Actuarial Society of South Africa

EXAMINER'S REPORT

16 October 2024

Subject F201 – South African Health and Care Fellowship Applications

QUESTION 1

Question 1 asked candidates to analyse five different complaints that were made to the Council for Medical Schemes that reflected major developments and recurring issues affecting medical schemes. Although these scenarios referred to actual complaints made which candidates were expected to be familiar with, the examiners felt that candidates could analyse the scenarios from first principles without having in depth knowledge of the situation.

Better performing candidates responded to both parts of the question with the first being to discuss the merits of the case and secondly to consider the implications from an actuarial perspective. Candidates tended to focus on the former rather than the latter which resulted in lower marks achieved than available.

The question required candidates to demonstrate actuarial skill in considering both sides of an issue for the stakeholders involved as well as for the matter itself.

Complaint #1

This scenario is derived from a court case between Mrs E (complainant) and the Fedhealth Medical Scheme (respondent) with case reference number CMS75637.

This question asked candidates to analyse a case whereby a member's medication for a rare condition is no longer being covered by the medical scheme. The question guided the candidate on the nature of the condition and if it is covered as a prescribed minimum benefit.

Candidates that were able to discuss the various scenarios and possible reasons to cover or not to cover the treatment would have scored better. The issue of funding for high-cost treatments is very relevant for medical schemes due to the significant costs for these treatments, clinical benefit, and equality and fairness in the context of the prescribed minimum benefits.

(a) Complaint #1 - Complainant: Member A

PMB Coverage

Stakeholder 1 can argue the rare genetic disease is covered as a Prescribed Minimum Benefit (PMB). As an example of a rare genetic disease, Gaucher's disease falls under DTP code 901K…

…which covers *"life-threatening congenital abnormalities of carbohydrate, lipid, protein, and amino acid metabolism."*

Member A can argue that ERT constitutes medical management, which is part of the PMB.

Member A can argue that Regulation 7 defines "prescribed minimum benefits" as *"The benefits contemplated in section 29 (1) (o) of the Act, consist of the provision of the diagnosis, treatment and care cost of the Diagnosis and Treatment Pairs listed in Annexure A, subject to limitations specified in Annexure A."*

Member A can argue that Regulation 8 (1) provides that *"Subject to the provisions of this regulation, any benefit option that is offered by a medical scheme must pay in full, without co-payments or the use of deductibles, the diagnosis, treatment and care costs of the prescribed minimum benefit."*

Life-Threatening Condition

Member A can argue that her condition is life-threatening without treatment…

…where a life-threatening disease is a disease that will reduce a person's longevity even if not immediately a mortality threat.

Member A can argue that one of the objectives of the requested treatment is to prevent further harm and improve and increase her life expectancy.

Member A can argue that there are no alternate treatments that are effective for managing the condition.

Member A can therefore argue that ERT is a PMB level of care. A member's clinical condition must be life-threatening to qualify for PMB entitlement.

ERT is a prevailing state practice

Member A could argue that ERT is a prevailing state practice and therefore, qualifies as a PMB level of care for her condition.

Rare condition

Member A can argue that the generic disease is an extremely rare condition.

Due to the rarity of the disease and the high cost of the treatment, it is expected that access to treatment will be limited in the state, and very few facilities will have access to and provide treatment.

Member A can argue that the public sector level of care for rare diseases, which falls within the PMB ambit, cannot be compared with what would be accepted as public sector level of care for conditions of higher incidence.

Previous coverage as a PMB

Member A can argue that the scheme had previously funded the same treatment for this condition for her over many years and demonstrate that this was funded as a PMB as there were no specific benefits registered in the scheme rules for this condition.

Member A can argue that the scheme, therefore, implicitly accepted her treatment as PMB level of care historically.

(b) Complaint #1 - Respondent: Alpha Medical Scheme

Scheme Rules

The respondent can argue that it is within its rights to decline funding of ERT in the Treatment of the rare genetic disease according to the Scheme's registered rules and regulations. However, PMBs will supersede the scheme rules if it can be shown that the condition and treatment meet the clinical criteria for the DTP PMB 901K.

Life-Threatening Condition

The respondent can argue that the delayed commencement of treatment (the member was diagnosed in 1960 and only started treatment in 2008) indicates a mild form of expression of the gene mutation, in other words, not a life-threatening condition.

If it can be shown that the cessation of treatment will not have a material impact on the member's longevity, then it can be regarded as not life threatening and not meeting the PMB condition criteria. The impact may be minor given the mild form and delay in starting treatment.

PMB Status

Alpha Medical Scheme can argue that Member A's condition is not a Prescribed Minimum Benefit (PMB)…

…as the diagnosis does not meet the description of a life-threatening congenital abnormality of carbohydrate, lipid, protein, and amino acid metabolism, as specified in the Diagnosis Treatment Pair (DTP) 901K.

Alpha can argue that Member A's condition does not qualify for reimbursement as a PMB, as it does not meet the criteria of the relevant DTP for her condition to be regarded as a PMB.

Alpha can argue that Member A did not provide sufficient evidence confirming the diagnosis of this condition. Stakeholder 2 can request confirmation of the condition using DNA gene mutation and enzyme analysis which was not provided to the scheme originally. Should the results confirm the condition and meet the PMB criteria, the scheme will, however, also need to fund these diagnostic tests.

PMB Level of Care

Alpha can argue that treatment of Gaucher's Disease is not prevailing state practice and is, therefore, not eligible to be funded as a PMB level of care.

Alpha can refer to the CMS Script, issue 4 of 2015, which specified that the use of ERT for the treatment of Gaucher's Disease is regarded as a PMB within the definition of DTP 901K, where a member's clinical condition must be life-threatening to qualify for PMB entitlement. *(Candidates are not expected to reference the script)*

Alpha can argue that Member A does not qualify for PMB entitlement based on her disease not meeting the criteria of the relevant DTP.

State Practice

Alpha can argue that treatment does not constitute prevailing state hospital practice based on the evidence submitted as received from the various state hospitals.

Alpha can argue that although the therapy is available in some state hospitals, it is not state-funded. Manufacturers and private donors fund it.

Alpha can argue that if a select few state hospitals fund the treatment, an exception management process should be followed, akin to the ex-gratia process.

Based on this, Alpha can argue that treatment does not constitute a PMB level of care.

Essential Medicine List

Alpha can highlight that treatment for this condition are not included in the Essential Medicine List (EML) and, therefore, not prevalent treatment in the state.

Alpha can argue that the National Drug Policy, 1995, clearly states that essential drugs are required to treat the majority of prevalent conditions in a country cost-effectively and efficiently, and that no medicine for rare diseases is intended to be included in the EML and Standard Treatment Guidelines.

Designated Service Provider

If Member A received her treatment outside of the network of designated service providers as defined in the rules of the Scheme, the scheme can argue that Member A is at least liable for a copayment, and within their right to decline cover.

Affordability

Alpha could argue that it is unaffordable for the scheme to fund the expensive treatment and would place the scheme's financial sustainability at risk which is, therefore, not in the interest of the majority of members.

Alpha could argue that CMS could make the treatment more affordable by lowering the Single Exit Price (SEP) for treatment but has chosen not to.

(c) Complaint #1 - Potential Actuarial Implications

Implications for the scheme

The scheme could consider benefit design changes to make the benefit explicit with eligibility criteria and specify which treatments are covered.

The use of formulary and clinical protocols to access various levels of treatment would also assist to define which treatment is funded at which levels.

The scheme could assess the long-term funding implications on the benefit option chosen by member and consider covering treatment on a higher benefit option to assist with funding and reduce anti-selection.

Financial Risk and Cost Impact

The discontinuation of ERT funding for a PMB condition could lead to potential financial liabilities for the scheme. If the treatment is not provided as mandated by PMB regulations, the member may escalate the dispute to the Council for Medical Schemes (CMS), resulting in penalties, fines, or forced retroactive payments for the treatment. Such actions could impose significant financial strain on the scheme, both in terms of immediate costs and long-term claims management.

On the other hand, if the treatment continues to be funded, the scheme may experience an increase in claims expenditure. This could lead to higher contributions for members, as the overall risk pool may need to absorb the additional cost of high-cost treatments. The actuary must assess whether the PMB conditions for the member's condition align with the scheme's risk pool assumptions and if they could lead to unsustainable cost escalations if similar cases arise.

While the scheme may argue that continuing ERT could lead to higher costs, the actuary must consider the long-term cost-effectiveness of the treatment. If no appropriate alternative treatment exists within the PMB framework, the actuary must assess the long-term cost of denying ERT funding, potentially leading to worsened health outcomes for the member, which could result in higher future medical claims (e.g., hospital admissions or palliative care).

Risk Pool and Adverse Selection

If the scheme fails to provide coverage for a legitimate PMB treatment, there is a risk of adverse selection. Members who are aware that their high-cost treatments may not be funded might opt to leave the scheme, potentially shifting to other medical schemes that offer more comprehensive coverage. This

could leave the remaining risk pool with an increased proportion of high-risk members, exacerbating cost pressures and potentially leading to higher contributions for the entire scheme.

The refusal to cover treatment for a PMB condition could undermine member loyalty and trust in the scheme, leading to higher attrition rates. Actuarial models must consider the impact of such decisions on member retention and assess the cost implications of losing members who may seek schemes that offer more comprehensive coverage. Additionally, the scheme may face reputational damage that could further impact membership growth.

Impact on Scheme's Reserves and Solvency

The actuarial assessment must also address the potential impact on the scheme's reserves. If funding for the member's treatment is discontinued and the decision is contested, the scheme may need to allocate more in reserves to manage the risk of potential legal claims or adjudications in favour of the member. This could reduce the reserves available for other uses and affect the scheme's overall financial stability.

The actuarial models must factor in the long-term financial implications of continuing or discontinuing funding for PMB treatments. Any significant alteration in the scheme's obligations, especially for high-cost conditions, could affect the scheme's solvency position, particularly if ongoing claims are not adequately forecasted or managed.

Predictive Modelling and Claims Forecasting

The actuary must ensure that claims forecasting models account for the potential rise in costs associated with continuing or discontinuing high-cost treatments. Accurate predictive modelling for rare conditions such as Gaucher's Disease must consider the frequency and severity of claims for similar conditions in the scheme's membership. These models will need to factor in historical treatment costs, as well as the potential for future claims if the treatment is denied or delayed.

Scenario analysis should be used to simulate various outcomes based on different courses of action, such as continuing or discontinuing the ERT funding. The actuary should explore the financial implications under multiple scenarios to help inform decision-making, ensuring the scheme's long-term financial health is safeguarded while meeting regulatory requirements for PMBs.

Regulatory Compliance and Reporting

Actuaries should also account for the impact of potential non-compliance with the Council for Medical Schemes (CMS) regulations. Failing to honour the PMB obligations could lead to legal and regulatory repercussions, including penalties or reputational harm. The actuarial function must play a key role in ensuring that the scheme's benefit structure is compliant with all applicable regulations to avoid unexpected financial liabilities and uphold the scheme's public image.

Actuarial analysis should consider the potential for increased queries or complaints from members if their treatment is not funded. The scheme must be prepared for increased administrative costs in managing these queries, including potential disputes or complaints that could escalate to the CMS. Clear communication and a robust decision-making framework will be crucial to managing these concerns and mitigating the reputational risks associated with non-compliance.

[Complaint #1: Total 10]

Complaint #2

This scenario is derived from a court case between Mrs R (Complainant) and the Discovery Health Medical Scheme (Respondent) in 2024.

This question was about non-disclosure in medical scheme underwriting which is a consistent feature of medical scheme new business and underwriting.

Candidates were expected to navigate the nature of non-disclosure and how this might affect medical schemes – the actuarial implications here were of primary interest including impacts on claims costs, contributions and sustainability as well as adverse selection.

(a) Complaint #2 - Complainant: Member B

Unfair Cancellation

Member B can argue that the Scheme's cancellation of her membership was unfair and that she intends to continue being a member and paying contributions.

She can argue that she was already a member of the Scheme when she consulted with her doctor and received her diagnosis. This argument aims to challenge the basis on which her membership was cancelled due to alleged non-disclosure.

Presentation of Membership Certificates

Member B can present her membership certificates as evidence of her active membership at the time of the consultation and corresponding diagnosis.

This evidence can be used to support the claim that Member B was already a member at the time of the alleged non-disclosure.

Poor Record-keeping from the medical scheme

Member B can argue that the accuracy and reliability of the Scheme's records were flawed given that they were not able to detect that the alleged non-disclosure was made during a time of active membership but only in a subsequent period of membership.

Member B might argue that the Scheme's failure to maintain accurate and up-to-date records raises concerns about its compliance with regulatory obligations, such as Section 57 of the Medical Schemes Act, which mandates proper control systems.

Rejection of Medical Expenses

Member B can highlight that she incurred medical expenses for treatment that the scheme rejected based on their view that she failed to disclose material information during her application for membership reinstatement.

Impact on Member Experience

Member B can emphasise the practical implications of the Scheme's record-keeping issues on her experience, including the unjust cancellation of her membership, refusal of medical expense coverage, and the ensuing financial and health-related hardships she faced.

Communication Issues

Member B could argue that there were communication breakdowns between her and the Scheme. The scheme had access to all her prior diagnoses while she was on the scheme and may have assumed that these needn't been declared. The scheme should have raised any inconsistencies on the most recent policy reinstatement application as they would have had access to prior claims information.

If she can demonstrate instances where she tried to communicate her medical history or clarify her membership status, and the Scheme failed to address these concerns adequately, it could strengthen her case.

Good Standing with Premium Payments

If Member B can show that she was consistently up to date with her contribution payments until the Scheme unilaterally decided to refund the contributions and cancel her membership, this could highlight her commitment to fulfilling her obligations as a member.

Inconsistency of Non-Disclosure Handling

Member B might explore whether the Scheme has a history of handling similar cases of alleged non-disclosure in a consistent manner.

If there are instances where the Scheme treated similar cases differently, it could raise questions about the fairness and uniformity of their decision-making process.

Scheme's Failure to Verify Information

Member B could argue that the Scheme failed in its duty to properly verify the information provided, especially considering the discrepancy in membership history.

This could point to a lapse in due diligence on the part of the Scheme.

No implication for underwriting

Member B could argue that there would have been no implications for disclosing the condition on the reinstatement application form as she would not be eligible to receive a condition specific waiting period as she had not let a period of greater than 90 days lapse since her last withdrawal from the scheme.

She could argue that the scheme was merely looking for a way to remove her from the scheme and went looking for a reason in her past claims history.

Financial implications for the scheme

Member B could argue that, while she cancels her membership intermittently due to financial hardship, she generally contributes more to the scheme than she claims. She could claim that she is not selecting against the scheme but rather acting out of financial necessity. Non-disclosure is a mechanism to protect schemes from selective behaviour.

(b) Complaint #2 - Stakeholder 2: Beta Medical Scheme

Alleged Non-Disclosure by the Respondent

The Scheme can argue that Member B failed to disclose a crucial medical condition …

…which was not provided in her application for membership reinstatement.

The Scheme can argue that this information is crucial and was withheld by Member B during her membership application and that it is unreasonable to expect medical schemes to analyse all previous claims of fragmented cover for possible diagnoses to apply possible underwriting to.

Breach of Membership Rules

The scheme can argue that Member B's failure to disclose relevant medical information constitutes a breach of the Scheme's rules and regulations.

Such a breach could be seen as grounds for membership cancellation, especially if non-disclosure is considered a material factor in the decision to provide coverage.

Cancellation of Membership

As a result of the alleged material non-disclosure, the scheme decided to cancel Member B's membership.

The scheme therefore has the right to refund the contributions Member B paid from the inception of her membership until the cancellation…

…and can refuse to cover the medical expenses incurred during this period.

Adherence to Membership Criteria

The scheme can argue that adherence to strict criteria for membership, including accurate disclosure of medical history, is essential for the proper functioning of a medical scheme and the application of underwriting to protect the scheme from anti-selection.

The scheme could emphasise the importance of accurate information in assessing risk and providing fair and consistent coverage to all members.

Duty to Mitigate Risks

The scheme can argue that, as a medical scheme, they have a duty to mitigate risks and ensure the financial sustainability of the scheme for all members.

They could argue that Member B's non-disclosure posed a potential risk to the financial stability of the scheme, and cancellation was a necessary step to manage that risk. The scheme must consistently apply the non-disclosure rules to avoid any accusations of favouritism.

Legal Obligations and Compliance

The scheme can highlight their legal obligations under the Medical Schemes Act and other relevant regulations.

The scheme can argue that the cancellation was in line with regulatory requirements and aimed at upholding the integrity of the medical scheme. The scheme must protect itself rigorously from unlawful selective behaviour by members regardless of their underlying motivations.

Consistency in Decision-Making

The scheme might emphasise that their decision to cancel Stakeholder 1's membership was consistent with how they handle cases of material non-disclosure.

The scheme could present evidence of similar cases where membership was cancelled based on similar grounds.

Fraud

The scheme could argue that the non-disclosure was a deliberate act of fraud, rendering the entire contract between the scheme and the member null and void. It could provide evidence that the member knew about her condition yet deliberately and knowingly withheld this information when she signed the application form.

No obligation to verify

The scheme could argue that it has no statutory obligation to verify or check whether information provided by members on their application forms are accurate. It could argue that it is costly and unpractical to do so, and that the utmost good faith ("uberrima fides") principle applies to the relationship between any a scheme and a member.

(c) Complaint #2 – Potential Actuarial Implications

The actuarial implications of the member's non-disclosure and selective cancellation/reinstatement behaviour are significant. They highlight the need for robust risk management strategies, including effective underwriting measures, proper application of waiting periods, and accurate claims reserving. Actuaries must continuously assess and adapt the scheme's pricing, underwriting, and reserving practices to mitigate the impact of anti-selection and non-disclosure, ensuring the financial sustainability of the scheme while maintaining fairness to all members.

Anti-Selection Risk

The member's selective cancellation and reinstatement of coverage in response to anticipated health needs constitutes anti-selection. This behaviour can distort the risk pool by encouraging higher-risk individuals to join the scheme at times when they expect to incur medical costs, while avoiding membership during periods of low medical need.

Anti-selection undermines the principle of risk pooling, where the costs of medical treatment are shared equitably across all members, regardless of their health status. Actuarially, this leads to an imbalance where the scheme may face higher-than-expected claims costs, impacting the contribution rates for all members.

Impact on Contribution Pricing

Anti-selection raises the expected claims ratio for the scheme. As members selectively join during periods of expected high medical expenditure, the scheme may be forced to adjust its contribution pricing to account for the higher risk. This could result in higher contributions for all members, which could be perceived as unfair, particularly for those who remain continuously covered and do not engage in selective membership behaviour.

Furthermore, if a pattern of selective cancellation and reinstatement is observed across the membership base, actuarial models will need to incorporate these behaviours into the pricing assumptions.

Waiting Periods and Underwriting Measures

The application of condition-specific waiting periods (CSWP) could be problematic if members are not fully transparent about their medical history, leading to potential underestimation of the scheme's risk exposure.

Actuaries will need to assess whether the current underwriting and waiting period practices are sufficient to prevent anti-selection. If non-disclosure or selective coverage lapses are widespread, it may be necessary to adjust the scheme's underwriting guidelines to more effectively identify and manage these risks.

Claims Reserve and Funding Implications

If the non-disclosure of pre-existing conditions results in a higher-than-expected volume of claims, there may be a need to adjust claims reserves. The actuarial team will need to reassess the provision for claims incurred but not reported (IBNR), ensuring that sufficient funds are set aside to cover potential liabilities that arise from previously undisclosed conditions.

This could lead to increased reserves in the short term to account for the claims exposure from members who are rejoining after lapses in coverage or who have failed to disclose pre-existing conditions.

Moral Hazard and Future Claims Behaviour

There is also the risk of moral hazard if members perceive that they can manipulate the system by selectively joining when they need care. This could incentivise further non-disclosure or selective membership, leading to increased costs over time.

From an actuarial standpoint, this behaviour must be closely monitored to ensure that the scheme's sustainability is not compromised by members who systematically avoid paying contributions during periods of low medical need.

Regulatory and Legal Risks

The medical scheme's handling of non-disclosure and selective membership could have regulatory implications. If the scheme is found to have failed to properly apply waiting periods or allow for the fair assessment of pre-existing conditions, it may face legal challenges or regulatory scrutiny.

Actuaries play a role in ensuring that the scheme's risk management practices are aligned with the Medical Schemes Act and any other applicable regulations. Failure to comply could result in penalties, increased scrutiny, or reputational damage to the scheme.

[Complaint #2: Total 10]

Complaint #3

(a) Complaint #3 - Complainant: Industry Association

This question is derived from the Health Funders Association (HFA) complaint to the Competition Commission regarding the high prices charged for COVID-19 Polymerase Chain Reaction ("PCR") tests by the three largest private pathology laboratory groups in South Africa - namely Pathcare, Ampath and Lancet - during the COVID-19 pandemic in 2020 and 2021. In this action, the HFA is representing 35 medical schemes and an effective 5.6 million medical scheme members.

This question dealt with the situation of charges for COVID-19 pathology tests. The situation lended itself to candidates exploring the complexities and uncertainties of the pandemic and how one could approach pricing in this context. Candidates could have also explored how the situation could unfold post Covid once pricing was agreed and how this might have affected medical schemes.

This scenario was reasonably well answered - candidates could have explored the for-profit vs not-for-profit aspect as well as how the pandemic evolved. Better candidates mentioned aspects impacting pricing such as exchange rates.

Financial Relief to Medical Schemes

Refunding the excessive charges for Covid-19 PCR tests to medical schemes, as advocated by the Stakeholder 1, could provide significant financial relief and improve their solvency levels.

The price of Covid-19 PCR tests was excessive for most of 2020 and 2021. As this period coincided with the most significant waves of infection and, therefore, the greatest number of Covid-19 PCR testing, this resulted in substantial additional costs for medical schemes and their members.

The refund would directly impact the financial stability of medical schemes by reducing their healthcare expenses, which were inflated due to the excessive pricing by private pathology groups.

By receiving refunds for overcharged Covid-19 tests, medical schemes can reallocate these funds towards other essential healthcare services, improving their financial health and solvency.

This financial relief would enhance the ability of medical schemes to continue providing comprehensive coverage and care for their members, ultimately strengthening their solvency levels and ensuring long-term sustainability in the healthcare sector.

Compliance with Competition Regulations

The complaint lodged by the Industry Association aligns with competition regulations aimed at preventing anti-competitive behaviour and ensuring fair market practices. The Association could provide evidence of collusion between the 3 large pathology groups in setting the price to be agreed. Ideally the price should have been agreed using a request for proposals or tenders with each pathology group but due to the critical urgency to access testing a price needed to be agreed quickly.

A price point of R850 per Covid-19 PCR test was agreed at the start of the pandemic on the premise that this price would be adjusted downward as the input costs reduced and there was greater clarity in the volume of Covid-19 testing required.

By challenging the excessive prices set by the pathology groups, the Industry Association is advocating for transparency, affordability, and consumer protection within the healthcare sector.

Protection of Consumer Rights

One of the primary objectives of the complaint is to protect the rights of consumers, including medical scheme members who rely on affordable and accessible healthcare services.

National policy consensus at the time of the Covid-19 pandemic in 2020 was that no party should profit from the pandemic and that consumers were to be protected from excessive, unfair, and unreasonable pricing of goods and services during the national state of disaster.

By addressing pricing disparities and seeking refunds for overcharging, the Industry Association1 is advocating for the financial interests and well-being of patients…

…which is in the best interest of all medical scheme members.

Advocacy for Sustainable Healthcare Practices

The Industry Associations actions reflect a commitment to promoting sustainable healthcare practices that prioritise cost-effectiveness and quality care delivery.

The Industry Association wants to ensure that any excessive pricing of Covid-19 PCR tests is refunded to medical schemes for their members' benefit. These recoveries will represent member funds and accrue to the medical schemes reserves.

As Covid-19 was declared a Prescribed Minimum Benefit, medical schemes were obligated to reimburse pathology labs whatever price they decided to charge. Due to the high demand for pathology testing after Covid-19 was declared a PMB there was insufficient time to select designated service providers to manage the risk of exorbitant tariffs.

The reserves have a direct bearing on the ability of schemes to pay claims, and potentially also on future contribution increases for members

By challenging inflated prices for Covid-19 tests, the Industry Association is advocating for a healthcare system that is financially viable, equitable, and responsive to the needs of all stakeholders.

Collaboration with Regulatory Authorities

The Industry Association's collaboration with regulatory authorities, such as CMS, demonstrates a commitment to upholding industry standards and ensuring compliance with legal requirements.

By engaging in formal complaints and investigations, the Industry Association is working towards accountability and transparency in healthcare pricing practices.

(b) Complaint #3 - Respondent: Pathology groups

Analysis of Pricing

The respondent can argue that their pricing decisions were based on detailed pricing analysis, considering factors such as input costs, testing volume, and profitability margins.

They will have to provide insights into the cost structures and pricing models used, demonstrating that the prices set were in line with industry standards and financial considerations.

The respondent can provide evidence of the changes in the input costs over time to justify the decision to reduce the fee at a later stage.

Compliance with Regulatory Standards

Pathology groups can assert that their pricing practices complied with regulatory standards and industry norms.

The regulatory framework governing healthcare pricing will need to be analysed to show that the respondent adhered to legal requirements and competition regulations in setting their prices.

Financial Viability and Sustainability

The respondent can present arguments regarding their financial viability and sustainability, emphasising the need to maintain profitability to ensure continued provision of high-quality healthcare services, particularly where there was a high demand for testing and a low supply of test kits available internationally.

The financial health of the respondent will need to be assessed to demonstrate how their pricing decisions were essential for their solvency levels and operational sustainability.

Industry Competition and Market Dynamics

The respondent may highlight the competitive nature of the healthcare industry and the market dynamics that influenced their pricing strategies.

Market trends, competition levels, and pricing structures within the healthcare sector will need to be analysed to support the respondent's position regarding their pricing decisions.

Ethical Considerations

The respondent can address any ethical concerns related to their pricing practices, emphasising transparency, fairness, and patient care.

The ethical implications of their pricing decisions will need to be evaluated to provide insights into how the respondent's pricing strategies align with ethical standards in healthcare services.

(c) Complaint #3 – Potential Actuarial Implications

As actuaries, it is essential to assess the various financial and risk-related implications of the complaint brought forward by the medical schemes against the pathology laboratories. The issues outlined in the case - ranging from the pricing of COVID-19 PCR tests to the operational and financial sustainability of the medical schemes - present several actuarial concerns.

These implications touch on both the solvency of medical schemes and the pricing structures within the healthcare sector, ultimately influencing future pricing models, risk management, and financial projections for medical schemes and pathology labs.

Impact on Medical Scheme Solvency and Sustainability

Medical schemes are responsible for covering the cost of PCR tests as part of the prescribed minimum benefits (PMBs), and the costs of these tests are largely determined by the pathology labs. The primary concern for medical schemes is the impact of these costs on their solvency ratios and financial sustainability.

The cost of PCR testing, initially set at R850 and later reduced to R500, significantly affects the per capita cost projections of medical schemes. Given that medical schemes must cover the full cost of PMB treatments, they are exposed to pricing fluctuations in services such as PCR testing. The higher

price of R850 per test can lead to substantial increases in the medical scheme's claims experience, potentially reducing the solvency margin and requiring the schemes to adjust premium rates to accommodate the higher costs.

The actuary must review the claims experience, which includes not only the immediate costs associated with the PCR tests but also any future costs arising from the long-term health implications of COVID-19 (e.g., long COVID treatment). Increases in claims costs reduce surplus and could force the schemes to dip into reserves, impacting their ability to meet future liabilities.

An actuary would need to rework the financial models for medical schemes to account for the increased cost burden.

Pricing Risk and Inefficiency Concerns

The agreed price of R850 per PCR test at the onset of the pandemic and its subsequent reduction to R500 raises concerns about pricing inefficiencies and the potential for overpricing.

Given that the three large pathology laboratories dominate the market, there is a risk of monopolistic pricing behaviour. The actuarial analysis should examine whether the pricing of PCR tests was in line with the actual costs of service provision (including overheads, raw materials, and research costs) and whether the price charged during the pandemic was inflated due to limited competition.

Pathology labs may have profited excessively during periods of high demand. An actuarial assessment of these profits should include a detailed review of cost structures, considering whether economies of scale were sufficiently realised or whether excess pricing occurred, thereby leading to super profits at the expense of the medical schemes and their members.

If the pathology labs were able to reduce costs as the demand for PCR tests decreased, the actuary would need to evaluate whether the cost reduction was sufficiently passed on to medical schemes in a transparent manner. This includes assessing whether the reduced price of R500 reflects actual operational cost savings or whether pricing was maintained high due to lack of competition.

Long-term Impact on Risk Pool and Contribution Variability

The medical schemes must adjust their pricing structures to absorb the cost of PCR testing, potentially leading to changes in the risk pool and contribution variations across different age groups and health statuses.

Medical schemes may need to increase contributions for all members to absorb the cost of the PCR tests, even though younger, healthier members are less likely to require testing. This can lead to adverse selection, where younger members, who are less likely to need PCR tests, may opt for cheaper plans or leave the scheme entirely, exacerbating the risk pool's imbalance and increasing the cost burden for older or more vulnerable members.

As younger members exit or downgrade, the overall risk profile of the medical scheme worsens, leading to higher premiums across the board. Actuaries would need to assess the long-term effects of these changes, calculating the potential increases in claims and how these affect the pricing models of medical schemes moving forward.

The actuary should also consider the potential for new health risks arising from COVID-19, such as the need for ongoing treatment of long COVID. This could drive up healthcare costs for medical schemes, which would need to be accounted for in long-term actuarial projections and premium-setting decisions.

Regulatory and Compliance Considerations

The fact that COVID-19 PCR tests were declared a PMB condition, and that all costs related to COVID-19 treatment are to be covered by medical schemes, means that regulatory compliance is a key issue.

The requirement for medical schemes to cover COVID-19 costs at no extra charge to members means that any increases in test pricing directly impact the financial stability of the schemes. The actuary must consider how regulatory changes, such as the classification of COVID-19 as a PMB, affect future pricing models and the adequacy of medical scheme reserves.

The actuary may need to assess whether the pricing practices of pathology labs comply with the spirit of fair pricing and competition, especially in the context of a pandemic. Regulatory bodies may impose stricter pricing controls or adjustments based on the actuary's findings.

Sensitivity Testing and Scenario Analysis

Given the uncertainty around COVID-19, its variants, and the long-term health implications, sensitivity testing should be conducted to explore various scenarios related to future claims costs.

This involves examining multiple scenarios to assess how changes in PCR test prices, healthcare usage, and risk pool demographics affect medical schemes' solvency and financial sustainability over time. Actuaries should assess the potential long-term effects of these changes and advise medical schemes on how to adjust their pricing structures accordingly.

Actuaries should perform stress testing to model worst-case scenarios where PCR test prices remain high or the risk pool deteriorates, impacting the solvency ratios and financial health of medical schemes.

[Complaint #3: Total 10]

Complaint #4

This scenario is derived from a court case between Discovery Health Pty Ltd (Complainant) and the Road Accident Fund (Respondent) with case reference number 2022/016179.

This question dealt with the Road Accident Fund wanting to reject all claims for motor vehicle accidents for members of medical schemes. The question tested the principle of subrogation which is a fundamental insurance concept. Candidates were expected to understand the nature of Road Accident Fund liabilities and how this inter-relates with medical schemes.

(a) Complaint #4 - Complainant: Medical Schemes Administrator A

Unlawfulness and Inconsistency with the RAF Act

Stakeholder 1 can argue that the directive is unlawful and inconsistent with the provisions of the Road Accident Fund Act 56 of 1996, specifically provision 17…

…which imposes an obligation on the RAF to pay a claimant proven damages, including past medical expenses.

The rejection of claims for past medical expenses is deemed to infringe on the rights of the complainant, its client medical schemes, and their clients, as they have a right to have members' claims assessed and processed lawfully and in accordance with the RAF Act.

Most medical schemes provide for the handling of motor vehicle claims in their rules, holding that members of medical schemes can claim compensation from the RAF for such claims, and any future healthcare services which may arise.

Where the RAF is responsible for claims which a medical scheme has paid in terms of its rules and the Medical Schemes Act, that the RAF should refund to such medical scheme the amounts paid.

Therefore, members of medical schemes who would have claimed directly from the RAF and received compensation for such claims, must also pay such amounts back the medical scheme.

While a scheme member may have double coverage through the RAF and medical scheme, they are not legally allowed to benefit twice i.e. have healthcare service costs reimbursed by the scheme and receive a payout from the RAF. This is known as double insurance.

Principle of subrogation: once the medical scheme reimbursed the member for medical expenses emanating from a motor vehicle accident, the member's right to claim from the RAF transfers to the scheme.

Harm to Claimants and Medical Aid Schemes

The Complainant can argue that the rejection of claims for past medical expenses is expected to cause harm to claimants and medical aid schemes.

The Complainant can argue that this rejection would lead to medical aid schemes no longer receiving reimbursement for past medical expenses incurred for their clients, resulting in significant, unplanned loss of income and potential increases in monthly contributions.

The Complainant can argue that members would also be prejudiced as they contribute to the RAF fuel levy but may not receive full compensation from the RAF in the event of sustaining injuries caused by the negligence of a driver.

The Complainant can argue that medical aid schemes might find it viable to exclude claims for medical expenses arising from motor vehicle accidents, which would undermine the purpose of the schemes as members would be forced to incur costs upfront and claim later.

The Complainant can argue that the Respondent is attempting to shift some of its legislated and taxpayer-funded liabilities onto private medical schemes.

Urgency

The Complainant can prove the urgency of the matter, and present letters from senior claims officials of the RAF to attorneys of some claimants, indicating the imminent harm to claimants and medical aid schemes if the directive were implemented.

(b) Complaint #4 - Respondent: Road Accident Fund

Compliance with the Road Accident Fund Act

The Respondent can argue that the directive complies with the provisions of the Road Accident Fund Act 56 of 1996, particularly section 17, which imposes an obligation on the RAF to pay a claimant proven damages, including past medical expenses.

No Double Compensation

The Respondent can argue that the purpose of the RAF Act is to provide maximum protection to persons who suffer loss or damage as a result of negligent driving or unlawful conduct in the driving of a motor vehicle.

The Respondent can argue that allowing medical schemes to be reimbursed for past medical expenses would result in double compensation for the claimants, which is not allowed under the RAF Act.

Fairness and Equity

The RAF can argue that the directive is fair and equitable, as it aims to prevent double compensation for claimants who received payments from both the Respondent and their medical schemes for the same past medical expenses.

The Respondent can argue that allowing the reimbursement of past medical expenses by medical schemes could result in an unjust enrichment of the claimants at the expense of the Respondent.

Prescribed Minimum Benefits

The Respondent can argue that when road accidents result in emergency medical conditions, then the Claimant should be responsible for the payment of the medical expenses as per the Prescribed Minimum Benefit (PMB) regulations, which are the obligations of medical schemes in terms of the Medical Schemes Act.

Medical Schemes cannot claim from RAF

The Respondent can argue that medical schemes and their administrators have no right to directly claim from the RAF.

Only the road accident victims have the right to compensation from RAF.

(c) Complaint #4 – Potential Actuarial Implications

Claims Reserves and Liability Management

If the RAF continues to cover medical expenses for non-medical scheme members while medical schemes absorb the costs for their members, there may be a distortion in the RAF's reserve calculations. The RAF would be required to estimate the future liability for medical expenses across a larger pool of claimants. This would involve projecting both current and future medical costs for road accident victims.

RAF actuaries should implement separate reserving methodologies for different types of claimants (e.g., medical scheme vs. non-medical scheme members) to ensure accurate future liability estimation. If RAF chooses to not reimburse medical schemes, their reserve methodology should factor in the cost-shifting effect to medical schemes and potential delays in recovery.

Medical schemes, if denied the right to claim RAF reimbursements, will face increased costs, which could strain their reserves, especially for high-cost accidents. This could result in a need to increase contributions to cover the higher medical claim exposure.

Actuaries working with medical schemes should project the future financial strain caused by the potential loss of RAF reimbursements. Contributions increases should be forecasted, and their impact on member retention should be modelled, including the potential for lapses or buy-downs in coverage.

Pricing Adjustments

If medical schemes are unable to recover costs from the RAF, the additional cost burden will need to be absorbed by the medical scheme members. This would likely lead to higher contributions, especially for members who have a higher likelihood of incurring road accident-related medical expenses.

Actuaries would need to revise the pricing models of medical schemes to account for this additional cost. This might include recalculating the expected cost of medical claims associated with MVAs. The elasticity of demand for medical scheme memberships should also be considered to understand the potential for lapses in coverage or changes in coverage levels due to rising contributions.

The increased contributions could lead to adverse selection, where only high-risk individuals remain in the scheme, potentially raising the average claims cost. Actuaries must evaluate how this could affect the stability of the medical scheme's risk pool over time.

Actuarial techniques like cohort analysis and experience rating can be used to segment the population and more accurately predict future claims costs, based on member demographics and historical accident data. This segmentation can help the medical scheme adjust its pricing strategy accordingly.

Moral Hazard and Claims Frequency

One of the most significant actuarial concerns is the moral hazard posed by the possibility that medical scheme members could be incentivised to claim from the RAF for non-fatal accidents. If members believe they can receive reimbursement from RAF for medical expenses already covered by their medical schemes, they might have less incentive to moderate their accident-related behaviour.

Actuaries should model the potential increase in claims frequency due to moral hazard. This could involve adjusting the claims frequency assumptions within the RAF's pricing and reserving models. Additionally, actuaries could explore introducing safeguards in the RAF claims process, such as more stringent claim verification and post-accident auditing, to limit the possibility of frivolous claims.

Sustainability of RAF and Medical Schemes

If RAF continues to cover medical expenses for road accident victims, including those already covered by medical schemes, the additional claims could severely strain RAF's finances, especially if the number of claims increases due to moral hazard or other factors.

Actuaries need to model the future liabilities of the RAF under various claim frequency scenarios, particularly the potential increase in non-fatal claims. This could involve stress-testing RAF's financial position by considering adverse conditions, such as economic downturns that might lead to an increase in road accidents or claimants seeking to recover medical costs from RAF rather than their medical schemes.

If medical schemes are forced to absorb the full cost of road accident-related medical expenses without the ability to recover costs from the RAF, their financial sustainability could be compromised. Actuarial projections must assess the ability of medical schemes to maintain solvency under these increased financial burdens.

Actuaries should conduct solvency assessments to determine the adequacy of medical scheme reserves under the new liability structure. The ability of medical schemes to meet future claim liabilities while maintaining affordable premiums is critical. This could include evaluating the reserve levels required to cover medical claims in high-risk accident scenarios, considering future healthcare cost inflation and accident frequency.

Impact on Member Behaviour and Contribution Stability

The potential for increased contributions and the associated cost burden may lead some members to reduce their coverage levels or lapse their memberships entirely. This could create volatility in the membership base, further straining the financial stability of both the RAF and medical schemes.

Actuaries should analyse the impact of contribution increases on member retention using lapse models, which take into account various factors such as price sensitivity, member demographics, and economic conditions. Understanding the likelihood of selective lapses or downgrades in coverage is essential for both RAF and medical schemes to price and reserve for this risk effectively.

Policyholder and Public Perception

If public opinion supports denying medical schemes the right to claim from the RAF, there could be political pressure to change the rules governing the RAF. This could result in increased regulatory oversight, which may influence the actuarial assumptions used to model claims.

Actuaries must stay informed about potential policy changes and adjust their models accordingly. This could include modelling different regulatory scenarios, such as changes in the structure of the RAF or the introduction of new guidelines regarding claims eligibility and coverage. Additionally, actuaries should assist in communicating the financial implications of such policy shifts to stakeholders in both the public and private sectors.

[Complaint #4: Total 10]

Complaint #5

(a) Complaint #5 – The Complainant: Medical Schemes as raised by an anonymous Whistleblower

This situation is derived from an email sent to more than 50 principal officers of some of South Africa's largest medical schemes. The email was sent from a person who claims to be a former Mediclinic employee. It contained detailed information about what the person claimed to be their experience as a former clinical case manager at six Mediclinic hospitals in the Western Cape and Gauteng and alleged that there was manipulation of specific billing practices including for alternative reimbursement models and intensive care unit billing.

This question covered the situation whereby a hospital group was accused of alleged billing fraud for their alternative reimbursement models. This matter was well publicised, and candidates were expected to be able to respond from first principles if they were not familiar with the situation.

The question tested understanding of alternative reimbursement methods for hospital billing and how billing fraud might occur. Unfortunately, candidates demonstrated little to no understanding of how ARMs work in practice and how billing fraud could occur.

Codes changed for more lucrative billing

When a member needs to be admitted to hospital, they will need authorisation from the medical scheme to be admitted. These authorisations require the reason for the admission in terms of an ICD-10 diagnosis code as well as any planned surgical intervention in terms of a CCSA procedure code. These codes are used to determine whether the admission should be funded and whether this funding should be determined on a fee-for-service basis or part of an agreed fixed fee. The Whistleblower alleged that staff at Mediclinic changed these codes to avoid being reimbursed the fixed fee and rather receive fees for services provided, particularly when these cases had higher costs than the fixed fee rate.

Therefore, additional medical scheme member funds may have been acquired by the Respondent, which would then be through fraudulent means.

The consequences of these fraudulent transactions would have led to scheme members suffering premature exhaustion of their funds, leading to unnecessary out-of-pocket and catastrophic health expenditures.

The consequences of these fraudulent transactions are the unjustified increase in claims paid from the risk pool with consequences for future contribution increases and potentially putting the scheme at financial risk.

Quantify the extent of the fraud

An actuarial assessment could involve estimating the magnitude of these losses, considering the funds paid by medical scheme members and the potential financial harm incurred.

This would assess the impact on medical scheme members, including the potential depletion of their policy's funds available for the beneficiaries and the financial consequences of fraudulent billing.

Recovery and Restitution

Actuarial considerations would involve assessing the feasibility and effectiveness of recovering any misappropriated funds.

The medical scheme administrators call for comprehensive investigations and restitution aligns with actuarial principles, emphasising the importance of quantifying and returning the funds to their rightful owners.

Reassessment of Contract Terms

Medical schemes may feel compelled to reassess existing contracts with the Respondent considering the allegations. They might scrutinise the terms related to billing practices, fee structures, and compliance with regulations.

Depending on the outcome of the investigations, medical schemes may enter negotiations with the Respondent to revise contractual terms. This could involve renegotiating pricing structures, ensuring transparency in billing practices, and incorporating stricter compliance clauses.

It is unlikely that the Respondent will be outright abandoned from hospital networks so as not to comprise on healthcare access.

This will depend on the geographic spread of the existing hospital network, and to what extent this will be compromised in the absence of the Respondent.

(b) Complaint #5 – The Respondent: Hospital Group A

Lack of Intent

Stakeholder 2 could argue that the employees involved in the alleged fraudulent activities did not have the intent to defraud the medical schemes or patients but rather to receive reimbursement in line with actual costs of providing healthcare services.

They may have believed that their actions were within the bounds of acceptable and fair practice or that they were following company policies.

Stakeholder 2 may argue that any billing discrepancies were unintentional errors, rather than deliberate fraudulent activities.

This will have to be cross-checked between the external healthcare providers billing and that of the hospital on a case-by-case basis.

Individual group members acting without a group mandate

Stakeholder 2 could argue that incorrect billing practices were not systemic across the group and happened on an individual hospital level.

Stakeholder 2 may therefore argue and/or demonstrate that this behaviour was not mandated or endorsed by the group in any way.

Stakeholder 2 may indicate its intention to investigate individual hospitals' behaviour and take corrective action, including disciplinary action against any employees associated with this behaviour.

Lack of Knowledge

Stakeholder 2 could argue that the employees were not aware that their actions constituted fraud.

They might have been unaware of the specific laws and regulations governing healthcare billing or the potential consequences of their actions.

Significance

Stakeholder 2 may argue that the alleged gains, if any, were not material or intentional, emphasising that their billing practices are in line with industry standards.

Quantifying the alleged gains resulting from the billing practices could include an assessment of the financial impact on Stakeholder 2, considering any potential cost savings achieved through the manipulation of billing codes.

Reputation Management

Actuarial considerations extend to evaluating the long-term impact on reputation.

Stakeholder 2 might emphasise their commitment to maintaining a high standard of ethical conduct in the healthcare sector. An actuarial analysis could involve assessing the potential reputational damage and devising strategies to mitigate it.

(c) Complaint #5 – Potential Actuarial Implications

These implications primarily concern the accuracy, sustainability, and financial health of the medical scheme, especially when it involves the use of Alternative Reimbursement Models (ARMs) and the potential for fraudulent claims or improper billing practices by healthcare providers.

Financial Sustainability of the Medical Scheme

The complainant's argument hinges on the assertion that the hospital group's practices may have led to increased claims costs through fraudulent manipulation of conditions and carve-outs. If these allegations are substantiated, the medical scheme may face a substantial financial burden.

Fraudulent claims and inappropriate carve-outs could lead to higher-than-expected reimbursement costs. This would impact the overall claims pool and could force the medical scheme to review its pricing structure to account for unexpected expenses. If the scheme fails to adjust its contribution rates in a timely manner, it may experience solvency issues, which could threaten the scheme's ability to meet its obligations to members.

Actuaries involved in pricing for medical schemes must ensure that their pricing models reflect the potential risks introduced by ARMs. If the hospital group is found to be manipulating claims, the scheme's actuaries may need to revisit their reserving and pricing assumptions, which could lead to an increase in premiums to cover the higher-than-expected costs. Alternatively, if a significant number of claims are clawed back, actuaries must also adjust their reserves accordingly.

If fraudulent or inappropriate claims are discovered, the scheme may be required to set aside additional provisions (reserves) to cover potential future claims. This could impact the scheme's solvency position. Actuaries must perform stress testing and scenario analysis to determine the impact on solvency and the scheme's ability to meet its obligations.

Risk Management and Financial Forecasting

The use of ARMs introduces an element of risk transfer from the medical scheme to the healthcare provider.

ARMs are designed to provide predictable cost structures for healthcare providers and payers. However, any discrepancies in billing, such as fraudulent claims or unjustified carve-outs, can increase the uncertainty around expected claims costs. Actuaries must factor in this potential for increased volatility when developing claims cost forecasts. They may need to review whether existing ARMs have been

priced accurately, considering the full spectrum of medical services and carve-outs, to ensure that the model remains financially viable.

The actuarial profession plays a crucial role in identifying potential weaknesses in fraud detection systems. If there is a suspicion that fraud is taking place, actuaries should work closely with auditors and other stakeholders to perform thorough reviews of claims data, looking for patterns or anomalies that may indicate fraudulent activity. This could involve using data analytics to identify outliers or trends in claim severity and frequency that deviate from expected patterns under the ARM model.

ARMs often transfer some level of risk to the healthcare provider. If the provider manipulates the system, it may alter the risk-sharing agreement, undermining the cost predictability intended by the ARM. Actuaries must ensure that the ARM is properly designed and that all relevant risks, including the potential for fraudulent manipulation, are accounted for in the risk-sharing arrangement. This includes adjusting for risk margins in the pricing of ARMs and ensuring that the scheme's solvency is not jeopardized by unforeseen costs.

Actuarial Review of ARM Design and Contract Terms

The actuaries need to examine whether the ARM agreement with the hospital group has been appropriately designed and priced.

The presence of carve-outs in the ARM may be legitimate, but the scope and application of carve-outs need to be reviewed to ensure that they are aligned with the scheme's cost structures. Actuaries must assess whether the pricing assumptions regarding carve-outs were correctly estimated and if they provide adequate compensation to the hospital without incentivizing the overuse of carve-outs. For example, certain complicated cases or high-cost procedures may require separate billing, but the actuary must ensure that such carve-outs do not inflate costs beyond what was intended.

To ensure the competitiveness and fairness of the ARM, actuaries should compare the terms and reimbursement levels of the hospital group's ARMs with other providers in the market. If the hospital group's ARMs are found to be overly generous or non-compliant with standard practices, this could lead to an overpayment of claims and undermine the sustainability of the scheme. Actuaries must use benchmarking data to identify any discrepancies and ensure that their contracts are financially sound.

Reputation and Member Retention

The discovery of fraud or improper billing practices by the hospital group could significantly impact the reputation of the medical scheme.

If members become aware of potential fraud or malpractice, they may lose trust in the scheme, leading to a loss of members or increased churn. This may require the scheme to adjust its pricing and benefit offerings to retain members, potentially leading to higher contributions or changes in benefit design. Actuaries must factor in these behavioural responses when developing pricing models and forecasts.

A public scandal related to fraud could harm the scheme's reputation and make it difficult to attract new members. Actuaries should assess the potential financial impact of reputational damage and incorporate this risk into their financial models. This may include adjustments to expected membership growth and contribution rates.

Operational Considerations

Actuaries should also consider the operational effectiveness of the scheme's claims processing and fraud detection systems.

Actuaries may recommend the implementation of more robust claims auditing and monitoring processes to detect and prevent fraud at an early stage. This may include setting up automated systems to flag

unusual claims patterns or incorporating advanced analytics to identify outliers and anomalies in the claims data.

If the hospital group is found to be engaging in fraudulent practices, the scheme will need to update its fraud detection models to address new threats. Actuaries must work with fraud detection experts to revise these models and improve the accuracy of future claims assessments.

[Complaint #5: Total 10]

QUESTION 2

Question 2(i)

Question 2(i) required candidates to discuss the contribution structure change and its impact on members.

Candidates did reasonably well in this question speaking to each of these aspects. Some of the candidates spoke about generic projections and pricing rather than costing the change in contribution structure.

Regarding exam technique, this was a "discuss" question and several candidates gave data lists which did not attract marks. Several candidates assumed that the scheme is small because it is restricted which need not be the case. Others repeated pricing detail and processes in Questions 2(i) and 2(iii).

You would need to get information on the current contributions

How many families are on the M, M+1,… structure

Here you would also need information of the family structure

i.e. how many main members there are, how many adult and child dependants there are

This information may not be available and may need to be requested from the employer. If the employer does not have this information then assumptions on the family composition will be required.

you should group beneficiaries into homogeneous family groups based on their PAC composition

In addition, you would need information on the salaries and deemed pension for each main member

This is then assigned to the member contribution structure

Once again you would need to group each family group by income level

Taking account of the minimum and maximum salary thresholds

Using this one can estimate the theoretical income that the Scheme would be expected to earn on the current family size based structure. This theoretical amount should be checked against the scheme financial statements for reasonability. No adjustments for Later Joiner Penalties should need to be applied due to the mandatory membership of employees but possibly for their dependents.

The actuary must give consideration to the number of income bands that should be created in the new structure

…noting that fewer bands will be administratively simpler, but with the disadvantage of subjecting members to larger changes (positive or negative) upon conversion

Consider performing some industry benchmarks to ascertain the number of income bands commonly encountered in other medical schemes, as BMS may want to align with industry practice.

Open schemes tend to have fewer income bands than restricted schemes. If BMS considers an amalgamation with an open to scheme to be a possible future scenario, it may want to start aligning its contribution structures to that of open schemes.

Next you would need to calculate the expected income from the new PAC structure.

Here you would need to set a base contribution for the main member and assign a factor for the adult dependant and the child dependant

The current factors are likely the starting point to try to minimise large shocks to certain groups of members

On this basis you can estimate the expected contribution income to the scheme

If this contribution is more or less than the current income the factors could be adjusted to allow for a neutral income position for the Scheme

100% of the main member, 60% of main members contribution and 30% for the child dependant

However, one would need to ensure that the impact on an individual family is not significant

Hence there would need to be an assessment of the before and after position of each family

Since one family may have more adult dependants than others and so may have an increased impact

While a family with more child dependants could see a drop in contributions, particularly if there is a limit on the number of children charged for.

This could also result in more child dependants joining the scheme as it is now more affordable.

Hence there would need to be several iterations of the contribution factors to establish the correct balance.

This may also result in a situation where the total income for the Scheme may change and how this would be accepted by the Board.

[Question 2(i): Total 10]

Question 2(ii)

Question 2(ii) was a short question that was relatively well answered asking for the advantages and disadvantages of the changes. Some candidates gave the same points under advantages and disadvantages while others focused on marginal aspects such as staff training.

Advantages

Fair assignment of contributions based on family structure which is better correlated with expected healthcare costs.

Children generally claim less so should pay less than adult members

Single parent families would pay less than previously since they would be paying the child contribution

The majority of the membership should be unaffected

The scheme may be able to increase contributions

Aligns with industry practice

…which may also assist if an amalgamation is to be considered at any point in the future

Disadvantages

Families with more adult dependants would end up paying more than under the previous structure

It may take time for the membership to understand the changes

Additional effort and cost would be incurred by the scheme to communicate the changes

Additional cost in systems development would be incurred

The scheme may see a decline in contributions overall…

…Which could have a negative impact on the scheme's sustainability

…Which would be potentially "hidden" by the artificial increase in solvency.

…Ultimately resulting in an actuarial death spiral if not corrected.

[Question 2(ii): Total 5]

Question 2(iii)

Question 2(iii) required candidates to understand the interrelationship between the salary and contribution structure and how contributions could have increased more than the 5%.

The question was poorly answered which may have been due to time constraints (if they spent excess time in Q1 and/or previous parts of Q2).

The question was application and higher order with candidates needing to explore the salary and contribution structures in detail and explain the impacts. Many candidates provided very brief answers and should/could have explored the various changes in more detail.

As a result of the Schemes contribution structure, a detailed generic communication letter to all members, covering all aspects with regards to the contribution increase as well as an individual letter explaining the new applicable contribution for each member.

One would need to establish the different scenarios to enable a member to establish which scenario would affect them.

For example, each member's personal salary / pension increase might have been different than the overall stated average.

Also, some members might have moved from one income threshold in the contribution table to another,

either when they received their salary / pension increases, or when the contribution increases were implemented.

The Scheme's contribution cycle runs from 1 September until 31 August each year, and contributions are linked to salary.

This arrangement worked well in the past before the COVID-19 pandemic and other salary adjustments, when the dates for contribution and salary increases always coincided.

However, in 2022 salary / pension increases occurred on different dates than the contribution increases.

This resulted in the complex determination of contribution increases with various nuances, depending on from whose viewpoint it is considered.

One view of the contribution increase is the stated approved contribution increase of 5.0% that was communicated to all members in due time.

This increase was measured by considering the difference between the global total contribution amount received by the Scheme for the period before and after the deemed contribution change.

However, the effective increase to the member would not be the same due to the salary adjustments and so a higher effective contribution increase.

Calculating the required Scheme contribution increase

The Scheme actuary will need to determine the actual contribution income expected (and received to date) before the increase date.

And how much the scheme will need to cover claims and expenses increases and remains financially sustainable (solvent).

[Some points on Covid under-utilisation and reversion to pre-Covid claims levels should be added here]

This is then the target increases for the next contribution cycle

Here it is important to model the timing of the contribution increase in light of tariff inflation (which would be different from the contribution increase)

Similarly, the timing of any increases in contractual expenses such as administration and managed care fees.

In addition, one would need to account for any investment income earned and if there are implications for dated investments.

Complicating the increases is the additional impact of the back dated salary increase by the employer since this means that the member will need to pay a higher contribution at this point in time.

So in effect instead of the increase of 5.0% as communicated, members will see the effective increase of approx. 11.0% (5.0% for contributions, 5.0% for the annual salary increase and 1.0% for the backdated changes for some members)

Determining the actual contribution increase for members

There are a number of considerations that need to be undertaken.

The member contributions in August 2022 reflected a back dated salary increase of 1.0% in June 2022.

One must consider here that only members earning below the R24,000 maximum deemed salary would have paid a higher contribution since those earning more would have a capped contribution.

Similarly, those earning below the minimum salary would also not have had any change in contributions…

…Unless the salary increase moved them above the minimum threshold

Furthermore, the annual salary increases of 5.0% would have no impact on the contributions for those above the maximum threshold.

But could, again, push those under the minimum threshold above that threshold.

However, this is mitigated by the commensurate adjustment to the threshold levels.

So those impacted the most would likely be those between the contribution thresholds by the impact of the salary increase in addition to the contribution increase

While those above and below the thresholds would only experience the 5.0% contribution increase.

[Question 2(iii): Total 15]

Question 2(iv)

Question 2(iv) was a higher order question asking candidates to discuss the cross subsidy between the younger engineers and the other members.

Better candidates explored the nature of the engineers from a surplus perspective and different ways in which they might be able to be accommodated. In doing so, it was important to discuss the drawbacks, for example opening a new lower costing option for the engineers would involve reduced contribution income to the scheme.

Introduce a new hospital only option

Noting that the scheme is traditional and has comprehensive benefits one could consider the introduction of an option with a less rich benefits set.

This could be an in-hospital benefit only with an associated medical savings account (MSA) and coverage for out-of-hospital PMBs.

Creating an in hospital option would mean that there are no out of hospital benefits other than through the MSA and PMBs.

But out of hospital benefits are generally the benefits that the engineers would want to use and so may not be ideal since the MSA may be insufficient to cover the demand.

For example, optometry, dentistry and acute medication would be preferred benefits.

However, these benefits are highly used and thus the removal of these benefits would reduce the contributions significantly.

The scheme could this consider a block set of benefits for preventative and necessary primary care; e.g., retain the benefits that are likely to be needed, as above, since this would ensure that the members don't avoid the care they need and their health deteriorates

E.g. they avoid using their savings when they think they have flu but in fact they have pneumonia.

Consideration would need to be given to the in-hospital benefits.

This could be PMB level of care,

But likely not meet the needs of the engineers.

With less rich benefits where claims are not expected to be needed, e.g. hip and knee replacements

But for with some additional attractive benefits like enhanced maternity benefits.

The disadvantage of creating a new option is that the scheme starts splitting its risks and lose the cross-subsidy from the younger engineers to older less healthy members. As options are required to be self-supporting as per section 33(2)(b). Thus, while this could address the engineers' expressed desire for a more affordable option, it will result in cost increases to the remainder of the scheme.

The CMS is not generally supportive of the creation of new options (as reiterated in Circular 35 of 2024) – especially in the case of smaller restricted medical schemes – so the viability of this approach may depend on the size of BMS.

Introduce an EDO

The scheme could introduce and EDO or combination of EDOs

For example, a network of hospitals and/or chronic medication providers.

This would result in the same parent benefit but allowing for network selection would allow for some contribution reduction through contracting the providers at lower rates.

We don't know if there are any networks in place now to guard against PMB risk so the level of discounts from providers may not be significantly different from the current options.

However, if the scheme has contracted providers for PMB risks then this could be at higher rate that the scheme rate so contracting with other providers on a restricted basis could result in a noticeable reduction in cost and so contributions.

A careful analysis of the utilisation patterns of the engineers would be required to see if this is a viable option since if the networks are not constructed well then there will be no take up which could have a negative impact on the future network negotiations.

For example, if there is an agreement that one hospital group will be the anchor group for hospitalisation, providing a large discount, and there is little foot fall into their facilities, they are likely to be less inclined to negotiate better rates in the future.

Furthermore, if this is a geographically isolated employer there may not be the ability to craft a network so as to negotiate any discounts from providers

Thus limiting the ability of the scheme to gain sufficient tariff savings to meet the need to reduce the contributions to the point where the engineers would be satisfied.

One would need to get at least a 10% reduction in contributions for CMS to be satisfied to allow the EDO to be introduced

But the engineers my want a deeper reduction in their contributions.

An advantage of the EDO approach over the new option approach is that it should not fragment risk pools. To the degree that the EDO discount is truly reflective of the actual efficiencies underpinning the EDO networks, the scheme will not lose its existing cross-subsidies from the engineers to older and unhealthier members.

The CMS may resist introduction of an EDO for a smaller restricted scheme.

Revisit the contribution bands

Part of the problem could be that the engineers' contributions are a percentage of salary and so the pure nature of their level of income results in a higher absolute contribution. Which is directly part of the social solidarity principle.

However, a fixed percentage of salary may be too severe for this group.

There may be a potential to re-examine the mechanism to determine the contribution that they pay.

E.g. there could be a sliding scale in which the percentage of salary would decrease as one earns more

But given these are professionals it is likely that they are already near the upper threshold, and this would unlikely be effective.

However, consideration could be given to increasing the upper threshold so that the even higher income earners would pay more than what they are limited to by their cap since the contribution would now relate to more of their income,

This would allow for the overall contribution income percentage to reduce and have an immediate reduction to all members below the new threshold,

The actuary would need to model this and provide scenarios on the impact of this change as to

The reduction for the lower earning members; is this enough of a reduction to satisfy the demands and,

So that the increase to the higher income earners is not too high to make it now unaffordable to the higher income earners.

General considerations

The size of the group is large and young so are likely those that are contributing heavily to the sustainability of the scheme.

i.e. they are likely paying more than they are claiming, on average, since at this age they are well below a normal scheme average.

Furthermore, they are professionals so are likely to be close or above the upper contribution threshold.

So the combination of this suggests that they are providing a large cross-subsidy to the scheme.

Hence the actuary would need to assess for any option selected that the sustainability of the scheme is not put at risk.

Allowing this group to have a different choice to the other employee could have an impact on the employer's conditions of service and so may result in a complicated HR process.

Furthermore, allowing one group to succeed in their request sets a precedent to which the employer and scheme would potentially need to allow in the future.

The scheme's overall value for money should be considered. Despite the engineers' concerns, they may well be receiving better value for money than they would have been able to procure in the open scheme market – as is often the case for restricted medical schemes.

It may be possible to persuade the engineers through better communication and benchmarking efforts that they are receiving good value for money in BMS and that no restructuring of the scheme is needed.

Does the employer presently have a condition of employment? If so, the engineers' demands may increase pressure on the employer to open up freedom of choice. This could result in anti-selective withdrawals that could be detrimental to the scheme. The scheme may need to consider demonstrating the potential impact of opening up freedom of choice on the scheme through an actuarial analysis.

[Question 2(iv): Total 20]