

2010

ACHPER TRIAL EXAMINATION VCE HEALTH AND HUMAN DEVELOPMENT

NOTES FOR TEACHERS

Please note the following:

1. The November examination will consist of two sections. **Section A** will consist of short answer questions.
Section B will consist of short-answer and extended -response questions.
2. To duplicate the format of the November examination, it is suggested that you present the ACHPER Trial Examination as a question booklet to give students practice at completing an examination in this format.
3. Students will be required to write their student number in figures and in words. They should practice this on the ACHPER Trial Examination, as indicated.
4. The ACHPER Trial Examination has been designed to provide students with the opportunity to use the full two hours of writing time.
5. The ACHPER Trial Examination should not vary considerably in format to the November examination; however, the type of stimulus material used, the number of questions and the allocated marks may be different. (Note: The ACHPER Trial Examination may have fewer graphics and photographs, due to copyright restrictions.)
6. The suggested answers provided in this booklet should be used as a guide only and do not represent all possible answers that students could write.
7. ACHPER provides approval for schools that have purchased this trial examination to copy it for the purpose of teaching students in schools. Other than for this specific purpose, copyright exists with ACHPER Victorian Branch. It may not be reproduced for any other purpose without permission from ACHPER Victorian Branch.

The Australian Council for Health, Physical Education and Recreation, Victorian Branch, Inc.

GPO Box 412
Melbourne Vic 3001
Tel: 9274 8900 Fax: 9429 4176
achper@achper.vic.edu.au

© ACHPER Victorian Branch, 2010. No responsibility or liability whatsoever can be accepted by ACHPER Victorian Branch or the authors for any loss, damage or injury that may arise from any person acting on any statement or information contained in this publication and to the extent permitted by law, all such liabilities are expressly excluded.

Suggested Answers

SECTION A

Question 1

- a. For 1 mark, students must give the following definition for social health.

An example could be:

Being able to interact with others and participate in the community in both an independent and cooperative way.

1 mark

- b. For 1 mark, students are to explain what the term 'health status' means. Students answer should reflect the following (but does not have to be this exact definition): Health status is 'an individual's or population's overall level of health, taking into account various aspects such as life expectancy, amount of disability, and levels of disease risk factors'. (AIHW, 2008)

1 mark

Question 2

Students are to identify and give an explanation of behavioural and social determinants of health. 1 mark is given for correctly identifying the determinant, and 1 mark for a correct explanation (4 marks in total). Responses should be similar to that below.

Determinant	Explanation
Behavioural	Behavioural determinants of health are actions or patterns of living of an individual or a group that impact on health. Examples include factors such as smoking, sexual activity, participation in physical activity and eating practices.
Social	Social determinants refer to aspects of society and the social environment that impact on health, such as poverty, early life experiences, social networks and support.

2 + 2 = 4 marks

Question 3

Students are to identify two differences in the health status of those living in rural and remote areas compared to other Australians. They could mention any of the following (1 mark for each correct difference).

Individuals living in rural and remote areas:

- Experience a lower life expectancy for both males and females compared to those in the wider Australian population.
- Have higher rates of mortality in total compared to those in the wider Australian population.
- Experience higher rates of melanoma than the wider Australian population.
- Experience higher rates of cardiovascular disease compared to those in the wider Australian population.
- Experience higher rates of obesity compared to those in the wider Australian population.

1 + 1 = 2 marks

Question 4

- a. Students are to outline the major function of carbohydrates in the body. For 1 mark, the response should be something similar to:

Carbohydrates are the preferred fuel for energy production in the body.

1 mark

- b. Students are to briefly describe Glycaemic Index. 2 points must be made about GI in order for student to receive 2 marks for this question. Answers worth 1 mark include:

- Glycaemic index is the ranking of carbohydrates according to how much and the speed in which they increase blood glucose levels.
- Foods with a lower GI rating can be more beneficial for long-term health and maintaining weight.
- Those that score 0-55 are classified as low GI, 56 – 69 are medium GI and 70 -100 are called high GI.

2 marks

Question 5

Students must identify one piece of legislation developed by FSANZ to be awarded one mark. The student does not have to state the exact name of the legislation but must adequately identify it in their response. Examples could include:

- The Food Standards Code
- Laws relating to what types of food can be sold on the Australian market
- Labelling laws
- Laws relating to nutrition information panels
- Laws relating to the manufacture of foods

1 mark

Question 6

a. For this question, students are to make comparisons between Medicare and Private Health Insurance. 2 points must be made in order to receive 2 marks. An example could be:

Medicare is funded by the Federal Government via the Medicare levy, Medicare surcharge and general taxation. It covers both in-hospital and out-of-hospital services. These services are provided free of charge or at a subsidized rate. Private health insurance is additional health insurance purchased by individuals or families on top of Medicare to provide cover for treatment as a private patient in a public or private hospital. It can also include a range of non-hospital benefits depending upon the level of cover purchased.

2 marks

b. Students must identify one incentive for one mark and another mark for briefly explaining it. Examples include:

- Lifetime cover. Those who take out private health insurance after the age of 30 (Note – the increase actually takes place after the 31st birthday, but accept both) pay a higher premium.
- Medicare surcharge: those that earn over a certain amount (over \$70,000 a year for individuals) that don't have private health insurance pay an extra 1% tax to Medicare.
- 30% rebate: The Federal Government will contribute 30% of the cost of private health insurance premiums.

2 marks

Question 7

Due to confusion with the VicHealth values, students can also identify 'brave', 'just' and 'creative' for 2010 only (if they use these three, no explanation is needed). The following three responses are the ideal answers. Students receive 1 mark for each correct answer.

- Health is a fundamental human right
- Everyone shares in the responsibility for promoting health
- Everyone benefits from improved health outcomes
- to build the capabilities of organisations, communities and individuals in ways that change social, economic, cultural and physical environments to improve health for all Victorians
- strengthen the understanding and the skills of individuals in ways that support their efforts to achieve and maintain health.

1 + 1 = 2 marks

Question 8

Students should identify two aspects of human development to be awarded 2 marks. Note that the definition does not have to be exactly the same as the United Nations definition but should include similar points. Examples of points worth one mark include:

Human development relates to:

- The ability of people to live long, healthy, fulfilling lives.
- The overall well being and happiness of people in a society.
- The establishment of an environment that allows people to live in accordance with their needs and interests.
- An environment where people can develop to their full potential.
- Increasing choices and enhancing capabilities
- Achieving a decent standard of living
- Participating in the community

2 marks

Question 9

Students receive up to two marks for describing the World Health Organisation's mortality strata system. An example could be:

The WHO strata system classifies countries according to 5 strata. Countries are classified as strata A, B, C, D or E. A is the most developed, E the least. This system uses child and male adult mortality rates.

2 marks

Question 10

a. Students receive 2 marks for describing aspects of the Human Development Index. Examples worth one mark include:

- A score that rates the level of human development experienced in a country.
- A system that rates human development from 0 – 1.
- A system that ranks human development based on income, education and life expectancy.
- High human development is achieved by gaining .800 or higher, medium is from .500 - .799 and low is 0-.499.

2 marks

b. Two likely differences in health status need to be stated to award 2 marks. Do not award marks for reasons for differences. Examples could include:

- Australia would experience higher life expectancy
- Australia would have a lower under 5 mortality rate.
- Afghanistan would have higher rates of communicable diseases.
- Australia may have higher rates of obesity.

1 + 1 = 2 marks

Question 11

Students receive one mark for correctly identifying each WHO core function (note that these do not have to be word for word) and up to 2 marks for each explanation (including how it promotes health / or human development globally) for a total of 6 marks. Examples of correct answers include:

• **Provide leadership and create partnerships to improve health.**

This means that the WHO works with member states in order to improve health. They also work to decrease the impact of health problems that arise around the world such as Malaria outbreaks and lack of access to health care as the result of civil unrest. The WHO also works with countries to provide advice on promoting health.

• **Manage information and promote research**

The WHO works with other organisations to ensure that the most up to date research is available for improving health for those in need. The WHO also collects data to guide health promotion projects.

• **Set norms and standards**

The World Health Organisation works to standardise the way that research is carried out and the terminology and classification systems used. This enables different groups to share health-related resources and data from across the globe which provides more effective methods of controlling infections for example.

• **Assist with policy selection**

As the WHO has a large wealth of experience in implementing policies around the world, they can help countries to make appropriate policy choices with regards to improving health. The WHO has a range of policy options that can be tailored to meet the individual needs of a country which in turn, improve health in the region concerned.

• **Provide technical support and assist health systems to become sustainable**

This relates to providing advice that can be used to ensure the government of the country concerned can implement sustainable programs and policies. The WHO assists countries to monitor disease outbreaks and surveillance of conditions such as malaria and HIV/AIDS.

• **Monitoring health trends**

The WHO works with the governments of various countries and statistical institutions to collect data concerning trends and health related issues. As a result, countries can be monitored and compared for the purpose of improving health globally.

3 + 3 = 6 marks

Question 12

Students receive one mark for each correct organisation. Examples include:

- World Vision
- Red Cross
- Oxfam
- Caritas
- Care Australia

1 + 1 = 2 marks

SECTION B**Question 1**

a. Students are to explain the difference between Life Expectancy and HALE for two marks. Explanations do not have to be exactly the same as the definitions provided in the VCAA Study Design, however answers should reflect these definitions. An example could be:

Life expectancy is an indication of how long a person can expect to live provided that mortality patterns do not change. Health-adjusted life expectancy (HALE) is an estimate of the number of years that a person can expect to live free from disease, injury and disability.

2 marks

b. Students are to compare Australia to the developed countries identified in the table above in relation to Life Expectancy and HALE. Must make two correct comparisons to receive full marks.

- Australian men have the equal highest life expectancy of the five countries and follows behind Japan and Sweden for HALE.
- Australian women follow behind Japan and Sweden for both life expectancy and HALE.

2 marks

c. Students are to make two points about 'Disability Adjusted Life Years (DALYs)' for two marks. Examples worth one mark include:

- DALYs are a unit of measurement used for measuring burden of disease.
- One DALY is equal to one healthy year of life lost due to premature death, injury, illness or disability.
- DALYs are calculated by adding Years Lived with Disability (YLDs) and Years of Life Lost through premature death (YLLs).

2 marks

d. Drawing on learnt information, students are to identify two leading causes of burden of disease in Australia. 1 mark for each correct response. Examples include:

- Cancers
- Cardiovascular disease
- Mental disorders
- Neurological and sense disorders
- Chronic respiratory diseases
- Injuries

1 + 1 = 2 marks

Question 2

a. Students are to identify one reason for Arthritis and Musculoskeletal conditions being selected as an NHPA. They could list either of the following for 1 mark.

- Due to the health and economic burden these diseases place on the community
- Due to the high prevalence and large contribution to burden of disease

1 mark

- b. Students are to outline one direct and one indirect cost to the community as a result of an individual having arthritis or a musculoskeletal condition. 1 mark for each correct answer. They could list any of the following.

DIRECT	INDIRECT
Health care services covered by Medicare - GP, Specialist, tests, etc	Reduced or lost productivity
Cost of pharmaceuticals – subsidised costs (PBS)	Absenteeism – time off work
Health insurance company contributions to treatment and care.	Lost taxation revenue
	Social security/ disability payments

1 + 1 = 2 marks

- c. For 1 mark, students are to give one example of a biological determinant of health that acts as a risk factor for Arthritis/Musculoskeletal conditions. They could mention any of the following.

- Genetics: having a family history of some musculoskeletal conditions is a risk factor for individuals.
- Age: these conditions can occur at any age, however, the older an individual gets, the higher the risk.
- Sex: arthritis and musculoskeletal conditions are more common among women.
- Obesity: those who are obesity are more likely to develop arthritis due to extra pressure on joints.

1 mark

- d. Students are to briefly describe how nutrition can act as a protective factor for Osteoporosis. 1 mark should be awarded for identification of a nutrient, another point for the description on how that nutrient acts as a protective factor. Students could discuss any of the following.

- Calcium consumption: calcium is an essential bone-forming mineral. Having a diet high in calcium and low in sodium, increases bone mass, therefore acting as a protective factor against osteoporosis.
- Phosphorus consumption: protective factor against osteoporosis as it plays a role in the mineralization of bone, working with calcium in the ossification process.
- Vitamin D consumption: this vitamin is needed to effectively absorb calcium into the bones. A diet / lifestyle meeting vitamin D requirements, helps to increase bone density, therefore reduce the risk of osteoporosis.

1 mark

- e. For this question, students are to name and describe one health promotion campaign that has been designed to reduce the incidence of Arthritis / Musculoskeletal conditions. 1 point awarded for identification of a project, 3 points awarded for description. One example of a program is shown below.

Name: Warm Waves Water Exercise Program.

Description: The program is a general exercise program providing gentle warm water exercise classes as a workout for the entire body. Pools are heated to around 32°C, giving a comfortable and effective way for arthritis sufferers to be physically active. Stiffness and pain is relieved by the warmth of the water, less weight is placed on joints, while muscles are still receiving a workout through the resistance of the water.

4 marks

Question 3

The following answers need to be reflective of the information included regarding VicHealth's Walking School Bus.

- a. Students are to list one principle of the social model of health and explain how it is evident in this example of a VicHealth project. 1 mark awarded for correct identification of a principle, two marks awarded for explanation. Answers could include any of the following:

- Addresses the broader determinants of health

This project focuses on trying to bring about behaviour change in relation to physical activity. It has created a collaborative and social environment where action is used to bring about positive changes to each community. The program aims to educate as well as encourage physical activity. Social interaction is also a key aspect.

- Reduces social inequities

Many children living within a 5 minute walk to school are not taking the opportunity to walk, due to a number of reasons, for example, safety. This project aims to overcome the inequalities that exist for these children in relation to certain barriers and lack of opportunities. It is available to all children regardless of socio-economic status.

- Empowers individuals and communities

Involvement of the participants, volunteers and wider community in establishing their own Walking School Bus means greater ownership of the issues and solutions and a greater sense of control over their environment. The implementation enables all involved to become much more empowered, which increases their advocacy skills.

- Involves intersectorial collaboration

This project sees collaboration between individual schools, the wider community and community members to bring about improvements in health.

3 marks

- b. Students are to explain how this project could improve mental health of the children involved. Examples include: Involvement in the Walking School Bus would build self esteem and confidence in the individuals involved, through the release of endorphins, interaction with others and the feelings associated with involved in a group of people.

1 mark

- c. Students are to list one element of the Ottawa Charter and discuss how it could be used to develop another project focussing on increasing physical activity among children. 1 mark awarded for correct identification of an element, two marks are awarded for the explanation. Answers could include any of the following:

- Build Healthy Public Policy

Schools could implement a physical activity policy that mandates exercise (10-15 minutes) at some point during each school day to encourage students to be physically active.

- Create Supportive Environments

Schools could hold 'walk to school days' to encourage all students to walk to school on that day – especially targeted towards those not involved in the Walking School Bus program.

The local council could establish more parklands, bike tracks and walking tracks to encourage people to be more active in a safe environment.

Community health centres and/or community groups could establish additional walking groups that meet regularly and undertake brisk walking or running, to bring about a supportive social environment while undertaking physical activity – this could also include parents of the students who participate in the Walking School Bus.

Schools could establish exercise groups during lunchtimes or afterschool to encourage students to further increase their level of physical activity.

The school could instigate a competition that rewards personal achievements in relation to number of times each individual has used the Walking School Bus per week/month/term.

- Strengthen Community Action

Local schools could work with community health centres, local councils and community groups to identify and overcome barriers to lack of exercise. These groups could identify targets, implement and then evaluate strategies designed to improve these behaviours.

Schools could work with community health centres to develop posters, brochures or other promotional material that supports regular physical activity. This material could be used in local venues such as sporting clubs, doctor's surgeries, shopping centres and community health centres as part of a larger promotion.

- Develop Personal Skills

Schools could conduct parent information sessions and feature regular newsletter articles raising awareness and educating about the importance of regular physical activity.

- Health promotion activities could be funded by the State or Federal government to advertise on radio, television, magazines, and newspapers outlining the benefits of regular physical activity for children.
- Schools could hold health education workshops for their students to educate them about undertaking regular physical activity.
- Reorient Health Services
- Schools could invite doctors/nurses/health professionals in to talk to all students about regular physical activity

1 + 2 = 3 marks

Question 4

To answer the following questions, students need to use the graph showing health expenditure through non-government organisations, state/territory and local governments and the Australian government.

- a. i. Students need to identify the area of health expenditure the State/territory and local governments contribute most of its funding. Answer must be:
Public hospital services

1 mark

- ii. 1 mark for stating 'around 5,500 million dollars' (or \$5.5 billion dollars). Allow some leeway with this answer (eg award marks for any figure between \$5,000 million (5 billion) to \$7,000 million (7 billion)).

1 mark

- b. Students are to identify and briefly describe 2 values that underpin the Australian healthcare system. 1 mark for identifying each correct value, 1 mark for each description. They could include any of the following.

- Continuous: ability to provide uninterrupted, coordinated care or service across programs, practitioners, organisations and levels over time.
- Accessible: Ability of people to obtain healthcare at the right place and right time irrespective of income, physical location and cultural background.
- Responsive: service provides respect for individuals and is client-oriented, including respect for dignity, confidentiality, participation in choices, promptness, and quality of amenities, access to social support networks and choices of provider.
- Efficient: care, intervention or action achieves the desired results with the most cost-effective use of resources.
- Capable: an individual's or service's capacity to provide a health service based on skills and knowledge.
- Appropriate: provision of care, intervention or action that is relevant to individual needs and based on established standards.
- Safe: the avoidance or reduction to acceptable limits of actual or potential harm from healthcare management in which healthcare is derived.
- Effective: care, intervention or action that achieves the desired outcome.
- Sustainable: systems or organisations capacity to provide infrastructure such as workforce, facilities and equipment, and to be innovative and respond to emerging needs.

2 + 2 = 4 marks

Question 5

Identify one initiative introduced by the Heart Foundation and explain how this initiative promotes healthy eating within Australia. 1 mark awarded for the correct identification of an initiative, 3 marks for explanation. Below are two examples of appropriate responses:

Initiative: Pick the Tick

How healthy eating is promoted: The Heart Foundation's tick can be placed on products that have lower levels of fat, salt and /or sugar compared to other, similar products. By purchasing items that carry the tick, consumers can choose healthier options that may reduce the risk of heart disease. Fast foods can also apply for the tick giving consumers greater choice when eating out.

Initiative: Heart Foundation website

How healthy eating is promoted: The Heart Foundation aims to educate consumers by providing a website with relevant information. It contains the Heart Foundation's 5 tips for healthy eating and a recipe finder which outlines healthy recipes for each meal of the day. It also contains a downloadable healthy eating leaflet.

4 marks

Question 6

Students can select any of:

Mexico, Niger, Argentina or Ghana.

Up to 2 marks are awarded for using the data from the table in their justification. (Note that overweight/obesity levels are not suitable as a justification as many developing countries also have high levels of obesity and some developed countries have low obesity rates). A suitable answer could be:

Argentina may be considered to be a developing country as they have a relatively low GDP at \$11,670 per year and have a fairly high adult mortality rate at 123 per 1,000.

2 marks

Question 7

a. Students are awarded one mark for identifying a relevant MDG and up to 2 marks for providing an example of the possible impact. Examples include:

- Reduce child mortality – eradicating extreme poverty and hunger would mean that children would be eating more nutritious foods and would therefore be in better health. This would mean that they are more likely to be able to fight off an infection that may otherwise be fatal.
- Achieve universal primary education – eradicating extreme poverty and hunger may mean that parents have more money to send their children to school. It may also mean that children are not required to work to provide extra income to the family and can therefore attend school.
- Improve maternal health – eradicating extreme poverty and hunger may mean that women have more money available for maternal health care. This could mean that simple problems are diagnosed and treated before they become more serious.

1 + 2 = 3 marks

b. Students are awarded up to 2 marks for explaining how eradicating extreme poverty and hunger may contribute to sustainable human development. Examples include:

- If people are not hungry, they may have more energy for things such as education. This could give them greater earning capacity in later life and allow them to purchase resources such as food, shelter and clothing. This could assist them in living longer, healthier and more fulfilled lives.
- If people are not living in extreme poverty, they may have money for basic health care. This could mean that easily managed conditions can be treated which would return them to optimal health. This could contribute to living a longer, healthier and more fulfilled life.

2 marks

c. Students are awarded one mark for identifying one region that may not reach this goal and one mark for their justification (using data from the graph). Appropriate regions include:

- Sub-Saharan Africa
- Southern Asia
- Western Asia
- transition countries of South Eastern Asia
- CIS, Asia

An appropriate justification could be:

Southern Asia has only reduced the proportion of those living on less than \$1.25 from 49% to 39% between 1995 and 2005. If they continue this rate of improvement, they will not reach this goal by 2015.

1 + 1 = 2 marks

Question 8

a. i. Students must identify AusAID for 1 mark.

1 mark

ii. Student receive two marks for identifying two of the following reasons for giving aid (no explanation is required):

- Australians place a priority on helping those less fortunate than themselves.
- Giving aid improves Australia's regional security.
- When goods are supplied, Australian companies also benefit which has an impact on the Australian economy.
- Australian aid is in the form of goods and services as well as cash. This benefits Australian companies supplying goods and services, which has a direct impact on the Australian economy as a whole. Countries try to balance their terms of trade, which means countries receiving aid in goods are encouraged to trade more with Australia.

2 marks

- b. Once mark is awarded for identifying multilateral aid.

1 mark

- c. Students are awarded one mark for identifying one of the following elements of sustainable programs:

- Appropriateness
- affordability
- equity

Students are awarded one mark for stating how this program reflects the element. Examples include:

Appropriate:

- This program is targeting refugees, who are the most in need.
- This program is involving the people by allowing local people such as David, to teach in the school.

Affordable:

- Providing meals for students does not cost them any money which allows the poor to benefit from the program.

Equity:

- This program provides food for those in need including women in late stages of pregnancy.

2 + 2 = 4 marks

Question 9

- a. One mark is awarded for identifying the difference in rates of illiteracy between women on Australia compared to Niger. An example could be:

- Around 90% of women are illiterate in Niger compared to around 1% in Australia.

1 mark

- b. Students are awarded two marks for linking peace / conflict and income to the differences in illiteracy rates among females in Niger and Australia. Examples include:

- Peace / conflict – conflict may mean that education is disrupted as a result of the destruction of schools or being unable to travel to school due to conflict. If Niger is experiencing conflict, they may not be able to attend school. Australia does not generally experience conflict which allows girls to continue attending school and gaining literacy skills.
- Income – a lack of income in Niger may mean that that parents can't afford to send their children to school. In Australia, the government subsidises education which make it more affordable.

2 + 2 = 4 marks

- c. i. Students receive one mark for identifying the program and up to two marks for briefly outlining it. Identifying the type of aid evident in the program must be included to be awarded full marks. An example could be:

- The United Nations Girls' Education Initiative (UNGEI) is an example of multilateral aid. It works to improve literacy by promoting strategies that make girls' education a priority in terms of policies, budgets and plans. This initiative assists in removing factors that impair education such as school fees and other costs associated with education.

3 marks

- ii. Students receive three marks for explaining how this program may promote sustainable human development. An example could be:

- By increasing literacy rates of females, they are better equipped to enter the workforce. This may mean that they can gain meaningful employment that assists in keeping them above the poverty line. This can mean that they eat more nutritious foods and can afford basic health care. This can allow them to live a more fulfilled life.

3 marks