcome these.

Type of obstacle	Possible obstacle	Suggestion to overcome obstacle
Geographical	 Service is difficult to get to because of poor bus or train services	 Arrange hospital transport  Suggest telephone helplines or internet support groups
Financial	 Charges to use the service  Time off from work would mean loss of pay	 Check for entitlements, such as free medicines and treatments  Direct the person to advice on benefits and employee rights
Psychological	 Fear of being judged because there is stigma around a health problem (mental health, obesity)	 Talk about concerns and reassure  Direct the person to a charity that supports people with a particular health problem
Physical	 Difficulty getting into the building where the service is provided (no wheelchair access)  Nowhere to park near the service	 Be aware of services that are adapted for easy access  Ask a friend or family member to drop the person at the service
Personal needs	 Communication difficulties because of poor language skills, sensory or learning disability  Concern that cultural needs are not understood	 Provide support services that meet the person's needs, such as a BSL signer, interpreter, advocate  Use anti-discriminatory practice and encourage others to do so
Resources	 Limits on services, such as support aids and equipment  Staff shortages, leading to long waits for appointments and support	 Suggest sources of second-hand equipment  Look for alternative strategies, for example an exercise DVD if there are no places at an exercise class

REVISE IT!
You might need to use this Component 2 knowledge in your assessment.

Now try this

Madge has a health improvement plan goal of losing weight with a target to lose 1 lb each week for three months. She has two recommended actions:

- to join a dance class, but she is embarrassed to attend because of her weight
- to get advice from a dietician at the local hospital, but getting there is difficult because of limited transport links.

Think of two examples for each action.

Suggest two ways that Madge can overcome the obstacles for each of the recommended actions.

Your Component 3 set task

Component 3 will be assessed through a task, which will be set by Pearson and externally marked. In this task you will be asked to make an assessment of a service user in a case study and provide the key features of a health and wellbeing improvement plan that is tailored to their needs.

Revising your skills

Your assessed task could cover any of the essential content in Components 1, 2 and 3. You can revise the Component 3 content in this Revision Guide. This skills section is designed to **revise skills** that might be needed in your assessed task. The section uses selected content and outcomes to provide examples of ways to apply your skills.

Identify and explain factors that affect health and wellbeing in positive and negative ways



Links

Look at pages 49 and 50.

Interpret lifestyle data



Links

Look at page 52.

Interpret physiological indicators



Links

Look at pages 53 to 56.

Set task skills

Design a person-centred health and wellbeing improvement plan



Links

Look at pages 57 and 58.

Provide a rationale for the plan



Links

Look at page 59.

Identify obstacles relating to health and wellbeing improvement plans and describe how to overcome them



Links

Look at page 60.

Check the Pearson website

The activities and sample response extracts in this section are provided to help you to revise content and skills.

Ask your tutor or check the Pearson website for the latest **Sample Assessment Material** and **Mark Scheme** to get an indication of the structure of the actual assessed task and what this requires of you.

The details of the actual assessed task may change, so always make sure you are up to date.

Now try this

Visit the Pearson website and find the page containing the course materials for BTEC Tech Awards Health and Social Care. Look at the latest Component 3 Sample Assessment Material to check:

- the structure of your set task and whether it is divided into parts
- how much time you are allowed for the task, or for different parts of the task
- what briefing or stimulus material might be provided for you
- any notes you might have to make and whether you can take selected notes into your supervised assessment
- the activities you are required to complete and how to format your responses.

Using case studies

You may be asked to take on the role of a health care professional, such as a health care assistant, and to assess the health and wellbeing of a service user. Read the information you are given carefully before answering any questions. An example case study is given below.

Location

Naomi is 35 years old and single. She has just been promoted at work, which meant moving away from family and friends to a new flat situated on a main road in a large city.

Family, friends and social interactions

Naomi misses family and friends but she regularly speaks to friends on social media. Naomi has joined a local gym and has started to build new friendships. She also has regular check-ups with a trusted practice nurse at the local health centre.

Medical history

Naomi has had asthma since she was a young child. During a recent spell of cold weather her wheezing was so severe that she spent time in hospital. She uses a reliever inhaler when she feels symptoms starting.

Day-to-day life

Naomi enjoys her new job as a manager. She occasionally smokes, saying that it helps her relax. Unsociable shift patterns mean that Naomi often relies on takeaway food.

This section of the case study gives information about Naomi's day-to-day life. It tells us that Naomi sometimes smokes and has a poor diet because she works unsociable hours. These are lifestyle factors.

You might be asked to identify factors or life events that could have a negative or positive impact on the service user.



Look at page 3 to revise the effects of chronic health conditions.



Look at pages 10 and 26 to revise the impact of smoking on health and wellbeing and pages 5 and 6 to revise the effects of diet.

This section of the case study tells you about Naomi's current physical health. You could be asked how asthma, smoking and diet affects Naomi's health and wellbeing.

How to read case studies

This case study is used as an example to show the skills you need in your examination. The exact content of the exam case study will be different, but you will use the same approach to find out about the service user.

In your assessment, follow these steps as you think about the information you are given from the point of view of a health care professional:

- ✓ Read the case study through **twice**.
- ✓ **Underline** key phrases as you read the case study as shown here.
- ✓ Remember you can go back and look at the case study again while answering questions.

Now try this

Using the information provided, identify:

- (a) an environmental factor
- (b) a social factor
- (c) a physical factor

that could have an effect on Naomi's health and wellbeing. State whether these factors have positive or negative effects.

The content on pages 3, 5, 6, 7, 10, 12, 13, 17 and 18 will help you with this question.

Explaining factors with negative effects

You may be asked to identify and explain factors with negative effects on health and wellbeing. You should re-read each section of the case study.

Sample response extract

Naomi lives by a main road in a large city where there is a high level of exhaust fumes in the environment.

Make sure you identify factors that can have a **negative** effect on the person's life. Look for linked information in different sections.

This learner has identified a factor from the case study with a negative effect, but they do not explain how it could impact on Naomi's health.

Improved response extract

Because Naomi lives in the city by a busy main road she will breathe in air with a high level of damaging particles and nitrogen dioxide from vehicle exhausts, **so** her airways and lungs are likely to be irritated. This will make breathing difficult and could trigger an asthma attack.

If you are asked to explain the effects of negative factors on health and wellbeing you could answer like this.

Here the learner identifies a factor from the case study that is likely to have a negative impact on health and makes specific links to Naomi's asthma. Using the word **so** has prompted them to explain (give reasons).



Look at page 17 to revise the effects of air pollution on airways and lungs.

Sample response extract

Takeaway foods are likely not to have all the nutrients Naomi needs to keep her body systems healthy, **so** she may suffer more colds and gain weight, both of which could negatively affect her asthma. They may also be high in sugar, which could increase her risk of type 2 diabetes and heart disease.

Diet is a factor with an indirect negative effect on Naomi's asthma.



Look at page 6 to revise the risks of an unhealthy diet.

Now try this

Explain another factor that could have a negative effect on Naomi's health and wellbeing.

You could give a factor that affects Naomi's emotional and social wellbeing.

Explaining factors with positive effects

You may need to **identify** and **explain** factors that have positive effects on health and wellbeing. *Identify* means that you have to state the factor and effect. *Explain* means you need to give a reason to say why the factor has the positive effect. The answer to an explain question often contains the word 'because' or 'so'.

Sample response extract

Although Naomi has asthma, she uses a reliever inhaler when she feels symptoms starting and has regular check-ups. This is positive **because** it means her asthma is monitored and usually controlled. This means it is less likely that she will suffer severe attacks.

If you are asked to explain the effects of positive factors on health and wellbeing you could answer like this.



Look at page 3 to revise the effects of chronic illness on health and wellbeing.

Make sure you read the whole of the case study (page 48) and look for information that is **positive**. You should also look for **linked** information in different sections. For example, information on Naomi's use of an inhaler and her regular appointments with a practice nurse are in different sections.

Sample response extract

Naomi has joined a local gym. This factor will have a positive effect on her life **because** it means she is exercising. Exercise will improve her physical fitness, **so** she has better heart and lung health and stronger muscles. Exercise is also good for Naomi's emotional health **because** it reduces stress.

The learner has identified areas of health that are affected positively and has explained why.



Look at page 7 to revise the effects of exercise on health and wellbeing.

Sample response extract

Naomi has started to build new friendships at the gym. This factor will have a positive effect on her life **because** making new friends will help her feel less socially isolated and more supported.

The learner has identified a factor that will have a positive effect on social and emotional wellbeing.



Look at page 13 to revise the effects of relationships on health and wellbeing.

Now try this

Explain another factor that could be having a positive effect on Naomi's health and wellbeing.

You need to state the factor and then give a reason why it has a positive impact on health and wellbeing.

Explaining social and emotional effects

You may be given more information about the person in the case study and asked to explain the possible social and emotional effects of additional factors on their wellbeing.

Naomi is from the Jewish faith. Before she moved, she lived in an area where there was a strong Jewish community. She was an active member of her synagogue where she knew many people and would stay to talk to them after each service.



Links This is additional information. Make sure you link it to the other information you have been given about Naomi on page 48.

This additional information discusses a cultural and religious factor that could have a positive or a negative effect on Naomi. Both approaches are valid as they refer to the additional information given about Naomi and make links to her social and emotional wellbeing.

If asked about social and emotional effects of factors, make sure you specifically link to this aspect of wellbeing. You might mention social interactions, relationships, self-image and feelings.

Sample response extract

Naomi has lost the social interaction that she had with the Jewish community, which is likely to have a negative effect on her emotional and social wellbeing because she no longer has the feelings of safety and security she developed through friendships and companionship.

If you are asked to explain the effects of factors on social and emotional wellbeing you could answer like this.

This response focuses on the social aspect of belonging to a cultural group and the emotional impact of the loss of social contacts.

Sample response extract

Having a strong faith is likely to have a positive effect on Naomi's emotional and social health and wellbeing because it may help her deal with worries and stress and give her a feeling of contentment.

This response focuses on the importance of Naomi's religion and shared beliefs, and how that may help her to overcome negative factors.



Links Look at pages 12 and 15 to revise social and emotional effects of cultural factors.

Now try this

Explain another negative effect of not being able to practise her faith on Naomi's social and emotional wellbeing.

Consider how not being able to attend her synagogue may impact on Naomi's feelings about herself and her ability to socialise.

Interpreting lifestyle data

You may be given information about a person's lifestyle, relating to smoking habits, alcohol consumption or inactivity. You will need to interpret the data accurately, making direct reference to government research and / or recommendations.

Last time Naomi visited the practice nurse for her regular check-up, the nurse asked questions about her lifestyle and recorded the following information.

Lifestyle data

Naomi travels to work by car and has a desk job. She attends the gym once a week. She drinks around 14 units of alcohol, but only drinks on her days off.

If you are asked to explain lifestyle data you could answer like this. You must give detailed explanations of the possible impact on the person's current physical health and risks to their future physical health.

Sample response extract

Naomi is inactive at work but does attend the gym once a week. According to recommended exercise levels she should exercise at least five times a week, so her visit to the gym may not be enough to help maintain physical fitness. Not getting enough exercise may result in a loss of lung capacity and reduction in stamina, leading to asthma attacks when she does need to exert herself. Inactivity can lead to obesity and joint pain, and increase her risk of diabetes and heart disease.

The learner gives details about Naomi's level of exercise. They make links to research data in order to interpret the information about Naomi's lifestyle. They refer specifically to Naomi's existing health condition when explaining risks and then also give examples of other possible increased risks to health.

Links Look at page 7 for information on the importance of exercise for health and wellbeing and page 28 to find out about inactive lifestyles.

Sample response extract

Naomi does not drink more than government recommended units each week but binge drinks. Binge drinking could lead Naomi to become alcohol dependent. It may make her asthma symptoms worse and contribute to an increase in her weight. In the future, it would increase her risk of cancers, liver or heart disease.

The learner shows that they understand research data about recommended levels of alcohol consumption and the risks of not following guidelines. They refer to what they already know about Naomi when identifying current risk.

Links Look at page 9 and page 27 for information on the risks of alcohol consumption.

Now try this

Naomi was asked about her smoking and she stated that she smokes, but only two cigarettes a day.

Explain what this lifestyle data suggests about Naomi's current health and future health risks.

Re-read pages 10 and 26 for more information on the risks of smoking.

Explaining physiological data: pulse rate

You may be asked to interpret data on a service user's resting pulse rate, predicted maximum pulse rate during exercise and recovery rate, and give a clear and detailed explanation about their current health and any possible physical health risks.

The practice nurse asked questions about Naomi's level of exercise.

Physiological data

The nurse took these resting pulse rate (RPR) readings.

Resting pulse rate	97 bpm
--------------------	--------

This guidance will help you interpret Naomi's data.

RPR (adults)	Between 60–100 bpm
--------------	--------------------



Look at page 22 for more information on pulse rate measurements.

There can be a wide variation in normal pulse rates between people, depending on their age, fitness and gender. People who are physically fit, such as athletes, have lower pulse rates of around 40–60 bpm.

Sample response extract

Naomi's resting pulse rate is within normal levels but is close to the upper limit. The data indicates that she is physically unfit, so her heart has to work harder. This is likely to be because she isn't getting enough exercise and may be overweight. Stress can also contribute. A fast pulse rate can increase blood pressure, so Naomi will have a higher risk of heart attack or stroke in the future.

The learner has interpreted RPR data correctly using the published guidance and, although Naomi's RPR is within safe limits, they have drawn a relevant conclusion that Naomi's pulse rate, being close to the top normal limit, could put her at risk of health problems.

The learner has explained relevant factors from the case study that may have led to Naomi's high pulse rate.

The learner explains the potential for increased risk to Naomi's health, making a relevant link between pulse rate and raised blood pressure.

Now try this

In March 2017, Damian, aged 50, visited his GP. He lacked energy and was overweight. He agreed a health plan to exercise five days each week. Six months later, his resting pulse rate and recovery rate were reviewed.

Physiological data	March 2017	Sept 2017
Resting pulse rate	105 bpm	75 bpm
Pulse rate after exercise	175 bpm	134 bpm
Recovery time	7 minutes	4 minutes

Remember that the advised maximum pulse rate during exercise is 220 minus the person's age. A healthy pulse rate for exercise is between 60% and 80% of the maximum.

What do the readings suggest about Damian's:

- health at the beginning of the plan
- health after six months of exercise?

Explaining physiological data: blood pressure

You may be asked to interpret data on a service user's blood pressure and give a clear and detailed explanation about their current health and possible physical health risks.

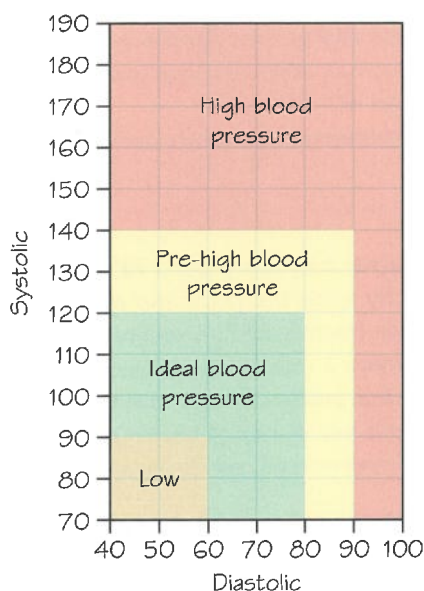
During Naomi's health check her blood pressure was taken.

Physiological data

The nurse took this reading.

Blood pressure	130/85mm Hg
----------------	-------------

This guidance will help you interpret Naomi's data.



Links

Look at page 23 for more information on blood pressure measurements.

Readings show two numbers. **Systolic** at the top shows the maximum pressure as the heart contracts to push blood into the arteries. **Diastolic** at the bottom shows the minimum pressure in the arteries between heart beats. Remember, only one number (systolic or diastolic) has to be higher or lower than normal to be an abnormal blood pressure reading.

You will be provided with published guidance to help you to interpret physiological data.

This learner has used the published data to interpret the readings.

Sample response extract

Naomi's blood pressure is in the pre-high range. This may be because Naomi's heart is working too hard because she is overweight. Her blood pressure may also be raised because she has asthma and is stressed about leaving her family and starting a new job. If she does not change her lifestyle, her blood pressure may become higher still, increasing her risk of heart disease and stroke.

The learner has explained possible causes of pre-high blood pressure, making clear links to the information given about Naomi's health and lifestyle in the case studies.

The learner has used the information given to explain that Naomi's blood pressure could rise further because of her lifestyle, increasing the risks to her future health.

Now try this

Faith is 92 years old and lives in her own home. She is active and manages her own personal care. She gets help with housework and shopping. Faith's GP visited her because she sometimes feels dizzy when she stands up.

Physiological data: The GP took this reading: Blood pressure = 92/57mm Hg

Explain what the data suggests about Faith's current and future health.

Explaining physiological data: peak flow

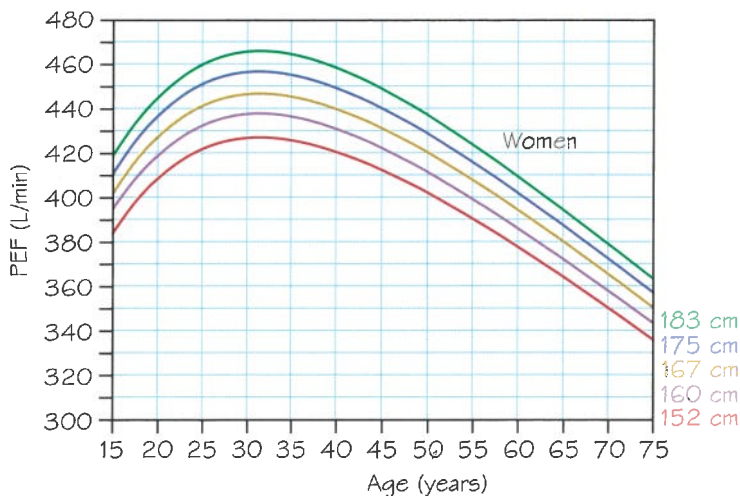
You may be asked to interpret data on a service user's peak flow, and give a clear and detailed explanation about their current health and possible physical health risks.

The nurse has worked out a target peak flow based on Naomi's age, height and health condition. Her target is 80% of normal readings because of her asthma. The nurse first measures Naomi's height and then asks her to use the peak flow meter and expel air from her lungs.

Physiological data

Peak flow	388 L/min
Height	165 cm

This guidance will help you interpret Naomi's data.



Links Look at page 24 for more information on peak flow measurements.

To interpret peak flow data it is important to know the person's age and height. This learner has remembered or checked Naomi's age (35) from the introductory case study.

The learner has interpreted the data correctly. Remember, when interpreting physiological data you should take into consideration other factors such as height, gender and health conditions. Naomi's asthma means that her peak flow may be lower than average for her height and weight.

Sample response extract

Naomi's peak flow is more than 80% of normal values. This means that the medication she uses is controlling her asthma and her lungs are reasonably healthy. If Naomi's peak flow reading falls below her target, it indicates that she is at risk of an asthma attack. A poor reading could also indicate conditions such as chronic bronchitis, emphysema or cancer.

The learner understands that lower than expected readings might indicate Naomi's asthma is not being controlled, or other lung problems.

Now try this

Use guidance to interpret peak flow data for the following people.

Person	Age	Height (cm)	Peak flow reading
Clive (male)	63	183	505 L/min
Azra (female)	20	160	420 L/min
Boris (male)	47	175	648 L/min

Use the graph on page 24 to help you to interpret data for men and women.

Explaining physiological data: BMI

You may be asked to interpret physiological data relating to a person's BMI. You must use published guidance to explain the significance of any abnormal readings in relation to risks to physical health.

During Naomi's health check the nurse took physiological measurements. She found Naomi's weight and measured her height to find her BMI.

Physiological data

The nurse calculated Naomi's BMI by dividing her weight by her height in metres squared.

BMI	29 kg/m ²
-----	----------------------

This guidance will help you interpret Naomi's data.

Weight categories	BMI (kg/m ²)
Underweight	<18.5
Healthy weight	18.5–24.9
Overweight	25–29.9
Obese	30–34.9
Severely obese	35–39.9
Morbidly obese	>40



Look at page 25 for more information on BMI.



See pages 1 and 6 to remind yourself about health and wellbeing and the effects of a balanced diet.

If you are asked to explain BMI data you could answer like this.

Sample response extract

Naomi's BMI falls in the overweight range, but is almost into the obese category. Being overweight is likely to put strain on her skeleton and heart affecting her mobility and breathing. She has an increased risk of arthritis, type 2 diabetes, heart disease and cancers in the future.

Being overweight could also affect Naomi's self-concept and confidence, so that she finds it more difficult to make new friends. This could have a negative effect on her social and emotional wellbeing.

The learner has commented on how being overweight affects the whole person, and included social and emotional, as well as physical, effects. This demonstrates a person-centred approach.

The learner has used the table correctly to interpret Naomi's BMI data. The learner has also observed where Naomi's reading falls within the overweight category. They show understanding that being overweight increases pressure on the skeletal system and they state other health risks on body systems. They also mention effects on breathing, which is important as she has asthma.

Now try this

Kesh, aged 15, often tries to get out of sports lessons at school because he finds he gets out of breath and tires very easily. He misses breakfast but goes to the local fast-food shop at lunchtime.

Kesh was asked to visit the school nurse with his father. The nurse took physiological measurements and calculated a BMI.

BMI	33 kg/m ²
-----	----------------------

Explain what the data suggests about Kesh's:

- current health
- future health.

Look at page 7 for information on the importance of exercise and page 25 to find out about BMI.

Health and wellbeing plan: person-centred approach

You could be asked to design a health and wellbeing improvement plan for a service user in a case study. Health and wellbeing improvement plans should be person-centred, so that they take into account the person's needs, wishes and circumstances.

The nurse has consulted with Naomi to establish that she wants to:

- reach a healthy weight
- stop smoking
- reduce her alcohol consumption
- feel more relaxed and less stressed.

Also, Naomi doesn't want to:

- give up her Friday night curry
- stop using her car to get to work.

Other relevant information:

- Naomi works unsociable hours.
- She finds it hard to relax without smoking and alcohol.



Look at pages 29 and 33 for more information on the person-centred approach and health and wellbeing plans.

Note that the nurse has discussed Naomi's health and wellbeing indicators and has supported her to make her own decisions. If Naomi feels involved, she is more likely to stick to the plan.

The nurse should respect Naomi's decisions and should not pressure her to agree to actions she doesn't want to do, such as walk to work, or trust could be lost.

The nurse should take into account any other circumstances that could affect decisions about types of actions, the likely success of the plan and potential obstacles.



To devise a person-centred plan for Naomi, you should look back at information about her on pages 48 and 52 to 56. You should also study these notes about her wishes, taken by the practice nurse.

Workflow

The process of creating a health and wellbeing improvement plan might follow these steps:

- ✓ Identify and explain factors that affect health and wellbeing in positive and negative ways.
- ✓ Interpret lifestyle and physiological data.
- ✓ Provide actions suitable for the person to improve health and wellbeing.
- ✓ Set realistic long- and short-term SMART targets.
- ✓ Provide sources of support.
- ✓ Identify obstacles to the actions and targets and ways they might be overcome.
- ✓ Provide a rationale for the plan.

Now try this

Explain, giving three reasons, why it is important the nurse takes a person-centred approach when planning for health improvement.

Link reasons to Naomi's needs, her wishes (what she wants and does not want) and her circumstances.

Health and wellbeing plan: actions, targets and support

A health and wellbeing improvement plan should recommend actions and have short-term and long-term SMART targets. Plans should also identify sources of support and give an explanation of how these will help the service user keep to the plan.

The short-term target must be realistic to encourage Naomi to continue towards her long-term target. The short-term target weight loss is a realistic amount because people tend to lose more weight in the first few weeks, then slow down.

Sample response extract

Naomi's recommended actions with short-term and long-term targets

Action: To walk briskly for 30 minutes during work breaks on 5 days a week.

Short-term target: To lose 0.5 kg each week for the first 4 weeks.

Long-term target: To reduce weight by 10 kg within one year, to reach the BMI healthy range.

Sources of support and how these will help

Formal: A physiotherapist can advise on types and levels of exercise that will not impact on her chronic asthma. This will help Naomi to know her exercise limits so she doesn't trigger her asthma.

Informal: Colleagues at work could join her on her walks at lunch or break times. This will reduce boredom, give her more incentive and improve her social and emotional wellbeing.

Naomi wants to lose weight. This can be achieved through exercise. She already goes to the gym once a week to get some vigorous exercise, so this action will increase her moderate exercise to the recommended levels. The nurse knows that Naomi would not want to walk to work, so has suggested walking during work breaks.

It would be realistic for Naomi to lose 10 kg over one year because this is less than 1 kg each month. The target would reduce her weight to within the healthy BMI range. It is important to state a specific amount of weight loss so it is clear whether the person has achieved their target by the agreed date.

Formal support comes from professionals or organised groups. In your answer include the types of advice and/or practical help these sources could give that are specific to the person's needs.

Informal support comes from non-professionals, including family and friends. In your answer include the ways these people can provide support, such as by joining in with lifestyle changes and giving encouragement to help reach the targets.

Links Look at page 7 for more information about recommended levels of exercise.

Links Look at pages 34 to 38 for more information about actions, targets and sources of support.

Now try this

One of Naomi's stated wants is to stop smoking. An action to help Naomi to quit smoking could be to join a yoga group or use a yoga app to reduce her stress levels.

- Suggest one short-term and one long-term target for Naomi's smoking.
- Suggest one formal and one informal source of support.

Naomi feels she needs cigarettes to help her relax. Finding other ways to relax could help her to give up smoking.

Explaining the rationale

As a health care professional, you would have to present the rationale behind your plan to the service user and/or your colleagues. Your rationale should give clear reasons for recommended actions and targets, and also explain how the plan meets the person's needs and takes account of their wishes and circumstances.

Sample response extract

The plan is appropriate for Naomi because the physiological data indicates that Naomi's BMI and blood pressure are too high. If Naomi exercises, this can lower her blood pressure and resting pulse rate, and improve her peak flow reading, improving her asthma and reducing her risk of more serious health problems in the future. Naomi could be worried that exercise could trigger her asthma so recommending she gets advice from a professional (physiotherapist) will reassure her that she is not overdoing it. Research shows that one of the most effective ways to lose weight is through increased exercise. This fits in with Naomi's wishes as she expressed that she would like to reach a healthy weight.

Fitting exercise into her break times should be more acceptable to Naomi as she doesn't want to walk to work.

The recommended action of walking during break times takes into account Naomi's unsociable working hours, which would make attending a regular exercise or dance group difficult.

The plan mentions Naomi's colleagues at work providing informal support by joining her on her walks. This will also help her make closer friends at her new place of employment and improve her social and emotional wellbeing.

The plan gives a realistic timescale of one year for Naomi to reach a healthy weight. Giving unrealistic time scales is more likely to result in Naomi giving up.

The learner shows that they have thought about all aspects of the health plan, including what is realistic to keep Naomi on track. The learner can explore this further when writing about overcoming obstacles.

Justifying

When providing a rationale, you are **justifying** your plan. This means giving valid and supporting reasons for the points you make, proving they are right and reasonable.

This rationale covers the action used as an example on the previous page.

The learner has taken into account that Naomi's asthma is being controlled but that it needs to be monitored.

The learner shows that the plan is suitable for Naomi's physical health needs and supports her own wishes to lose weight. They use research to support their rationale, making the point that exercise is important for weight loss.

The suggested action is a reasonable way to increase Naomi's exercise each day (rather than suggesting walking to work instead of driving, which would be counter to her wishes).

The plan takes into account Naomi's circumstances of irregular working hours by including a daily exercise routine that can fit into her work breaks.

This demonstrates the plan is person-centred and considers all aspects of health and wellbeing.



Look at page 7 for more information on the physical benefits of exercise.

Now try this

Give a rationale for the actions and targets from the Now try this activity on the previous page.

The action is to find ways to relax, in order to achieve the goal of giving up smoking.

Overcoming obstacles

As a health care professional, you must be able to describe the possible obstacles the service user might encounter when carrying out the plan. You should be able to suggest how to overcome these.

Sample response extract

Obstacles

Naomi may worry that more exercise will trigger an asthma attack.

Naomi may find that she lacks motivation part way through her plan, particularly if her weight loss slows. This might happen if she becomes bored of the same exercise activity.

Naomi may discover that finding time to walk in her busy working day is difficult, so she may not achieve her target of 30 minutes every day.

She may feel self-conscious exercising or experience unkind comments from others while exercising due to her weight.

Mitigation

Keeping a peak flow diary will help Naomi to monitor her health.

A way to minimise lack of motivation could be to suggest a different exercise routine for alternate days. For example, using an exercise bike at home while listening to music or watching TV, alternated with her daily walk. Another way to overcome lack of motivation would be for Naomi to use an app to count the number of steps she takes in the day. This adds an element of fun, and might motivate her to beat her target by doing things like taking the stairs rather than the lift.

She could also arrange to walk with a colleague, so she will have someone to talk to and be less likely to make excuses not to go. Professionals and friends could also encourage Naomi to talk about how she feels and continue to point out the benefits and encourage her progress. She could also join a support group of people going through similar experiences, which will help her maintain a positive outlook.

Alternating a 30-minute break-time walk with use of an exercise bike at home might also help Naomi to make better use of her free time to exercise.

The learner gives a clear account of the obstacles that Naomi might face with reference to her specific, individual circumstances.

Finding time to exercise in a busy day is a problem for many people.

The learner has drawn on their knowledge of asthma and its treatment in order to explain how this condition can be managed effectively in a health plan.

The learner has firstly made a suggestion to adapt or change the action to reduce boredom and, secondly, suggested simple but creative ways to make the same action more fun. Remember to give reasons for your suggestions.

The learner understands that effective support structures (formal and informal) are essential for success.

Suggesting that Naomi finds time to exercise away from the pressures of work is realistic.



Look at pages 39 to 46 for more information on obstacles to implementing plans.

Now try this

Naomi has a strong urge to smoke during social situations and after meals.

Give two suggestions to help Naomi minimise these obstacles.

Remind yourself of the plan to stop smoking in the Now try this activity on page 58.

Answers

1. Health and wellbeing

This means understanding and meeting a person's physical, intellectual, emotional and social needs.

2. Genetic inheritance

Individual responses but an example could include:

Cystic fibrosis affects all aspects of Gemma's wellbeing:

- **Physical** – mucus damages her lungs, affecting her breathing and mobility.
- **Intellectual** – Gemma sometimes misses school because of the condition, affecting her learning.
- **Emotional** – she may have poor self-concept because of feeling different and could be frustrated by her inability to live a normal life.
- **Social development** – the condition reduces her opportunities to socialise and make friendships.

3. Ill health

Individual responses but answers could include:

- **Physical** – mobility difficulties caused by joint pain.
- **Intellectual** – school may be missed in acute phases.
- **Emotional** – negative self-concept because of physical appearance, such as swollen joints.
- **Social** – being unable to take part in sports and other social activities.

4. Accident and injury

Two aspects of Kareem's emotional wellbeing could include but are not restricted to the following examples:

Kareem may:

- feel depressed because he cannot work or join in sporting activities
- develop low self-concept because of his physical injury
- feel angry because he has lost his independence
- worry about finances as he may not be able to return to his job.

5. Balanced diet

Not eating sufficient fruit and vegetables means the body lacks essential vitamins and fibre. Examples of risks include:

- more frequent infections or colds
- unhealthy skin and eyes
- constipation.

6. Effects of an unbalanced diet

Example response:

Bob should cut down on the amount of fat and carbohydrate that he eats.

7. Exercise

Answers should include one from each of the areas:

- **Physical** – low energy, obesity, stiffness of joints
- **Intellectual** – poor memory, reduced thinking skills
- **Emotional** – stress, poor self-concept, depression
- **Social** – isolation, poor social skills, fewer opportunities for social interaction

8. Personal hygiene

Individual responses but an answer could be as follows:

Good personal hygiene helps prevent the spread of bacterial and viral infection from person to person. It also improves self-concept as people feel good about themselves when they are clean and groomed.

9. Alcohol

Individual responses but an answer could be as follows:

- Sean is not meeting government guidelines. Although he does not drink more than 14 units a week, spreading his drinking over more days would lower risks to his health and wellbeing.
- Grace should stop drinking alcohol while she is pregnant because it could harm the health of her unborn baby.
- Zara is drinking less than five units a week, which is within safer limits.

10. Smoking and nicotine use

Individual responses but an answer could be as follows:

Being unable to stop smoking may lead to poor self-concept.

Smokers may worry about the negative effects on their health and about financial pressures because of the cost.

Smokers may feel socially isolated when they have to leave social spaces to smoke outside. People may avoid smokers because of the smell of their hair, breath and clothes.

11. Drugs

Individual responses but answers could include two from this list:

- breakdown in relationships with his family
- aggression, which may lead to trouble with the police
- poor self-concept
- suicidal feelings.

12. Social interaction

Individual responses but answers could include two from this list:

Mark may:

- feel insecure
- lose confidence in building relationships
- start to drink more alcohol or smoke
- feel anxious or depressed.

13. Relationships

Individual responses may include:

- boosting self-concept
- giving confidence
- providing security and support
- sharing experiences leading to feelings of happiness and contentment.

14. Stress

Individual responses.

15. Asking for help

Individual responses but answers could include three from this list:

Ron may:

- not wish to appear vulnerable
- be uncomfortable sharing his feelings
- not know where to go for help
- not understand the long-term effects of depression on his health and wellbeing
- worry about the stigma of admitting to mental health problems.

16. Economic factors

Individual responses but an answer could be as follows:

The status of an occupation affects a person's self-concept.

(High-status jobs help people to feel valued and low-status jobs may make them feel less valued.)

The status of employment can affect the level of income. Higher income can result in a feeling of financial security, and lower income in a feeling of insecurity.

17. Environmental factors

Individual responses but answers could include two from this list: Neville may have long-term lung damage because:

- he was breathing traffic fumes when he lived in a city
- he is likely to have breathed harmful fumes at work
- he has been exposed to his wife's cigarette smoke (passive smoking).

18. Housing

Individual responses but an answer could include the following:

- **Physical** – respiratory disorders, colds and flu, asthma, infections, unfit through lack of exercise, heart disease
- **Intellectual** – difficulties in concentration, unable to study
- **Emotional** – anxiety, depression
- **Social** – pressure on relationships, social isolation

19. Expected life events

Individual responses but answers could include one from the positive list and one from the negative list from these suggestions: Positive:

- She will have more time to spend with family, so may feel happier and more content.
- She is likely to feel less stressed if she does not have to work each day.
- She will be able to improve her fitness as she will have more time to take up leisure activities.

Negative:

- She may not meet as many people, so will have fewer opportunities for socialising.
- She will not be using the same intellectual skills, so may lose problem-solving or thinking skills.
- Work may have given Krysta a positive self-concept through status. She may lose this in retirement.

20. Unexpected life events

Individual responses about the effects of some of these events on their own health and wellbeing:

Examples of expected life events: starting school, starting college, starting a new job, moving house, partnerships and marriage.

Examples of unexpected life events: redundancy, imprisonment, exclusion from education, death of someone close ill health, accident or injury.

21. Health indicators

Individual responses may include:

Physiological measurements:

- pulse
- blood pressure.

Lifestyle indicators (two from this list):

- the amount of alcohol she consumes
- whether she smokes
- her level of exercise.

22. Pulse

- 1 100 bpm
- 2 Between 78 and 93 bpm

23. Blood pressure

Individual responses but could include three of the following.

Betty could:

- give up or reduce smoking
- cut down her salt intake
- take regular exercise
- reduce her alcohol intake
- avoid stressful situations.

24. Peak flow

Individual responses but answers could include three from this list:

- To keep a diary to show the progress of her condition, which will help health professionals make recommendations on treatment.
- To help her understand what triggers her asthma, so she can prevent it from getting worse.
- To make sure her rate of airflow is not getting worse, so she knows when to seek medical help.
- To check that the medication she takes is working properly.

25. Body Mass Index

1 Conran: healthy weight

2 Sadie: obese

26. Smoking

Individual responses but reasons could include:

- To understand possible causes of health problems.
- To understand present and future risks to health and well being.
- To give advice on ways to reduce or quit smoking.

27. Alcohol consumption

Individual responses but reasons could include:

- To understand possible causes of their health problems.
- To understand present and future risks to their health and well being.
- To give advice on ways to overcome addiction or reduce alcohol consumption.

28. Inactive lifestyle

Individual responses but reasons could include:

- For health professionals and individuals themselves to understand how lifestyle affects the body.
- To understand the level of risk to physical health.
- To support health improvements through a healthier lifestyle.

29. Person-centred approach

Individual responses but answers could include:

- Needs – the nurse should listen to Vicky to find if she has other less obvious needs, for example physical, intellectual, emotional or social issues, that could be making her tired.
- Wishes – the nurse should discuss different diets with Vicky to find which one she would prefer and which one she thinks fits best with her lifestyle.
- Circumstances – the nurse should ask how Vicky is managing alone with two young children and consider the effects of stress on her diet and blood pressure.

30. Care values 1

Relevant answers could include but are not restricted to four from this list:

- Give Saeed information about the risks of smoking to his health.
- Listen carefully to Saeed's views and be aware of his feelings.
- Use professional and respectful language.
- Give Saeed choices about different types of help and services he can use.
- Support Saeed's decisions on the strategies he chooses to use to stop smoking.
- Encourage Saeed to increase his confidence in his ability to quit smoking.

31. Care values 2

Individual responses but answers could include one from:

- They may be given information and advice based on incorrect assumptions about their needs, or likes or dislikes (based on their culture or gender, for example), so their plan is not suitable or effective.
- They may not build a positive, trusting relationship with the health professional if they feel they could be discriminated against, so are less likely to take advice and follow the plan.

32. Communication

Relevant answers are not restricted to but could include two from the following:

A person may:

- feel that they have not been able to choose their own targets, so are less likely to stick to the plan to achieve them
- lose trust in the health professional and not want to work with them
- not understand the plan properly, so they can't follow it
- feel that they are not being supported, so will give up and not meet their targets.

33. Health and wellbeing plans

Example response:

Step	Example
1	Health issue and goal Overweight Reduce BMI
2	Recommended actions Exercise programme and healthy eating
3	Target Lose 1 kg per week and 10 kg in 10 weeks
4	Support Weight Watchers
5	Overcoming obstacles Enlist the help of the whole family to change to healthier meals and snacks to reduce the risk of temptation

34. Goals and recommended actions

- Health issue and goal
- Actions
- Targets
- Sources of support
- Obstacles and overcoming them

35. Targets

Individual responses but answers could include:

Short term – one from:

- To lose 11 b in weight each week.
- To walk for 15 minutes without getting out of breath within one month.

Long term – one from:

- To reduce his weight to within the healthy BMI range in one year.
- To be able to play football for 30 minutes in the park with his sons in six months' time.

36. Formal support 1

Individual responses but answers could include four from this list:

- Take physiological measurements such as peak flow, blood pressure and pulse.
- Give advice on the physical health risks of smoking.
- Offer nicotine replacement therapies such as nicotine patches.
- Work with Vincent to produce a health and wellbeing improvement plan.
- Refer Vincent to a respiratory specialist if necessary.

37. Formal support 2

Individual responses but answers could include:

Using a blood pressure testing kit or weighing scales can help a person monitor their progress as they work towards their target. Progress is motivating.

38. Informal support

Individual responses but answers could include:

Goal	Informal support	Formal support
Eat more healthily	Family	Dietician, Weight Watchers
Quit smoking	Partner	GP, QUIT
Become less isolated	Friends	Domiciliary care worker, Age UK

39. Potential obstacles

Individual responses but answers could include:

- If needs are understood, actions can be recommended that are suitable and achievable.
- If a person's wishes are taken into account, they are more likely to take responsibility for following the plan.
- If personal circumstances are considered, the plan will fit in with time constraints and around other commitments.

40. Emotional and psychological obstacles

Individual responses but answers could include:

- Harri did well at the beginning of the plan but has seen his progress slow down.
- His family are usually supportive, but during Christmas they provided lots of treats instead of healthy food.
- He's not followed the diet plan during Christmas and may feel there's no point in starting again.
- His self-concept may be poor if he feels he is not succeeding in his plan.
- Christmas events took priority in his life, so he wasn't able to follow the exercise plan.
- He may be finding the exercise routines or diet plan boring.

41. Time constraints

Individual responses but answers could include:

- Josh could join a school team to exercise in his lunch break.
- Josh's family could help him by making a healthy packed lunch to take to school, creating time for him to exercise at lunchtime.
- Josh could get up earlier to walk or cycle to school, instead of using a bus or being driven in a car.

42. Availability of resources

Individual responses but answers could include:

Paulo could:

- run in his village park
- buy a fitness DVD from a charity shop
- use an app for a fitness programme on his mobile phone.

43. Unachievable targets

Individual responses but answers could include:

- 1 High expectations – discuss with the person what they feel they could achieve within a certain time.
- 2 Unclear targets – be specific about what has to be done and talk through each target to check the person understands.
- 3 Too many targets – focus on one lifestyle aspect to change at a time.
- 4 Poor timing – take into consideration what is happening in the person's life, for example holidays and celebrations, when agreeing a start date.
- 5 Unsuitable targets – match targets and actions to a person's level of ability.

44. Lack of support

Individual responses but answers could include:

Steve's family:

- may not understand how Steve's personal hygiene is affecting his health
- may avoid him because of his poor personal hygiene rather than giving him encouragement.

45. Factors specific to the individual

Individual responses but answers could include:

- The person will crave drugs, so will find it very hard to resist if drugs are offered.
- The person will find it difficult to think clearly about the benefits of giving up drugs.

46. Barriers to accessing identified services

Individual responses but answers could include:

- Madge could get a dance DVD to follow at home.
- Madge may feel more confident if a friend or family member goes to dance class with her.
- Madge could be given a diet sheet with meal plans.
- Madge could speak to the dietician via a video link.

47. Your Component 3 set task

Individual research.

48. Using case studies

Individual responses. For example:

- (a) Environmental factor. Naomi lives by a busy road – negative effect as pollution may make her asthma worse.
- (b) Social factor. Naomi has recently moved away from her family and friends – negative effect as she may be isolated and has lost sources of support.
- (c) Physical factor. Naomi is going to the gym, so is exercising – positive effect as she will be improving her physical health.

49. Explaining factors with negative effects

Individual responses but answers could include:

Naomi has moved away from family and friends. She may feel isolated and could develop depression.

50. Explaining factors with positive effects

Individual responses but answers could include:

Naomi uses social media to keep in contact with her family and friends. This is positive because she can share her feelings and worries with people she knows well, making her feel less isolated and stressed.

51. Explaining social and emotional effects

Individual responses but answers could include:

Naomi has less social interaction because she does not attend her synagogue so she may feel more isolated and lonely leading to negative self-concept.

52. Interpreting lifestyle data

Individual responses but answers could include:

Although Naomi only smokes two cigarettes each day, research data shows that it will have a negative effect on her health and wellbeing. Any level of smoking will irritate her airways and increase her risk of catching colds and flu, possibly triggering an asthma attack. She says it relaxes her but she risks addiction and could smoke more as a result. In the future, she may face life-threatening diseases such as cancer, stroke and coronary heart disease.

53. Explaining physiological data: pulse rate

Individual responses but answers could include:

In March 2017 Damian's resting pulse rate and pulse rate during exercise were abnormal (his readings exceeded the normal RPR of 60–100 bpm in an adult and his safe maximum rate for exercise of $220 - 50 = 170$). The data indicates he was physically unfit and at a high risk of a heart attack or stroke. Within six months, Damian has reduced his RPR to within normal levels and during exercise to a healthy 80% of his safe maximum rate. He also recovers to his RPR faster, which shows increasing fitness. By taking regular exercise Damian has reduced his health risks because his heart is now working more efficiently.

54. Explaining physiological data: blood pressure

Individual responses but answers could include:

The readings show that Faith has low blood pressure because her diastolic reading is in the low range. Low blood pressure may be a result of ageing and can indicate that she remains reasonably healthy. It could also be the cause of Faith's dizziness. If her blood pressure drops lower it could increase her risk of fainting if she gets up too quickly or she may become confused.

55. Explaining physiological data: peak flow

Individual responses but answers could include:

- Clive has an abnormally low peak flow reading, indicating that his airway may be blocked or he may have a chronic condition such as asthma or bronchitis or lung cancer.
- Azra has normal peak flow for a woman of her age and height, indicating healthy lung function.
- Boris has a better than expected peak flow reading for a man of his age and height, indicating that he is physically fit and has good lung capacity.

56. Explaining physiological data: BMI

Individual responses but answers could include:

Kesh's BMI puts him in the obese category. Because he is obese, he struggles to exercise so will have reduced lung capacity. In the short term, Kesh's weight puts a strain on his skeleton and heart. He has an increased risk of arthritis, type 2 diabetes, heart disease, stroke and cancers in the future.

57. Health and wellbeing plan: person-centred approach

Individual responses but answers could include three from the following:

- Understanding Naomi's physiological and lifestyle data will help the nurse to understand health risks and suggest suitable actions to improve her health and wellbeing.
- Listening to what Naomi wants to achieve will help the nurse to suggest actions to help her reach targets, such as weight loss, a healthier diet and quitting smoking.
- Taking account of what Naomi does not want to give up when planning actions will make Naomi more successful in achieving her targets.
- Understanding Naomi's personal circumstances will help the nurse to suggest actions that will fit in with the way she lives, such as her work patterns.

58. Health and wellbeing plan: actions, targets and support

Individual responses but answers could include:

- (a) Short-term target – to reduce cigarette smoking to no more than one each day within one month.
Long-term target – use techniques to manage own stress levels instead of smoking cigarettes within six months.