

## THE COLLEGES OF MEDICINE OF SOUTH AFRICA

Incorporated Association not for gain  
Reg No 1955/000003/08

Final Examination for the Fellowship of the  
College of Public Health Medicine of South Africa

25 January 2021



Paper 1

Long Questions

(3 hours)

*Each question to be answered in a separate book (or books if more than one is required for the one answer). All the questions carry equal marks. The use of personal hand-held calculators is permitted.*

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**Please answer three of the following four questions.**

1. With reference to the COVID-19 pandemic, describe the challenges of compliance and adherence to public health measures and non-pharmaceutical interventions (NPI's) and explain how the use of social and behavioural science could address poor compliance and mitigate pandemic-fatigue. [33 ⅓]
2. Misconduct may be defined as 'unacceptable or improper behaviour, especially by an employee or professional person'. As a manager responsible for human resources at a health institution, you have to ensure that all cases of potential misconduct are handled in a fair and equitable manner. Using the relevant legislation as a guideline, outline the steps that you would take when an employee is accused of stealing a bag of sugar from the kitchen of your institution. [33 ⅓]
3. The COVID-19 pandemic exposed deficiencies in occupational health services across all sectors; resulting in the uncontrollable spread of the infection amongst workers, increased absenteeism as a result of the requirements for isolation and quarantine, reduced productivity and in extreme cases loss of the lives of the workers. The pandemic also highlighted the relevance of public health medicine specialists within a health system. You have been appointed as one of the first cohort of public health medicine specialists to be employed by the National Department of Health (at a specialist level) and have been assigned the task of drafting a framework for a comprehensive occupational health system to be used as a guide for provincial departments of health to develop/strengthen their occupational health services for all government health workers. Outline the main components you would include in the framework and justify the relevance of each component. [33 ⅓]
4. The disease epidemics caused by tobacco are major threats to public health. Tobacco use kills more than 7 million people each year, and the vast majority of these deaths take place in low- and middle-income countries. You have been recently appointed as a public health medicine advisor to the South African Minister of Health. Outline a strategy for the Minister of Health that addresses tobacco use and its burden on the South African and global economy. [33 ⅓]



FCPHM(SA)

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27 January 2021



Paper 3

Short Questions

(3 hours)

*This paper consists of 10 questions. Each of the 10 questions to be answered in a separate book (or books if more than one is required for the one answer). The use of personal hand-held calculators is permitted.*

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1. Give ten characteristics of a good health policy for non-communicable diseases. [10]
2. The Eastern Cape Department of Health is concerned about decreasing childhood vaccination coverage in the province. They have asked you to evaluate missed opportunities for immunisation in the province, in an effort to improve the immunisation programme.
  - a) Discuss how you would design a study to evaluate missed opportunities for immunisation in the province. (6)
  - b) Discuss the ethical considerations pertaining to your proposed study. (4)

[10]
3. The prevalence of Type 2 diabetes mellitus is on the increase in many countries including South Africa.
  - a) Identify four drivers of the diabetes epidemic. (2)
  - b) Identify two strategies that you would advocate to decrease the prevalence of diabetes, with motivations. One strategy should cite the high-risk approach and the other should cite the population approach. Identify how each strategy will decrease the population prevalence using a graphical representation. (8)

[10]
4. The RECOVERY collaborative group reported that in patients hospitalised with Covid-19, the use of dexamethasone compared to 'usual care', resulted in lower 28-day mortality among those who were receiving specific forms of respiratory support. A full economic evaluation investigated the costs and effectiveness of dexamethasone in the management of patients hospitalised with COVID-19, compared to other potential health investments. The analysis found dexamethasone to be highly cost-effective with an incremental cost of R 552–00 per disability life year (DALY) averted. Any health intervention with a cost of less than R 38 465-00 per DALY averted, is likely to be a good investment for the South African public health sector.
  - a) What is meant by the term 'economic evaluation' and explain how it can be applied in healthcare decision-making. (4)
  - b) Name the specific type of economic evaluation that was conducted in this study. (1)

PTO/Page 2 Question 4c) ...

- c) Describe the characteristic features of this type of economic evaluation and how it can be differentiated from the two other major forms of economic evaluations performed in health economics. (4)
- d) State one benefit of the type of economic evaluation named in (b) above. (1)
- [10]
5. A Health Benefits package has been identified as core to the attainment of Universal Health Coverage.
- a) Provide a definition for Universal Health Coverage (UHC). (2)
- b) Explain what is meant by a 'Health Benefits package' and how it fits in with UHC. (4)
- c) Identify two core elements to consider when setting up a Health Benefits package, motivating for their inclusion. (4)
- [10]
6. You have been asked as a public health medicine specialist to develop a preparedness plan for the management of highly infectious new agent for your country. Identify *five* components that should be included in such a plan, giving a motivation for their inclusion. [10]
7. An Employee Assistance Program (EAP) is a work-based intervention program designed to identify and assist employees in resolving personal problems (e.g., marital, financial or emotional problems; family issues; substance/alcohol abuse) that may be adversely affecting the employee's performance. Considering that human resources may be regarded as one of the most important assets of an institution, implementing an EAP is an innovative means of protecting these assets. Describe the various steps that you as a Manager would follow to implement such a programme at your institution. [10]
8. The socio-ecological model can be used to categorise factors that impact on disease occurrence. Apply this model to the HIV epidemic in South Africa, identifying factors that resulted in its high prevalence. Factors given should demonstrate your understanding of this model. [10]
9. The life-course approach in epidemiology focuses on sensitive periods of a person's life.
- a) Define what is meant by the life-course approach. (2)
- b) Identify *two* such periods for the onset of adult asthma. For each period, list *three* risk factors for asthma. (You may not repeat risk factors). (8)
- [10]
10. Discuss the following statement: "Environment: the neglected component of the One Health triad". [10]