

**Actuarial Society of South Africa**

**EXAMINATION**

2 November 2012 (am)

**Subject F201 — Health and Care**

**Specialist Applications**

**EXAMINER'S REPORT**

### Question 1

*This question revolved around a struggling company with an associated restricted scheme and a post-retirement healthcare liability.*

(i)

*This question was well answered as it is based on book work.*

*Knowledge – p323 of core reading*

#### **Economic assumptions**

Discount rate

Health care cost inflation

...or rate of increase in the fixed amount subsidy

Expected rate of return on plan assets (if any are held)

Income in retirement

#### **Demographic assumptions**

Withdrawals from employment

Withdrawals from medical scheme membership (“resignations” would also be acceptable)

Mortality before and after retirement

Retirements, normal and early

Marital status at death/retirement

Spouse’s age difference

Medical scheme option in retirement

Past service (if actual not available)

*Additional credit (not in core reading)*

Impairments of early retirement due to ill health

Average number of child dependents at retirement

Ages at which children cease to be dependents

Continuation rate (the percentage of employees who opt to remain on the scheme at retirement).

(ii)

*The examiners expected candidates to describe all factors that may be relevant to an assessment of the future sustainability of the medical scheme. Some candidates did not answer the question as it was asked but rather tried to formulate a plan to make the scheme sustainable, or make recommendations based on the limited information provided.*

*Most candidates performed poorly on this question as they did not cover a sufficiently wide range of factors. For example few candidates considered the relative competitiveness of the scheme compared to what may be available in the open market.*

*Candidates also did not consider the factors that may work in favour of sustainability (for example the high solvency level or the low non-healthcare costs).*

*In some cases the candidates did not appear to understand the concept of sustainability.*

*A view expressed in many answers that the employer could unilaterally alter the subsidy policy as it applied to existing employees and pensioners. In reality such a change is likely to require a process of renegotiation which would be cumbersome, if not impossible, to achieve.*

### **Scheme competitiveness**

Need to consider the competitiveness of the scheme’s contributions and benefits compared to any available alternatives.

Even though the scheme is restricted, and participation is a condition of employment, the scheme will come under pressure if it becomes uncompetitive. The employer/employees may demand more affordable (or comprehensive) cover.

This can be done by performing an analysis of contributions and benefits of open schemes that could conceivably be considered by the employer

Contribution comparison is rather straightforward

Benefit comparison could be performed qualitatively, or be done through a detailed actuarial simulation of based on members’ current claims propensities

### **Financial considerations**

What were the causes for the current loss-making position of the scheme?

...is the scheme simply priced too low (which could be determined based on competitiveness analysis above)

...or could did claims perhaps increase by more than could be attributed to demographic deterioration

The scheme’s non-health expenditure is artificially low due to the employer’s artificial subsidy.

The scheme presently has no need to build solvency

In fact the current employer activity may result in increased solvency in the short term

...which may create the illusion that the scheme is healthy when may not actually be sustainable.

The scheme’s non-health expenditure (which is artificially low) as well as the fact that the scheme does not need to build solvency should mean that, all other factors being equal, the scheme’s ability to pay benefits would compare favourably to other medical schemes.

Scheme’s size (risk pool) should be considered

Given the relatively small risk pool, claims experience could be volatile

Although this could be mitigated given the scheme’s relatively high reserve levels

### **Demographic profile**

Should consider the scheme’s demographic profile compared to open schemes, particularly after the sale of business units and retrenchments of staff

These could include age, gender, chronicity (if available), geographic area, income, etc  
Preferably on an option level

Given the history of the scheme, it is likely that several open schemes will have better demographic profiles

Suggesting that they should be more competitively priced and better value for money

The impact of demographic differences could be approximated through a claims curve inferred based on the scheme’s own experience

Which, coupled with the contribution and benefit analysis above, would offer a useful perspective on the extent to which the scheme is hampered by its demographic profile

However, the analysis should be cognisant of the fact that JKL’s condition of employment provides J-Med with a relatively stable population over time, and reduces the risk of anti-selective withdrawals (and anti-selective new business) compared to that of open schemes.

Demographics are likely to deteriorate further when the employer corporate activity (sell-offs, retrenchments) come into effect

If possible, the members that will likely be affected should be identified to allow a quantification of the impact of this

Most importantly, will pensioner members be “tagged along” if divisions of the employer are sold off?

### **Long-term projection**

A long-term financial projection (say 5 to 10 years) should be performed

Inflationary assumptions will need to be considered

...especially the difference between future contribution increases and future claims inflation

...and the utilisation increases supporting claims inflation will be particularly important in formulating this assumption

This could be based on historic trends

Anticipated demographic changes (as discussed above) should be taken into account – as well as JKL’s recruitment plans *after* the imminent transaction & retrenchments

For example, will JKL keep on recruiting to replace retirees in the foreseeable future? This will assist in projecting the ageing, and hence utilisation inflation, in the long-term projection

A long-term projection will allow one to consider to what extent the scheme’s current reserves will be sufficient to cover various membership scenarios (such as the scenario described above) and for how long

As a worst case, one could also measure how long the reserves will last if the scheme were closed to new entrants.

What would be the required period over which the scheme would be required to remain sustainable?

### **Employer developments**

It is important to establish whether more corporate unbundling is likely to occur in the future

And whether the employer has an appreciation or willingness to consider the impact of pensioners when these deals are made

The employer may consider the current effective non-health expenditure subsidy to J-Med to be inappropriate

...especially given that it is selling off all non-core abilities

Should consider what the cost of administration would be in the absence of this subsidy

And whether the scheme would be able to sustain its operations in the absence of this

(iii)

*This question was generally poorly answered.*

*The fact that the liability relates to post-employment subsidies and not the subsidy of employees while they are in active employment was often missed, indicating a poor understanding of the nature of these liabilities.*

*Furthermore many candidates failed to apply the subsidy policy as it was stated in the question and did not allow for the fact that the subsidies for active employees and pensioners are different or that the subsidy only applied to employees who joined the company before a certain date.*

*The examiners were also looking for a clear understanding of the relationship between the liability and the scheme contributions and how this would be affected if a large number of active members were to leave the scheme.*

The PRMA liability is only concerned with employees that had joined before 1 March 1995, as other employees receive no subsidy after retirement

Upon introduction of freedom of choice, J-Med faces a significant risk of anti-selective withdrawals. There are several reasons for this:

- Pensioners are required, by the post-employment subsidy policy, to remain members of J-Med.

- Also, J-Med will find itself competing with open medical schemes which have the resources, infrastructure, brand recognition and broker networks required to actively market to JKL employees
- And these marketing efforts are likely to be aimed at younger and healthier employees
- Whereas waiting periods are likely to be imposed on older and sicker employees/pensioners that choose to move to an open scheme
- In addition, older and sicker members are generally more reluctant to change healthcare cover or move to unfamiliar environments
- Active employees may have much greater incentive to seek an option that costs no more than the fixed amount subsidy.

The demographic deterioration will result in an increase in average claims costs

And, being self-administered, its fixed cost base will be spread across a smaller membership pool

Hence these changes are likely to result in a dispensation where J-Med Trustees have no choice but to increase contributions by more than they would have otherwise

Which in turn will result in a significantly increased PRMA liability (as the post-retirement subsidy is a percentage of contributions)

This dynamic could be offset (reduced) through the fact that some employees who joined before 1 March 1995 might also be affected by retrenchments, resulting in a smaller pool of employees eligible for post-retirement benefits. However, the reduction is likely to be insignificant compared the increase outlined above, because

- the number of pensioners currently eligible for a subsidy remains unchanged; and
- It is unlikely that a significant proportion of active employees has been working at the company for more than 17 years (ie since before 1 March 1995)

The actuary valuing the PRMA liability will need to consider whether new employees are likely to elect to join J-Med (not because these employees will be included in the valuation, but because they will have an impact on future contributions and hence on the liability)

If J-Med is deemed effectively closed to new entrants, the valuation basis may need to be done on a claims basis (rather than a contribution basis) which will result in a significant increase in the amount that has to be provided in JKL’s PRMA liability

Disagree with the suggestion, as this will increase the liability whereas the intention is to decrease it.

(iv)

*This question was also poorly answered.*

*Many answers focused on the factors that typically “would” be considered (for example the temptation to buy a new vehicle with the cash lump sum) rather than what factors “should”*

*be considered as per the question. Many candidates lost out on marks because they only focused on current employees and did not consider former employees.*

*As with question 1(ii) many answers seemed to be based on the belief that the subsidy policy can be changed entirely at the whim of the employer.*

In essence, the decision is about the certainty of a cash offer vs the potential uncertainty of future subsidy payments

The proposed cash discount of 20% proposed by the employer is a significant reduction

Especially considering that JKL will have to continue paying the subsidy indefinitely, over the remaining lifetime of all eligible pensioners

Unless JKL is liquidated somewhere in the future

But, depending on the risk appetite of individual pensioners, receiving the cash today may be preferable to being dependant on JKL to continue to pay subsidies in the long term

Especially given the uncertainty of the fate of J-Med

And the fact that the subsidy is essentially linked to J-Med contributions and membership

The exact definition of the subsidy is important. If it refers to 67% of “J-Med”’s contributions specifically, then this might pose a risk to pensioners if J-Med were to liquidate or amalgamate somewhere in the future. (How would the subsidy policy be interpreted if the pensioners were transferred to another medical scheme?)

If the cash option is chosen, pensioners are also exposed to the risk of the PRMA valuation basis having been too weak (for example, long term medical inflation might outstrip the assumption implicit in the discount rate)

Unless the pensioners are able to use the cash amount to purchase an annuity that will pay for their medical scheme contributions for the rest of their lives (unlikely given the discount) there is also a risk that an individual pensioner may live longer than the average life expectancy implicit in the mortality assumption.

An individual pensioner’s circumstances may therefore also influence the decision. For example, a terminally ill pensioner who is not expected to live much longer will likely view the cash offer as attractive

Should J-Med’s contributions increase over time, pensioners who do not opt for the cash offer will remain liable for the increased 33% portion which they are paying out of their own pockets.

The tax implications should be considered. The lump sum is likely to be taxable if taken as cash in the members’ hands, but not taxable if transferred into, for example, their pension funds

The proposal is to base the cash offer on the previous year’s valuation, which is likely already under-provided

...given that a significant number of active employees are likely to be sold off or retrenched soon

...and given the fact that J-Med is loss-making and likely to need to increase contributions significantly in the future

As well as considering the artificial non-healthcare subsidy into the scheme, which may not last forever

Active employees who do not intend to remain with JKL until retirement may find the cash offer much more appealing since, if they resign, they will receive no subsidy

(v)

*Candidates who were able to generate a wide range of relevant points did well on this question. The fact that many of the answers were quite short for a 15 point question indicated that candidates struggled to generate enough ideas.*

*Some candidates focused too much on the process that would need to be followed in each of the scenarios rather than discussing the likely impact.*

*The impact of liquidation on the financial position of members was typically ignored.*

*Very few candidates believed that amalgamation was a viable option despite the fact that the scheme’s high reserves could be appealing to the right potential partner.*

*The point that the subsidy policy would have to change if the scheme was liquidated or amalgamated with an open medical scheme (because the subsidy is linked to J-Med) was only made in a few answers.*

### **Liquidation**

Liquidation will leave every medical scheme member with a portion of the scheme’s reserves (in cash) and without cover

The distribution of cash could be calculated in a number of ways, but will most likely take the shape of an equal per-capita payment (reserves divided by number of members)

Young and healthy lives will be able to join other medical schemes

Whereas older and sicker lives will most likely be underwritten upon application, subjected to waiting periods

Arguably, the cash reserve portion received by each member could be used to finance the cost of a waiting period

But this is unlikely to be sufficient for very ill members that are subject to e.g. 12-month condition specific waiting periods

The employer will have to reconsider its subsidy policy for employees that joined before 1 March 1995, as J-Med will not exist anymore

If the subsidy is based on legal agreements (such as contracts of employment or another legally binding agreement) then the employer cannot arbitrarily change the arrangement without renegotiation.

These employees could run the risk of forfeiting the entire subsidy, depending on how the initial subsidy policy was worded

Which could form the subject matter for a substantial legal dispute between pensioners and the employer

And could hold a reputational risk to the employer, who may be seen as turning its back on former employees

### **Convert into an open scheme**

This has the advantage that companies recently sold off by the employer *will* still be regarded eligible and could therefore choose to remain members of the scheme, which would have positive implications for the sustainability of the scheme

But is subject to approval of a rule change by the Council for Medical Schemes

And there is no guarantee that companies to whom the business had been sold may choose to support J-Med. Even JKL may withdraw its support of the scheme at some point in the future.

JKL is unlikely to continue to support the administration of J-Med through staff and favourable rent

Especially if this is required to maintain a scheme which now provides benefits to JKL's competitors' employees

Which will result in non-health cost increases on J-Med's part (to replace the current artificial subsidy from the employer)

J-Med is not used to competing in the open scheme environment

It does not have marketing budgets, broker contracts, *etc* in place

And all of these will introduce new costs which are not presently in J-Med's budgets

J-Med's Board of Trustees is unlikely to cope with the changes associated with running an open scheme. The approach to benefit design, *ex gratia*, waiting periods *etc* is expected to be much different to that of a restricted scheme if J-Med wants to remain competitive

### **Amalgamation**

An orderly amalgamation with another medical scheme will create a dispensation in which active and pensioner members alike can continue to participate in a larger risk pool

Older and sicker members will not be subjected to waiting periods

And the range of options available to members may be expanded

The impact on members will largely depend on option selected within the open medical scheme

Pensioners and employees eligible for a post-employment subsidy will have to obtain clarity as to how the 67% subsidy will be applied after an amalgamation.

For example, will it be linked to a specific option in the open scheme, or will JKL prefer to cap the subsidy at a specified rand-amount?

The open medical scheme may insist on a condition of employment for all JKL employees to be members of the scheme before agreeing to the amalgamation

Given J-Med’s deteriorating demographic profile, it’s best to start looking for a potential partner sooner rather than later

Also, given that J-Med’s reserves are presently relatively high (but will decrease going forward) it is vital that a deal be done as soon as possible if this route is to be pursued

...because failure to perform an orderly amalgamation is likely to end up in J-Med left with no choice but to liquidate

## **Question 2 – Efficiency discount**

*Question 2 was based on the concept of so-called “efficiency discounts” which have increased in popularity in the South African marketplace over the past few years.*

*(i) Regulatory considerations*

*Note: - numbered sections of the act are mentioned for information only. Candidates are not required to list section or regulation clause numbers to be awarded credit.*

*This question was related to the current regulatory environment and how it relates to the concept of efficiency discounts as described in the question. Most candidates were able to cite the relevant provisions of the Act regarding contributions.*

*Almost none of the candidates considered the possibility of a scheme obtaining exemption from these provisions from the Council for Medical Schemes, even though the Act grants the CMS this power and the granting of exemptions is common practice for products structured in this manner. Considering that arrangements of this nature have become more prevalent in South Africa over the past few years, this was disappointing and indicates a lack of familiarity with the marketplace.*

The Medical Schemes Act s29(1)(n) dictates that contributions of any particular option may only be based on

- Family size  
(which, according to regulation 9B, could take the shape of ‘principal/adult/child’ contributions), and

- Income

Hence any other structuring of contributions could be deemed non-compliant with the act

A scheme that wishes to pursue such a discounted contribution structure therefore has to apply to the Registrar for exemption from the Act (in terms of section 8(h))

As part of such a submission, the scheme will need to submit a written application for exemption, supported by actuarial evaluations and technical analyses as may be required to be considered

In particular, the Council will want to satisfy itself that the discounted contributions reflect the efficiencies of the designated service provider network

...rather than the demographics and claims propensities of the beneficiaries that are expected to participate in the discounted structure.

As the latter could result in indirect risk rating.

(ii) – *Product design features*

*Candidates performed poorly with this question. Many lost points by only thinking of “product design” in terms of benefits (limits, co-payments etc).*

*Most candidates also did not consider what the option was trying to achieve – to encourage the use of efficient providers by passing some of the efficiency savings into contribution discounts.*

*Many candidates seemed to believe the no co-payments may ever be levied on PMB claims and therefore did not allow for the fact that, if a scheme has appointed a Designated Service Provider it may, in fact, levy co-payments on any claims that arise from voluntary use of a non-DSP provider.*

The main idea of this product is to encourage members to make use of designated pharmacies. The product design features of the product should support this strategy.

Members would need to choose upfront whether or not they would like to participate in the discounted contribution

How frequently could members change their minds about participation in the discounted contribution? If members can change too frequently anti-selective behaviour could present itself. Suggest once a year, in line with normal option selection.

The question arises how claims from these members would be treated if they were to obtain medication from a non-designated service provider.

In which case the scheme could pay no benefit at all (which is unlikely to be acceptable to CMS)

Or raise a high (penal) co-payment on the claim

Which could take the form of a rand-amount (e.g. deductible) or a percentage

The latter is complicated by the fact that the Mega option already has a 10% co-payment on non-CDL chronic medication, which could make additional co-payments in such cases difficult to administer and communicate

- For example, will the additional co-payment simply be added on top of the current co-payment?
- Or should the existing co-payment be removed from the Mega option to ensure the benefits are easier to understand?

The product should also cater for appropriate treatment of PMBs – *i.e.* CDL medication.

Whilst it is possible to require a co-payment on *voluntary* usage of non-DSPs in the case of PMB claims the *involuntary* utilisation of non-DSPs cannot be subject to co-payments.

From a product design perspective it is therefore be important to structure the product clearly so that involuntary usage is clearly defined, compliant with the act, and provided for appropriately. This could involve

- The consideration of what constitutes an “emergency” in the context of chronic medication
- The consideration of geographical proximity. (CMS has indicated that a distance of more than 50km between the beneficiary and the DSP could be used as a guideline to motivate involuntary utilisation)

These complexities could be addressed proactively. For example, a beneficiary may be required to nominate a specified pharmacy upon registration and certify that the pharmacy is sufficiently close to his/her home and/or work.

Alternatively this could be catered for through benefit design, allowing two or three “out of area” claims per year to ensure that beneficiaries can access chronic medication whilst on holiday.

Although this would dilute the efficiencies which the scheme hopes to generate through the efficiency discount.

Chronic costs are a relatively small portion of total claims, and medicine prices are governed by SEP pricing. Therefore, the discount will really only come though dispensing fee discounts, which will be too small to make a significant change to overall contributions

...unless efficiencies are also generated through the actual drugs that are dispensed (such as a higher generic substitution ratio)

(iii) *Establishment of network*

*This question was very poorly answered.*

*The examiners wanted to see an understanding of the environment as it relates to medicine claims and the application of actuarial principles to identify efficient pharmacies.*

*Many candidates lost points because they did not answer the second part of the question, which was related to the practical considerations that would be relevant to establishing such a network.*

*An alarming number of candidates stated that the cost of a basket of medicines should be compared at different pharmacies and that those with the lowest costs should be chosen. The Single Exit Price (SEP) regulations mean that such a basket of medicine must cost the same at any pharmacy.*

*While many candidates were able to see that some of the savings would be based on dispensing fees, points were lost for not considering other factors which may impact on the cost of provision of medicine such as generic substitution or acute to chronic conversion rates.*

*In quite a few cases it was suggested that the analysis should be subdivided by chronic condition or even by whether the claim is for a CDL or non-CDL chronic condition, which the examiners do not view as either sensible or necessary. Pharmacies dispense medication according to the script and are generally unaware of the condition of the patient. Pharmacies also do not prescribe chronic medication and this cannot be a factor in the measure of their efficiency.*

A preferred provider network of any kind is typically based on three factors:

- cost
- quality
- access (e.g. geographical proximity to members)

Since the aim of this exercise is to produce efficiencies which will result in savings for members, cost is likely to be an important consideration in setting up the network.

There are two ways in which pharmacies could reduce cost.

### **1. Negotiated dispensing fees**

The medical scheme could approach pharmacies or pharmacy groups with a view to negotiate better dispensing fees than what is presently being paid by the scheme.

Given that the medical scheme is large, the possibility of higher volumes in return for a lower dispensing fee could appeal to pharmacies.

Alternatively the scheme could adopt a tender process and invite pharmacies to submit the discounted dispensing fees they would be willing to charge in return for becoming part of the DSP network

Lower dispensing fees translate into a direct cost saving which is straightforward to quantify

## **2. Pharmacy profiling to identify efficient providers**

The scheme could profile pharmacies to analyse the behaviour of providers. Aspects that could be profiled include

- Adherence to agreed dispensing fees
- Generic substitution rates
- Beneficiaries’ chronic medication compliance
- Pharmacy’s ICD10 coding compliance
- Acute to chronic conversion
- Other factors which could tie in with scheme strategy such as personal health assessments performed
- Member complaints
- *Note: any additional appropriate suggestions on profiling metrics that could be used to measure the cost and/or quality of pharmacies will attract credit at ½ mark each*

Of these, generic substitution rates could impact favourably on the cost of delivery in the short term

Whereas compliance or acute to chronic conversion (which are predominantly quality metrics) will likely increase costs, especially in the short term

Profiling should make some provision for risk-adjustment or case-mix, as a simple “average cost per script” approach could negatively affect pharmacies that dispense to unhealthier populations

Profiling should also consider that not all drugs have suitable generic substitutes (or generic substitutes that are significantly cheaper) and adjust for this when generic substitution rates are analysed

### **Combination of the two: efficiencies and negotiated dispensing fees**

Once efficient providers based on profiled criteria have been identified, the scheme could approach these pharmacies to negotiate a lower dispensing fee. This will result in a combination of a lower dispensing fee and better efficiencies, which is ideal.

### **Approach to establishing a network**

There are two fundamentally different approaches:

#### *An any “willing provider approach”*

The scheme could enter into contracts with pharmacies in which pharmacies agree to subject themselves to profiling and not to balance bill members

The scheme could then use the results of such profiling to engage with pharmacies and encourage them to become more efficient over time

For example, the scheme could offer an enhanced dispensing fee to pharmacies that perform well in the profiling

*A “cherry picking” approach*

An alternative approach would be for the scheme to identify cost efficient providers and approach and/or nominate the most efficient pharmacies to become part of its DSP network.

(iv) – *CMS concern over indirect risk rating and pricing*

*This was a particularly intricate question that related to a complex issue.*

*All valid comments were considered for credit. Some candidates presented solid arguments in disagreement with the CMS concern and these also attracted credit where relevant and applicable.*

*A number of answers to the second part of the question constituted a generic outline of normal contribution pricing theory when the question was specifically to discuss the approach that the candidate would follow to price the contribution discount.*

*Some candidates also seemed to believe that the contributions would vary depending on whether a member claims for chronic medicine or not, when this was not how it was described. The discount would only depend on whether the member accepts the State as a DSP for chronic medication.*

*A number of candidates also stated that the pricing of the discount should consider the difference in demographic profiles between those members who elect to use the state as DSP and those who do not. This would be exactly what the CMS is concerned about and is not a valid answer.*

### **Concern raised by CMS**

The main question is whether the quantum of the contribution discount reflects only the efficiency of the provider (*i.e.* the cost of providing medication); or whether it (also) reflects the demographic profile of those beneficiaries that are anticipated to choose to participate in the contribution discount

Public sector facilities are arguably less desirable or accessible (e.g. longer queues, poorer service levels, poorer stock management affecting availability) than private sector facilities. This is certainly the perception of many medical scheme members.

As such, it could be anticipated that beneficiaries suffering from chronic conditions will be reluctant to choose the discounted contribution

Resulting in a healthier demographic profile opting for the discount

The overall claims experience (and not only chronic medication claims) of non-chronic patients is likely to be lower than that of chronic patients

And hence the loss ratios of those beneficiaries opting for the discount could still be favourable even if the discount far exceeds the actual efficiencies attributable to the provider

And conversely, the contributions of members opting for the undiscounted contributions will need to increase if their claims ratios (considered in isolation) would need to remain acceptable

Resulting in indirect discrimination based on state of health – so the concern raised by CMS could be deemed reasonable depending on the nature and extent of the discount.

### **Factors to consider in response to CMS – including pricing of discount**

Ideally a response to CMS should demonstrate that the pricing differential that underpins the contribution discount has no relation to the demographic profile of beneficiaries that chose the discount

This can be shown by pricing the discount based on the *average profile* of all members in the Mega option rather than those that are expected to select the discount

And by showing clearly that the discount pertains only to chronic medication claims and does not include other claims (such as hospitalisation)

In order to price the discount, it would be necessary to compare drug prices (inclusive of dispensing fees) of private sector facilities to public facilities

And consider the average difference between the public and private weighted on the utilisation of all beneficiaries in the option

It may be necessary to consider the possibility that some drugs may not be readily available from public sector facilities, and whether the pricing should allow for these drugs to be obtained from private facilities (as this would constitute involuntary non-DSP usage in the case of PMBs)

But it would be difficult to obtain reliable information on actual drug availability, as the data is not readily available and may differ from one facility to another

Should acute medication be included in the analysis? The contribution discount does not require beneficiaries to obtain acute medication from public facilities.

...although it is conceivable that some beneficiaries could obtain acute medication at the same time they pick up their chronic medication

It is important to consider that the option is presently in a break-even position

And that any discount in contributions, if not accompanied by a commensurate reduction in claims, will result in the option becoming loss-making

This introduces a complexity that requires the consideration of the chronic status of beneficiaries that are anticipated to participate in the option: If the beneficiaries that will participate in the discount will mainly be non-chronic, then the cost efficiencies outlined above will not transpire and the Mega option will only experience a reduction in contribution income – the option will become loss-making.

However, if this is explicitly allowed for in the pricing, the resultant contribution discount offered to members will become negligible (or zero) unless it reflects the lower claims experience associated with non-chronic beneficiaries for other (non-pharmacy) claims

Thus resulting in the very situation which CMS wants to avoid

A potential solution could be to increase the contributions for beneficiaries that do not select the discount in order to mitigate the risk of a reduced underwriting result

And keep the magnitude of the discount in line with the efficiencies to be generated on the *average* beneficiary’s chronic medication claims

Which would serve to address the CMS concerns whilst protecting the option from a loss of income

But introduces other risks (such as buy-downs) and perhaps does not address the need originally expressed, which is to attract new members to the option through more affordable contributions

Another factor is that the discounts have to be material – CMS is unlikely to give approval if the discounts are going to be very small (e.g. only R5 difference per month).

(v) – *Efficiency discount vs separate option*

*This question is based on a subtle regulatory issue. It was not well answered.*

*Ironically some candidates raised several issues along the lines of segregation of risk pooling that would have earned marks in question (iv).*

An efficiency discount requires exemption from the Act, whereas a separate option does not

A separate option will be required to be self-sustaining in terms of section 33(2)(b) of the Act, whereas an efficiency discount can allow for cross-subsidisation between the two groups

The CMS may not be satisfied that the new option, which is differentiated solely based on the DSP, constitutes sufficient benefit differentiation to justify a new option

Hence the scheme may be required to differentiate other benefits as well if it wish to proceed with a new option

The new option is likely to attract healthier (non-chronic) beneficiaries over time

And may, similarly, attract anti-selective buy-downs from the existing Mega option  
Which, if the self-sustaining requirement is complied with, will result in an increasing contribution gap between the options over time?

And could result in the current Mega option becoming unsustainable or unaffordable

### **Question 3**

(i) – *factors affecting level of capital required*

*This question was surprisingly poorly answered, considering that it based on bookwork.*

Risk takers require capital to ensure sufficient protection against the risk of insolvency

In general, the greater the risks assumed, the more capital is required

The following particular factors should be considered:

#### **Statutory capital requirement**

The scheme should at least comply with minimum regulatory requirements

However, the scheme may want to target a higher level of capital depending on the other factors described here, and also to reduce the risk of regulatory intervention

#### **Investment strategy**

The more risky the scheme’s investment strategy, the greater the risk of capital loss and hence the greater the amount of capital required

The more diversified the portfolio, the less exposed the scheme will be to the risk of default of an individual investment

Although one needs to consider that investments may only be held as per restrictions specified in the Regulations

The liquidity of assets needs to be considered. If assets are anticipated to be difficult to realise or invested in more risky or long-term assets, higher reserves need to be held

#### **Size of the risk pool**

The larger the risk pool, the more stable and predictable the claims experience is likely to be

If the membership size is expected to increase (e.g. due to a recruitment by the employer) the scheme may want to hold additional capital

If this is a restricted scheme, it is less exposed to anti-selective movements than a similarly-sized open scheme would be

### **Exposure to risk and risk transfers**

The scheme could consider the extent to which it has reduced its risk exposure by transferring risk to a third party such as a managed care organisation or reinsurer.

The scheme could also reduce risk through benefit design, for example through benefit limits which effectively transfer the risks back to the member

The scheme could also transfer risks to members through the use of Medical Savings Accounts

### **Exposure to 3<sup>rd</sup>-party contractors**

The scheme should consider business risks associated with contractual arrangements such as administration contracts.

### **Ancillary considerations**

If the scheme is likely to wind down in the future (i.e. if the scheme is not considered to be a going concern in the foreseeable future) then reserves need to be set aside for related expenses

The scheme’s budgeting philosophy could be considered. Does the scheme have a conservative approach to setting budgets? This could be gleaned from deviations against the budget in the past. A consistently conservative approach might warrant lower reserves

#### *(ii) – Risk based capital*

*This question was also surprisingly poorly answered, considering that it based on bookwork.*

*Many candidates don’t seem to understand the core concept of risk based capital, which is to assess the risks and then establish the level of capital which should be held to reduce the probability of insolvency to an acceptable level.*

Under a risk-based capital approach, the capital requirement of each risk taker is based on the resources required to ensure that the risk taker is able to withstand the occurrence of a loss arising from certain specified events.

The intention is to reduce the probability of insolvency to an acceptably low level.

Hence the required capital measure will reflect the scheme’s ability to manage risk rather than its size (be it measured through contributions or membership)

### **Advantages**

- There is a closer relationship between risks faced by the scheme and the capital it requires.

- It encourages financially weak institutions to reduce risk and/or hold more capital
- It encourages a greater degree of analysis by management of the various risks faced by the scheme

**Disadvantages**

- The risk-based calculation is complex and difficult to communicate and less easily understood by members and policyholders

The use of a risk-based approach does not in itself guarantee that all the risks faced by a particular institution is properly considered.