



## CIRCULAR

Reference: Draft Medical Schemes Consolidation Framework  
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### Circular 42 of 2018: Draft Medical Schemes Consolidation Framework

This Circular serve as an invite for comments and input by all interested stakeholders on the Draft Framework for Medical Schemes Consolidation. As indicated in Circular 33 of 2018, in 2017, the CMS appointed an actuarial firm to undertake an impact analysis on medical schemes consolidation with a view of proposing a framework for consolidation in preparation for CMS participation within the identified NHI Ministerial and National Advisory Committees.

This work was commissioned by the Council for Medical Schemes with the aim of acquiring technical analysis and input on our approach to reducing risk-pool fragmentation whilst strengthening financial protection in the current medical schemes environment. In doing so, it was essential for the CMS to fully consider and contextualize our analysis within the overarching goals of national health policy, also considering the provisions of the current Medical Schemes Act, Medical Schemes Amendment Bill, National Health Insurance Bill and the recently published HMI provisional findings on risk pool failures. The key policy goals in this regard include:

- Reducing the excessive fragmentation of risk pools
- Address risk rating
- Strengthening cross-subsidies, whilst enhancing social solidarity
- Standardising and simplifying benefit options

Attached to this Circular is the Draft Consolidation Framework. Please submit your comments in writing to Nondumiso Khumalo, Senior Health Economist: Office of the Strategist at [n.khumalo@medicalschems.com](mailto:n.khumalo@medicalschems.com) by the 30<sup>th</sup> of November 2018.

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# Medical Schemes Draft Consolidation Framework

19 September 2018

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## LIST OF ACRONYMS

LCBO	Low Cost Benefit Option
MSA:	The Medical Schemes Act 191 of 1998, as amended
NHI	National Health Insurance
PMB:	Prescribed Minimum Benefits
RAM	Risk Adjustment Mechanism
RBC:	Risk-based capital
REF	Risk Equalisation Fund

## DEFINITIONS

1. Amalgamation: The MSA provides that medical schemes may consolidate through a process of amalgamation. The amalgamation process involves calculation and transfer of reserves between schemes. This process ensures that existing members are no worse off post amalgamation compared to pre-amalgamation.
2. Liquidation: The MSA provides that medical schemes that are in a dire financial situation may be liquidated. In this event, any existing reserves are paid directly to remaining members of the scheme. Should members apply to join another scheme in his/her individual capacity; the scheme is required to accept his/her application for membership. The receiving scheme would be in a significantly worse position if the reserves are not transferred to the new schemes, as would be the case in an amalgamation.
3. Prescribed Minimum Benefits (PMBs): refer to a set of defined medical benefits that all medical schemes are mandated to cover to ensure that all their members have access to certain set of minimum healthcare services, irrespective of the benefit option that they belong to.
4. Risk pooling: a health financing mechanism where a group of individuals contribute to a common pool, usually held by a third party. These funds are used to pay for all or part of the costs of providing a defined set of health services for the members of the pool to provide a safety net for a broad cross section of the society with differing medical risks, with the purpose of benefiting from cross-subsidisation within a fund, or in the case of this document, medical schemes.
5. Risk-based capital (RBC): This is a method of measuring the minimum amount of capital appropriate for a reporting entity to support its overall business operations in consideration of its size and risk profile. In the case of medical schemes, the required solvency of medical schemes is not risk based but prescribed by the MSA. However, early stage research by the CMS have investigated the use of alternative RBC-based solvency requirements in the event that there is a change in legislation.
6. Social solidarity: The MSA reintroduced social solidarity principles, including:
  - *Open enrolment*: medical schemes cannot refuse access to any potential member based on their risk profile.
  - *Community rating* for all members: contributions can only be varied by option, income, and number of dependants and/or beneficiary type (i.e. principal member, adult dependant or a child dependant).
  - *Prescribed Minimum Benefit (PMB) package*.
7. Risk Adjustment Mechanism: refers to a pooling mechanism to transfer resources between medical schemes on the basis of their risk profile. The system previously proposed in the South African context was called the Risk Equalisation Fund. Financial transfers between schemes were to be calculated based on the age and disease profile of beneficiaries. Under this system, schemes with poor risk profiles would have received funds and schemes with good risk profiles would have paid in. The objective of this mechanism was to reduce the incentive for schemes to focus on risk-selection and in effect, create industry-wide cross subsidies.
8. State-sector schemes and non-state sector schemes:

This document refers to two types of State medical schemes:

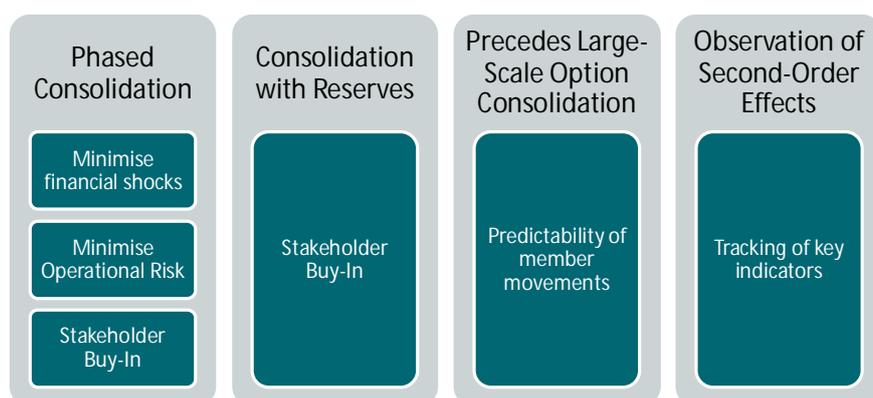
  - a. *'State-sector Type 1'* includes those where employers offer medical scheme contribution subsidies to employees. These schemes include GEMS, Polmed, Parmed, LA Health, SAMWUMED, and Transmed and are named in Section 322 of the NHI White Paper as those schemes which will be consolidated into GEMS.

- b. *State-sector Type 2'* include medical schemes such as Rand Water Medical Scheme, Medipos Medical Scheme, SABC Medical Aid Scheme, Rhodes University Medical Scheme, Wits University Medical Scheme and the University of Kwazulu-Natal Medical Scheme, which are restricted schemes designed for state-affiliated employer groups. These schemes were not mentioned in the NHI White Paper.
- c. Non-state schemes are those that are either open schemes or those restricted schemes open to private sector employees.

## EXECUTIVE SUMMARY

The approach to scheme consolidation has been summarised into four pillars, as depicted below.

Figure 1: Approach to scheme consolidation



Systematic phased consolidation, that is amalgamating a limited number of schemes at a time, could result in an effective consolidation process. Phased consolidation could allow for a more predictable financial outcome and might reduce the risk of large financial shocks.

Medical scheme amalgamation (consolidation with reserves) is preferable over a liquidation process since it allows for the transfer of reserves into the new base scheme. Without the transfer of reserves the consolidated scheme may not have the sufficient capital it requires to ensure long-term sustainability.

It is therefore recommended that medical scheme consolidation precedes benefit option consolidation and that only once scheme consolidation has been achieved, should option consolidation be considered.

Each of the proposed tools, i.e. benefit classification and simplification, option consolidation, scheme consolidation, might have second order, knock-on effects on the market. These effects should be taken into consideration in order to prepare the market and anticipate the impact. Examples of such risks include triggering scheme instability, creating pricing uncertainty, and negatively affecting affordability, as well as access.

### State-sector scheme consolidation strategy

Consolidation of state schemes is important for the following reasons:

- The government subsidizes the contributions of GEMS, Polmed, Parmed, LA Health, SAMWUMED, and Transmed, and the extent of the subsidy is determined via annual union negotiations. In 2013/14 this accounted for R21.8 billion.
- Measured by the number of beneficiaries, State-sector Type 1 schemes make up roughly about 30.3% of the medical scheme industry.

- Political commitment to the process of industry consolidation can be better demonstrated by the consolidation of schemes covering state employees, as an example to the industry.

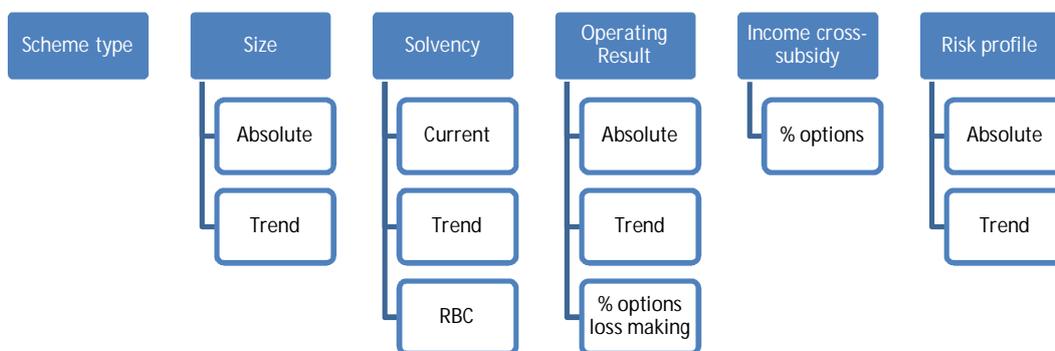
In line with this approach, it is proposed that medical schemes providing cover for state employees (State-sector Type 1) will be consolidated into one scheme, the Government Employees Medical Scheme (GEMS). This is a key step in moving towards bigger risk pools in the industry. Initially, it would make sense to leave the GEMS benefit option range unchanged. A wide range of benefit options would facilitate the accommodation of most beneficiaries with relatively few benefit changes. This would help to minimise the impact on beneficiaries and help to limit possible resistance to amalgamation. In addition, it may make sense in some cases to keep options from the schemes amalgamating into GEMS in order to ring-fence particular risk groups.

GEMS commissioned its own work to understand the expected financial impact of widening their scheme eligibility criteria. This work, entitled “Expansion of Eligibility for membership of GEMS”, provides more details in this regard. The information contained in this section is drawn from the GEMS report. CMS held a few engagements with GEMS in this regard.

## Non-state scheme consolidation strategy

It is recommended that the key factors indicated below should be taken into consideration in assessing the need for amalgamation and perhaps even in the sequencing of scheme amalgamation. It is important to note that these factors should not be looked at separately, as they essentially form an overall picture of a scheme in terms of risk and financial performance.

Figure 2: Assessing the need for amalgamation



# 1. Introduction

This work provides support and comment on the thinking and approach to reducing risk-pool fragmentation in the South African medical scheme environment. As part of this exercise, it is essential to ensure that the CMS thinking fully considers the overarching direction in national health policy.

Section 322 of the 2017 NHI White Paper states:

*"Amendments to the Medical Schemes Act will be initiated as part of the broad phased implementation. Medical schemes will evolve and consolidate during this phase to provide complementary cover. In the initial stages, all benefit options in the various schemes will be consolidated from the current 323 benefit options in 83 schemes to one option per scheme. Schemes covering state employees will be consolidated into one scheme, the Government Employee Medical Scheme (GEMS). The other activities to be undertaken will involve the creation of a uniform information system and standardisation of healthcare services across the medical schemes to be aligned to comprehensive healthcare services for NHI."*

The gazetted NHI Implementation Structures also indicate that medical schemes and benefit options will be consolidated in the period leading to the full implementation of the NHI in 2026. This is a considerable process, both in terms of practical implications and financial risk to the medical scheme beneficiaries. It requires a well thought-through strategy for the consolidation process. The CMS is however committed to enhancing risk pooling which focuses on improving financial protection, deepening cross-subsidisation and social solidarity. These principles are key in conceptualizing the recommended strategy for consolidation.

CMS also agrees that the issue of scheme consolidation, necessitates that schemes should be evaluated holistically, which includes looking at issues of long-term sustainability and the interactions of income and risk cross-subsidy. Therefore, the recommended strategy for consolidation by the consultant was formulated based on the following four deliverables:

1. The first deliverable focused on a review of the CMS' current thinking, including identification of gaps and areas of further research. This deliverable also served as a foundation to facilitate the development of a framework to reduce risk pool fragmentation. The framework takes into consideration the state and non-state schemes.
2. The second deliverable looked at the consolidation of schemes covering those individuals not employed in the public sector, both restricted and open medical aid schemes.
3. The third deliverable reviewed the consolidation of schemes that cover those individuals employed by local, provincial and national government, as well as by parastatals and other entities affiliated with the State. It also includes a review of the modelling work commissioned by GEMS.
4. Fourth deliverable pulls together the thinking from the three documents as a summary.

## 5. Methodology

This document has been prepared through the careful consideration of various stakeholders' inputs, pieces of information and prior work done on this issue. The process that was undertaken involved the collation of the information in order to formulate a considered approach for consolidation of schemes within the medical scheme environment. The process included:

- External stakeholder engagement: meetings with the relevant parties, including GEMS.
- Internal stakeholder engagement: meetings with the relevant parties, including various departments within the CMS.
- Review of work already done: work commissioned by GEMS and done by the CMS was reviewed and included in the thought process.
- Review of literature: relevant pieces of literature were considered in order to understand both the South African context and the best approach to take. A list of the resources is listed in the "Resource" section at the end of the document.

This report is based on the following sources of information:

- The Medical Schemes Act 131 of 1998 (MSA).
- The Annual Statutory Returns for each of the restricted medical schemes under consideration.
- The CMS's annual report 2016 – 2017.
- The CMS's Risk Based Capital results 31 Dec 2017.
- The CMS' medical scheme risk assessment.
- The CMS' scheme rules.
- A GEMS document titled: "Consolidation of risk pools – GEMS point of view".
- A GEMS document relating to the experience of the pre-92 pensioner migration to GEMS.
- The work previously done on private sector schemes by the CMS has been reviewed and incorporated into the thinking and rationale behind this document.
- The work previously done on public service schemes by the CMS has been reviewed and incorporated into the thinking and rationale behind this document. This CMS work was captured in the presentation entitled, "Public Service Risk Pools".

## 6. Clarifying the policy goal

The starting point must be a clear conceptualisation of the policy goal relating to risk pool fragmentation. The problem statement is that “risk pools are excessively fragmented”. There are several reasons why large risk pools are thought to be better than small risk pools. In the context of policy goals articulated in the NHI White Paper, the key concern is that fragmented risk pools weaken cross-subsidies (and therefore, the extent of social solidarity).

The policy goals of the proposed consolidation process can be summarised as follows:

- Reducing the excessive fragmentation of risk pools.
- Strengthening cross-subsidies, and hence social solidarity.
- Concerns with regards to risk pooling, which occurs partially at the scheme level, and partially at the option level.

In theory, risk pooling occurs at the level of the benefit option because options are meant to be self-sustaining. Risk pooling occurs to some extent at the level of benefit options and to some extent at the level of the scheme. This can be thought of as a spectrum, with different implication for the different schemes.

The policy goals of consolidation do not pre-suppose a consolidation strategy. Consolidation could take place in several ways, including:

- Reducing the number of medical schemes
- Reducing the number of benefit options
- Standardised and simplified benefit offerings

## 7. Regulatory integration and inter-dependencies

The scheme consolidation process has several regulatory considerations in the current South African environment. Many of the decisions regarding these regulations are inter-dependent, making it difficult to meaningfully strategize for the future. Some of these processes include:

- Prescribed minimum benefits (PMB) review.
- Low cost benefit options (LCBO) framework.
- Implementation of risk-based capital framework
- Benefit simplification and standardisation

## 7.1 Risk pooling

Currently, risk pooling can occur either at the level of a benefit option or within a medical scheme. Risk pooling across the scheme is only possible to the extent that there are common benefits. The CMS' Circular 8 of 2006 put forward a proposal that would have resulted in risk pooling occurring within the scheme for PMBs. We received several concerns regarding this proposal. A key issue for consideration was that in the absence of income cross-subsidies, increasing risk cross-subsidies across a scheme would adversely affect low-cost options.

Before changes in the policy trajectory, mandatory participation and Risk Equalisation Fund (REF) could have been considered for achievement of greater risk cross-subsidies across schemes. As observed in the study undertaken by Ramjee & Vieyra in 2014 *"...Without REF, the extent of risk cross subsidisation, and hence solidarity, is limited to between members of the same (on average rather small) risk pool..."* (Ramjee & Vieyra, 2014).

The theory behind risk equalisation was that it would ensure that schemes competed based on efficiency and quality, as opposed to risk selection (McLeod & Grobler, 2010). This might have led to schemes changing their focus to negotiating more keenly with suppliers which could have led to a reduction in the cost of healthcare services procured by schemes (see Figure 3 below). However, a pre-condition of the successful implementation of a risk equalisation fund would have been, and should still be, the availability of standardised information on health quality outcomes within the private sector as well as effective supply side regulation. Without such the risk equalization process would entrench and effectively transfer the cost of inefficient pricing within the industry to members in terms of contribution payments.

Furthermore, whilst the CMS agrees that there should be some form of risk adjustment mechanism, we need to acknowledge that the current approach towards Universal Health Coverage through NHI implementation has not included provisions for the establishment of Risk Equalisation Fund. Virtual risk pooling will only inform reimbursement rates of different reimbursement methods for healthcare providers within the NHI dispensation. REF is also not provided for within the recently published Medical Schemes Amendment Bill and the NHI Bill.

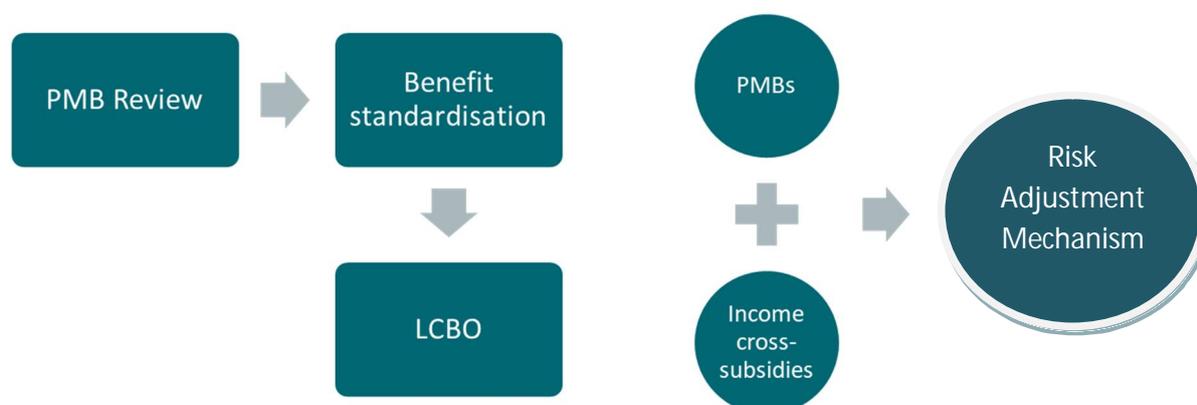
It is therefore our view that these two policy instruments (REF/RAM and mandatory participation) might form part of the discussions within the relevant NHI Ministerial and Advisory Committees. In addition, since the establishment of a Risk Equalisation Fund needs to be directed by the National Department of Health as part of their stewardship responsibility, once that directive has been communicated, CMS will play a supportive role according to the provisions of the Medical Schemes Act.

The CMS is however mindful to the fact that without some form of risk adjustment mechanism, consolidation of schemes might be hindered as some schemes with poor member profiles are unlikely to amalgamate without providing compensation to potential partners, for taking on the higher-risk members. In this regard, the inclusion of the provisions related to the Central Beneficiary Register within the MSA Bill will enable CMS to collect detailed information on risk factors for the purpose of identifying and assessing risk within the medical schemes industry and this data will be useful for the consolidation project.

## Regulatory path dependency

The figure below describes how the implementation of risk pooling requires the completion of the PMB review process. Both the Low-Cost Benefit Option (LCBO) framework and the benefit standardisation process cannot occur prior to establishment of the PMB basis.

Figure 3: Risk pooling requirements



Benefit standardisation, or uniformity of benefits initiative was proposed with the first introduction of risk equalisation. While this approach would be challenging to transition to, it is worth flagging as it has the advantages of dealing with issues related to the complexity of benefit design, risk rating and member confusion, while at the same time creating supply-side competition and innovation. This approach is dependent on the finalisation of the PMB review process, which is expected to guide the development of a standardised benefit options. This approach would only be applicable for largely unlimited benefits, which could otherwise affect affordability.

The possible introduction of LCBOs remain a further possible mechanism for removing barriers of entry for members who currently can't afford the medical schemes cover. LCBO benefit construct needs to maintaining affordability levels for members, in the absence of income cross-subsidies. The possible downside with LCBOs is the issue of the risk of creating yet another tier, in our two-tier health system. The design of a LCBO is dependant to some extent on the PMB review process. Given the desirability of benefit option standardisation, it would make sense for the LCBO to be a standard package with no variation permitted (other than in supply-side arrangements).

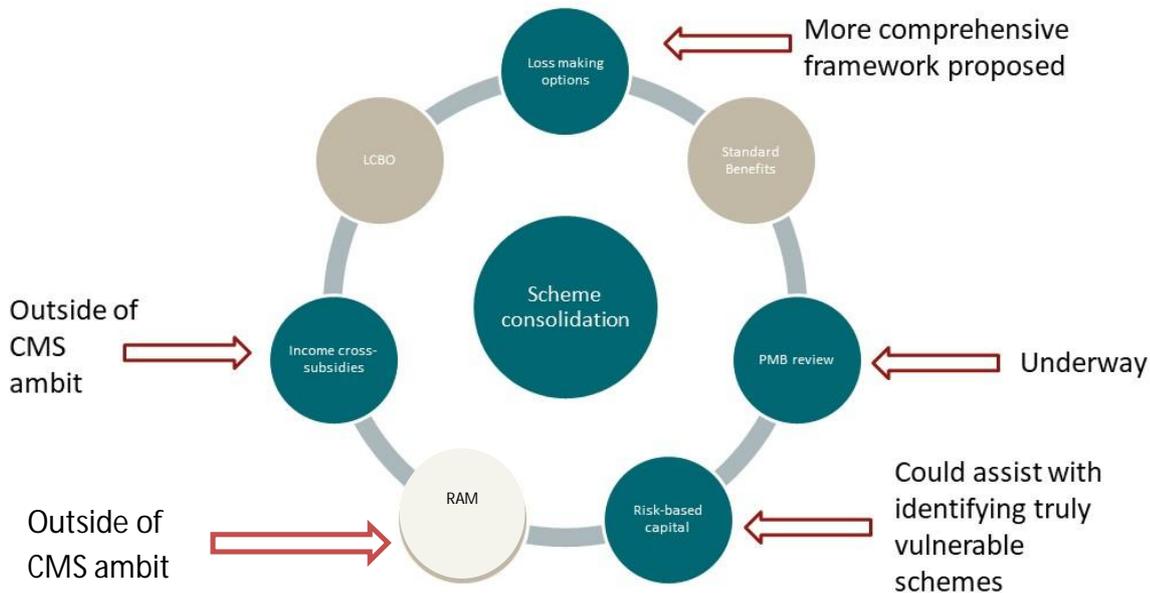
The figure bellow indicates the regulatory interventions that are not immediately achievable although CMS has accelerated projects that sits within our regulatory domain (risk equalization, income cross subsidies, LCBO and benefit option standardisation).<sup>1</sup>

In view of the above, the options available to the CMS in terms intervention, includes the PMB review process (which is currently underway), interventions on loss making options (discussed in this document), income cross-subsidies and risk-based capital, as well as the central issue of scheme consolidation addressed in this report.

Systemic income cross-subsidies fall largely under the ambit of the National Treasury either in the form of changes to the tax credit, or the implementation of a NHI tax. However, the implementation of a beneficiary registry will assist to quantify the existing income cross subsidies in the system. There are various ways in which the CMS can encourage income rating.

<sup>1</sup> LCBO, PMB review and the benefit option simplification and standardization. Part of this work has been assigned to different consultants. And it is anticipated that CMS will be publishing the draft frameworks by the end of March 2019.

Figure 4: Regulatory integration and inter-dependencies



## 8. Rationale for State-Sector Scheme Consolidation

### 5.1 Background

Section 322 of 2017 NHI White Paper states: "... Schemes covering state employees will be consolidated into one scheme, the Government Employee Medical Scheme (GEMS) ..."

Notably, medical schemes providing cover for state employees will be consolidated into GEMS. This is a key step on the path of moving towards a single (state and non-state) industry risk pool.

The South African government contributes significantly to the medical scheme industry in its capacity as an employer by way of medical scheme contributions subsidy for public servants. The government subsidises the contributions of GEMS, Polmed, Parmed, LA Health, SAMWUMED, and Transmed, the extent of which is determined via annual union negotiations<sup>2</sup>. In 2013/14 this amounted to R21.8 billion. State-sector schemes make up roughly 30.3% of the medical scheme industry (in terms of numbers of beneficiaries), which is a substantial amount.

Perhaps equally important to the rationale for consolidated schemes covering State employees is for the State to demonstrate political commitment to the process of industry consolidation. On the other hand, the CMS is mindful that medical scheme

<sup>2</sup> See for example here the Agreement on salary adjustments and improvements on conditions of service in the Public Service for the period 2015/16 - 2017/18 <http://www.dpsa.gov.za/dpsa2g/documents/pscscb/2015/Res2%20of%202015%20PSCBC.pdf>

membership was a condition of employment for many State employees, and that many State employees might be reluctant to move to a new scheme, which could entail a new benefit structure and contribution level.

The medical schemes listed below have been included as potential schemes for amalgamation with GEMS<sup>3</sup>:

- Parmed Medical Aid Scheme;
- South African Police Service Medical Scheme (POLMED);
- SAMWUMED;
- LA-Health Medical Scheme;
- Rand Water Medical Scheme;
- Transmed Medical Fund;
- Medipos Medical Scheme;
- SABC Medical Aid Scheme;
- Rhodes University Medical Scheme; and
- University of Kwazulu-Natal Medical Scheme

LA Health is a restricted scheme but competes with other SALGA accredited open medical schemes and exhibits some features akin to other open schemes.

## 5.2 Rationale for using GEMS as the State employee medical scheme of choice

When considering consolidation of public sector schemes, it may seem an obvious choice that GEMS is used as a base scheme into which all other schemes are consolidated into. There are many practical reasons underlying the rationale for using GEMS as the base, including the following:

- Size of the risk pool: With a membership of around 670 000 in 2016, GEMS is the largest public-sector scheme and is therefore best placed to absorb other schemes without major shocks to contributions and solvency position.
- Profile of the risk pool: GEMS has a relatively young and health risk pool and is therefore able to tolerate older and sicker members. This would result in an overall strengthening of risk cross-subsidies as schemes consolidate into GEMS.
- Potential savings on healthcare and non-healthcare costs: The large size of GEMS means there is increased negotiating capability for healthcare and non-healthcare costs. The relatively low level of non-healthcare costs can be seen in Table 1. Fraud, waste and abuse analytics would be helpful in generating potential cost savings for the scheme. Strategic purchasing capability could also generate cost savings. For example, the Emerald Value Option has demonstrated the cost-saving impact of a number of interventions including gatekeeping. This observation has also been noted within the HMI provisional observations.

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<sup>3</sup> Note that this list is longer than the list included in the CMS presentation, and would need to be agreed with stakeholders. This is not an official list and is not suitable for public dissemination prior to engagement.

Reducing the cost of cover is beneficial for several reasons:

- Reducing the inequity between covered and uncovered lives;
- Reducing the extent of the government subsidy – which would release funds that could be redirected to the public sector;
- Reductions in solvency requirements and post-retirement medical liabilities – which would release capital.

*Table 1: Managed care fees and administration fees – 2016*

Scheme	Managed Care Fee per member per month (Rands)	Admin Fee per life per month (Rands)
GEMS	45,69	49,11
LA Health	66,62	104,30
Medipos	41,43	71,97
Parmed	41,11	113,39
Polmed	60,96	39,60
Rand water	-	-
Rhodes Uni	62,74	86,86
SABC	87,29	85,26
SAMWUMED	-	-
Transmed	-	92,93
Uni KZN	-	100,64
Wits Uni	-	106,77

## 9. Overall Strategy for Medical Scheme Consolidation

### 9.1 Phased scheme consolidation

Systematic phased consolidation, amalgamating a limited number of schemes at a time, will be paramount to an effective consolidation process. Phased consolidation allows for more predictable financial outcomes and reduces the risk of large financial shocks. Managing the financial stability will also ensure that price levels remain constant in real terms from year to year.

Phased consolidation will allow for the individual characteristics of each scheme to be taken into account, *inter-alia*:

- Membership eligibility criteria;
- Employer subsidies;
- Income bands;
- Dependent eligibility; and
- Benefit option defaults.

Phased consolidation will mean that the full process will take longer than a big bang approach but will ensure that the process of consolidation minimises negative consequences for beneficiaries. Many factors will need to be considered with each scheme consolidation; and phasing the consolidation process will reduce operational risk. These factors include, but are not limited to:

- Data migration;
- Increased call centre volumes;
- The issuing of new membership cards;
- Changes to medication and/or provider types including level of care due to formulary changes and differences between scheme rules on issues related to access to benefits between the two schemes;
  - Unpacking the impact on quality health outcomes
- Re-authorisation for benefits such as chronic benefits.
- Contribution levels
- The range of benefits
- The existing contracts with different providers

The amalgamation process should carefully consider the key indicators for sustainability of each scheme. These indicators have been set out in the next section. As each scheme is considered for amalgamation, each of the key indicators below should be carefully considered for each of the amalgamation partners.

As with all amalgamations, the buy-in of various stakeholder groups will be critical. The process will require input from the individual trustees and principal officers. This is more manageable if all schemes are not consolidated simultaneously.

## 9.2 Consolidation with reserves and without reserves

Amalgamation and liquidations are covered in Section 63 and Section 64 of the MSA. Medical schemes can consolidate through a process of amalgamation. This process ensures that existing members are no worse off compared to prior to the amalgamation. This process would involve a calculation and transfer of reserves between schemes.

Alternatively, liquidation may occur where schemes are unable to find an amalgamation partner or where, for some other reason, the scheme elects to dissolve. This process would mean that reserves are paid directly to the member and when members then apply to join another scheme in their individual capacity, the scheme would be required to accept them. The receiving scheme would be in a significantly worse position if reserves are not transferred on amalgamation.

Medical scheme amalgamation is preferable to liquidation, since it allows for the transfer of reserves into the new base scheme. Without the transfer of reserves the consolidated scheme may not have the capital to ensure long-term sustainability. This can be achieved through stakeholder engagement with the aim of getting the necessary buy-in. It will be essential that schemes buy into this approach to ensure fairness for members transferring into the scheme, existing members of the receiving scheme; and to ensure sustainability of the receiving scheme.

## 9.3 Option consolidation

The MSA currently does not make provision for a methodology for consolidation of options, other than in cases where an option is loss making. Given that some loss-making options frequently provide an income or risk cross-subsidy, changes in these options requires detailed analysis so as not to negatively affect industry-wide social solidarity.

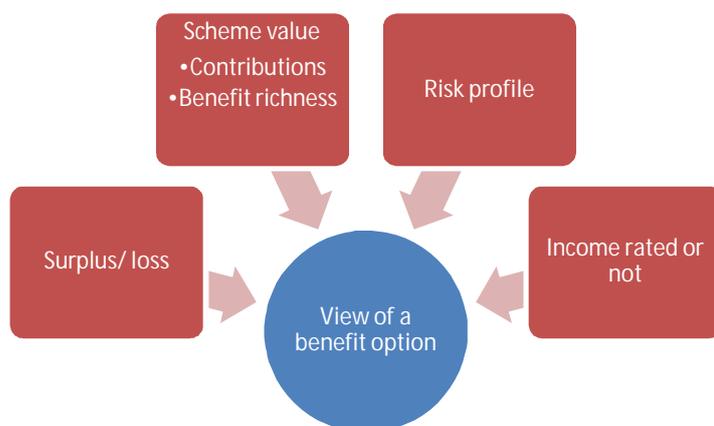
In addition, any standardisation of benefits is contingent on the review of PMB benefits. Even though PMBs will be redefined in the process of moving towards NHI, it would be ideal to first change the PMB definition and then to consolidate options.

Option consolidation would also introduce an additional layer of complexity to the scheme consolidation process as it requires the consideration of issues such as financial soundness of each option, risk cross subsidies, income cross subsidies, and member movements.

Consolidating options would also mean that there are member movements between options as well as between schemes. Predicting member movements between options is difficult; and incorrect prediction of any such movements introduces more financial risk for schemes, as well as more pricing uncertainty for members.

The CMS has already received submissions from schemes in relation to loss-making options. We will be undertaking a more comprehensive review on loss-making options; this will be undertaken as part of the engagement with schemes around these options. Figure 5 below illustrates the factors that should be taken into account to develop a more holistic view of benefit options. To meaningfully measure benefit richness, the CMS is considering procuring of a benefit richness tool from the industry (this is because these tools require detailed claims data).

Figure 5: View of a benefit option



In this regard it is preferred that scheme consolidation should precede option consolidation; and that only once scheme consolidation is finalised should option consolidation be considered.

## 9.4 Second order effects

Issues relating to the second order effects on pricing, market stability, income and risk cross subsidies of the proposed changes need to be carefully considered. Without such benefit option simplification and standardisation, option consolidation, scheme consolidation will have a negative impact on the market. And the risks inherent within these policy options can trigger medical schemes instability, creating further pricing uncertainty and negatively affecting affordability and access.

The precise second order effect of each of these changes is not known and as such it would be prudent to effect one change at a time and thus better be able to predict such effects.

It should also be noted that scheme consolidation will have both negative and positive impact on competitive dynamics in the medical scheme industry. Since the medical schemes market will become more concentrated, issues related to information asymmetry, product proliferation will be effectively addressed. Bigger risk pools with varied risk profiles will also benefit from economies of scale during tariff increases. CMS is also open to innovation in benefit options design as long as this does not add to the current complexities within the environment.

We are also aware that concentration in market could potential lead to an increase in non-healthcare costs. Although theoretically, greater economies of scale should reduce non-healthcare costs. However, a more consolidated market could lead to a reduced choice of service providers. It is against this background that CMS will be accelerating completion of other related research projects such as:

- A review of the value proposition for non-healthcare expenditure including tighter monitoring and evaluation of non-healthcare related tariff increases
- A review of the value proposition for managed care services against health quality outcomes
- The introduction of a Risk Based Capital framework

- A review of reinsurance agreements

## 10. Strategy for Non-State Sector Scheme Consolidation

### 7.1 Risk consolidation criteria

Preliminary analysis undertaken by CMS on consolidation seems to have been based on the following criteria in consideration to the provisions of the Act<sup>4</sup> : number of members and beneficiaries, average age, pensioner ratio, claims ratio & solvency. Below is a proposed list of all key indicators to be analysed to assess sustainability.

### 7.2 Key indicators to assess scheme sustainability

We believe that the factors listed below should be used in assessing the need for amalgamation and perhaps even in the sequencing of scheme amalgamation. It is important to note that these factors should not be looked at separately, but rather as part of an overall picture of a scheme in terms of risk and financial performance. The same factors can be used to identify schemes that are financially strong and stable and are therefore good consolidation partners. It is unlikely that consolidating two weak schemes would be in the long-term interests of members.

There are already schemes which the CMS considers vulnerable (Transmed and BP). These schemes can be used as test cases for fast-tracking engagement strategies.

- The size of the scheme (both members and beneficiaries), helps to give an indication of the scheme's ability to withstand volatility shocks. Schemes smaller than 6 000 members provides a strong incentive to consolidate since the scheme's ability to withstand shocks is compromised.
- Change in size (of members and beneficiaries), gives an indication of whether the scheme is growing or shrinking. This change is measured over the last year and over the last three years to give an indication of the current experience, as well as the trend in experience over the past three years. Scheme shrinkage may be an indicator of other underlying issues limiting scheme competitiveness. For some of these schemes amalgamation may be inevitable, and this process may just be a matter of fast tracking the process.
- The scheme's actual solvency\* gives an indication of the level of solvency relative to the legislated 25% of accumulated funds. Low solvency levels may be an indication of financial distress.
- The trend in scheme solvency\*, measured over a period of three years, gives an indication of whether the scheme solvency is weakening or strengthening. This is also an indication of financial distress.
- The risk-based capital (RBC) solvency\* is based on the work done by the CMS and provides a comparison to the scheme's actual solvency levels. These RBC figures have not been updated since December 2017 and would need to be revised if this model is to be implemented to assist scheme consolidation.

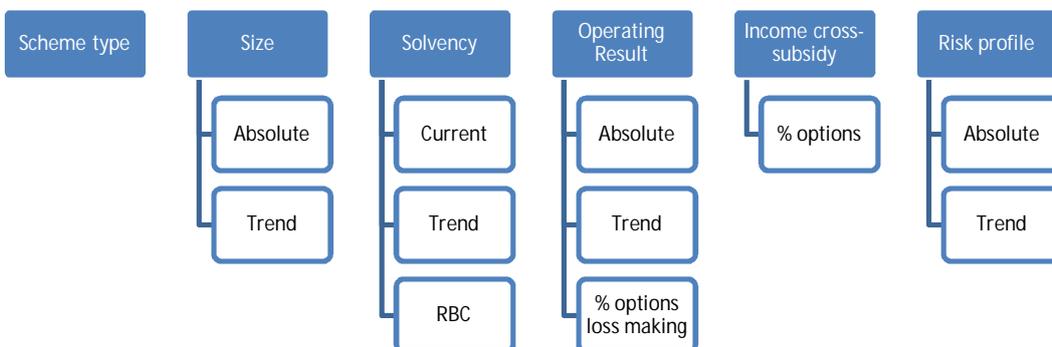
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<sup>4</sup> Section 7 (b) (f) (g), Section 8(j), Section 28 (j), Section 24 (2) (d), Section 33 (2) (b) (c) (d), Section 35, Regulation 2 (3), 2500 membership requirement policy at a benefit option level. Regulation 4, Regulation 29

- The operating result\* per beneficiary gives an indication of the medical scheme's performance. Schemes that are incurring losses are more vulnerable.
- Change in operating result\* per beneficiary gives an indication of the trend in the medical scheme's performance over the last three years. A decline in financial performance is a possible sign of distress.
- Proportion of the options that are loss making gives an indication of whether the loss or gains on the scheme is a function of only a few options on the scheme. It also provides an indication of risk cross-subsidies within the scheme.
- Proportion of the options with an income subsidy gives an indication of whether the scheme is providing an income cross-subsidy
- Average beneficiary age indicates whether the individuals on the scheme are higher or lower than average risk profile. A higher average age is a proxy for a poorer risk profile, and hence a greater degree of vulnerability.
- Trend in average age gives an indication of whether the beneficiary profile is deteriorating or improving over time. A higher average age implies higher expected claims over time for the scheme.
- Other contextual or qualitative factors should also be taken into account to identify schemes with administrative or operational difficulty (a high number of complaints relative to scheme size may be an indicator). Poor governance should also be identified as it would be beneficial to amalgamate a poorly governed scheme into a well governed scheme.

\* The scheme solvency, trend in solvency and RBC solvency should be considered together to give an indication of the solvency risk faced by the scheme. Schemes with weak solvency positions provide strong consideration for amalgamation. However, schemes with very weak solvency and deteriorating operating results would put pressure on a consolidated scheme's financial sustainability. Schemes with very weak solvency and operating results pose a risk of pulling the consolidated scheme into an actuarial death spiral, so the timing for consolidating such schemes needs to be carefully considered. If such schemes are large in size, their consolidation should be postponed, or enough capital should be transferred in order to bolster the financial position of the consolidated scheme.

Figure 6: Scheme sustainability indicators



### 7.3 Other consolidation approaches

The consolidation approach discussed in this document focuses on evaluating the key risk indicators for each scheme, including how such indicators could change for each amalgamation in the consolidation process. The proposed process recommends systematic phased consolidation, amalgamating a limited number of schemes at a time.

There are other approaches to consolidation which have not been considered in detail in this document. These approaches include:

- *Grouping of industry schemes*

This approach would first identify schemes within the same or similar industries. The consolidation of schemes within the same industry would then take place, possibly still using a scheme risk indicator approach.

- *Umbrella fund medical schemes*

This approach would first create an “umbrella medical aid scheme”, which would essentially have a uniform set of benefits, rules and governance team. This umbrella fund would then serve as a base fund into which each of the non-state schemes would be amalgamated into. The difference between this approach and the proposed amalgamation approach is that an “umbrella medical aid scheme” would have benefits, rules, practices defined upfront for the umbrella fund to be established, whereas the amalgamation of one scheme at a time allows for these items (benefits, rules, practices) to be reconsidered as each scheme is brought on board.

- *Identifying medical schemes that are suitable as consolidation partners for vulnerable or distressed schemes*

A process could be created to find consolidation partner schemes that are willing to simplify their benefit offering and create income cross-subsidies, to then act as consolidation partners. The idea for concerning such schemes is that they would be more likely to remain market players in an NHI environment.

### 7.4 Open vs. restricted scheme consolidation

The original approach mooted for scheme consolidation proposed that small schemes should be the focus of consolidation activity. The down-side of this approach is that restricted schemes would be disproportionately affected.

This could disadvantage members as restricted schemes usually have more generous benefits, have greater income and risk cross subsidies and more stable price increases over time. Restricted schemes also have fewer benefit options per scheme and are easier vehicles to work with to implement standardised benefit packages. As such, an approach that penalises restricted schemes is sub-optimal from a social solidarity perspective.

A more lenient approach is recommended when considering consolidation for restricted schemes. To achieve this, the risk criteria used to assess consolidation could differentiate between restricted and open schemes.

A parallel process could be initiated to implement risk and income cross-subsidies through-out the industry (examples include risk pooling and reform of the medical schemes tax credit). Delaying the consolidation of restricted schemes could ensure the protection of existing social solidarity mechanisms until alternative mechanisms are in place.

## 11. Strategy for State-Sector Scheme Consolidation<sup>5</sup>

In this section a strategy for State-sector scheme consolidation which involves stakeholder engagement, phased approach, and utilises the existing GEMS benefit option structure, is outlined.

### 11.1 Strategy for option consolidation

Section 322 of 2017 NHI White Paper states that "... *In the initial stages, all benefit options in the various schemes will be consolidated from the current 323 benefit options in 83 schemes to one option per scheme...*" Although one option per scheme is the long-term goal, a phased process will be necessary to reach that objective.

Initially it makes sense to leave the GEMS benefit option range unchanged. Having a wide range of benefits will make it easy to accommodate most beneficiaries with relatively limited benefit changes. This will help to minimise the impact on beneficiaries and help to limit possible resistance to amalgamation. In addition, it may make sense in some cases to keep options from the schemes amalgamating into GEMS in order to ring-fence particular risk groups.

Option consolidation should only happen after the scheme consolidation process is complete and finalised. From a technical perspective, the financial impact is easier to predict if options can be closely matched (i.e. easier to amalgamate if there are lots of options), and also if we claim behavior can be predicted. Simultaneously changing options would increase the risk of mis-pricing.

### 11.2 GEMS benefit option design

The table below sets out the broad design features of the GEMS benefit option range.

*Table 2: GEMS benefit design*

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<sup>5</sup> Consolidation in this document includes both amalgamations and liquidations as per section 64 and section 65 of the Medical Schemes Act respectively

	Sapphire	Ruby	Beryl	Emerald	Onyx	
<b>Hospital Benefits</b>	Reimbursement rate	100%	100%	100%	100%	
	Network	State + Private	State + Private	State + Private	State + Private	
	PMBs	PMBs only	PMBs + Other	PMBs only	PMBs + Other	
<b>Day to day Benefits</b>	Member Savings	No	Yes	No	No	
	Thresholds	No	No	No	No	
	Family limit	R0 -R5 000 /up to 12 Visits	None	R0 -R5 000 /up to 12 Visits	R5 001 - R10 000 / 13 to 18 Visits	R10 001 + / 18+ Visits
	Network	Yes	No	Yes	No	No
<b>Chronic Benefits</b>	Network	State + Private	State + Private	State + Private	State + Private	
	Chronic	PMBs only	PMBs + Other	PMBs only	PMBs + Other	
	Classification as per annual report (membership section)	Traditional & PMBS Only @ DSPs	Savings + PMBS & other Chronic @ DSP	Traditional & PMBS Only @ DSPs	Traditional + PMBS & other Chronic @ DSP	Traditional + PMBS & other Chronic @ DSP
	Classification as per annual report (OOP Section)	Traditional - Low	New Generation - Low	Traditional - Low	Traditional - High	Traditional - High

### 11.3 Expected impact of amalgamations on GEMS

GEMS has commissioned work to understand the expected financial impact of widening their scheme eligibility criteria. The work, entitled "Expansion of Eligibility for membership of GEMS", sets out the details in this regard. Information contained in this section is drawn from the GEMS report.

The work done so far:

- Assumes that members from the other closed schemes will have similar claiming patterns to that of current GEMS members.
- Assumes that members on the other closed schemes will have similar income distributions or family structures to that of current GEMS beneficiaries.
- Assumes that the eleven schemes will consolidate with GEMS, one at a time (in an assumed order).
- Makes an assumption regarding the GEMS options which members of the restricted schemes would join (details are outlined below).
- Recommends the Section 63 amalgamation, which assumes that reserves will be transferred to GEMS.

Table 3: Assumptions regarding which GEMS option might be joined

Restricted medical scheme	Option	GEMS option
Rand Water	Option A	Emerald
	Option B	Beryl
SABC	SABC Plan 009	Emerald
Medipos	Option A	Onyx
	Option B	Emerald
	Option C	Sapphire
Wits	Wits Staff	Emerald
Rhodes	RUMED	Emerald
UKZN	Savings Plus Plan	Emerald
SAMWUMed	Option A	Sapphire
	Option B	Beryl
LA Health	LA Core	Onyx
	LA Comprehensive	Onyx
	LA Active	Ruby
	LA Focus	Beryl
	LA Keyplus	Sapphire
Parmed	Plan - 007	Onyx
POLMED	Higher Plan	Onyx
	Lower Plan	Beryl
Transmed	State Plus Network	Sapphire
	State Plus Own Choice	Beryl
	Guardian	Emerald
	Private Network Saver	Onyx

Based on the assumptions made, the financial results below are expected to arise following the amalgamation of the eleven restricted schemes into GEMS. Results are shown in 2017 money terms.

Table 4: Possible financial impact of selected restricted schemes amalgamating with GEMS

	GEMS prior to amalgamations	Simulated restricted scheme performance	Amalgamated scheme
Number of members	690 072	337 094	1 027 166
Gross contributions	35 496 012 845	18 087 283 674	53 583 296 519
Savings contributions	792 027 755	373 034 535	1 165 062 290
Risk contributions	<b>34 703 985 090</b>	<b>17 714 249 139</b>	<b>52 418 234 229</b>
Claims incurred	29 783 746 525	14 805 154 883	44 588 901 408
Gross underwriting result	<b>4 920 238 565</b>	<b>2 909 094 256</b>	<b>7 829 332 821</b>
Non-healthcare expenses	2 080 763 958	1 016 434 829	3 097 198 787
Surplus from operations	<b>2 839 474 607</b>	<b>1 892 659 427</b>	<b>4 732 134 034</b>
Investment income	388 539 747	578 651 222	967 190 969
Net underwriting result	<b>3 228 014 354</b>	<b>2 471 310 649</b>	<b>5 699 325 003</b>
Accumulated funds	5 404 088 371	10 290 921 762	15 695 010 133
Reserve ratio	<b>15.22%</b>	<b>56.90%</b>	<b>29.29%</b>

GEMS' reserve ratio is expected to increase from 15.22% to 29.29% if all eleven restricted schemes amalgamate with GEMS and transfer their reserves to GEMS.

Table 5: Possible financial impact of Polmed and Transmed on amalgamating with GEMS

	GEMS prior to any amalgamation	GEMS with all schemes except Parmed, Transmed and Polmed	GEMS with all schemes except Transmed and Polmed	GEMS with all schemes except Transmed	GEMS after amalgamation with all schemes
Risk contributions	34 703 985 090	39 130 519 414	39 301 536 657	51 505 655 154	52 418 234 229
Surplus from operations	2 839 474 607	3 367 777 782	3 337 784 992	5 286 499 332	4 732 134 034
Accumulated funds	5 404 088 371	9 512 924 690	9 650 319 179	16 034 897 799	15 695 010 133
Reserve ratio	15.22%	23.61%	23.85%	30.44%	29.29%

Both Transmed and Polmed would have significant influence on the financial impact of amalgamating with GEMS. Transmed is significantly lossmaking, and amalgamation of GEMS and Transmed would result in the GEMS reserve ratio dropping. If only Transmed amalgamates with GEMS, the GEMS reserve ratio would be expected to reduce by 1,15%. Given the significant lossmaking position of Transmed, it is advisable that amalgamation with Transmed should occur last, i.e. after all the other amalgamations with restricted schemes have taken place.

Polmed has a significant surplus (compared to the other selected restricted schemes) and amalgamation of GEMS and Polmed would result in the GEMS reserve ratio improving. If all schemes except Polmed amalgamate with GEMS, the reserve ratio is projected to increase from 15.22% to 22.69%.

The impact of individual members electing to transfer to GEMS (without any transfer of reserves) is illustrated in the table below. If all eleven schemes join GEMS without transferring reserves, the reserve ratio will reduce from 15.22% to 13.72%. It is clear that the consolidated scheme would be in a considerably worse financial position if individual members transferred to GEMS *without* any transfer of reserves.

Table 6: Possible financial impact if only some restricted scheme members join GEMS

	GEMS prior to amalgamations	10% of restricted scheme members transfer to GEMS	25% of restricted scheme members transfer to GEMS	50% of restricted scheme members transfer to GEMS
<b>Number of members</b>	690 072	723 781	774 345	858 619
<b>Gross contributions</b>	35 496 012 845	37 304 741 212	40 017 833 764	44 539 654 682
<b>Savings contributions</b>	792 027 755	829 331 209	885 286 389	978 545 023
<b>Risk contributions</b>	<b>34 703 985 090</b>	<b>36 475 410 004</b>	<b>39 132 547 375</b>	<b>43 561 109 660</b>
<b>Claims incurred</b>	29 783 746 525	31 264 262 013	33 485 035 246	37 186 323 967
<b>Gross underwriting result</b>	<b>4 920 238 565</b>	<b>5 211 147 991</b>	<b>5 647 512 129</b>	<b>6 374 785 693</b>
<b>Non-healthcare expenses</b>	2 080 763 958	2 182 407 441	2 334 872 665	2 588 981 373
<b>Surplus from operations</b>	<b>2 839 474 607</b>	<b>3 028 740 550</b>	<b>3 312 639 464</b>	<b>3 785 804 320</b>
<b>Investment income</b>	388 539 747	446 404 869	533 202 553	677 865 358
<b>Net underwriting result</b>	<b>3 228 014 354</b>	<b>3 475 145 419</b>	<b>3 845 842 016</b>	<b>4 463 669 679</b>
<b>Accumulated funds</b>	5 404 088 371	5 651 219 436	6 021 916 033	6 639 743 695
<b>Reserve ratio</b>	<b>15.22%</b>	<b>15.15%</b>	<b>15.05%</b>	<b>14.91%</b>

## 12. Technical review of work done (state consolidation)

As part of the work entitled “Expansion of Eligibility for membership of GEMS”, modelling work was done to estimate the impact of consolidating various state-sector schemes into GEMS. In considering the modelling work done, there are several areas that warrant further investigation. The areas are listed below.

### 9.1 Sequencing

It is clear from the work done by GEMS that sequencing has a major impact on the financial soundness of GEMS post amalgamation. It would make sense for schemes with low financial impact to be amalgamated first to increase the size of the risk pool and to strengthen the capital position. This will reduce the risk of amalgamating with loss-making schemes (as the effect will be diluted).

However, the financially-optimal sequencing is likely to differ from the sequencing based on political preferences, and hence alternative sequencing strategies should be tested.

## 9.2 Benefit differences

The current modelling work doesn't explicitly consider examples of benefit differences between schemes that might pose problems. A common example is Medcor and Polmed, which have generous trauma/psych benefits because of issues in the defence force and police. Another concerning example is the generous benefit offering on Parmed that would have to be dramatically curtailed by changing to the GEMS benefit offering.

## 9.3 Dependent eligibility criteria

GEMS has very open eligibility criteria, which allows cover for significantly more beneficiaries than many other medical schemes would cover.

The modelling work done thus far does not consider the anti-selective effect of additional dependents being added. This could have a significant impact on the results and one would need to consider risk management interventions to manage the potential impact on the members. The modelling work done is also a best-case scenario in that it does not allow for an increase in family size.

## 9.4 Missing civil servants

The analysis does not include open schemes that cover civil servants, for example, Hosmed and Keyhealth, because this information is not in the public domain. In reality these civil servants would be consolidated into the State-sector scheme and the impact thereof would need to be considered.

## 9.5 Present value calculations

The current modelling work only shows the impact on solvency for a one-year period. It is essential to consider the medium to longer term impact that scheme consolidation would have on solvency

The current modelling work does not calculate the present value impact of the consolidations. The present value calculation of expected losses in relation to Transnet, needs to be better understood.

The impact of the present value could be substantial and needs to be taken into consideration. As an example, in this regard the Pre-92 pensioners who migrated from Medihelp to GEMS. For these pensioners, the annual loss was about R300 million, while the present value of future losses (in 2016 terms) was R1.2 billion.

## 9.6 Second order effects

The second order effects on the administrator and managed care market of the proposed consolidation are not detailed in the modelling, as well as the work that has been carried out so far.

Table 7: Administrators

SCHEME	ADMINISTRATOR (2016)
GEMS	Metropolitan Health Corporate (Pty) Ltd
LA Health	Discovery Health (Pty) Ltd
Medipos	Metropolitan Health Corporate (Pty) Ltd
Parmed	Medscheme Holdings (Pty) Ltd
Polmed	Medscheme Holdings (Pty) Ltd
Rand water	Self-Administered
Rhodes Uni	Providence Healthcare Risk Managers (Pty) Ltd
SABC	Medscheme Holdings (Pty) Ltd
SAMWUMED	Self-Administered
Transmed	Metropolitan Health Corporate (Pty) Ltd
Uni KZN	Discovery Health (Pty) Ltd
Wits Uni	Discovery Health (Pty) Ltd

Consolidation of schemes into the GEMS scheme means that all existing administrators and managed healthcare providers will be significantly affected.

## 9.7 Subsidy policy impact

The modelling has not taken into consideration how differences in subsidy policy between GEMS and the other schemes might impact on member option choice. As a result, there is a need for more than one option choice scenario to be modelled.

## 9.8 Income band harmonisation

In the process of consolidation, income band harmonisation must be carefully considered.

Table 8 - *Income bands of State-sector medical schemes*

Government Employees Medical Scheme (GEMS)	LA-Health Medical Scheme *one option is income rated	Parmed Medical Aid Scheme	SAMWUMed Option A	SAMWUMed Option B	South African Police Service Medical Scheme (POLMED)	Transmed Medical Fund	Transmed Medical Fund Pensioners
8 473	8 200		3 500	5 000	6 279	2 000	500
11 890	11 300		4 500	6 000	8 625	3 000	1 000
20 369	11 301		5 500	7 000	10 538	4 000	1 500
20 369			7 000	10 000	12 325	5 000	2 000
			8 500	13 000	14 343	6 000	2 500
			8 501	13 001	17 250	7 000	3 000
					21 172	8 000	3 500
					21 173	9 000	4 000
						10 000	4 500
							5 000
							5 500
							6 000

The table above gives an indication of the range of income bands that need to be co-ordinated when consolidating schemes into GEMS. Some schemes, such as LA Health, pose fewer challenges with respect to income band harmonisation, while others will be more challenging. If the movement between income bands is significantly different from expected, there would be changes to the cost of cover. More detailed data on the detailed data on the beneficiaries per income band will be required in order to accurately model the impacts of movement between bands, on members.

## 9.9 Capital requirements

GEMS does not currently meet technical solvency requirements (25% of gross contributions). The scheme's capital requirements would be lower on a risk-adjusted basis. The modelling work should include a scenario that projects solvency under both technical and RBC requirements.

## 13. Proposed Way-Forward

1. To solicit industry's views on the framework
2. Undertake a detailed systematic review of literature on all available policy options for addressing risk pool fragmentation
3. Collation of additional data:
  - Number of beneficiaries per income band.
  - Detailed benefits for affected schemes.
  - Variation in contribution increase across different options
  - Information on eligibility criteria and subsidy policies.
  - Any other relevant information
4. Finalising the consolidation framework
5. Procurement of benefit richness tool

## 14. Reference

1. Berg, M. Van Den, Groenewegen, U. P., & Groenewegen, P. (2016). Netherlands Health system review, 18(2).
2. Erasmus, D., Ranchod, S., Abraham, M., Carvounes, A., & Dreyer, K. (2016). Challenges and opportunities for health finance in South Africa: a supply and regulatory perspective, (April).
3. Gress, S., Manouguian, M., & Wasem, J. (2007). Health Insurance Reform in the Netherlands. *CESifo DICE Report*, (1), 63–67.
4. Insurance, N. H. (2000). Reducing Fragmented Risk Pools. *Health (San Francisco)*, 1–16.
5. Mcdaid, D., Wiley, M., Maresso, A., & Mossialos, E. (2009). Health system review. *World Health Organization 2009, on Behalf of the European Observatory on Health Systems and Policies*, 11(4), 1–298.  
[https://doi.org/http://www.euro.who.int/\\_\\_data/assets/pdf\\_file/0008/85391/E93667.pdf](https://doi.org/http://www.euro.who.int/__data/assets/pdf_file/0008/85391/E93667.pdf)
6. Muiser, J. (2007). The new Dutch health insurance scheme: challenges and opportunities for better performance in health financing. *World Health Organization, HSS/HSF/DP*, 38. Retrieved from [http://www.who.int/health\\_financing/documents/dp\\_e\\_07\\_3-new\\_dutch\\_healthinsurance.pdf](http://www.who.int/health_financing/documents/dp_e_07_3-new_dutch_healthinsurance.pdf)
7. Ramjee, S., & Vieyra, T. (2014). Neither here nor there: the South African medical scheme industry in limbo. *Actuarialsocietyconvention.Org.Za*, 27(October), 22–23. Retrieved from <http://actuarialsocietyconvention.org.za/convention2014/assets/pdf/papers/2014 ASSA Ramjee Vieyra.pdf>
8. Ramjee & Vieyra, 2014 (UNICEF et al., 2015)(Muiser, 2007)(Gress, Manouguian, & Wasem, 2007)(Esmail, n.d.)
9. UNICEF, Childs, B., Kaplan, J., Ranchod, S., PWC, & Bank, T. W. (2015). An actuarial perspective on medical scheme benefit design. *Designing a Healthy Future*, (November), 2. Retrieved from [http://www-wds.worldbank.org/external/default/WDSContentServer/WDSP/IB/2012/06/13/000333037\\_20120613021021/Rendered/PDF/698900ESW0P0140N0SOUTH0AFRICA001995.pdf](http://www-wds.worldbank.org/external/default/WDSContentServer/WDSP/IB/2012/06/13/000333037_20120613021021/Rendered/PDF/698900ESW0P0140N0SOUTH0AFRICA001995.pdf)
10. Van den Berg, M., Heijink, R., Zwakhals, L., Verkleij, H., & Westert, G. (2011). Health Care Performance in the Netherlands: Easy Access, Varying Quality, Rising Costs. *Eurohealth*, 16(4), 27–29.