

102105T4COH

COMMUNITY HEALTH ASSISTANT LEVEL 5

HE/OS/CH/CC/02/5/A

Apply Epidemiology in Community Health

Nov/Dec 2024



**TVET CURRICULUM DEVELOPMENT, ASSESSMENT AND CERTIFICATION
COUNCIL (TVET CDACC)**

WRITTEN ASSESSMENT

Time: 3 HOURS

INSTRUCTIONS TO CANDIDATE

1. Marks for each question are indicated in the brackets.
2. The paper consists of **TWO** sections: **A** and **B**.
3. Candidates are provided with a separate answer booklet
4. **DO NOT** write on this question paper.

This paper consists of THREE (3) printed pages
Candidates should check the question paper to ascertain that all
pages are printed as indicated and that no questions are missing.

SECTION A (40 MARKS)

Answer ALL the questions in this section.

1. Epidemiology plays a critical role in disease prevention. State **FOUR** relevance of Epidemiology to community health work (4 Marks)
2. Identify **FOUR** platforms a community health assistant in Community X can use to disseminate population screening report? (4 Marks)
3. Monitoring and surveillance can help provide health information in a timely manner to enhance the fight against current emerging epidemics and plan for the future. Highlight **THREE** major types of reporting tools you will be using when conducting diseases surveillance processes (3 marks)
4. A study of heart disease comparing a group who eats healthy foods and exercises regularly with one who does not in an effort to test association. Identify **THREE** sources of errors that may be experienced in this study? (4 marks)
5. Health indicators are quantifiable characteristics of a population which researchers use as supporting evidence for describing the health of a population. State **FOUR** Characteristics of a good health indicator (4 marks)
6. Collection and analysis of epidemiological data is very critical for decision making. Outline **FOUR** sources of epidemiological data (4 Marks)
7. The incidence of HIV is on the increase in County X. As community health assistant you are required to conduct population-based screening, Highlight **THREE** ethical considerations that may arise with this type of screening (3 marks)
8. Notifiable diseases are proving to be a major issue of public health concern in Kenya. State **FOUR** Notifiable diseases of public health importance in Kenya. (4 marks)
9. Multi-sectoral approaches can help address emerging health issues in the community such as breast cancer. Highlight **THREE** inter-sectoral stakeholders who may be involved in conducting community-based screening (3Marks)
10. You have been assigned to collect data on the incidences of HIV in County X. Outline **THREE** ways of presenting epidemiological data (3 Marks)
11. Community health officers conducted diagnostic interviews among 1710 students from 2 urban and 3 rural high schools in County X to determine the prevalence of anxiety disorders. The study found that 54 of the evaluated students met criteria for anxiety disorder. Calculate the prevalence of anxiety disorder among these students (4 Marks)

SECTION B (60 MARKS)

Answer Any THREE Questions in This Section

12. There is cholera outbreak in County X and You have been chosen by the Ministry of Health to head a team in investigating this outbreak.
- a) Describe **SEVEN** steps you would follow when investigating the above outbreak (14 marks)
 - b) Explain **THREE** challenges you may encounter when conducting disease outbreak investigation (6 Marks)
13. According to World Health Organization (WHO), Cervical Cancer is the fourth leading common cancer in women globally with around 660,000 new cases. This is compounded by low uptake of screening programs by a significant number of women in the community. As a community health assistant, you are required to participate in the roll-out of cervical cancer screening program in County X.
- a) Explain **TWO** main aims of population screening programs (4 marks)
 - b) Discuss **SIX** steps involved in population screening (12 marks)
 - c) Identify **FOUR** factors that may affect population-based screening (4 Marks)
14. You have observed that children in community X and urban informal settlements are more likely to die from preventable communicable diseases than those living in other parts of your neighboring counties. To address the situation, you are required to initiate programs meant to alleviate health problems facing children in community X.
- a) Using the disease triad model explain **THREE** main factors that may have led to the above scenario. (12 Marks)
 - b) Explain **THREE** levels of disease prevention (8 Marks)
15. Mr. K, recently was infected with HIV virus, he has never sought any medical intervention including taking any form of treatment. His health is slowly deteriorating.
- a) Describe **FOUR** stages in the Natural history of disease progression (8 Marks)
 - b) Explain **SIX** major components of the chain of disease transmission. (12 Marks)