

EXAMINATION

13 May 2010 (am)

Subject F201 — Health and Care Specialist Applications

Time allowed: Three hours

INSTRUCTIONS TO THE CANDIDATE

1. *Enter all the candidate and examination details as requested on the front of your answer booklet.*
2. *You have 15 minutes at the start of the examination in which to read the questions. You are strongly encouraged to use this time for reading only, but notes may be made. You then have three hours to complete the paper.*
3. *You must not start writing your answers in the booklet until instructed to do so by the supervisor.*
4. *Mark allocations are shown in brackets.*
5. *Attempt both questions, beginning your answer to each question on a separate sheet.*
6. *Candidates should show calculations where this is appropriate.*

AT THE END OF THE EXAMINATION

Hand in BOTH your answer booklet, with any additional sheets firmly attached, and this question paper.

<p><i>In addition to this paper you should have available the 2002 edition of the Formulae and Tables and your own electronic calculator from the approved list.</i></p>
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QUESTION 1

You are the consulting actuary to HealthMed, a medium sized medical scheme with four traditional options. HealthMed is an open scheme, but historically its membership has been predominantly from the textile sector, with a strong representation of lower income factory workers on its lower cost options. Two years ago, the major textile employee unions decided to establish a restricted medical scheme TEXMED for the full time employees in the textile industry. As a result, HealthMed medical scheme has seen a steady drop in membership as members leave to join TEXMED. HealthMed's membership is now half of what it once was and may fall further as 60% of the remaining members are employed in the textile sector. Analysis of the claims data has indicated that the members from the textile sector tend to claim less, on average, than the non-textile sector members on the scheme.

- i) Discuss briefly the likely impact of the fall in membership on the components of HealthMed's Income Statement on a per principal member per month basis. [4]

The trustees of HealthMed are worried that the scheme is losing its relevance in the market. They are therefore keen to increase the scheme's membership. A large employer group has approached HealthMed about enrolling their members to the scheme and the scheme is considering waiving underwriting for this group.

- ii) Describe the underwriting measures, and the rationale behind them, which the scheme is permitted by legislation to use. [10]

Following the discussions regarding this employer group, the scheme's trustees decide that they want to establish a general policy that will be used to determine whether underwriting should be waived for any particular group that wants to join the scheme.

- iii) Discuss the factors that could form part of such a policy. [8]

PLEASE TURN OVER

At the most recent Board of Trustees meeting, there were long and, at times, heated discussions on how to increase the scheme's membership. Several suggestions were considered by the trustees:

- a. Relax the underwriting restrictions on individuals currently in place, in order to encourage brokers to sign members to the scheme.
 - b. Find another medical scheme to transfer its business into HealthMed.
 - c. Create a new option for HealthMed that will attract young and healthy members.
 - d. Aim for steady organic growth, while trying to retain the existing membership (including the textile sector members) as long as possible.
- iv) Discuss each of these suggestions and make a recommendation on its appropriateness. [23]

With the scheme losing members, the financial position of the various options has been negatively affected. In particular, the Comprehensive Option (the option with the richest benefits and highest contributions) is now projected to make a significant deficit this year. A trustee has suggested that the scheme should close this option at the end of the year as it does not appear to be sustainable.

- v) Discuss the merits of this suggestion and the possible impact this would have on the scheme.

[5]

[Total marks 50]

QUESTION 2

You are the consulting actuary to OPENAID, a large well-established open medical scheme with approximately 500 000 principal members. The medical scheme has a wide range of options with a membership throughout South Africa.

OPENAID's Principal Officer has said that the scheme's strategy going forward is to work more closely with General Practitioners (GPs), who she believes play a vital role as primary care providers and are in the best position to co-ordinate care, and therefore also impact on healthcare costs (including downstream costs), of the scheme's beneficiaries. OPENAID has always required each beneficiary on the scheme to nominate a specific doctor as their personal GP. As a first step towards the new strategy, she wants to be able to identify those GPs that provide the most cost-effective care. She has asked you to perform this exercise. You have access to the scheme's full membership and claims database.

- i) Discuss how you would establish whether a GP was cost-effective relative to his/her peers, and in doing so determine a cost profile for each GP. You should include in your discussion:
- a. What cost measure(s) you would consider.
 - b. The data required for the exercise.
 - c. The methodology that you would use to perform the exercise. [20]

PLEASE TURN OVER

One of the scheme's trustees has expressed a concern that cost profiling of GPs will lead to lower quality of care. It has been suggested that, in addition to cost, the scheme should also develop quality profiling measures, which should be communicated to GPs along with their cost profiles.

- ii) Suggest six possible quality measures that could be appropriate for this purpose. [3]

The GPs in the scheme's network are complaining that it is unreasonable to incentivise them on secondary and tertiary healthcare costs incurred by the beneficiaries who nominated them, if these beneficiaries have direct access to medical specialists. The scheme is considering the possibility of implementing a benefit rule that out-of-hospital specialist consultations will only be paid if a referral has been provided by the nominated GP.

- iii) Discuss what the likely impact would be on the following parties involved:

- a. The beneficiaries;
- b. GPs;
- c. Medical specialists; and
- d. The medical scheme.

[10]

The Principal Officer has noticed that there has been an increase in the admission rate for certain infections, including pneumonia, amongst young adult beneficiaries on the scheme in the past year. She suspects that it might be due to an increased prevalence of HIV within the scheme, and wants to set up a workshop to discuss the strategy for the scheme's HIV disease management programme.

- iv) Describe briefly the different stages of HIV infection, including the typical characteristics and symptoms that are present in each stage. [6]

In order to help her prepare for the workshop, she has requested that you provide an estimate of the prevalence of HIV infection within the scheme's population.

- v) Discuss the process and issues involved in modeling the HIV prevalence within the scheme. [11]

[Total marks 50]

[TOTAL 100 MARKS]

END OF PAPER