

2024 VCE Health and Human Development external assessment report

General comments

The 2024 VCE Health and Human Development examination required students to demonstrate a range of key knowledge and key skills from the study design.

Questions that required identification or description were generally answered well, such as Questions 1a. and 8a. Most students attempted the extended response question, which was generally completed well. Areas for improvement include answering questions that require links between concepts, such as Questions 8d. and 10d.

Concepts that were well understood included Ottawa Charter for Health Promotion action areas, the characteristics of low-income countries, the implications of climate change on health and wellbeing, biomedical approaches to health, and old public health.

Concepts that were not well understood included discrimination based on sexual orientation and gender identity, dimensions of the human development index, and Sustainable Development Goals 4 and 13.

Students are reminded that the command term in the question and the mark allocation should assist them in determining how much detail is required in their answers. They should ensure they answer questions in the correct context to be eligible for full marks. For example, Question 3 needed to be answered in relation to 'improved health outcomes'. Also, some questions identified answers that were not to be included, such as Question 5b. ('besides body weight') and Question 8b. ('explain two other characteristics'). Students need to read the question carefully as they will not receive full marks if they do not follow these instructions.

In 2024 students used abbreviations without providing an explanation, such as 'h&w' for 'health and wellbeing'. The use of unexplained abbreviations can result in a loss of marks. Teachers should ensure that students are familiar with the VCAA's advice, which states that students can use any scientific abbreviation (e.g. BMI) or abbreviations that are stated within the study design (e.g. HALE, DALY, WHO, UN, SDGs). In the 2024 examination, Questions 1, 7, 10 and 11 included the abbreviations DALY, HALE, PBS, SGDs and WHO, all of which were acceptable to use. For other commonly used terms within the study, such as health and wellbeing, students should write the term out in full the first time, abbreviate it in brackets, and then refer to the abbreviation for the remainder of that question only.

Several questions in the 2024 examination asked for implications of or impact on health outcomes or human development, such as 'impact on burden of disease' (Question 1), 'impact on health status' (Question 8b.), 'impact on human development' (Question 8d.), 'implications for health and wellbeing' (Question 10a.) and 'impact on the Human Development Index' (Question 12b.). Students needed to identify the nature of the impact or the implication. For example, in Question 1 many students just wrote 'impacting on burden of disease' or 'impacting on YLL' rather than 'increasing the years of life lost (YLL) as a result of premature death'. Students must clearly identify whether the impact or implication for health outcomes or human development is an increase or decrease.

Specific information

Note: Student responses reproduced in this report have not been corrected for grammar, spelling or factual information.

This report provides sample answers or an indication of what answers may have included. Unless otherwise stated, these are not intended to be exemplary or complete responses.

The statistics in this report may be subject to rounding, resulting in a total more or less than 100 per cent.

Question 1a.

Marks	0	1	2	Average
%	29	35	36	1.1

Students were required to demonstrate an understanding of the terms 'disability-adjusted life year' (DALY) and 'health-adjusted life expectancy' (HALE). Students could have included in their answers any of the following:

DALY is:

- a measure of burden of disease
- the years of healthy life lost, either through premature death and/or living with a disability (or illness)
- one DALY equals the sum of years of life lost (YLL) and years of life lived with a disability or illness (YLD).

HALE is:

- a measure of burden of disease
- one HALE equals life expectancy minus YLD
- the average number of years an individual lives in good health without disease or disability
- an adjusted lifespan of an individual, taking into account level of illness or disease if death rates do not change
- the average number of years that a person at a specific age can expect to live in full health by taking into account the years lived in less than full health due to the health consequences of injury and/or disease.

The following is an example of a high-scoring response.

DALY is a measure of burden of disease, where one DALY equals one year of healthy life lost due to premature death and time spent with disease, injury or disability.

HALE is the average amount of time an individual can expect to live in full health, that is time spent without the health consequences of disease and illness.

Question 1b.

Marks	0	1	2	3	Average
%	27	23	27	23	1.5

Students needed to demonstrate an understanding of the consequences of the underconsumption of fruit, and how this impacts on a specific measure of burden of disease, such as DALY, HALE, YLL or YLD.

To gain full marks, students needed to refer to specific nutrients found in fruit, such as vitamin C, fibre or potassium. Answers that only referred to nutrients or vitamins and minerals did not gain full marks.

Students needed to make a link between the lack of a specific nutrient found in fruit to a disease, condition or illness. For example:

- vitamin C and anaemia or immune system functioning
- fibre and colorectal cancer
- antioxidants and cancer
- soluble fibre and lower cholesterol reducing cardiovascular disease.

Some students tried to connect underconsumption of fruit to obesity. This was only accepted if they identified that fruit contains fibre, which contributes to satiety, and therefore underconsumption of fruit can contribute to overeating and increase the burden of disease relating to obesity.

The following is an example of a high-scoring response.

Under consumption of fruit, such as apples, may contribute to increased YLL's in Australia. Fruit is high in fibre, which regulates bowel movements by adding bulk to faeces. Thus not enough fruit can increase the risk of constipation which is a risk factor for colorectal cancer due to waste staying inside the body. This can cause premature death increasing YLLs contributed to overall burden in Australia.

Question 2

Marks	0	1	2	3	Average
%	19	15	34	32	1.8

This question required students to accurately name an Ottawa Charter for Health Promotion action area reflected in the case study. Students needed to demonstrate understanding of the action area and make a clear link to information provided in the case study.

Possible action areas include:

- Reorient Health Services
- Strengthen Community Actions
- Develop Personal Skills
- Create Supportive Environments.

It should be noted that the action area 'Build Healthy Public Policy' was not accepted as it was not evident in the case study.

Many students listed the action area of 'Create Supportive Environments' but were unable to demonstrate their understanding and how it was reflected within the case study. Responses needed to link this action area to creating a social environment that is safe and culturally appropriate. Generally, students who selected the action areas of 'Develop Personal Skills' and 'Strengthen Community Actions' were better able to demonstrate their understanding and make clear connections to the case study.

The following is an example of a high-scoring response.

Develop personal skills: refers to increasing individuals health related knowledge and skills so that they have increased capacity to make decisions regarding their health, allowing them to make healthier decisions, such as consuming adequate amounts of vegetables. The NSW Knockout Health challenge provides Aboriginal Australians with group cooking classes so that they have the skills and are better able to cook nutritious meals. Similarly it provides nutrition or physical activity education lessons to allow them to have the knowledge to maintain a healthy body weight and promote their physical health and wellbeing.

Question 3

Marks	0	1	2	3	4	Average
%	6	16	31	26	21	2.4

This question required responses demonstrating an understanding of both food and income as prerequisites for health. Responses needed to show a link to either a health status indicator or a dimension of health and wellbeing, and use a different health status indicator or dimension of health and wellbeing for food and income.

As the question was asking about why food and income are prerequisites of health, responses about lack of food or income did not answer the question and were not awarded marks.

The following is an example of a high-scoring response.

Food

Having access to safe, nutritionally adequate and culturally appropriate food from local sources allows people to gain adequate nutrients to complete daily tasks. These nutrients boost the immune system to reduce the likelihood of conditions such as influenza, reducing morbidity from decreased respiratory function as a prerequisite for physical and overall health.

Income

Having access to enough money can allow people to buy basic needs like food, water and shelter required to improve health. By not struggling to buy basic necessities to survive people's stress and anxiety in meeting their needs can be reduced to promote mental health and wellbeing.

Question 4

Marks	0	1	2	3	Average
%	37	18	26	20	1.3

This question required students to provide an example to demonstrate an understanding of economic sustainability. They were then required to establish a clear link between their example of economic sustainability and one dimension of health and wellbeing.

Possible examples students could have discussed include:

- innovation and diversity of industries
- job creation (employment)
- economic growth (increasing average incomes)
- trade
- managing debt.

To gain full marks, students needed to reference current and future generations in their description of economic sustainability.

The following is an example of a high-scoring response.

Economic sustainability relates to ensuring that average incomes in all countries are adequate to sustain a decent standard of living and to continue to rise in line with inflation and living costs into the future. An example is ensuring now and in the future, there is job creation so people can gain meaningful employment and earn an income to be able to afford essential resources like clothing and food, helping reduce levels of stress and anxiety for people since they can afford essentials, promoting mental health and wellbeing.

Question 5a.

Marks	0	1	2	Average
%	36	20	44	1.1

This question requires students to identify one trend (a change over time) in the data and to make accurate use of data in their answer. Trends included the following:

- The proportion of males and females 15–25 years considered overweight or obese has increased over time.
- Between 1971 and 2002, a higher proportion of males aged 15–24 years had overweight and obesity than females aged 15–24.

A common mistake was to identify what the data indicated at a point in time rather than to identify a change that occurred over the period of 1971 to 2002.

The following is an example of a high-scoring response.

The proportion of 15–24 year old males and females overweight and obese has increased from 1971–1980 to 1993–2002. This is shown as 33% of males and 24% of females were overweight or obese in 1971–1980 but this increased to 46% of males and 35.5% of females in 1993–2002.

Question 5b.

Marks	0	1	2	3	4	5	6	Average
%	41	11	16	12	7	7	6	1.8

For this question, students needed to identify two biological factors (other than body weight) that might contribute to variations in health status between males and females. Students needed to demonstrate how the identified biological factors lead to the variation in health status between males and females. Students were required to refer to a specific indicator of health status in their answer.

Biological factors could include:

- blood pressure
- hormones
- blood glucose levels
- blood cholesterol levels
- genetics.

Some students did not read the question carefully and listed body weight or obesity as biological factors, which were not accepted. Hypertension was also not accepted, as the biological factor is high blood pressure.

The following is an example of a high-scoring response.

Blood pressure – Males are more likely to have high blood pressure compared to females. This may mean that males are at an increased risk of strain on the heart and hypertension leading to a heart attack. [This] causes increased mortality rates from heart attacks and reducing life expectancy in males compared to females in Australia.

Glucose regulation – Males are more likely to have impaired glucose regulation compared to females. Impaired glucose regulation may cause type 2 diabetes since it is a risk factor for it, hence increasing morbidity from type 2 diabetes in males compared to females in Australia.

Question 6a.

Marks	0	1	2	3	Average
%	21	23	39	17	1.5

Students needed to demonstrate an understanding of how the prevention of obesity contributes to health status. This required students to reference specific health conditions associated with obesity, and link to indicators of health status such as life expectancy, mortality rates, morbidity rates, DALY, YLL or YLD, incidence and prevalence.

Relevant health conditions that students could have discussed include:

- cardiovascular disease
- type 2 diabetes
- stroke
- hypertension
- some cancers such as breast cancer
- arthritis
- mental illness such as depression or anxiety.

Many students did not adequately identify the impact on health status (e.g. stating that 'life expectancy was impacted'). Students needed to specify whether the impact was an increase or a decrease. Students should have identified impacts such as increasing the prevalence of cardiovascular disease or decreasing life expectancy.

Some students answered that obesity contributes to health status rather than focusing on the prevention of obesity. Answers that focused on the relationship between obesity and health status were not awarded marks as they did not address the question.

The following is an example of a high-scoring response.

Obesity is a direct risk factor for cardiovascular disease, as excess body fat and adipose tissue due to obesity places greater strain on the heart to pump blood around the body, increasing blood pressure and the risk of developing cardiovascular disease. Therefore, the prevention of obesity would reduce the risk of developing cardiovascular disease and positively impact health status by reducing morbidity rates of cardiovascular disease.

Question 6b.

Marks	0	1	2	3	Average
%	11	28	44	17	1.7

Students were required to demonstrate an understanding of the marketing of processed foods to children and how this makes dietary change difficult.

Examples of marketing processed foods to children could include:

- advertising during children’s television viewing time
- use of bright colours in advertising and packaging
- constant exposure to marketing in all aspects of children’s lives
- sponsorship of children’s sporting teams
- cartoon characters on cereal boxes
- special food deals for children (e.g. ‘Happy Meals’)
- the use of toys and images for colouring to attract children.

Some students answered this question in relation to global marketing of processed foods. This was accepted but responses needed to link marketing to dietary change of children. Other responses linked marketing of processed foods to other challenges to making a dietary change, such as taste preference, ‘pestering power’ (where children pester parents to buy a product) and peer pressure. This was also accepted.

The following is an example of a high-scoring response.

Global marketing of processed foods specifically targets children in all countries. Organisations adopt such aggressive marketing tactics for children to make processed foods appear fun and tasty. This means children are more likely to consume processed foods from organisations such as McDonalds and may develop taste preferences for these unhealthy foods. Taste preference can be difficult to change as well as associations that processed foods are fun. This may mean that children may struggle to consume healthier foods, such as fruit and vegetables, due to preferring the tasty, fun nature of processed foods, thus making dietary improvements difficult to achieve.

Question 7

Marks	0	1	2	3	4	5	6	Average
%	9	22	25	20	14	7	2	2.4

In this question, students were required to demonstrate an understanding of the funding of medicines covered by the Pharmaceutical Benefits Scheme (PBS). Students were then required to demonstrate how the funding contributes to both access and equity.

This question was assessed according to the following criteria:

- how the response has been structured
- understanding of funding of medicines covered by the PBS
- understanding of how funding promotes access and equity.

Types of funding of the PBS that could have been discussed include:

- federal government subsidising the cost of medicines
- individual or patient co-payments
- the PBS safety net
- reduced co-payments for concession card holders.

High-scoring responses included a minimum of two types of funding. Most students were able to analyse how funding the PBS promoted access. Full marks were not awarded for answers that confused equity with equality.

The following is an example of a high-scoring response.

The PBS is a federal government funded scheme that subsidises the cost of a wide range of prescription medicines to provide Australians with access to cost effective essential medicines at an affordable price. Specifically, it is funded through taxation collected by the federal government. Indeed, the PBS aims to ensure that people have access to the medicines they require, such as blood thinners for treating cardiovascular disease by removing the financial barrier of income. Thus, those who are ill are more likely to be able to afford the medicines they need due to PBS funding subsidising their cost, therefore helping to promote access.

Furthermore the PBS safety net provides additional financial support to those that require a significant amount of medicines in one year once the threshold (\$1550.70) is reached. The government specifically funds this by making co-payments reduced to concession prices through offering concession cards, thus helping to support those who are financially burdened due to chronic conditions requiring medicines, promoting equity.

Question 8a.

Marks	0	1	2	Average
%	20	41	38	1.2

In this question, students were asked to describe bilateral aid and emergency aid.

For bilateral aid, responses needed to specify that it is given by the government of one country to the government of another country. Responses were not awarded marks if they specified 'country to country' or 'government to government'. Correct responses might state:

- Bilateral aid is long-term assistance given from one government to the government of another country.
- Bilateral aid is given from one country's government directly to a recipient country.

For emergency aid, responses needed to indicate that it is given in times of crisis or a major disaster. More specific detail was required than stating that 'emergency aid is given in an emergency'. Correct responses might state:

- Emergency aid is short term and provided during a time of crisis.
- Emergency aid is provided after a major disaster, providing essential resources such as food, shelter and water.
- Emergency aid aims to save lives after a major disaster.

The following is an example of a high-scoring response.

Bilateral aid refers to the provision of aid from the government of one country to the government of another country.

Emergency aid refers to rapid assistance given to those in immediate distress to relieve suffering during and after man-made emergencies such as war and natural disasters such as Tsunamis.

Question 8b.

Marks	0	1	2	3	4	Average
%	14	17	30	20	19	2.2

Responses needed to explain how two characteristics of low-income countries, other than low levels of education and income, impact on health status. Responses then needed to demonstrate how these characteristics impacted on a health status indicator.

Responses were not awarded marks if they identified characteristics of low-income countries that related to low levels of education and income, such as low Gross National Income (GNI) per capita and high levels of poverty.

Responses that referred to higher levels of unemployment as a characteristic of a low-income country were not accepted as this is not accurate. According to World Bank Data, low-income countries have high levels of employment, but often the jobs people are employed in have low rates of pay, such as agriculture.

The following is an example of a high-scoring response.

- Low levels of gender equality (social characteristic) – women are often discriminated against in low-income countries and frequently are forced into jobs such as tending crops and collecting water. They are also subject to high levels of violence and sexual assault, which is often unprotected, increasing the number of women with HIV/AIDS and thus mortality rates from HIV/AIDS for women in low income countries.*
- Inadequate housing (environmental characteristic) – those in low-income countries often live in substandard housing with no heating or ventilation. This can lead to the burning of solid fuels indoors for cooking or heating, increasing pollutions and hazardous chemicals indoors. This increases the risk of respiratory conditions such as asthma, increasing morbidity in low income countries.*

Question 8c.

Marks	0	1	2	3	Average
%	59	6	19	15	0.9

This question required students to accurately identify one Australian aid priority reflected in the Pacific Humanitarian Warehousing Program (PHWP) case study. Students were required to describe the Australian aid priority and identify how it was reflected in the program. Both current and previous aid priorities of the Department of Foreign Affairs and Trade (DFAT) were accepted.

Relevant current DFAT aid priorities include:

- Pacific
- Southeast Asia
- humanitarian
- building resilience – climate action and climate finance
- expanding opportunities for everyone.

Relevant previous DFAT priorities include:

- infrastructure, trade facilitation and international competitiveness
- agriculture, fisheries and water
- education and health
- building resilience – humanitarian assistance, disaster risk reduction and social protection
- gender equality, and empowering women and girls.

The following is an example of a high-scoring response.

Pacific: Australia's aid program focuses on ensuring the Pacific regions remain peaceful, prosperous and stable, such as building humanitarian warehouses throughout the 'Pacific'. This priority focuses on reducing poverty and increasing economic growth in the Pacific region.

Question 8d.

Marks	0	1	2	3	4	5	Average
%	40	13	16	16	11	4	1.6

This question required students to create a link between one feature of an effective aid program and the Pacific Humanitarian Warehousing Program (PHWP). Students needed to demonstrate an understanding of how this feature helps to make the program effective. Students then had to evaluate the impact of the program on human development.

Most students were able to list a feature of an effective aid program and provide an example of how it is reflected in the PHWP. However, many could not evaluate the benefits of this feature for the PHWP. Many students were able to describe the impact of the program on human development, but students were not awarded full marks if they listed the components of human development but did not link these to the program.

Examples of features of effective aid could include:

- partnerships
- country ownership
- focus on results
- sustainability
- transparency
- focus on women and girls
- culturally appropriate
- focus on a specific need
- any action area of the Ottawa Charter for Health Promotion.

The following is an example of a high-scoring response.

The PHWP involves partnerships and collaboration with the Pacific community as well as other partners that are collectively contributing to the PHWP. This is a feature of effective aid as partnerships and collaboration allows for resources and funding to be pooled together, as well as the chances of a well-rounded successful program to be implemented through expertise, skills and ideas being shared between partners to address the health and wellbeing issues through the aid program. The PHWP is likely to be successful due to the collaboration between partners as a feature of effective aid. The PHWP will promote human development as it will build resilience capacity towards disasters which could cause premature mortality, thereby increasing the capacity for people to live longer and healthier lives and not die if they are better prepared. By pre-positioning approved emergency relief supplied, the program also ensures access to basic resources required to sustain life and a decent standard of living in the event of a crisis, positively impacting human development. The program also maximises participation and leadership of women and girls, giving them the chance to lead which may positively impact human development by enabling participation in the life of the community as they work together to be better prepared against diseases as well as the ability to participate in decisions that will affect their lives.

Question 9a.

Marks	0	1	2	3	Average
%	20	20	36	24	1.7

In this question, students needed to outline a way of taking social action and discuss how the social action could reduce discrimination and inequality.

Answers did not have to link specifically to sexual orientation and gender identity from Question 9b. but could include any form of inequality or discrimination, such as discrimination based on race, religion, sexual orientation and gender identity.

Examples of social action could include:

- volunteering or donating to a non-government organisation (NGO)
- lobbying governments
- spreading awareness on social media
- protests
- purchasing power
- signing petitions.

To be awarded marks, responses needed to include a specific example of social action. For example, just stating 'lobbying' was not acceptable. Responses needed to state who was being lobbied, and what they were being lobbied about.

The following is an example of a high-scoring response.

Individuals can donate to non-government organisations (NGOs), such as World Vision, to assist them in continuing their work in low-income countries. This may assist funding World Vision projects that centre around education programs for women and girls in small, rural and conflict affected communities where women often have limited access or denied access to education. Thus, this may mean that more women and girls have adequate literacy and numeracy skills and have increased opportunities for employment later in life, helping to reduce inequality and discrimination based on sex in low-income countries.

Question 9b.

Marks	0	1	2	3	4	Average
%	15	18	39	16	11	1.9

In this question, students needed to demonstrate an understanding of both sexual orientation and gender identity. They needed to make a clear and meaningful link to how reducing discrimination could promote health and wellbeing.

Possible impacts of reducing discrimination include:

- improved access to education
- improved access to employment
- improved access to healthcare
- improved ability to freely participate in community events
- reduced acts of violence (e.g. sexual, physical and mental)
- reduced representation in criminal matters regarding sexual orientation
- improved access to opportunities that promote social, emotional, physical, spiritual and mental health and wellbeing (e.g. team sports and reading groups)
- reduced rates of physical and sexual abuse and bullying
- reduced rates of self-harming
- reduced feelings of isolation/judgement.

The impacts of reduced discrimination needed to be applied to a specific example of sexual orientation and gender identity. Many responses did not demonstrate an understanding of sexual orientation or gender identity. These responses made generic statements that could apply to any form of discrimination and were not awarded full marks. Higher-scoring responses included a specific example of reducing discrimination and then linked that to promoting health and wellbeing.

Some students did not focus on reducing discrimination but instead wrote about the impact on discrimination on health and wellbeing. As this was not answering the question, these responses were not awarded any marks.

The following is an example of a high-scoring response.

Sexual orientation – Through reducing levels of discrimination based on sexual orientation, less gay and lesbian individuals will face derogatory comments from others or violent abuse, assisting in increasing their sense of belonging (spiritual) in the community as they will feel more accepted.

Gender identity – Through reducing discrimination based on gender identity, fewer transgender people will be denied access to employment, assisting them in being able to earn an income. They can use this income to afford nutritious foods, such as vegetables, helping to reduce levels of malnutrition and assisting them in being free from illness/disease (physical).

Question 10a.

Marks	0	1	2	3	4	5	6	Average
%	7	9	17	22	27	11	7	3.2

This question required students to demonstrate their understanding of the implications of climate change on health and wellbeing. Students needed to link to information provided in the case study.

Points relevant to the impact of climate change on health and wellbeing were:

- access to food / food security impacting whole community nutrition
- reduction of availability of fresh clean water due to flooding and/or spreading of disease
- severe heat waves
- flooding and heat impacting access to education.

This question was marked using the following criteria:

- how the response was structured
- understanding the implications of climate change on health and wellbeing.

Lower-scoring responses simply restated the information provided in the case study. Higher-scoring responses provided detailed links between more than one impact of climate change and three or more dimensions of health and wellbeing.

The following is an example of a high-scoring response.

Climate change refers to the long-term shifts in temperature and weather patterns due to increased carbon and greenhouse gas emissions. Climate change can increase extreme weather events, such as floods, which submerged a third of Pakistan in 2022. Floods can contaminate water sources with bacteria and viruses, which if consumed can increase the risk of cholera therefore the body and its systems are not functioning adequately, negatively impacting physical health and wellbeing (HWB).

Similarly, climate change can increase changing weather events, such as heavy rainfall in Pakistan, which can ruin agricultural crops, increasing stress and anxiety for farmers as they are unable to sell sufficient amount of crops, increasing financial burden [and] negatively impacting mental HWB in Pakistan.

Additionally climate change can reduce children's ability in Pakistan to access education due to flooding and heatwaves. Lower levels of education can reduce the ability for children in Pakistan to increase their health literacy and socialise with other children. This can negatively impact their ability to participate in effective communication with others, negatively impacting social HWB in Pakistan.

Question 10b.

Marks	0	1	2	3	Average
%	42	17	23	18	1.2

This question required students to accurately name and outline one objective of the Sustainable Development Goals (SDGs) other than addressing climate change. Students were required to explain why the objective is important.

Possible answers include:

- End extreme poverty:
 - millions of people globally are living on less than US\$2.15 (US\$1.90) per day (both the current and previous values for the extreme poverty line were accepted)
 - ending poverty is achieved by building economic growth at an individual and country level
 - by reducing poverty, more people will be able to access food, improving global health and wellbeing
 - with fewer people living in poverty, more people will be able to access education, improving human development globally
 - with more people working and paying taxes, countries can use this money to develop universal healthcare
- Fight inequality and injustice:
 - in order to fight inequality and injustice, human rights must be upheld for all
 - to ensure everyone (regardless of race, gender, religion, disability or sexual orientation) has the same access to resources and opportunities as everyone else
 - globally there are many people who are discriminated against based on factors such as sex, race and religion
 - all people have the right to access the resources needed to enjoy a productive and meaningful life.

Many responses confused the objectives of the SDGs with a specific SDG such as No Poverty or Zero Hunger, or explained why the SDGs were developed. Responses were not awarded full marks if they did not state an objective of the SDGs accurately.

The following is an example of a high-scoring response.

End extreme poverty – This aims to eliminate extreme poverty, which is those living on less than \$1.90 US per day. Millions of people still live in extreme poverty, decreasing their ability to afford resources, such as shelter, adequate food and safe water, hence contributing to a significant number of preventable deaths worldwide. Thus this objective is important as it will assist individuals in affording resources they need for a decent standard of living and assist them to lead a long and healthy life.

Question 10c.

Marks	0	1	2	3	Average
%	39	30	22	9	1.0

This question required students to demonstrate an understanding of SDG 13 ('Climate Action') and establish clear links between SDG 13 and improving human development. In constructing their answer, students needed to refer to Pakistan or other examples in the case study.

Points students could make in relation to SDG 13 include:

- strengthening resilience and capacity to adapt to climate-related disasters
- building knowledge and capacity to meet climate change by improving education and awareness within the community and education systems
- integrating climate change measures into policies and planning at a country or global level
- promote mechanisms to raise capacity for planning and management
- providing meaningful resources to less developed and small island countries
- implement the United Nations Framework Convention on climate change.

Lower-scoring responses discussed human development without referring to specific features of SDG 13 ('Climate Action'). Many responses failed to demonstrate an understanding of SDG 13 and were not awarded full marks.

The following is an example of a high-scoring response.

An aspect of SDG 13 is strengthening the resilience of countries to respond to and adapt to climate related hazards such as natural disasters. For example, by investing in building flood walls to protect the impact of flooding on communities, schools are less likely to be destroyed. This can mean children are able to go to school to gain knowledge and develop to their full potential by increasing numeracy and literacy skills. It also allows them to lead creative lives according to their interests by participating in school activities, such as art or sports, promoting human development.

Question 10d.

Marks	0	1	2	3	4	Average
%	34	19	22	16	8	1.5

This question required examples from the case study to demonstrate how SDG 4 ('Quality Education') contributes to SDG 3 ('Good Health and Wellbeing').

Relevant key features of SDG 4 could include:

- free primary and secondary education to ensure all children complete free, equitable and quality primary and secondary education
- equal access to quality pre-primary education to ensure all children have access to quality early childhood development and care
- universal literacy and numeracy to ensure all learners are taught a curriculum that promotes sustainable development
- building and upgrading inclusive and safe schools and education facilities.

Relevant key features of SDG 3 could include any SDG 3 feature with plausible links to the case study. Some examples are:

- end all preventable deaths under 5 years of age (infant mortality)
- reduce mortality from non-communicable diseases and/or promote mental health
- fight communicable diseases / end the epidemics of AIDS, tuberculosis, malaria and neglected tropical diseases
- achieve universal health coverage, including access to essential medications
- support research, development and universal access to affordable vaccines and medicines
- universal access to sexual and reproductive care, family planning and education
- reduce maternal mortality.

Most students were able to link their response to key features of SDG 3 ('Good Health and Wellbeing'), but many did not demonstrate understanding of SDG 4 ('Quality Education'). When questions focus on the relationship between SDG 3 and other SDGs (in this case SDG 4), students need to demonstrate an understanding of both SDGs.

The following is an example of a high-scoring response.

Achieving SDG 4 would involve ensuring all children have basic literacy and numeracy skills. By helping to reduce school dropouts in Pakistan means children are more likely to be able to read health information around protecting themselves from infectious diseases, like waterborne diseases, thus reducing the chance they will drink unsafe water if they understand risks, thus helping to end epidemics of communicable diseases like malaria and waterborne disease, in turn achieving SDG 3.

Additionally achieving SDG 4 would involve ensuring girls have equal access to education as boys which would be achieved by ensuring girls in Pakistan can continue accessing education despite floods, thus reducing the chance they are forced into child marriage, where they have babies before their body is biologically ready, thus reducing maternal mortality rates, in turn achieving SDG 3.

Question 11

Marks	0	1	2	3	4	Average
%	55	17	16	9	3	0.9

In this question students were required to accurately identify and describe a relevant World Health Organization (WHO) priority. Responses were required to make a meaningful link to the mpower initiative, and connect this back to the WHO priority of 'Promote health – promoting healthier populations'.

Any of the following points could have been used to describe the WHO priority 'Promote health – promoting healthier populations':

- one billion more people enjoy better health and wellbeing
- it focuses on the achievement of the broad health and wellbeing key features of SDG 3
- it improves human capital
- it accelerates actions preventing non-communicable diseases and promoting mental health.

Some responses misidentified tobacco consumption as a health emergency or related it to universal health coverage. Responses were awarded marks for correctly naming the following WHO priorities but were then unable to gain marks for linking the priority to the mpower initiative:

- 'Provide health – achieving universal health coverage'
- 'Protect health – addressing health emergencies'.

The following is an example of a high-scoring response.

Promote health; promoting healthier populations – This includes 1 billion people experiencing better health and wellbeing, specifically the WHO aims to accelerate a reduction in non-communicable diseases to prevent premature mortality. This includes reducing lung cancer, such as seen in the mpower initiative through 'enforcing bans on tobacco advertising' and 'raising taxes on tobacco' which makes it harder for people to access tobacco and begin smoking, decreasing their likelihood of inhaling carcinogens and developing lung cancer, thus promoting better health and wellbeing.

Question 12a.

Marks	0	1	2	Average
%	45	34	21	0.8

In this question, students needed to demonstrate an understanding of the concept of human development. Responses needed to make a clear statement about creating an environment in which people can achieve good quality human development, supported by any of the following points:

- leading a long and healthy life
- participating in decisions that impact on their lives
- participating in the life of the community
- having access to resources
- achieving a decent standard of living
- having access to knowledge to improve choices/capabilities
- leading creative and productive lives.

The following is an example of a high-scoring response.

Human development refers to creating an environment where people can develop to their full potential and lead productive creative lives in accordance to their needs and interests. It is about enhancing people's choices and extending their capabilities, having access to knowledge, health and a decent standard of living and being able to actively participate in the community and decisions affecting their lives.

Question 12b.

Marks	0	1	2	3	4	5	6	Average
%	23	8	14	12	18	13	13	2.9

In this question, students were required to accurately identify two dimensions of the Human Development Index (HDI). Responses needed to show an understanding of the impact of conflict, and explain how the impact of conflict influences each dimension.

The HDI dimensions are:

- a long and healthy life
- knowledge
- a decent standard of living.

Impacts of conflict could include:

- injuries and the loss of life
- stress and anxiety
- destruction of infrastructure, such as hospitals, schools, homes, access to water and sanitation
- significant economic/social and environmental strain, such as the inability to work or interact in social settings, and impacts on biodiversity
- war/conflict-related issues, such as war crimes (e.g. rape, transference of sexually transmitted infections, and child soldiers)
- mass migration to escape conflict.

Lower-scoring responses referred to indicators of the HDI rather than dimensions. Higher-scoring responses made accurate links between the indicators and the dimensions of the HDI when explaining the influence of conflict on each dimension.

The following is an example of a high-scoring response.

Dimension 1 – Knowledge – when conflict is occurring, schools may have been destroyed in the conflict, or are no longer safe to attend due to the threat of violence. This results in children staying home or dropping out of school, thus negatively impacting the expansion of their knowledge as well as mean years of schooling (an indicator used to assess knowledge in a population). Thus, conflict could negatively impact the dimension of knowledge.

Dimension 2 – Long and healthy life – when conflict is occurring there is often a loss of life within the population due to violence, and additionally, living conditions often worsen thus increasing the spread of disease. Therefore, conflict negatively influences an individual's ability to live a long and healthy life due to violence that is likely present which leads to many premature deaths. This would be demonstrated in a decreased life expectancy at birth (the indicator used to calculate this dimension).

Question 13a.

Marks	0	1	2	3	4	Average
%	10	14	31	30	15	2.3

In this question, students needed to demonstrate an understanding of the mental and social dimensions of health and wellbeing. Students needed to use clear examples of the mental and social dimensions to show an understanding of the interrelationships between these dimensions. Students could start their response with either dimension (social or mental), but they needed to show a two-way relationship to demonstrate an interrelationship (e.g. mental to social and back to mental, or vice versa). Lower-scoring responses described a one-way relationship rather than an interrelationship.

The following is an example of a high-scoring response.

If people are experiencing high levels of confidence and self-esteem (mental health and wellbeing (h&w)) this can mean they are more likely to want to engage with family and friends and attend social gatherings to maintain meaningful relationships (promoting social h&w). This can mean people feel less stressed and anxious in their lives as they have people to talk about their feelings with (promoting mental h&w). Thus, if people are less stressed, they are more likely to be able to communicate effectively with others which promotes social h&w.

Question 13b.

Marks	0	1	2	Average
%	45	34	21	0.8

In this question, students needed to use a different example of mental health and wellbeing from the ones discussed in Question 13a. They were then required to show an understanding of how mental health and wellbeing acts as a resource nationally. Responses that gave the same examples of mental health and wellbeing for both parts of the question were not awarded marks in part b. Students needed to think carefully about what examples they planned to use for both parts of Question 13.

The following is an example of a high-scoring response.

Optimal mental health and wellbeing includes the ability to think logically and make decisions. This may increase a person's likelihood of maintaining a job, increasing the amount of people in the country working and paying taxes. Thus, increasing the government revenue to spend on education and infrastructure.

Question 14

Marks	0	1	2	3	4	5	6	7	8	9	10	Average
%	17	11	12	14	14	11	8	6	4	2	1	3.4

This was an extended response question that required students to use information from all three sources as well as their own knowledge to discuss improvements in Australia's health status since 1900. Students needed to focus their discussion on:

- old public health
- the biomedical approach to health
- the Ottawa Charter for Health Promotion.

This question was marked on the following criteria:

- how the response had been structured
- how well the stimulus material had been understood, connected and synthesised
- how well broader understanding had been connected and synthesised
- understanding how old public health contributed to improvements to Australia's health status
- understanding how the biomedical approach to health contributed to improvements to Australia's health status
- understanding how the Ottawa Charter for Health Promotion approach to health contributed to improvements to Australia's health status.

Some students structured their responses around the stimulus material, discussing Source 1 followed by Source 2 and Source 3. This approach tended to be disjointed, with responses often restating the stimulus material and incorporating little student knowledge. This structure typically did not gain high marks. Higher-scoring responses were structured around the three approaches to health rather than the stimulus material. This structure enabled students to incorporate the relevant stimulus material with their own knowledge, while developing a more coherent and comprehensive discussion about how each approach resulted in improvements to Australia's health status.

In writing extended responses, students should signpost the stimulus material used in their response: for example, 'one in ten children died of diarrhoeal disease' (Source 1). This helps assessors identify that all three sources have been used.

Some students discussed the three approaches to health, drawing on the stimulus material but not linking this discussion to improvements in health status. This issue could have been averted by students planning their response before writing (e.g. identifying which measure of health status they would discuss with each approach to health). Higher-scoring responses incorporated a range of health status measures beyond life expectancy as reflected in Source 3. Source 1 provided an opportunity to discuss measures of health status such as under-5 mortality, maternal mortality, and prevalence and/or incidence of diseases such as cancer, cardiovascular disease and tuberculosis.

Many students referred to the biomedical approach as 'a quick fix', which is not accurate as not all diagnoses or treatments are quick (e.g. cancer treatment) and not all illnesses or diseases can be cured or 'fixed'.

The following is an example of a high-scoring response.

Since 1900, the health status of Australian's has improved significantly. In fact, according to source 3, life expectancy at birth has risen from approximately 47 years for males in 1900 to approximately 75 years for males in 200. Likewise, life expectancy at birth for females has risen from approximately 50 years in 1900 to approximately 80 years in 2000. Further improvements in health status include a significant reduction in morbidity from infectious diseases in Australia.

These improvements can be attributed to the work of 'old' public health, which is actions taken by the government pre-1970 to improve the health status of the Australian population, primarily focusing on the physical environment and biological aspects of disease which influence health. Old public health saw the implementation of waste management such as all 'Melbourne homes being connected to sewerage systems' in 1900 (source 2). This eliminated open defecation as well as human waste being exposed on the streets, decreasing people coming in contact with it. Thus, there was a reduction in people, particularly children, 'dying from diarrhoea' (source 1) due to less human contact with faeces, reducing premature mortality and under 5 mortality rate, and contributing to increased life expectancy.

Furthermore, old public health implemented 'quarantine facilities' (source 2) to reduce the spread of communicable infectious diseases, such as Spanish influenza, contributing to a reduction in communicable disease morbidity. Additionally, old public health has introduced mass vaccination for polio (source 2) and tuberculosis (source 1) increasing the immunity of the population to these communicable diseases and reducing people prematurely dying as a result, increasing Australia's life expectancy. Also, improvements in working conditions saw less 'work accidents' (source 1) occurring, preventing premature mortality and the prevalence of injuries.

Improvements in Australia's health status since 1900 can also be attributed to the success of the biomedical model of health. Biomedical approaches to health refer to the process of medical technology and practitioners treating, diagnosing and curing diseases in order to return individuals to their pre-illness state. This is primarily achieved through advancements in medical technology, such as development of the polio vaccine in 1956 (source 2) reducing individuals' likelihood of getting severe cases of polio and experiencing premature death, decreasing YLL's.

Other advancements include antibiotics like 'penicillin' (source 2) becoming available to Australians, allowing infections to be managed, treated and cured swiftly, decreasing morbidity rates from infections in Australia. Additionally, training more midwives, nurses and gynaecologists has allowed for women to have greater quality antenatal care before and during birth. This can reduce the risk of any birth complications becoming fatal and causing children to 'never know their mother'; due to 'six women dying for every one thousand live births' (source 1), thus reducing maternal mortality rate in Australia and increasing life expectancy.

Moreover, the Ottawa Charter for Health Promotion, under the social model of health, has allowed for significant improvements in health status through preventing the population developing non-communicable diseases. The action areas of the Ottawa Charter have facilitated this, such as Building Healthy public policy, with the 'Victorian government ... introducing compulsory seatbelt wearing' (source 2) in 1970. This allows people to be better protected in the event of a car accident from suffering fatal injuries, improving life expectancy and decreasing YLL's from road traffic accidents. Other healthy public policies have included occupational health and safety legislation requiring schools to minimise risks from UV exposure (source 2), for example 'No hat no play' programs. These reduce children's' exposure to the UV significantly decreasing their risk of suffering melanoma in the future, decreasing DALY's from skin cancer.

Smoking has also been targeted by the government's healthy public policy of banning smoking in enclosed places (source 2). This reduces the amount of people inhaling carcinogenic chemicals in tobacco and getting cell divisions in the lungs, decreasing the incidence of lung cancer. Furthermore, smoking has been decreased through Creating Supportive Environments, such as with QUITLINE, which supports current smokers to quit through providing them with resources, skills and counselling throughout the quitting process. This supports them to quit, reducing the likelihood of having a heart attack (source 1) due to tobacco causing blood to thicken and clog the artery walls, decreasing YLL's from heart attacks and explaining the increase in life expectancy in Australia as seen in source 3. The Ottawa Charter has also used Developing Personal Skills to prevent premature mortality from non-communicable diseases, such as increasing programs in schools to teach the importance of healthy eating and nutrition. This increases children's likelihood of maintaining a healthy weight and not developing high blood pressure, decreasing the stress on the heart and thus decreasing their likelihood of suffering mortality from cardiovascular disease (source 1).

Overall, all three models of health have been crucial in the improvements in health status in Australia since 1900.