QATs
Quality Assessment Tasks

UNIT 4 ▪ OUTCOME 1
VCE Health & Human Development
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SCHOOL-ASSESSED COURSEWORK

Introduction

Outcome 1
Analyse factors contributing to variations in health status between Australia and developing countries, evaluate progress towards the United Nations' Millennium Development Goals and describe the interrelationships between health, human development and sustainability.

Task
Data Analysis

This task will be marked out of 30. It will contribute 50% of the marks allocated for this outcome and 30% of school-assessed coursework for Unit 4. You will complete a second task for this outcome.

The task has been designed to allow achievement up to and including the highest level in the Performance Descriptors.

You have 50 minutes to complete the task and your teacher will determine the conditions under which you will sit the task.

Answer in the spaces provided on this task.

The following **key knowledge** is the focus of this task:
- Definitions of developed and developing countries according to WHO, including high/low mortality strata;
- Definitions of sustainability and human development according to the UN, including the human development index;
- Similarities and differences in health status and human development between developing countries and Australia in relation to morbidity, mortality, life expectancy, burden of disease and human development index;
- The influence of income, gender equality, peace, education, access to healthcare, political stability, global marketing and physical environments on the health status of developing countries and Australia.
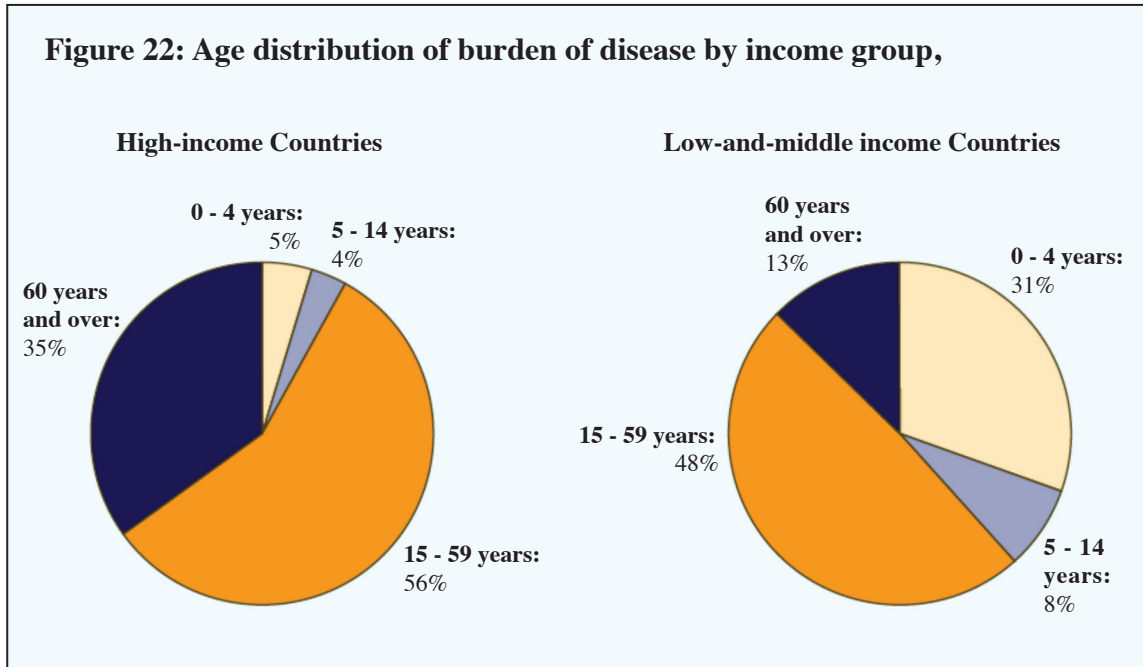
The following **key skills** are the focus of this task:
- Define human development and sustainability concepts;
- Use, interpret and analyse data to draw informed conclusions about the health status and human development of developing countries compared to Australia;
- Compare factors that influence the health status and human development of Australia and developing countries.

Task

NAME: _____

Consider the following graph that shows the age distribution of burden of disease according to income levels of countries, 2004.

Figure 22: Age distribution of burden of disease by income group,

High-income Countries

0 - 4 years: 5%

5 - 14 years: 4%

60 years and over: 35%

15 - 59 years: 56%

Low-and-middle income Countries

60 years and over: 13%

0 - 4 years: 31%

15 - 59 years: 48%

5 - 14 years: 8%

http://www.who.int/healthinfo/global_burden_disease/GBD_report_2004update_part4.pdf p42

Question 1
Identify the age group where there is the greatest variation in burden of disease between high income countries such as Australia and low and middle income countries and briefly outline two reasons that might account for this variation.

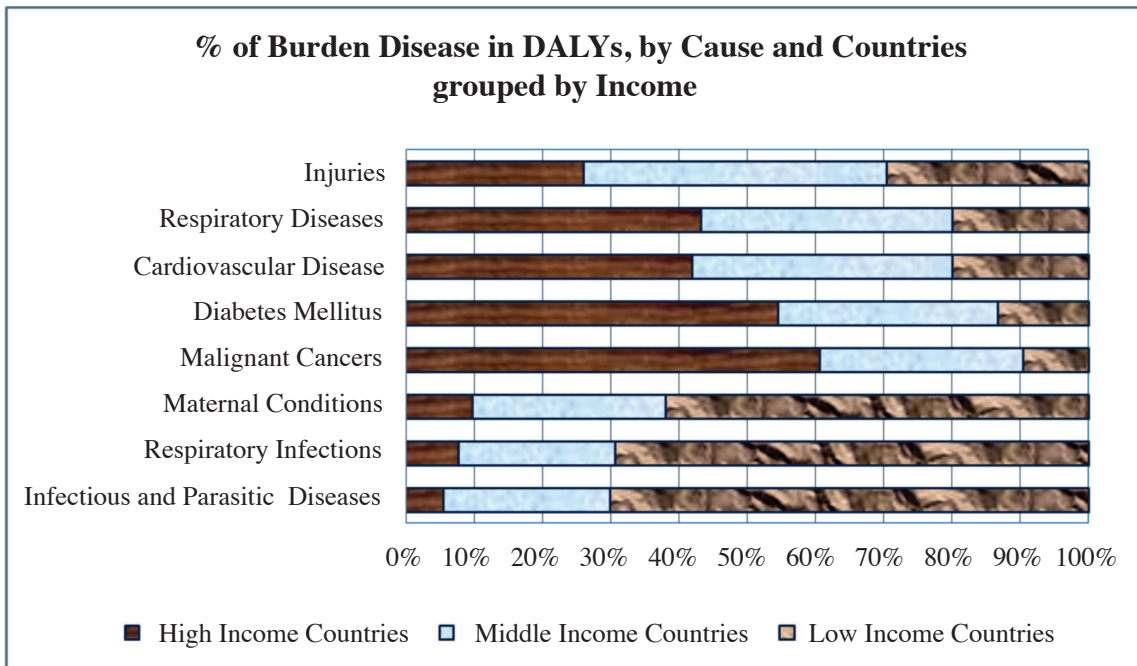Age group: _____

Reasons to account for variation:

1.
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Task

2.

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(1+2 = 3 marks)

Question 2

Analyse the following graph that shows the % of major burdens of disease by cause and by countries according to income.

% of Burden Disease in DALYs, by Cause and Countries grouped by Income

Injuries
Respiratory Diseases
Cardiovascular Disease
Diabetes Mellitus
Malignant Cancers
Maternal Conditions
Respiratory Infections
Infectious and Parasitic Diseases

0% 10% 20% 30% 40% 50% 60% 70% 80% 90% 100%

■ High Income Countries   ☐ Middle Income Countries   ☐ Low Income Countries

Source: Adapted from http://www.who.int/healthinfo/global_burden_disease/GBD_report_2004update_AnnexA.pdf

a. Briefly outline the similarities and differences in the major burdens of disease that exist between high income countries, middle income countries and low income countries.

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Task

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(2 marks)

b.   Select one example of global marketing and discuss how it may influence the global burdens of disease represented in the table.

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(2 marks)

Task

Read the following information about Afghanistan, a country that shares a border with Pakistan, Iran and a range of other countries and use it to answer the questions that follow.

After decades of conflict, the people of Afghanistan continue to be challenged by growing insecurity, extreme poverty and natural disasters. While there has been considerable economic growth over the past few years, it is estimated that more than half the country's population still lives below the poverty line. Health conditions for women and children are among the worst in the world.

The following data compares a range of measurements of health status for Afghanistan and Australia.

Indicator of Health Status	Australia	Afghanistan
Life Expectancy at birth (2007) Male/Female	79/84	45/47
Infant Mortality per 1,000 (2007)	4.2	129
Under 5 Mortality rate per 1,000 (2007)	5	191
Adult Mortality rate (probability of dying between 15-60 years of age) Per 1,000 population (2006) Male/female	82/47	500/443
Adult Literacy Rate (2007) Male/Female	81.6/91.7	32.4/12.6
Human Development Index (2008)	.97	.345
Gross National Income per capita US$	48,393	335
% population with access to improved drinking-water (2007) Urban Rural	100 100	63 26
% population with access to improved sanitation (2007) Urban Rural	100 100	28 3

Source: Adapted from WHO http://www.who.int/countries/afg/en/ and http://www.who.int/countries/aus/en/

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Task

Question 3

ai.   List the mortality strata according to the WHO that Afghanistan would be categorised as.

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(1 mark)

ii.   Jusify your choice using a range of data from the table.

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(2 marks)

b.   Identify three indicators from the table that are used to determine the Human
Development Index and discuss how each one contributes to human development.

1.
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Contribution to human development:

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Task

2.

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Contribution to human development:

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3.

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Contribution to human development:

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(6 marks)

Question 4
Access to safe water and sanitation is one example of how the physical environment can influence health status.

a.   Identify two other examples of environmental factors that might influence health status in developing countries.

1.   _____

2.   _____

(2 marks)

Task

b.   For each of the factors identified in part a, describe how they can influence health status.

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(4 marks)

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Task

Question 5
Discuss the influence of peace AND gender equality on the health status **and** human development of people living in Afghanistan compared to people living in Australia.

Influence of peace on health status and human development:

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Influence of gender equality on health status and human development:

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Task

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(8 marks)

Total: 30 marks

Solution Pathway

Teacher Advice

The following table demonstrates the relationship between the highest Performance Descriptor and questions in this QAT.

Aspect of Highest Performance Descriptor	Question/s
Comprehensive understanding and consistent application of the concepts of human development and sustainability.	3ai, 3aii, 3b,
Wide range of evidence used to draw detailed conclusions about the health status and human development of developing countries compared to Australia.	2a
Critical analysis of the factors that lead to similarities and differences in the health status and human development of Australia and developing countries.	1a, 2b, 4a, 4b, 5

Note: This is one of two tasks for this outcome.

Question 1

Students need to identify the age group 0-4 shows the greatest variation in the burden of disease, to be awarded one mark.

To be awarded the remaining two marks, students must briefly outline two reasons that could account for the differences. If students do not select the correct age group they should not be awarded any marks for this question.

Sample responses could include:
- In countries such as Australia, we have access to safe water and sanitation whereas in many middle and low income countries this is not always the case. Children are most at risk of becoming ill and dying from dehydration due to high rates of diarrhoea caused by drinking contaminated water.
- Australia has access to immunisation for children which is not always the case in middle and low income countries. This means that children under 5 are at greater risk of contracting infectious diseases such as measles, tuberculosis, pertussis and tetanus.
- Australian children generally have access to a healthy diet which helps build immunity and helps fight infectious diseases such as colds and influenza. In many middle and low income countries, children are undernourished and therefore have poor immune systems and are more likely to suffer from infectious diseases.
- Children living in middle and low income countries are more likely to be born underweight than those children who are born in Australia. Being born underweight means many of the major organs may not be fully developed, particularly the lungs. This increases an infants risk of dying from respiratory infections. In Australia, we also have access to health care facilities pathwich increases the chances of the infant surviving.

Solution Pathway

Question 2a
To be awarded two marks, students should compare the major burdens of disease between high and low income countries and then identify that middle income countries share many of the major burdens of disease experienced in both low and high income countries.

A sample response could include:
There are many differences in the major burdens of disease between high and low income countries. High income countries have high rates of respiratory disease, cardiovascular disease, diabetes mellitus and malignant cancers, while low income countries have high rates of maternal conditions, respiratory infections and infectious and parasitic diseases. Middle income countries share the major burdens of disease common in high income countries, such as respiratory disease, cardiovascular disease, diabetes mellitus and malignant cancers but also those common in low income countries such as maternal conditions, respiratory infections and infectious and parasitic diseases. The rates of injuries are similar in all three categories of countries.

Question 2b
When answering this question, students need to identify one example of global marketing and then link it to the major burdens of disease listed in the table to be awarded two marks.

Sample responses could include:
- Tobacco is being marketed globally by large transnational companies, with developing countries being their main targets for expansion. Tobacco is heavily advertised and marketed to children and adults. As a result, consumption of tobacco has increased enormously with corresponding increases in diseases such as cancer, cardiovascular disease and respiratory diseases.
- Global alcohol consumption has increased as a result of global marketing with most of this increase occurring in developing countries. Increased alcohol consumption contributes to increased rates of cancer and injuries.
- Food consumption patterns are also changing, particularly in developing countries as large transnational companies market fast foods. This is having an effect more specifically in middle income countries where people are moving to the cities away from their subsistence farming. As a result, they are starting to consume a more energy-dense diet that is high in saturated fat and in refined carbohydrates. This is contributing to higher rates of cardiovascular disease, diabetes mellitus and malignant cancers.
- Infant formula is also promoted by large multinational corporations to women in developing countries. This can lead to mothers choosing to bottle feed rather than breast feed their newborn. Where women do not have access to safe water the formula is mixed with contaminated water which contributes to high rates of infectious and parasitic diseases particularly in low and middle income countries.

Solution Pathway

Question 3ai

When answering this question, students need only list the correct mortality strata to be awarded 1 mark.

Afghanistan would be categorised as Mortality Strata D – high child mortality and high adult mortality.

Question 3aii

Students must use the information in the table to justify why Afghanistan would be categorised as Mortality Strata D. To be awarded two marks students must discuss at least two examples of relevant data from the table. Where students did not accurately identify the mortality strata in part ai, they should not receive marks for part aii as these questions are linked to each other.

A sample response could include:
According to the data, Afghanistan has a very high infant mortality and under 5 mortality rate being 129 and 191 per 1,000 respectively. Life expectancy at birth is also very low being 45 for males and 47 for females and an adult mortality rate of 500 and 443 per 1000 indicating high adult mortality rates.

Question 3b

To be awarded three marks, students must identify the three indicators in the table that are combined to determine the Human Development Index and then be given a further three marks for explaining how they link to human development. The three indicators are:

- Life expectancy- High life expectancy is an indicator that individuals have access to knowledge, health care services and a decent standard of living. This leads to a greater opportunity for individuals to develop to their full potential and lead productive and creative lives.
- Adult literacy rates - The higher the level of adult literacy, the greater the opportunity for people to lead productive and fullfilling lives. Educated adults generally have greater choices and have an increased capacity to participate in the life of their community and be involved in decision making processes.
- Income or GNI per capita - The greater the income of individuals and communities, the greater the capacity to create environments in which people can develop to their full potential and enjoy a high level of well being. Higher incomes can increase people's choices and provide greater access to knowledge, health services and a decent standard of living.

Solution Pathway

Question 4a

For two marks, students need to be able to identify two aspects of the physical environment that can influence health status in a developing country not necessarily Afghanistan. These examples must not include access to safe water or sanitation as these have been excluded in the question.

Some examples that students could choose from include:
- Housing
- Indoor air pollution
- Natural disasters
- Climate change

Question 4b

Using the two examples that students chose in part a, they are to explain how these aspects of the physical environment can impact on the health status of people living in developing countries to be awarded four marks.

Examples could include:

Housing: Many people in developing countries live in poor quality housing that is small, cramped, lacking ventilation and does little to protect families from extremes in the weather. Small, cramped living conditions can transmit infectious diseases very quickly so if a child or family member becomes ill, then there is a high likelihood of the disease being transmitted to all family members. Cold and damp conditions create breeding grounds for bacteria and infections. Poor ventilation can mean that dangerous fumes generated from solid fuels such as coal, wood, dung and agricultural waste are being inhaled, leading to respiratory diseases.

Indoor air pollution: Solid fuels such as wood, coal, dung and agricultural waste are used for cooking and heating in almost half of the world. When accompanied by a lack of ventilation, this contributes significantly to the global burden of disease. Children are particularly at risk of respiratory infections such as pneumonia and in adults can lead to chronic respiratory disease and lung cancer.

Natural disasters: Natural disasters can occur in any country at any time and will have a significant effect on health status. However, in many developing countries such as Afghanistan natural disasters occur frequently and the level of poverty and economic growth within the country means the government is not in a position to provide assistance to those affected. Severe drought can lead to a lack of food and high levels of malnutrition. This will bring about high levels of child mortality and contribute to increased poverty, limiting the capacity of families to access adequate health care. Landslides due to flooding can see entire communities being displaced as their homes get engulfed by mud. High levels of infectious diseases and mortality often follows.

Climate Change: Climate change due the carbon dioxide emmissions producing the greenhouse effect is contributing to a rise in global temperature. This rise is affecting traditional food supplies such as fish stocks as a result of changing marine environments. Weather patterns are also predicted to change which will bring about increased drought in some areas and flooding in others. This will contribute to increased rates of diseases such as malaria. Rising sea levels will see millions of people displaced from their homes and live in substandard conditions. These will influence the capacity of families to secure sustainable food supplies and reduce the risk of illness.

Solution Pathway

Question 5

When answering this question, students must discuss how peace and gender equality may influence both the health status and human development of people living in Afghanistan compared to Australia. Students must identify that Australians generally experience peace and gender equality, while those living in Afghanistan do not. Students must compare Afghanistan to Australia and link the factor to both health status and human development to be awarded the full 4 marks for each factor.

A sample response could include:

Peace:

The World Health Organisation identifies peace as one of the pre-requisites for health and Australians are fortunate to live in a country that is relatively peaceful, whereas those living in Afghanistan have suffered from decades of conflict. This leads to considerable variation in health status between Australians and those living in Afghanistan. Without peace, both men and women live in fear of their lives and many men, women and children are killed or injured. This will impact on the ability of families to work and earn an income to enable them to buy food and water. Men are often the ones who receive food that is available and women are often left to fend for themselves which means food supplies available for women and children are limited, which contributing to high rates of illness.

In times of conflict, infrastructure such as wells, homes, roads, hospitals and schools are destroyed which means families are often left homeless and end up in refugee camps with limited shelter, clean water, sanitation or food which contributes to diseases such as diarrhoea, cholera, typhoid and hepatitis.

Women are often raped and are victims of violence, sexual exploitation and trafficking. Living with conflict does not enable the creation of an environment in which people can develop to their full potential and lead creative and productive lives. In times of conflict, individuals have limited choices and do not have an opportunity to experience a decent standard of living nor do they have a capacity to be involved in the life of their community or contribute to decision making processes.

Gender equality:

Australia has laws in place to ensure there is equality between males and females however, in countries like Afghanistan this is not always the case. Without gender equality, it is females whose health status is reduced, along with human development. Women are often valued only for their role in childbearing and domestic work. Women often give birth when they are young, leading to difficult and dangerous births and an increased risk of infection and death. They often work long hours doing hard physical work even when pregnant, which has a significant effect on their physical health. Without gender equality, women are also likely to suffer ill health due to violence and it is not unusual for men to consider it acceptable to beat their wives. Gender inequality also means women are excluded from social events and are therefore unable to participate in the life of their community or have decision making control. Gender inequality means that women in particular are unable to develop to their full potential and lead creative and productive lives and are often denied the opportunity to have access to education, health and a decent standard of living.