

2016 VCE Health and Human Development examination report

General comments

The 2016 Health and Human Development examination provided an opportunity for students to demonstrate their understanding of the key knowledge, and most were able to answer the questions on the examination. However, there were many students who found some of the questions challenging, particularly those that required application of concepts to unfamiliar contexts. This was particularly evident in Questions 1b., 4, 6c., 7c. and 14b.

Where data was provided, most students demonstrated their skills in being able to read and interpret the information and to incorporate the data into their answers. This was particularly important in questions where the awarding of marks was dependent on the use of data, such as Questions 2a. and 5. Students performed well on questions that required the recall of information such as nutrients and their sources, understanding of the reasons why diseases were chosen as NHPAs and mortality strata. Where students were able to describe an immunisation program, their understanding of the interrelationships between health, human development and sustainability was effectively demonstrated.

The area of greatest challenge for students was being able to demonstrate an understanding of the concepts by applying them in unfamiliar situations. Many students could recall information but struggled to apply it. Many students also found it difficult to describe a strategy, particularly for diabetes and immunisation. This skill is a key component of the study design. Concepts that appeared to challenge students included the Australian Dietary Guidelines, where many students were unable to identify them accurately. A common error was also students' use of the Healthy Living Pyramid rather than the revised Healthy Eating Pyramid. Other areas that proved challenging were the application of the social model of health and the Ottawa Charter.

One of the new concepts assessed this year related to the new United Nations Sustainable Development Goals. While some students were able to identify a relevant Sustainable Development Goal related to tobacco smoking, the application of this information appeared to be more difficult. The questions on Sustainable Development Goal 16 also posed challenges for students, many of whom restated the information given in the question to explain its meaning.

Students should be reminded of the need to read the questions carefully, consider the mark allocation and plan their responses so that they are clear and concise. Many students wrote very long answers without addressing the question.

When extra space is used at the end of the book it is important that students indicate where an answer continues.

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
%	23	32	45	1.2

Most students were able to identify a service covered by Medicare, although the explanation of how the service could improve the health status of Australians was a little more challenging for some students.

An example of an appropriate response was: GP visits – some or all of the cost involved in GP visits is covered by Medicare, which can encourage people to take action quickly when they become unwell, and this may reduce morbidity and mortality rates if treatment can be prescribed early.

Other relevant examples were: specialist consultations, pathology tests, X-rays, surgery and in-hospital treatment.

Question 1b.

Marks	0	1	2	3	4	Average
%	25	6	26	26	16	2

Most students were able to identify two values of the Australian health care system; however, a common error was the use of affordability, which is not a value. The difficulty for many students was applying the value to the provision of public hospitals.

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

Accessible: Public hospitals are accessible to people who need treatment for illness, reflecting the value that healthcare should be available to all, irrespective of barriers such as income (as treatment is free for patients).

Responsive: Public hospitals are client orientated, allowing family and friends to visit patients, they supply adequate food and respect patients, ensuring confidentiality and privacy.

Question 2a.

Marks	0	1	2	Average
%	12	18	71	1.6

Most students were able to interpret and use the data in the table to compare the health status of Indigenous and non-Indigenous Australians. Students needed to cite accurate data in their answer.

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

Non-Indigenous Australians have a higher health status than Indigenous Australians. The prevalence of diabetes mellitus (age standardised) is lower for non indigenous with 4.7% compared to Indigenous with 15%. Non indigenous have a lower mortality with diabetes as an

underlying cause with 15.6 deaths per 100000 compared to 89.4 deaths per 100000 for Indigenous Australians.

Question 2b.

Marks	0	1	2	3	Average
%	17	8	44	31	1.9

Most students were able to identify a nutrient that can act as a risk factor for type 2 diabetes as well as a food source and its corresponding function. Some students, however, did not read the question carefully and provided an example of a protective nutrient.

A possible response was:

Nutrient	saturated fat
Major food source	<ul style="list-style-type: none"> fatty cuts of meat full-cream milk, cream and cheese coconut milk and cream most fried takeaway food most commercially baked goods such as pastries and biscuits
Function as a determinant of health	<ul style="list-style-type: none"> increased impact of impaired glucose regulation and the risk of type two diabetes Fat is a concentrated source of energy that can lead to overweight and obesity if energy balance is not maintained. Obesity is a risk factor for type 2 diabetes.

Other examples included:

- fats
- trans fats
- protein
- carbohydrates.

Question 2c.

Marks	0	1	2	3	Average
%	30	28	24	19	1.3

This question was not well answered, with many students struggling to provide sufficient detail. The ability to describe a program relevant to each National Health Priority Area (NHPA), in this case type 2 diabetes, is key knowledge in Unit 3, and students are advised to be familiar with a relevant program for each of the NHPAs.

A possible response could have been:

Live Lighter: An Australian program targeted at adults and designed to encourage people to undertake physical activity and eat a healthy diet. They provide a comprehensive website with nutrition information, a 12-week meal planner, recipes, tips for healthy eating – including portion sizes – and the need to limit intake of fat, salt and sugar.

Other examples of appropriate programs included:

- Shape Up Australia
- Prevention of type 2 diabetes program

- National Diabetes Week
- Life! Taking Action on Diabetes
- Pick the Tick
- Healthy Eating Advisory Service
- Swap It, Don't Stop It.

Question 3

Marks	0	1	2	3	Average
%	7	27	36	30	1.9

Most students were able to outline one function as a determinant of health for each of the nutrients provided. However, students are reminded that the function must relate to health. The use of protein for growth is not a determinant of health. Students were not required to provide food sources.

Possible answers included:

Protein

- the maintenance and repair of body cells
- a fuel for energy production
- promoting the health of the bone matrix

Calcium

- hardening or ossifying of hard tissue such as teeth, bones and cartilage
- helps regulate heart rhythm
- helps control blood pressure

Vitamin D

- required for the absorption of calcium and phosphorus from the intestine into the bloodstream
- needed for the healthy functioning of the heart
- contributes to the health of the lining of the blood vessels

Question 4

Marks	0	1	2	3	4	Average
%	46	14	22	13	5	1.2

This question was not well answered by students, who had difficulty accurately naming two Australian Dietary Guidelines. In many cases, students who were able to name the Dietary Guidelines found it challenging to apply the guideline to how it is reflected in the Healthy Eating Pyramid. It is important for students to be aware that the Healthy Living Pyramid is no longer in use and has been replaced with the Healthy Eating Pyramid. In many cases, this influenced students' ability to achieve full marks.

Possible responses included:

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

- The proportions of foods that people should eat each day are represented visually, with foods that should be eaten most in the foundation layers and those that should be eaten less in the upper layers of the pyramid. This would assist in maintaining a healthy weight.

- The diagram advises people to eat more vegetables, fruit, legumes and grains, and fewer foods that contain fat. Healthy fats are located at the top of the pyramid. This will help people to maintain a healthy weight.
- There is a statement at the bottom of the pyramid, advising people to be active every day.

Enjoy a wide variety of nutritious foods from the five food groups each day

- The Healthy Eating Pyramid arranges foods according to the five major food groups. Vegetables, fruits, grains and legumes make up the foundation layers, which indicates that these food groups should be eaten in larger quantities. The middle layer includes meat (and alternatives) and dairy.

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

- Sugar and salt sit outside the pyramid and are marked with a cross to indicate that they should be limited in the diet. Foods high in saturated fats such as meat are towards the top, indicating that they should be eaten less frequently.
- The diagram makes it clear that fats should only be eaten in smaller portions as they sit at the top of the pyramid, and it refers to healthy fats, which are not saturated fats.

Question 5

Marks	0	1	2	Average
%	12	13	75	1.7

Most students were able to demonstrate their skill in interpreting and using the data provided.

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

Australia had a life expectancy at birth of 83 years in 2013, higher than Icelands, 82 years, and lower than Japan's 84 years. Australia's infant mortality rate was 3.4 deaths per 1000 live births, what higher than Icelands 1.6/1000 and Japan's 2.1/1000. Australia, Iceland and Japan share a similar health status.

Question 6a.

Marks	0	1	Average
%	37	63	0.7

The majority of students were able to identify 'encourage regular physical activity' or 'improve mental wellbeing' as the relevant VicHealth strategic priorities represented in the program.

Question 6b.

Marks	0	1	2	Average
%	8	26	66	1.6

This question was answered well. Responses indicated that most students had a good understanding of the potential mental and social health outcomes of the VicHealth program.

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

Through providing sport in a 'more informal social way', girls will be able to communicate with others to build productive and fruitful relationships hence improving social health. Through the program more people will engage in regular exercise which releases endorphins to boost self-esteem, hence improving mental health.

Question 6c.

Marks	0	1	2	3	Average
%	44	24	21	11	1

This question assessed students' understanding of the social model of health, in particular the principle 'addresses the broader determinants of health'. Many students found this question difficult. Some were able to explain the principle but had difficulty applying it to the VicHealth project.

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

The principle asserts that in order for health outcomes to improve, the social, economic and environmental factors that impact on the body and human behaviour must be addressed. Changing the game is doing exactly this, specifically developed to suit women's needs, addressing reasons why women can't get active such as time, cost and inflexible opportunities for exercise.

Question 7a.

Marks	0	1	2	Average
%	13	42	45	1.3

Students were generally able to provide reasons why 'injury prevention and control' was declared an NHPA. However, some students used cost to the healthcare system as one of their examples.

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

Injuries are the leading cause of mortality for people of both genders aged 5 years and under.

Injuries are largely preventable, meaning significant improvements to health can occur.

Question 7b.

Marks	0	1	2	Average
%	37	26	37	1

This question required students to have an understanding of the indirect costs to the individual and the community associated with 'injury prevention and control'. While most students were able to identify costs, not all students related these costs back to 'injury prevention and control' as required by the question.

Possible examples included:

Indirect costs to the individual

- individuals having to pay the cost of long-term care if someone is disabled as a result of injury
- having to pay for services, such as house cleaning, that the person can no longer complete themselves due to disability due to an injury
- if someone can no longer drive as a result of an injury, they may need to pay for taxis
- having to pay for a nanny/babysitting to care for children if that is no longer possible as a result of an injury
- loss of income if a person is unable to work due to being injured

Indirect costs to the community

- government contributions towards meeting the costs of long-term care for people who are disabled as a result of injury

- disability pensions and other welfare payments through taxes having to be paid to people affected by injury
- lost productivity in the workplace due to an injury
- lost taxation revenue if the person is unable to work and contribute to the economy through tax payments as a result of an injury

Question 7c.

Marks	0	1	2	3	4	Average
%	30	6	23	23	18	1.9

Many students were able to accurately state the areas of action of the Ottawa Charter but had difficulty applying them to 'injury prevention and control'. Some students were unable to accurately identify the areas of action.

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

Build Healthy Public Policy - To reduce accidental/unintentional injuries such as injuries due to drowning or road traffic accidents, the government could implement stricter laws around pool fences and speeding limits, such as making it compulsory to have pool fences that are 2.5m high and very hard to climb, and lower speed limits.

Develop personal skills - To reduce injuries associated with road traffic accidents, individuals could participate in a free one hour defensive driving course, so that individuals have the knowledge and practical skills to be safer drivers and decrease the risk of injuries associated to traffic accidents.

Question 8a.

Marks	0	1	Average
%	17	83	0.9

This question was answered well by students, who were able to identify one trend evident in the graph. A trend was considered to be a pattern or a relationship in the data.

Possible answers included:

- males always have a higher death rate from cardiovascular disease than females
- as remoteness increases, the death rate from cardiovascular disease increases
- males living in major cities have higher cardiovascular disease death rates than females living in major cities.

When interpreting trends, students should not simply state a fact related to one aspect of the data rather than a pattern or trend.

Question 8b.

Marks	0	1	2	3	4	Average
%	30	18	25	13	14	1.7

While many students were able to correctly identify an example of one social and one biological determinant of health, their choices often made it difficult to apply the example to the trend. Students are advised to read the question and make careful selections to enable them to answer what is being asked.

Students should note that access to health care as a social determinant is about the social and cultural reasons why people do not access health care as opposed to the behavioural reasons.

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

Body weight - men are more likely to be overweight than females. As being overweight is a risk factor for cardiovascular disease, this may help to explain why in all regions, men have higher deaths from cardiovascular disease than women.

Access to healthcare - men are less likely to access health care due to a 'macho' attitude and social stigma than females. Accessing healthcare may help with early diagnosis of conditions such as cardiovascular disease, which may prevent premature death. This may help to explain why females have lower deaths per 100000 population for cardiovascular disease.

Question 8ci.

Marks	0	1	2	Average
%	40	17	43	1.1

Many students were able to provide the meaning of 'burden of disease' as a measurement of the impact of disease and injuries, specifically measuring the gap between current health status and an ideal situation where everyone lives to an old age, free of disease and disability.

Question 8cii.

Marks	0	1	Average
%	43	57	0.6

The majority of students were able to identify that the burden of disease is measured in Disability Adjusted Life Years.

Students are advised to use the full name rather than acronyms such as DALYs when answering a question such as this. Use of an acronym does not show an understanding of the measurement used.

Question 8d.

Marks	0	1	2	3	4	Average
%	22	14	27	20	17	2

This question required students to apply their knowledge of the biomedical and social models of health to cardiovascular disease. This question was not well answered as many students did not provide the necessary depth in their responses. Other students were able to apply their knowledge of the biomedical model but had difficulty applying the social model of health.

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

The biomedical model assists in diagnosis of cardiovascular disease (CVD) and then treating the disease through medication such as blood pressure lowering medication, reducing the risk of hypertension and associated CVDs such as stroke or heart failure which could lead to death. The biomedical model can help reduce mortality rates from CVD therefore contributing to a reduction in the overall burden of disease associated with cardiovascular diseases.

The social model of health focuses on health promotion, for example educating people on the dangers of tobacco smoking as a risk factor for CVD or healthy eating as a protective factor for CVD all in an attempt to reduce risks of cardiovascular disease incidence and prevalence, reducing the overall burden of disease associated with cardiovascular disease.

Question 9a.

Marks	0	1	2	Average
%	50	34	16	0.7

This question related to the new United Nations Sustainable Development Goals, in particular to Goal 16. Students found this question quite challenging. Many students stated the aim of the goal that was provided in the question rather than describing what the goal means, which is:

Building peaceful and inclusive societies that respect and promote human rights. This goal aims to reduce all forms of violence, strengthen laws to provide equal access to justice for everyone and working with governments to find sustainable solutions to conflict.

Question 9b.

Marks	0	1	2	3	4	Average
%	34	26	22	11	8	1.3

Where students were able to describe the Goal in Question 9a., they were better able to provide reasons why Goal 16 is important. However, many students repeated the information they had used in the previous question.

Any of the following responses could have been provided:

- Globally there are billions of people who live outside the protection of the law, which means that they can be forced to leave their land and are unable to access services such as health care and education. They are unable to participate in society and live in fear of violence and exploitation.
- Many people have no legal identity because their birth was never registered, which means they have no legal protection, often have their human rights violated and are more likely to live in poverty.
- Terrorism, violence and conflict are becoming more common, with many people dying as a result and many others becoming displaced from their homes. Armed conflict destroys communities and infrastructure and diverts resources away from development. Money is used to buy arms at the expense of education, health and social welfare.
- Women and children are particularly vulnerable during conflict. Children are often unable to attend school, women are victims of sexual exploitation, and both women and children are more likely to suffer from disease and malnutrition. Globally, thousands of people lose their lives to intentional homicide each year.
- Corruption is common in many developing countries, particularly within the police and judiciary systems. Reducing the level of corruption means that available money could be used to reduce the level of poverty.
- Where societies are inclusive and peaceful, people are more likely to feel empowered and are able to participate in the decisions that affect their lives. They also have access to resources such as education, employment and health care that will enable them to enjoy a decent standard of living.

Question 9c.

Marks	0	1	2	3	4	Average
%	45	12	14	16	13	1.4

This question provided students with an opportunity to show their understanding of the work of the United Nations. This is a key part of Unit 4. Students who were able to identify an area of action

were generally able to provide some explanation of how it promotes sustainable human development. However, many students were unable to answer this question.

Possible responses included:

- **Human rights:** These include the conditions and entitlements that every human being has the right to experience regardless of age, race, sexual orientation, country of origin or religion. It ensures that all people have access to education and health care, and are free to make decisions that affect their own lives and those of their family. This promotes physical and mental health. Children are able to attend school and adults can work for fair pay and in conditions that are safe. This improves the quality of life that people lead, giving them more freedom and opportunities to have control over their lives and make choices about the factors that influence their lives. With education, employment and equality, economic sustainability is achieved as families will have the resources to achieve a decent standard of living and extend their life expectancy.
- **Providing humanitarian assistance:** The UN provides emergency aid to developing countries in times of crisis such as natural disasters or conflict. The provision of food, water, clothing and medical care helps to keep people alive (physical health) so that they can rebuild their communities and restore farmland and infrastructure. This helps promote environmental sustainability as well as helping communities to become self-sufficient and not reliant on external assistance, helping to promote economic sustainability and the achievement of a decent standard of living. Once communities have been rebuilt and land restored, children are able to attend school and develop the skills needed to gain employment and to earn an income. Increased knowledge and skills means that people will be more empowered and have greater control over the decisions that affect their lives. They are also more likely to participate in political and community life.
- **Promoting social and economic development:** By assisting governments in developing countries to implement policies, programs and strategies to improve economic and social conditions, it promotes full employment and a better standard of living for the population. It builds a country's wealth by promoting trade opportunities and providing loans to invest in industry and economic growth. Improved economic growth provides resources for governments to invest in social protection measures, and provides health care and education, which improves people's health and enables them to enjoy a decent standard of living. Promoting social development helps to promote gender equality, which means that women are more likely to receive an education, achieve equal pay and are more likely to participate in political and community life.

Question 10a.

Marks	0	1	Average
%	43	57	0.6

The majority of students were able to identify aid provided by non-government organisations as the aid represented in the program.

Question 10b.

Marks	0	1	2	3	4	Average
%	24	5	17	27	27	2.3

This question was generally answered well by most students. Those who knew the elements of sustainability and stated them clearly were able to provide a high-quality response. Students who provided the highest-scoring responses identified the relevant element clearly and evaluated the program by using at least one example.

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

It is equitable as it focuses on marginalised groups in society such as ‘men who have sex with men’ and it was available to all those who needed it as a non-government organisation provided condoms at no cost to the recipients, hence income was not a barrier.

The program is appropriate as it targets a region where HIV infections are apparent and an issue. It also focusses on education by training staff and through health education.

Question 10c.

Marks	0	1	2	Average
%	42	33	25	0.9

Many students struggled to explain how the HIV/AIDS program could bring about improvements in health. Those students who provided high-scoring responses generally used specific examples from the program as a basis for their explanation. Students could use any dimension of health in their answer rather than health indicators, which measure health status.

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

By covering a ‘wide range of activities, including needle exchange, condom distribution, health education’, the risk of transmission of HIV/AIDS will be reduced through more safe sexual and drug behaviours. Thus, transmission decreases and less individuals will contract it, not burdened by the symptoms of fatigue and sickness, remaining ‘free from illness and disease’, with ‘adequate energy levels’ and the ‘ability to complete physical tasks adequately.

Question 10d.

Marks	0	1	2	Average
%	48	40	13	0.7

Many students found this a challenging question. Many were able to demonstrate an understanding of how health and human development are related but struggled to show an understanding of how human development is related to health. Students are advised to read questions carefully, as many students did not use an example from the program and therefore did not answer the question asked.

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

By using the needle exchange program, the risk of contracting the HIV virus would decrease which would lead to improved physical health and a longer healthy life expectancy. Being free from the virus and having improved physical health would enable people to attend school or work which expand their choices and enhances their capabilities. When people are educated and earning an income, they have greater confidence and a higher self-esteem which promotes mental health.

Question 11a.

Marks	0	1	Average
%	49	51	0.5

Most students were able to identify a relevant priority of Australia’s aid program, although students should note that the wording of these priorities is important. Some students were only able to recall parts of the priority.

Students could have chosen any of:

- infrastructure, trade facilitation and international competitiveness

- agriculture, fisheries and water
- effective governance: policies, institutions and functioning economies
- building resilience: humanitarian assistance, disaster risk reduction and social protection
- gender equality and empowering women and girls.

Question 11b.

Marks	0	1	2	3	Average
%	35	33	21	11	1.1

This question was not well answered. Many students struggled to describe a literacy program in sufficient detail. Students should have been able to use a literacy program they had studied and provide at least three key features. Students were not awarded marks for just naming a program.

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

Save the Children (NGO) could implement a Literacy Boost program in the Indo-Pacific region, in which they:

- *Pretest children to determine their literacy skills and whether they need extra support.*
- *Train teachers on how to teach children to read in an engaging and interactive way through the use of games, song and performance*
- *Provide resources such as portable tables and books so that children can continue to improve their literacy skills outside the classroom.*

Question 11c.

Marks	0	1	2	Average
%	45	31	24	0.8

This question required students to use the literacy program they had described in Question 11b. to describe how it could improve human development. Students who were able to explain a literacy program in Question 11b. were generally able to answer this question.

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

By increasing literacy skills, it is likely children will have increased employment prospects, hence expanding their choices and promoting human development. With increased literacy skills, children will also have increased access to knowledge.

Question 12a.

Marks	0	1	Average
%	71	29	0.3

Most students who accurately answered this question identified non-communicable diseases or social, economic and environmental determinants as the relevant WHO priorities.

Question 12b.

Marks	0	1	2	3	Average
%	26	28	32	14	1.4

Many students were able to identify a relevant Sustainable Development Goal related to tobacco control; however, many students had difficulty providing sufficient detail in their discussion of how

the Framework Convention on Tobacco Control could help achieve the goal by 2030. Students were not awarded marks for providing only the number that the Sustainable Development Goal referred to; for example, Goal 3.

Possible responses included:

Goal 1: No poverty

Will help reduce global rates of poverty as tobacco is expensive and therefore money is not available to spend on education, health care and nutritious food. This can lead to poor health, which means that children are unable to attend school and adults are not well enough to work and earn an income. Therefore, they are more likely to suffer from poverty.

Goal 2: Zero hunger

When people are spending money on purchasing tobacco, there is less money available to spend on purchasing sufficient nutritious food. This means that children and women can go hungry and suffer from malnutrition. The Framework Convention on Tobacco Control will help to reduce the number of people who smoke and will therefore help achieve food security.

Goal 3: Good health and wellbeing

Help reduce deaths from non-communicable diseases, in particular cardiovascular disease, cancer and respiratory disease, which is a focus of this goal. Tobacco smoking is a risk factor for these diseases and it is increasing in developing countries. By implementing the Framework Convention on Tobacco Control, the global rates of tobacco smoking will be reduced and people will have better health and wellbeing.

Question 12c.

Marks	0	1	2	Average
%	62	19	19	0.6

Many students struggled to define global health despite it being an integral part of Outcome 2 in Unit 4. The *Advice for teachers* document (page 7) provides the following definition of global health:

‘The health of populations in a worldwide context that go beyond the perspectives and concerns of individual countries. Global health is about an international collaborative approach to achieving equity in health for all people worldwide.’

Question 12d.

Marks	0	1	2	Average
%	62	26	12	0.5

Students were not required to relate their discussion to tobacco control when answering this question. They could explain a more general relationship between the Sustainable Development Goal they selected in Question 12b. and global health. Students who were able to provide an accurate definition of global health in Question 12c. generally provided higher-scoring responses to this question.

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

Ensuring universal access to sexual and reproductive healthcare as targeted in SDG 3 will ensure equality of access to family planning, adequate antenatal care and skilled health professional attending child births for people worldwide. This will decrease risks of complications during pregnancy and childbirth such as fistula and haemorrhage. Thus, this will decrease disparity in maternal and infant mortality rates globally, beyond the concerns of

individual countries. Hence, contributing to greater parity in global health through decreased mortality rates worldwide and global equity in life expectancy.

Question 13a.

Marks	0	1	2	3	Average
%	34	31	22	13	1.2

Many students struggled to describe an immunisation program in sufficient detail. It is important that students understand that immunisation is not possible to address HIV/AIDS or malaria at this point in time. Therefore, students who described an immunisation program to address these diseases did not provide a relevant program.

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

GAVE Alliance (multilateral aid) could implement an immunisation program in which they:

- *Distribute free immunisations (such as tetanus) to local community health care centres so all community members can be immunised*
- *Educate healthcare workers in the local language on what an immunisation is and how to immunise properly*
- *Increase logistics such as cold storage chains in healthcare centres so immunisations can be stored at correct temperatures, and print record books so people know when they need their next immunisation.*

Question 13b.

Marks	0	1	2	3	4	5	6	Average
%	40	5	9	15	14	11	7	2.2

Students were required to use examples from the immunisation program they explained in 13a. to describe the interrelationships between health, human development and sustainability. Where students had been able to explain an immunisation program, they were generally able to describe the interrelationships that exist.

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

By increasing the number of people immunised, it is likely the prevalence of diseases such as measles would decrease, hence promoting immune functioning and physical health, while also decreasing U5MR. When in good health, children can go to school (increasing social sustainability) and learn new skills such as reading, hence enhancing their capabilities and increasing employment prospects, expanding their choices (increasing human development). With increased employment prospects, individuals can achieve a higher income, increasing the number of people paying tax (increasing economic sustainability). When the government of a country has more money, they can invest in healthcare facilities hence increasing people's access to health, such as immunisation (increasing human development). With increased access to healthcare services such as immunisations, a person may have less stress and anxiety around getting sick, decreasing stress levels and promoting mental health. Hence, an immunisation program would promote life expectancy and enable both current and future generations to develop to their full potential, promoting sustainable human development.

Question 14a.

Marks	0	1	2	Average
%	40	38	21	0.8

Many students were able to explain how global marketing has contributed to the increase in the number of people who are overweight or obese. Most students focused their answer on the influence of the promotion of processed foods or alcohol. Students are reminded that smoking does not contribute to obesity and discussion on this aspect was not relevant.

A possible response could have included:

Large multinational companies have been promoting and marketing processed foods in developed countries such as Australia for many years and have contributed to the increasing rates of overweight and obesity. More recently, these companies have also been heavily promoting processed foods to people living in developing countries. As a result, many people have been moving from their traditional diet to one that is high in saturated fats, sodium and simple carbohydrates, and is therefore more energy dense. This is contributing to a global increase in overweight and obesity as these diseases are now affecting people living in both developed and developing countries.

Question 14b.

Marks	0	1	2	3	Average
%	48	26	18	8	0.9

Many students found this question challenging, particularly where they had to apply the example of the physical environment they had selected to variations existing in malnutrition between developed and developing countries.

Possible examples included:

- Access to health care: in developing countries there are fewer health workers and medical facilities, and as a result fewer people are able to access necessary medical treatment and preventative services such as immunisation for children. When children are not immunised they are more susceptible to diseases such as measles, tuberculosis, tetanus and pneumonia, which can lead to children being too sick to eat and suffering from undernutrition.
- Access to safe water and sanitation: Many people in developing countries lack access to safe water and sanitation. This means that they have to drink water that is contaminated by human or animal waste or pollution. This leads to diseases such as diarrhoea, cholera and typhoid and intestinal infections such as worms. These diseases deplete the body of nutrients and also make it difficult to eat and for the body to absorb nutrients, which leads to undernutrition.
- Poor quality housing/slums: Many people living in developing countries live in overcrowded and inadequate shelter. This means that people are much more susceptible to infectious diseases such as respiratory infections and measles. This weakens the body systems, reduces appetite and increases the risk of becoming undernourished.

Infrastructure and climate change were other relevant examples, although students who selected these found them more difficult to apply.

Question 15a.

Marks	0	1	2	Average
%	50	13	38	0.9

Responses to this question demonstrated that some students understood the components that make up the Human Development Index and were able to explain that GNI per capita is only one component of the human development index. Countries may have a lower life expectancy at birth, lower mean years of schooling and lower expected years of schooling. This would account for the variations in the Human Development Index.

Question 15b.

Marks	0	1	2	Average
%	38	13	49	1.1

Students were generally able to explain that the different classification of strata was because Chile has low child mortality and low adult mortality, while Equatorial Guinea has high child mortality and high adult mortality.