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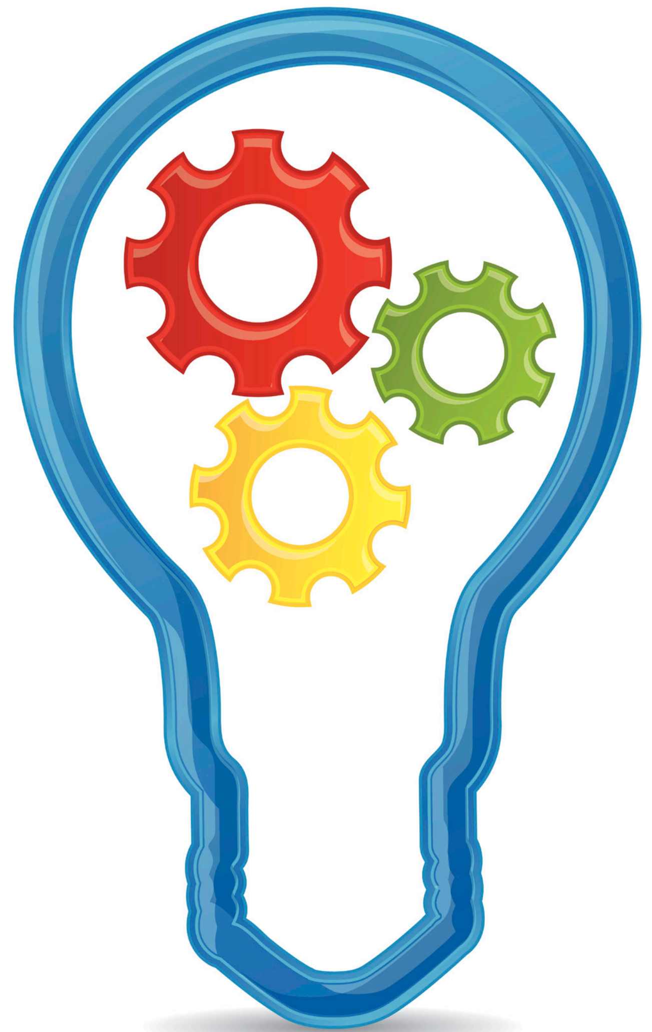
Discovery Health Medical Scheme
Operating Model and Governance Review



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Acronyms and Abbreviations

AA	Administration Agreement entered into between the DHMS and DH, on 23 June 2003
Act	Medical Schemes Act No. 131 of 1998
Administrator	An entity, on behalf of the medical scheme, who administers the business of a medical scheme in accordance with the Act and as provided for in the rules of the medical scheme
The Administrator	Discovery Health Proprietary Limited
Agreements	the AA. the MCA and SLAs
ARC	Audit and Risk Committees
Board / MOB / BoT	the Board of Trustees charged with the managing of the affairs of a medical scheme, and which have been elected or appointed under its rules
Business	(of a Medical Scheme) the business of undertaking liability in return for a premium or contribution: (a) to make provision for the obtaining of any relevant health service; (b) to grant assistance in defraying expenditure incurred in connection with the rendering of any relevant health service; and (c) where applicable, to render a relevant health service, either by the medical scheme itself, or by any supplier or group of suppliers of a relevant health service or by any person, in association with or in terms of an agreement with a medical scheme
CCOD	Compensation Commissioner for Occupational Diseases
CFO	Chief Financial Officer
CMS	Council for Medical Schemes
Council	Council for Medical Schemes
CPI	Consumer Prices Index
CSRO	Chief Stakeholder Relations Officer
DH	Discovery Health ("the Administrator")
DHMS	Discovery Health Medical Scheme ("the Scheme")
Exco Meetings	Executive Committee Meetings
FSB	Financial Services Board
GCI	Gross Contribution Income
GEMS	Government Employees' Medical Scheme
GI	General Insurance
GLM	Generalised Linear Model
HCCI	Health Care Cost Institute
HIB	Health Insurance Business
IRMI	International Risk Management Institute
MCA	Managed Care Agreements entered into between the DHMS and DH, on 23 June 2003
Member	A person who has been enrolled or admitted as a member of a medical scheme, or who, in terms of the rules of a medical scheme, is a member of such medical scheme
Minister	The Minister of Health
NHE	Non-healthcare Expenditure
pabpm	per average beneficiary per month
Parties	DHMS and DH
PBM	Pharmaceutical Benefit Management
PMB	Prescribed Minimum Benefits
RACI (matrix)	Responsibility assignment matrix (Responsible, Accountable, Consulted, Informed)
RAF	Road Accident Fund
RBC	Risk Based Capital
Registrar	Registrar of Medical Schemes
Relational Governance	A review of the relationships, interactions and governance both within DHMS as well as between DHMS and DH
RHE	Relevant Healthcare Expenditure
The Scheme	Discovery Health Medical Scheme
SLA	Service Level Agreements, documented and reduced to writing
TPA	Third Party Administrators
Transactional Governance	A review of the interactions, activities and performance of DH
VFM	Value for Money
Vitality	Discovery Group's Wellness Programme

Background

Context

The King III Code of best practice governance prescribes that the Board should be the focal point of governance and ensures that the organisation survives and thrives. It further emphasises that the Board should lead the entity ethically for sustainability in terms of the economy, environment and society, taking into account its impact on internal and external stakeholders. The Board should also strategically direct, control, set the values, align management to the values and promote the stakeholder-inclusive approach of governance.

The Medical Schemes Act 131 of 1998 ("the Act") and the Discovery Health Medical Scheme ("the Scheme") Rules clearly articulate the roles and duties of the Scheme's Board of Trustees ("the Board"):

- In terms of the duties, the Board is responsible for the proper and sound management of the Scheme as well as the application of sound business principles ensuring the financial soundness of the Scheme; and,
- In terms of the powers of the Board, an administrator and managed healthcare organisation appointed must be duly accredited on such terms and conditions as it may determine, subject to the provisions of the Act and its regulations, for the proper execution of the business of the Scheme.

The Scheme outsources all of its administration and managed healthcare services to Discovery Health (Pty) Ltd ("the Administrator") through the Agreements which were entered into between the Scheme and the Administrator. The Scheme-Administrator relationship requires the development and assessment of appropriate governance structures and exchange practices to effectively manage the relationship, while ensuring that the Scheme is at all times obtaining the best and most competitive service offering available in the market for its members. In such close inter-organisational exchanges, governance approaches are often characterised as two broad types: relational and transactional (and a combination of the two).

As part of its fiduciary and governance duties, the Scheme's Board resolved at its Board meeting held on 15 November 2011, to perform an effectiveness review of the Administrator in order to ensure that the Scheme and its members receive the required value for money from its outsourcing entity.

The Board approached four leading consulting organisations to tender for the Operating Model and Governance Review assignment. Three of the four organisations accepted the offer to tender, and presented detailed proposals to the Board at a special board meeting held on 18 July 2012. After a robust evaluation and decision process, the Board finalised the appointment of Deloitte Consulting (Pty) Ltd on 16 August 2012.

Purpose

The Operating Model and Governance Review ("the Review") intends to provide assurance to the Board that the Review has a robust framework for the appraisal of all transactional and relational governance activities that take place between the Scheme and the Administrator respectively.

The primary objective of Deloitte Consulting (Pty) Ltd ("the Reviewer") was to critically review all transactional and relational governance systems and processes, and to comment on their independence, effectiveness and robustness.

Objectives

The Board, as appointed to serve in the best interest of its members, has articulated the main objectives of this Review as to:

- Review the effectiveness of the Board's governance role and responsibilities in relation to the outsourcing and oversight of the Scheme's administration and managed healthcare services;
- Assess whether the current operating model is in the best interest of the Scheme and its members;
- Understand which operating model (fragmented versus integrated) provides the most effective platform for continuous evaluation and improvement for the Scheme in order to provide members with the best quality healthcare benefits and service;
- Evaluate the degree to which the Scheme is receiving continuous improvement innovation and best practice in its outsourced healthcare service operations as provided for by its administration and managed healthcare contracts; and,
- Review the value received by the members of the Scheme for the administration and managed healthcare fees paid to the Administrator, taking into account issues such as:
  - Benchmarking of fees in terms of the local environment and international investigation;
  - Performance of the Scheme relative to its competitors;
  - Investments in continuous improvement and innovation practices;
  - Impact of any economies of scale.

Authority and Scope

The Reviewer is authorised by the Board to investigate the objectives stated above. As a result, the Reviewer:

- Has the discretion with regard to which appropriate contractual, process, procedural, reporting and control documents and / or information they require in order to carry out the Review;
- Is authorised to conduct interview sessions, create sub-groups or otherwise, as are necessary to fulfil its responsibilities within the stated objectives;
- May not delegate executive powers (unless expressly authorised by Board) and remains accountable for the work of any such group; and,
- Is authorised by the Board to obtain external technical advice with relevant experience if it considers this necessary (as pre-approved by the Scheme).

Executive Summary

Deloitte was appointed to conduct an Operating Model and Governance Review of the relationships, governance structures and interactions between the Scheme and the Administrator. This review also benchmarked the fees and services of the Administrator against those offered by other administrators and/or managed care organisations in order to assess whether the Scheme is benefiting from economies of scale and that the Scheme is in a position to choose the "best of breed" supplier.

Deloitte was provided with access to a range of information in the form of presentations, site visits, interviews, discussions, reports, confidential information and other documentation from both the Scheme and the Administrator. We also used publicly available information (e.g. Council of Medical Schemes (CMS) Annual Reports) in order to complete the benchmarking exercise.

Deloitte and its team members are independent from both the Scheme and the Administrator. This was vital in the execution of this project. Deloitte in addition included Mr Mike Comber, its Risk and Reputation Leader, as a team member to continually assess and ensure that Deloitte maintained the appropriate level of independence throughout this assignment.

The actuarial work was subject to a robust internal peer review process that ensures quality assurance is incorporated into our deliverables. In addition, the Scheme contracted another actuarial firm to conduct an independent peer review.

Our high-level findings are as follows:

Relational Governance

The Scheme's operational functions are fully outsourced to the Administrator. The relationship has been formalised through the conclusion of the Agreements, numerous Service Level Agreements (SLA's) and addenda to those agreements. Oversight and management of the relationship with the Administrator takes place through the Board and through the Scheme's office. Both the Board and the Scheme office were assessed in order to establish whether effective oversight of the Administrator takes place and whether this is done at arm's length. The assessment was measured against corporate governance best practice and the Act.

Our review process indicated the following:

- The governance structures comply with the provisions of the Act and have evolved over time;
- The Scheme is led by a strong, competent and independent Board that considers members' interests and the Scheme's interest as a whole in their decision-making process;
- Collectively and individually, the Board and committee members have the necessary skills, knowledge and experience to fulfil their mandate;
- Trustees are independent, fit and proper and have no conflicts of interest. In addition, Trustees are not dependent on their positions with the Scheme for their livelihood. Independence is taken seriously by Trustees and views are openly expressed without restraint;
- The Board is sensitive to the issue of solvency and all other aspects of financial sustainability and Scheme performance, and ensures sufficient focus on this;
- The Board is supported by a committee structure that is tailored to its specific needs;
- This, in turn, is supported by a combined assurance model that is tailored to the Scheme's needs. Gaps in the combined assurance provision from the Administrator which were identified as part of this review are being addressed by the Scheme office with the Administrator;
- The documentation formalising the appointment of the Administrator has become outdated since its signature. A process to rectify this had already begun prior to the commencement of the review;
- The Scheme office is led by an experienced and highly competent Principal Officer. His team of resources have key competencies and experience in critical areas to ensure effective monitoring of the Administrator;
- Monitoring of service levels take place through the Principal Officer receiving multiple reports from the Administrator, attending the Administrator's Exco

and other relevant meetings and information is then conveyed and reported to the Board. The metrics that are measured have continually evolved over time and a process is now underway to formalise the current service levels between the Scheme and the Administrator to the degree of detail required. In addition, the need for additional resources within the Scheme office to enable the increased formal monitoring has been identified;

- Trustees actively participate in Board deliberations, have sufficient understanding of the context and content of the information provided and provide constructive suggestions and direction to the Board, the Scheme management and the Administrator;
- The balance of power is maintained by the Board having ultimate decision-making power for the Scheme. They can, and we are informed that they do, request information as required for decision-making purposes. This is further balanced by the Principal Officer having operational insight into the Administrator through attendance at the Administrator's Exco and other relevant meetings where the Principal Officer has access to the Administrator's own performance monitoring. The intention is to further maintain the balance of power through the Scheme developing more formalised performance monitoring mechanisms, and the Scheme developing the service levels underlying the performance which will be monitored. This will be done largely by aligning service levels to international outsourcing best practice;
- The Principal Officer, through the Scheme office, continuously drives the provision of the right level and kind of information from the Administrator. Reporting requirements are continuously developed and refined to assist the Board in its decision-making;
- Information provided by the Administrator is detailed, technical and of a high quality. The Principal Officer plays a critical role in accessing and managing information received. The Scheme office drives the kind and level of information provided to the Board by the Administrator;
- The Scheme office is purposefully very lean on resources. The preference for a small, flexible team needs to be weighed against the benefits, and should not be guided by cost alone. Once the new SLA's with the Administrator have been formalised, there is a concern that the current capacity of the Scheme office to fully manage the relationship and monitor all the additional and onerous performance criteria, may be under pressure. Additional Scheme office functions have already been approved by the Board and further additions have been recommended;
- The Scheme has not developed its own stakeholder engagement framework and has relied on the Administrator to provide these services to the Scheme. A Communication Framework has been established and is monitored by the Scheme, but this should be extended to include a Scheme stakeholder engagement framework; and,
- There is limited oversight of the entire suite of marketing services being provided to the Scheme, but plans are being put in place to address this. Recommendations on how best to structure this have been made. Information requirements are continuously being refined by the Scheme office and the Board and this should continue to ensure effective oversight.

Transactional Governance

The transaction between the Scheme and the Administrator can be summarised as follows: "In return for a payment of a predetermined fee, the Administrator provides the Scheme with administration and managed care services, governed by Service Level Agreements". The Administrator makes significant investment into driving efficiencies and the management of the Scheme, which benefits both the Scheme and the Administrator in terms of growth, sustainability and financial security. The purpose of the transactional review aims to assess if the Scheme receives Value for Money from this transaction and whether the members of the Scheme benefit from the scale of operations, as well as from the skills, experience and systems applied by the administrator to the business of the Scheme.

The transactional review indicated the following:

General:

- Like for like comparisons of administration and managed care fees across the medical scheme industry is difficult. This is due to the diversity in the services paid for and invested in by schemes through the administration and managed care fee;
- Non-healthcare costs for open schemes are significantly higher than those of restricted schemes (R154.08 pabpm vs. R76.07 pabpm in 2011) implying that the differences in the scope of non-healthcare activity between open and closed medical schemes renders a direct comparison flawed; and,
- On superficial comparison, the Scheme pays the highest administration and managed care fee in the open medical scheme industry. However, the types and level of activities included within this fee are not comparable to the fees paid by other schemes for administration and managed care due to the Administrator providing the Scheme with a comprehensive set of administration and managed care services; whereas many other schemes pay additional fees for specific services to their administrators and/or other third parties. Based on a comparable fee allowing for similar activities, the Scheme fee is within one standard deviation of the large open medical schemes average, indicating that it is not a significant outlier to its peers.

Economies of scale:

- The Scheme administration and managed care fees account for approximately 51% of Third party Administrator (TPA) fees paid within the open medical scheme environment with a corresponding market share of approximately 48.5% in 2011. The obvious question that arises is whether the Scheme benefits from economies of scale. Based on international experience within the American Health Insurance environment healthcare administration on individual life business is on average 42% higher than the costs of administration for larger groups, whilst in the Australian market it appears that on average small insurers have approximately 30% higher management expenses compared to larger insurers. However, within the open South African medical scheme industry there appears to be no benefit from scale on the larger schemes i.e. economies of scale with regards to healthcare administration is evident in the United States and Australia but not in South Africa;
- The fees charged by the Administrator, in real terms, have decreased over time i.e. compared to 2005, the average fee pmpm is 27% lower in 2012. This effectively shows that the Scheme has benefited from economies of scale in terms of a reduced administration fee;
- We have considered international experience in our assessment of economies of scale. Based on this and discussions with industry participants, at a high level we have assumed that the proportion of fixed expenses within a TPA range between 40% and 50% of total expenses. It appears that if the proportions of total expenses that are fixed are approximately 40%, then the Administrator is passing on a significant proportion, if not all, of the cost reductions that arise from scale. However, if the proportion of total expenses that are fixed is less than 50% and closer to 40%, the reduction in fees received from the Scheme (i.e. 27.18%) relative to the expected reduction in costs (i.e. minimum of 28.34%). This implies that the Scheme should continue to explore scope for further savings in administration fee. The Administrator has indicated that approximately 16% of its costs are fully fixed, a further 33% are semi-fixed, with the balance being fully variable. This will however need to be assessed through negotiation with the Administrator; and,
- With the constant growth of the Scheme, assessing levels of economies of scale being shared with the Scheme is a constant issue for evaluation by the Board.

Performance:

- Overall, across the combined performance areas identified by Deloitte's Medical Scheme Performance Model, the Scheme performs the best compared to its benchmarked peers i.e. large open medical schemes. The Scheme performed particularly well in the performance areas of Financial Strength, Growth and Sustainability, Quality and Value for Money.

- While the majority of schemes have done well to control their age profile in a community-rated environment without risk equalisation, the Scheme has done particularly well, aging at a materially slower rate than the other open medical schemes, primarily due to rapid membership growth with new entrants demonstrating lower average age than existing Scheme members;
- Medical schemes are generally struggling to grow their membership. The Scheme is the only open medical scheme, achieving consistent steady growth over the past five years. According to the CMS reports between 2007 and 2011, DHMS grew by 466 891 lives whilst the rest of the open schemes collectively shrunk by 845 246;
- In terms of the Performance Model, the Scheme performed below average in the non-healthcare expense (NHE) category;
- The levels of total NHE (as a % of gross contribution income (GCI)) for the large open schemes vary from 10.17% to 20.82%. The Scheme has an above average level of total NHE relative to other large open schemes. Nonetheless, most large schemes, including the Scheme, have been reducing their total NHE relative to GCI over the years;
- On a like-for-like comparison in terms of activities conducted, the Scheme has the third highest comparable NHE amongst large open medical schemes. The Scheme's Board and the Administrator have committed to reducing NHE (excluding broker fees) to 10% of gross contribution income by December 2014; and,
- Based on the performance findings, it is evident that the best performing schemes are those schemes that tend to have a higher comparable NHE fee.

Value for money:

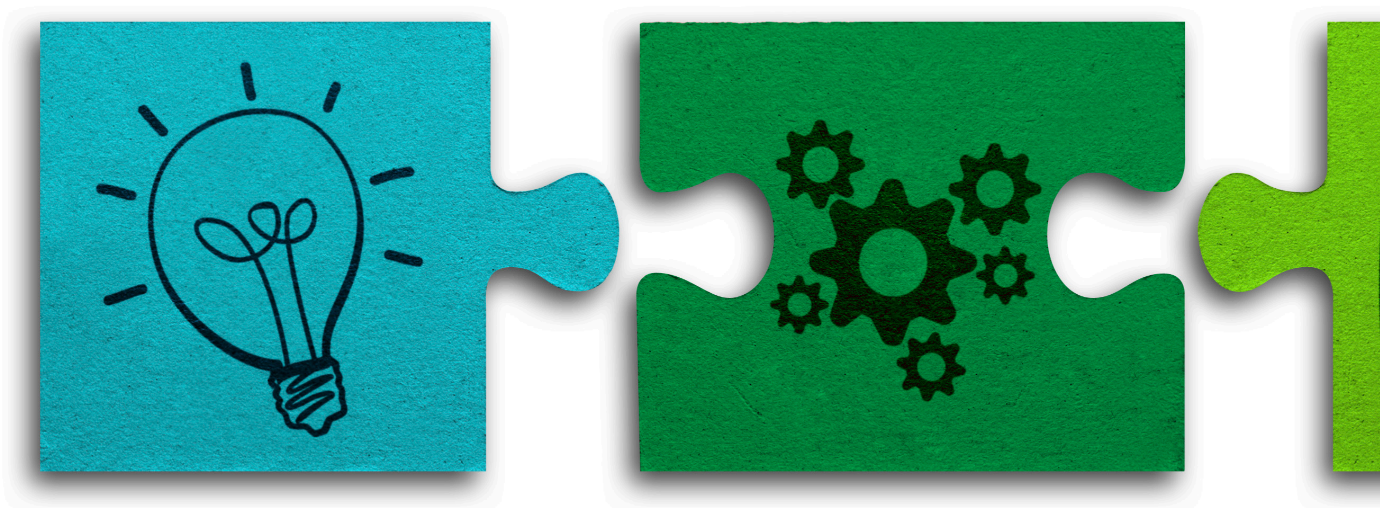
- Value for money is a relative term and needs to capture both cost and quality of services rendered. Currently, the medical scheme industry fails to capture the quality of service when comparisons of administration and managed care fees are made. The transactional governance review performed by Deloitte calculates a quality adjusted TPA fee which ranges between R239.70 pabpm to R275.12 pabpm compared to the actual fee paid to the Administrator of R135.60 pabpm. This implies an effective incremental value to Scheme members of R104.10 to R139.92 pabpm. Of this, R84.92 pabpm to R120.34 pabpm of the incremental value are attributable to the impact of the Administrators' risk management services relative to the rest of the open medical scheme industry (i.e. a range of 11.70% to 16.58%);
- The results of the quality adjusted TPA fee indicate that for every R1 spent on TPA fees, a Scheme beneficiary receives between R1.77 and R2.02 in terms of additional value created through the activities of the Administrator; and,
- On average, total NHE contributes between 10% and 15% to overall costs of a medical scheme. The Scheme's NHE is 7.65% (or R11.43) higher pabpm relative to the average of the open medical scheme industry. However, member risk contributions are 15.18% (or R158.24) lower than the open medical scheme industry on average and, at the same time, the Scheme experiences 11.7% to 16.58% lower claims compared to the average of the open medical scheme industry on a pabpm basis. This indicates that while the members of the Scheme pay a slightly higher than average administration fee, they benefit by paying lower contributions, and that the administration fees create value for members through this mechanism. On a net basis, members are therefore R146.81 pabpm better off.
- It is evident that the Scheme outperforms its peers and significant value is created for the Scheme and its members through the activities of the Administrator.

Operating model:

Based on the analysis of the type of model, it appears that the model in which administration and managed care have been outsourced to the same provider (integrated), incurs on average 15% lower NHE than the model which outsources administration and managed care to different providers (fragmented model). However, the performance of the type of model needs to be compared with the relative cost difference. From an overall performance point of view, the model where administration and managed care is outsourced to the same provider i.e. an integrated model (ave performance rank 3.89) results in a better performing scheme relative to that of the performance (ave performance rank 6) of a scheme that adopts a fragmented outsourced model (this is based on Deloitte's Medical Scheme Performance model).

It is important to note that all of these analyses have been performed using 2011 data. We are aware that the Scheme's administration fees have reduced further in 2012 and 2013 which would impact positively on some of the observations in this report.

Method and Approach



Both the Scheme and the Administrator authorised Deloitte to have access to a range of documents and allowed interaction with personnel for the duration of this Review.

At the start of the Review, Deloitte spent almost two weeks in presentations with the Administrator in order to understand how they structure and deliver their business. In addition to detailed presentations on aspects of their business that serve the Scheme, they provided files that included reporting structures, detailed service overviews, in-depth reporting, confidential information and quality assurance procedures. Deloitte also conducted extensive walk rounds in order to view and understand the Administrators day-to-day operational delivery and management processes. This included visiting and meeting with personnel who interacted with members, as well as understanding the infrastructure supporting their service delivery. The various streams of experts in the Review then accessed other information specific to their requirements – these are detailed under the Relational and Transactional Sections below.

Deloitte was not able to undertake broad scale interviews with members, but it was felt that member perceptions needed to be understood. As a proxy to these interviews, Deloitte met with six leading large corporate brokers in order to understand what attracts members to the Scheme, and identify the features and benefits that were key to the retention of members on the Scheme. Deloitte believes that this approach provides a more objective and broader view of member perceptions, behaviour and attraction of the Scheme.

Relational Governance

Scope and Approach

The scope of the relational governance review included an assessment of:

- The robustness of the contractual and service level obligations agreed between the Scheme and the Administrator, as well as the management of the outsourced relationship;
- How the process of renewals of the contracts between the Scheme and the Administrator is undertaken and managed;
- The business exchange between the Scheme and the Administrator entailing:
  - Assessment of the Board's effectiveness;
  - Assessment of the Board's committees' effectiveness; and,
  - Assessment of the management of the relationship between the Scheme and the Administrator.
- The Scheme's stakeholder management and engagement.

In order to achieve the above, Deloitte adopted the following approach:

- Develop and tailor interviews to assess legal, governance best practices and Board effectiveness requirements in line with the Scheme's specific needs;
- Collate the information provided in these interviews, analyse results and develop our conclusions;
- Documentation review;
- Compile draft report;
- Discuss draft report with the Principal Officer to ensure that our findings and conclusions were factually correct;
- Issue final draft report to the Chairperson of the task team created to manage the activities of the Review; and,
- Issue final report to the Chair of the Board.

We performed our assessments by means of:

- Presentations from the senior Administrator management;
- Interviews with Trustees, Scheme management, Committee members and the Administrator's senior executives and appropriate staff;
- Benchmarking of charters, codes, policies and practices against corporate governance best practice;
- Reviewing of the contractual relationship between the Scheme and the Administrator from a relational governance perspective;
- Reviewing Board packs and reports provided to the Board to ensure that they are relevant, useful and provide sufficient information for decision making and effective oversight;
- Reviewing of the delegations of authority framework; and,
- Reviewing stakeholder engagement practices.

Information Sources

Deloitte requested, and was provided with, information which would demonstrate and inform the details of the legal and governance relationship between the Administrator and the Scheme. The following information sources were used in our assessment of the relational governance structures, processes and procedures.

Agreements

The agreements which were reviewed included the Administration Agreement (AA), Managed Care Agreement (MCA) and their various SLA's and annexures.

Board Documentation

The scope of the Board's effectiveness assessment included a review of:

- Board composition, attributes and culture;
- Board Charter/Terms of Reference;
- Agenda and meeting preparation;
- Board meetings;
- Board functioning and processes;
- Board committee membership, functioning and processes;
- Leadership and support;
- Board effectiveness and evaluation; and,
- Board orientation and development.

Board and Management Committees

The following Board and Management committees were assessed for effectiveness:

- Audit and Risk Committee;
- Clinical Governance Committee;
- Investment Committee;
- Product Review Committee;
- Non-healthcare Expenditure Committee;
- Remuneration Committee;
- Disputes Committee; and,
- Ex-gratia Committee.

Governance Documents

We also conducted a review of governance documents to assist us in substantiating and corroborating the information obtained from the interviews and presentations, and to support our findings and conclusions. The supporting documents review included:

- Scheme Rules;
- Scheme's Annual Reports;
- Board Charter and Committee Charters/Terms of Reference;
- Board and Committee packs;
- Board and Committee minutes;
- Communications Policy;
- Gift Policy;
- Governance Procedure and Delegation of Authority Policy;
- Combined assurance model assessment;
- Assurance Providers' Charters (internal audit, risk, compliance);
- SLAs with assurance providers;
- Assurance providers' frameworks (where applicable);
- Trustees CVs, Scheme management's CVs/job descriptions;
- Managed Healthcare Agreements;
- Administration Agreement; and,
- Principal Officer's reports.

Interviews

Structured interviews were conducted with Board Members, Scheme management, Administrator's executive and appropriate senior staff, and Discovery Limited's CEO. Interviews were conducted to establish the manner of business exchange between the Scheme and the Administrator, to clarify and amplify our understanding of the governance structures associated with this relationship and the Board and committees' functioning and to better understand the legal agreements in place.

Table 1: Persons Interviewed during the Relational Governance Review

Name	Trustee	Committee Chairman	Committee Member – Trustee	Other Committee Member	Scheme office	Administrator
Dr J. Broomberg						✓
Mr D. Eriksson (Independent)		✓				
Mr A. Gore						✓
Mr D. Govender						✓
Mr S. Green (Independent)				✓		
Adv N. Graves	✓		✓			
Mr J. Fourie						✓
Mr P. Maserumule	✓	✓				
Ms G. McClaren						✓
Ms S. Meintjes						✓
Mr N. Novick (Independent)				✓		
Mrs A. Prinsloo *					✓	
Dr S. Rich				✓	✓	
Dr N. Sangweni	✓	✓				
Ms S. Singh						✓
Mr B. Stott	✓		✓			
Mr M. Streak				✓	✓	
Adv. M. van der Nest	✓		✓			
Prof Z. van der Spuy	✓		✓			
Mr G. Waugh	✓		✓			

* Company Secretary until November 2012

Transactional Governance

Approach

The Scheme fully outsources its administration to the Administrator. The Scheme's Board is responsible for proper and sound management of the Scheme, financial soundness and oversight. The Administrator provides administration and managed care services to the Scheme, as defined through contracts and service level agreements, in return for a fee.

Ideally, these transactional exchanges need to fulfil best practice and provide value for money such that the members on the Scheme receive a healthcare return given their participation in the selected scheme.

The aim of this transactional review is to answer critical questions around:

- Economies of scale;
- Benchmark performance of the Scheme relative to its peers;
- Value for Money (VFM) paid by the Scheme to the Administrator for these services; and,
- Best practice around sourcing strategy (the Scheme uses an outsource business model).

Data

The transactional governance review relied upon data available in the public domain, as well as information supplied by the Administrator. Table 2 below details the sources of data used in the transactional governance review.

Table 2: Information Sources during the Transactional Governance Review

Source	Time Period
Individual Medical Scheme Annual Return Submissions	2007 - 2011
Council for Medical Scheme Annual Reports	2007 - 2011
Individual Scheme Annual Reports	2011

The primary source of medical scheme data was the Council for Medical Schemes' (CMS) Annual Returns for 2007 – 2011. It is important to note that a limitation of this data is the subjectivity applied by the various medical schemes in completing these returns. However, these returns are considered to be a reliable source of industry and scheme data. If required, the above sources of information were supplemented by schemes' websites.

It is important to note that all of these analyses have been performed using 2011 data. We are aware that the Scheme's administration fees have reduced further in 2012 and 2013 which would impact positively on some of the observations in this report.

Methodology

Benchmarking Performance of the Scheme Relative to its Peers

Identification of Benchmark Entities

The first step in any benchmarking exercise is the identification of reference entities to benchmark against. Deloitte believes that the selection of medical schemes for this purpose should be done on the basis of the following criteria:

- Take account of the purpose of the selection of the benchmark schemes i.e. to enable comparison of medical scheme performance against fees paid for non-healthcare services;
- Enable comparison of like-with-like medical schemes so that differences in performance and fees are not distorted by the characteristics of the schemes that are being compared;
- Objective basis for selection of medical schemes using pre-defined criteria rather than individual scheme selection; and,
- Based on publicly available information.

Based on the purpose of the benchmarking exercise, Deloitte explored a number of statistical models to investigate the drivers of the non-healthcare cost on a per member basis (for 2011 experience) to determine the most significant differentiators of non-healthcare costs. The following variables have been considered:

- Scheme type: Open versus restricted;
- Scheme size: Small, medium and large (as per the CMS definition); and,
- Number of benefit options.

There are numerous other factors, such as pensioner ratio and the disease burden faced by the Scheme that may influence the level of non-healthcare expenditure. These variables were not used as selection criteria for benchmarking but may be analysed together with the results of the performance and fee comparison. Furthermore, the type of service delivery model employed by a scheme i.e. whether self-administered, outsourced etc. was not used as a selection factor for benchmark entities but will be analysed together with the results of the performance and fee comparison to understand how the choice of model impacts on fees relative to the level of performance achieved.

Given the above, Deloitte has chosen to frame the benchmark selection of schemes on the following criteria:

- Scheme type: Open
- Scheme size: Large
- Number of benefit options: 85% of the medical schemes have five or more options

Thus the benchmark medical schemes selected are large open schemes. It is interesting to note that based on this selection, 85% of the medical schemes have five or more options and thus we have implicitly allowed for this homogeneity in our grouping. Furthermore, Deloitte chose to benchmark large open schemes primarily on the basis of the differences in non-healthcare expenditure activities for open and closed schemes. This is done to prevent a distorted picture of fees and performance.

The following 14 open medical schemes therefore fall within these categorisations:

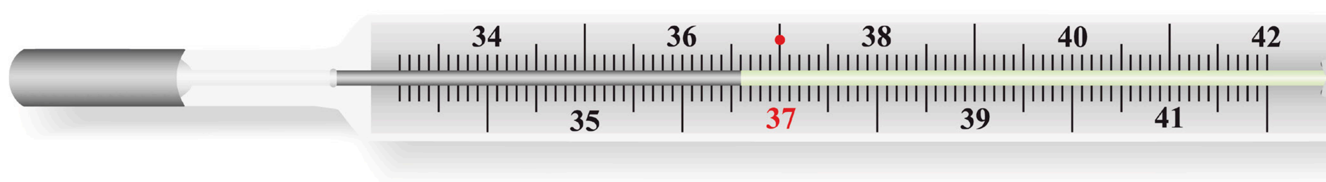
- Discovery Health Medical Scheme
- Bestmed Medical Fund
- Bonitas Medical Fund
- Fedhealth Medical Scheme
- Hosmed Medical Aid Scheme
- Keyhealth Medical Scheme
- Liberty Medical Scheme
- Medihelp
- Medshield Medical Scheme
- Momentum Health
- Pro Sano Medical Scheme
- Resolution Health
- Sizwe Medical Fund
- Spectramed

Development of a Medical Scheme Performance Model and Performance Comparison

Performance captures the relationship between inputs and outputs. In a traditional business sense, high performance is achieved through maximising outputs for a given set of inputs, or minimising inputs for a given set of outputs. This is typically captured through measures such as profit margin, market share and earnings per share. However, these measures do not capture the performance of a medical scheme.

Furthermore, performance measures should also take into consideration the purpose of a medical scheme, the regulations which govern scheme operations, as well as the environment in which schemes operate. To ensure a robust framework, Deloitte believes that performance measures need to be:

- Objective;
- Measurable;
- Verifiable: based on publicly available information; and,
- Relevant and appropriate.



Deloitte have identified five key areas which we believe capture the overall performance of a medical scheme.

1. *Financial Strength:* This performance area is a measure of a scheme's ability to withstand adverse claims experience and meet liabilities as they fall due, taking into consideration risk based capital requirements as opposed to statutory capital requirements which relate to regulatory compliance rather than financial strength. Furthermore, these measures capture the scheme's management of member funds and pricing strategies.

2. *Growth and Sustainability:*
- In an environment of open enrolment and community-rating, with the absence of a risk equalisation mechanism and mandatory cover, schemes need to grow to counteract the effects of an ageing risk pool and to maintain the cross-subsidies inherent in the risk pool;
- Hence, growth is a key element to sustainability. In addition, growth is in itself a measure of perceived value, quality and strong performance;
- The other important component of sustainability is the scheme's ability to control costs. High medical inflation is not sustainable in the long term and results in higher rates of buy-downs and lapses due to the affordability constraints of members. This in turn hinders the growth of the medical scheme risk pool; and,
- Therefore, growth and sustainability measures are key indicators of a scheme's current and future performance and are assessed by analysing current and historic trends in these areas.

3. *Non-Healthcare Expenditure:* Concerns have been raised over the high levels of total non-healthcare expenditure (NHE) in recent years. High levels of NHE can be attributed to a number of factors and include:
- Additional complexity of benefit structures resulting in the need for more complex IT systems and infrastructure;
- More stringent and onerous regulatory requirements including the growing impact of Prescribed Minimum Benefits (PMB's);
- The need for greater transparency and disclosure, as well as improved governance;
- Increasing competitiveness due to a reduction in the number of schemes each year;
- Member education and awareness resulting in a demand for improved service;
- Increasing requirements to build and maintain supplier networks in order to manage overall costs;
- Expenditure on improving the quality of clinical care provided in the private healthcare sector – particularly as care becomes increasingly fragmented and increasing resources are required to assist with coordination of care and other initiatives to improve quality of hospital and primary care;
- The increasing scope of communication channels which need to be catered for;
- The requirements for more sophisticated risk monitoring tools, particularly in the area of fraud detection and provider profiling; and,
- The increasing disease burden of schemes, which result in increasing chronic registrations, hospital and other treatment authorisations, managed care processes etc.

Therefore, a scheme's control of NHE is an important element of performance and is applicable given the nature of this assessment.

4. *Compliance, Governance and Reputation:* This performance area relates to the requirements of the Medical Schemes Act (No. 131 of 1998). In particular, the statutory solvency requirements as well as the need for the Board and the Principal Officer to be fit and proper. Therefore unethical behaviour on their part or regulatory interventions required needs to be accounted for when assessing a scheme's performance.

5. *Quality and Value For Money (VFM):* Medical schemes are mutual not-for-profit entities owned by the members and are therefore required to operate in the best interest of members. The VFM and quality of service received is therefore a significant component of the performance of a medical scheme.

Scoring Methodology of Performance Model

The scoring of each identified benchmark entity was based on the following methodology:

- The performance areas specified above were used to define performance metrics that schemes were rated against. The list of metrics is shown in Appendix B;
- The ratings of performance metrics have been formulated on a scale of 1, 2 and 3 – with 1 being the best score. For each metric, the qualifying basis for achieving each score has been individually specified in order to reflect the requirements and attributes of high performing schemes against average and below average performing schemes. The scale has been kept narrow specifically to avoid spurious division of scoring bases which may not necessarily reflect significant performance differences;
- Schemes scoring a 1 for a particular metric are satisfying regulatory requirements and guidance as well as performing well relative to their peers. Schemes scoring a 2 for a particular metric are generally slightly behind on regulatory requirements or guidance and perform average relative to peers; however these schemes are not necessarily under-performing. This leaves schemes scoring a 3 which is indicative of areas of a scheme requiring attention. In addition, a number of performance metrics are rated on the basis of a mean and standard deviation analysis. This was done in order to rate medical schemes relative to each other and understand the variability of this experience; and,
- Overall performance ranking of each benchmark entity has been calculated by ranking each of the schemes' within each performance area. These rankings were then summed up across the various areas and schemes with lower scores indicating the superior performers. This approach ensures that each area was given equal weightings irrespective of the number of metrics analysed in a performance area. This implies that each area is as important as another further signifying that high performing scheme is one that has placed adequate, balanced attention to all areas of operation.

Limitations of the Performance Areas, Scoring and Metrics

The performance metrics within the identified performance areas have been based purely on publicly available data, predominantly the CMS Annual Reports, supplemented with information from individual medical scheme annual reports and statutory returns. As these reports are made publicly available by the CMS, Deloitte has neither verified nor audited the data and relied upon the accuracy within these reports. Furthermore, not all scheme performance areas and performance metrics could be measured and analysed as the data to do so is not available publicly for all or most of the schemes analysed. In particular, the following performance metrics should have been analysed in conjunction within the broad performance areas listed above, in the case that the data is available:

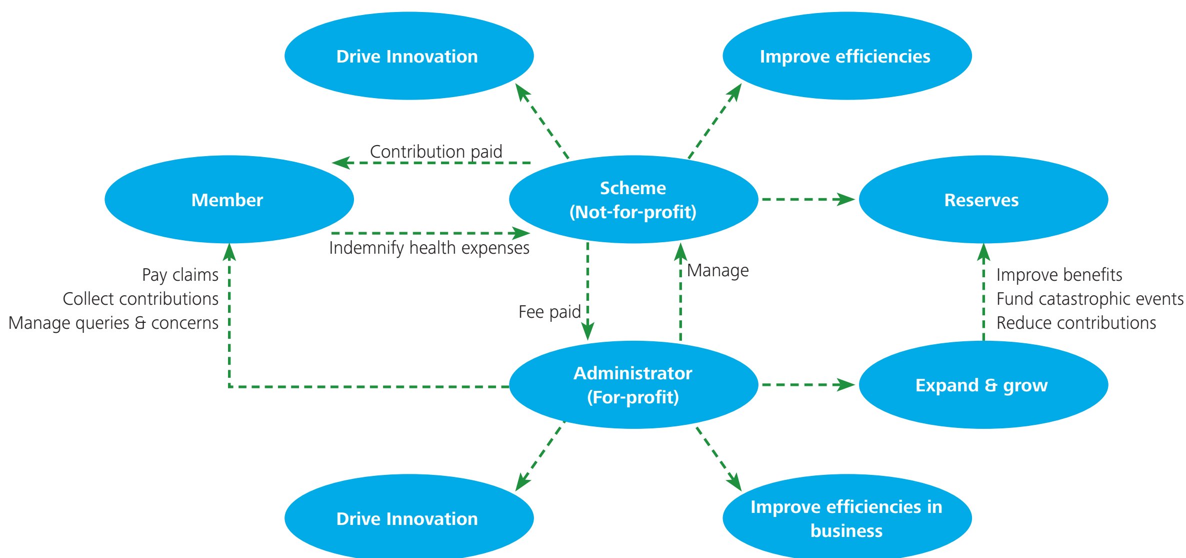
- Benefit option buy-ups or buy-downs;
- Benefit richness (on a benefit option level);
- Operational losses;
- Number and extent of provider networks, which plays an important role in the overall value delivered to members;
- Trustee qualification and experience;
- Reason for regulatory intervention; and,
- Nature of complaints.

Value for Money (VFM)

Understanding the Environment and what VFM means

The South African Medical Scheme industry constitutes three main players i.e. individual members or consumers, the medical scheme itself and Third Party Administrators (TPAs). The diagram below summarises the transactional relationship:

Figure 1: Transactional Relationship that occurs in the South African Medical Scheme Industry



From the member/consumer perspective, value is created through the:

- Level and types of benefits (for the contribution paid) offered by a scheme; and,
- Services provided from the administrator to the member, as well as the impact of interventions by the Administrator which improve the quality of care received by Scheme members and/or the health status and wellness of Scheme members.

Given the not-for-profit nature of the medical scheme, members expect contributions paid to be directed to the funding of claims expenditure and building reserves/ surplus of a scheme.

The for-profit structure of the TPA adds an interesting dynamic to healthcare provision and a rational consumer would question the fees paid to the TPA, which could otherwise have been used to enhance benefits offered or reduce the cost of medical cover.

Furthermore, a number of consumers/members may view third party administration as a commodity which is virtually no different from provider to provider; and as such, in the comparison between providers, significant emphasis is often placed on the fees charged. However, given the complex nature of the medical scheme environment and the administration thereof, particularly the fact that it involves the preservation of life, or, at least, has major effects on the quality of life, VFM extends far beyond a simple comparison of costs for services rendered.

Quality Adjusted Administration
Owing to the above points, with regards to value created from the services provided by an administrator to a member, Deloitte constructed the notion of a quality adjusted TPA fee as defined below:

Quality Adjusted TPA Fee	=	Cost of Basic Services
	+	Value added through TPA management relative to the industry

The Quality Adjusted TPA fee is based on the following methodology:

- Account for the actual input costs of the various activities including the land, labour and the equipment required to perform those services;
- Quantify the differences in service levels, quality of administration, levels of innovation and establish the value added by these services to members; and,
- Compare the quality adjusted fee to the actual fee charged to understand if members, in simple terms, obtain value that is below, equivalent to, or greater than the fee paid to the administrator.

Cost of Basic Services
In calculating the cost of basic services, the first step was to define what these services include. Based on the CMS guidelines, basic services included in pure administration include:

- Member record management;
- Claims management;
- Contribution management;
- Customer services; and,
- Financial management.

In addition, the fee paid by the Scheme to the Administrator includes the following additional activities and for comparison and consistency purposes should be included in the list of basic services. These include:

- Marketing and distribution;
- Internal audit, risk management and compliance;
- Actuarial services; and,
- Managed care.

The process of calculating these costs requires the detailed information for each activity, which is not publicly disclosed in either the annual reports or the statutory returns of the benchmark entities and cannot be extracted through any reasonable methods.

In the absence of such data, Deloitte considered segmenting the expenses of the five largest administrators in South Africa by activity to gain an understanding of the costs for specific services. However, due to consolidated reporting of parent and subsidiary companies, the financials of the administrator subsidiary company could not be extracted from their group financials.

Thus, in the absence of the detailed information, the best proxy for the costs of pure administration are the costs incurred by self-administered schemes and the best proxy for the additional activities are the fees charged when these activities are outsourced.

Value added through TPA Management Relative to the Industry
Quantifying the savings that one could expect to arise from a high quality TPA and comparing that in tandem with the fees charged by a TPA would represent the true value of the TPA arrangement. For instance, a simple yet important example is the savings that may arise through better or more advanced fraud management i.e. measuring total TPA fees paid does not quantify the savings resulting from an excellent fraud investigation executed by a skilled investigator as compared to a less qualified individual. It is most likely that the skilled individual would cost more, however the savings achieved in certain cases would far outweigh the cost. The International Risk Management Institute (IRMI) suggests that high quality TPA's save at least 10% of claims value compared to an average or low quality TPA. The IRMI has not explicitly defined their criteria associated with a high quality TPA.

A Value Formula was derived which aims to quantify the quality of the activities of the Administrator carried out for the Scheme. The formula is a static measure and assesses the value generated in 2011 and therefore does not take into account further reduction in administration fees paid by the Scheme in 2012 and 2013. The quantification of each component on the value formula is based on certain assumptions as well as internal information provided by the TPA and the external data made available by the CMS. It is important to note that the value formula is a relative formula i.e. it compares the value created for the Scheme relative to the average of the open medical scheme industry.

Value	=	TPA Management
	+	Out-of-pocket savings
	+	Impaired loss savings
	+	Pharmaceutical Benefit Management (PBM)
	+	Non-Quantifiable Benefits*

Non-Quantifiable Benefits. These include:

- Savings that arise through Vitality membership discounts. The impact of Vitality on claims costs are implicitly included in the TPA management component of the value formula;
- Projects taking into account the external healthcare delivery system e.g. co-ordinated networks; and,
- Projects focusing on improvements in quality of care received by members.

Third Party Administration (TPA) Management

Management	=	[Number DHMS lives]
	x	[(HC cost adjustment - HC cost actual)]
	=	[A] x [B]
		Where HC = Healthcare cost

[A]: Number of DHMS lives
Implicitly, as characterised by the number of lives on the Scheme, accounts for the powerful capability of the Administrator to attract a steady increase in the number of lives joining the Scheme is clear. This speaks to the attractiveness of the Scheme in terms of benefit richness and competitiveness of premiums, as well as the Administrator's sales and marketing force and the attraction of the Discovery brand and reputation, particularly the appeal of Vitality. In addition, the absolute size of the risk pool implicitly takes into account their ability to retain members and indirectly allows for the perceived quality of service received by the Scheme members from the Administrator and the "lock-in" power of the Discovery Group whereby members purchase additional products from Discovery Life, Discovery Invest, Discovery Insure and Discovery Vitality.

[B]: HC adjustment – HC cost actual
The healthcare cost adjustment in [B] above, quantifies the expected healthcare claims cost should the Scheme be administered by another party other than the Administrator. The product of the difference between what is expected and the actual experience on a per beneficiary basis multiplied by the number of lives quantifies the expected savings that may arise.

The healthcare adjustment takes into account the Administrator's capability to:

a) Encourage health seeking behaviour through Vitality and other such programmes;
b) Manage claim costs through advanced clinical, risk management and managed care programmes/ activities (innovation);
c) Manage quality of treatment essentially reducing re-admissions and higher downstream healthcare costs;
d) Advanced fraud and analytical capability;
e) Stronger negotiating power resulting in favourable provider tariffs relative to the medical scheme industry; and,
f) Stability of claim experience as a result of high levels of retention and the size of the risk pool.

In order to estimate this adjustment, the following approach was adopted:

- Based on the statutory returns submitted by the medical scheme industry to the CMS, Deloitte is able to estimate the differential in negotiated "scheme-rates" between the Scheme and the average of the open medical scheme industry excluding the Scheme. This is based on the difference in cost per day in hospital. This provides a proxy for the impact of (e) above on claim costs and represents the minimum saving attributable to the activities of the Administrator.

The limitation of this approach is that the differential may be distorted by case mix, particularly, considering the distribution of care between general, high and ICU wards on the Scheme relative to the average of the open medical scheme industry excluding the Scheme. However, based on analysis of the distribution of care as per the statutory returns, this impact seems negligible:

- In order to estimate the impact of (a) – (d) and (f), a generalised linear model (GLM) approach using a backwards variable selection process was adopted.

At a high level the modelling approach adopted is described below:

- The GLM is based on risk claim experience at an option level of the open medical scheme industry excluding the Scheme;
- The process followed in selecting the variables is objective i.e. backwards selection and hence the model chooses the variables to be included which is validated through logical argument. The variables found to be significant drivers of claim experience are:
  - Average age as a continuous variable;
  - Pensioner ratio as a continuous variable;
  - Risk Contribution Income (RCI);
  - Non-Healthcare Expenditure (NHE);
  - Utilisation indicator i.e. a categorical variable described below:
    0 Loss ratio < 90%
    1 Loss ratio > 90%
    This variable was specifically included to more accurately capture the dynamic of options that utilise a large proportion of the benefits available;
  - Various interaction terms of the above variables.
- This GLM essentially characterises claiming experience of the industry excl. the Scheme. The application of the GLM is to understand the claiming experience of the Scheme membership profile if they were a part of the industry i.e. not managed by the Administrator but if the industry were paid the Administrator management fees and members had access to the risk benefits implicit in the risk contributions on the Scheme.

The difference of the predicted claims cost versus actual cost is then attributable to the Administrator management i.e. (a) – (d) and (f) on page 20.

Limitations:

- It is important to note that theoretically a GLM requires independent observations. The Act requires each option to be self-sufficient with no cross-subsidisation between options on a scheme. Practically, given that in general, negotiations with providers may be performed at scheme level there may be inherent dependencies with respect to the healthcare and non-healthcare costs between options within a scheme which may create blocks of dependencies within the dataset;
- The GLM is based on publicly available information. In addition, the size of the sample is restricted to all open medical scheme options in 2011. This is a limited sample size; and,
- The difference between the predicted claim costs of the GLM and the Scheme's actual experience would by design of the GLM also allow for the impact of tariff negotiations implicit in the industry excluding the Scheme experience. Hence, there is the potential of double counting for the tariff effect.

Out-of-pocket savings

In general, the level of out-of-pocket expenditure is a function of the:

- Availability of benefits;
- Utilisation of benefits (function of demographic); and,
- Scheme management.

In order to quantify the financial value created, mostly owing to the activities of the Administrator in managing costs, recommending benefit structures establishing networks, and ensuring that the members of the Scheme are less exposed to balanced billing and co-payments, the difference between the average Scheme out-of-pocket expenditure pabpm and the average of the other open medical schemes (excl. the Scheme) out-of-pocket expenditure pabpm provides an indicative figure of the savings/value that accrues to a Scheme member.

Value created	=	[No. DHMS beneficiaries] x [(Avg. co-payment pabpm for open schemes (excl. DHMs))
	-	(Avg. co-payment pabpm for DHMS)]

Limitation:

This data is sourced from the annual returns of each scheme. There may be significant variation/subjectivity between schemes in completing these returns.

Impaired loss savings

An important component of a TPA function is the control and management of counterparty arrangements. The ability to collect and manage contributions received, monies owed by members and providers as well as the ability to settle claims speedily, payment to suppliers etc. well, speaks to a superior quality of service. Good financial standing with providers results in better tariff-negotiating power for a scheme itself, a greater ability to establish larger and more convenient networks of providers which eventually leads to an improvement in member satisfaction and perception of a scheme.

Impaired losses consist of:

- Contributions owed by members that are not collectable;
- Amounts owed in respect of members' portions of claims that are not recoverable;
- Amounts owed by service providers that are not recoverable;
- Amounts owed by members in respect of savings plan accounts that are not recoverable; and,
- Other amounts owed by third-parties and not specified above that are not recoverable.

Value created	=	[No. DHMS beneficiaries] x [(Net impaired loss pabpm for open schemes (excl. DHMs))
	-	(Net impaired loss pabpm for DHMS)]

Pharmaceutical Benefit Management

Prior to late 2009, Pharmaceutical Benefit Management (PBM) for the Scheme was performed by an external party. In the latter part of 2009, the Administrator developed the capability and infrastructure to perform PBM and subsequently included the function as part of the scope of its services with no additional increase to the managed care fee. In order to quantify the value created by the Administrator to the Scheme, the following formula was applied:

Value created	=	[(2009 cost per transaction) x (Annual escalation fees for 2010 and 2011)]
	x	[2011 number of transactions]

Annual Escalation is CPI for the defined period.
The sum of these value components provide an estimate of the value created for the Scheme by the Administrator through their activities.

Defining Best Practice – Transactional Review

Defining best practice with regards to non-healthcare expenditure within the medical scheme industry is a complex task. The fact that the industry is relatively young (approximately 15 years under the Act) coupled with ever-changing goalposts and together with the transactional nature and dependence on third parties to perform core functions compounds the complexity.

Previous guidelines regarding non-healthcare expenditure were set at 10% of gross contribution income for administration expenditure and 3% of gross contribution income for managed care expenses. Recently, it appears that the only guidance regarding non-healthcare expenditure for medical schemes is that NHE (excluding broker fees) collectively should not exceed 10% of gross contribution income received. A flaw of the benchmark regarding NHE (excluding broker fees) makes no mention or allowance for the value and quality received for the fees paid. It is implicit that within the measure, if a scheme's NHE (excluding broker fees) is at or below 10% of Gross Contribution Income (GCI), stakeholders may be satisfied that value for money is being achieved. In defining best practice, the type of model that yields the best value for money is just as important.

In order to understand the monetary difference/cost differential between the various types of administration and managed care models, a generalised linear model (GLM) was fitted to non-healthcare expenditure in 2011 for all open medical scheme options. The aim of the GLM is to unpack the drivers of non-healthcare expenditure and determine what proportion is attributable to the type of model itself. This is then compared against the performance of a scheme as per the performance model framework to assess which model type yields the best performance relative to its cost.

Quality Assurance and Peer Review

The report has undergone a rigorous quality control review in line with the Reviewer's quality control policies and procedures which are aligned to international standards applicable to auditing firms. This includes review by partners that have not been directly associated with the delivery of the engagement (concurring reviews) to ensure that all key issues, conclusions and recommendations are appropriate in the circumstances.

Roy Shough conducted the concurring review of the relational governance report. He is a retired Deloitte partner, an acknowledged governance expert and leader in the South African region. He was a member of the King II and King III committees that defined corporate governance in South Africa.

Deloitte uses a very robust internal peer review process that ensures quality assurance is incorporated into deliverables. Our peer review process aimed to ensure that following criteria was met:

- The approach used was sound;
- The methodology adopted was technically sound;
- The results and approach was statistically significant;
- The information and data used was publically available; and,
- Remove ambiguity.

In addition, Health Monitor (Pty) Ltd (Health Monitor) was engaged by the Scheme to act as independent peer review actuaries. Deloitte shared its working papers with Health Monitor to allow them to perform the review, and they aimed to replicate our findings and results in their review. Health Monitor confirmed at the end of their review based on the information available that methodology used was appropriate and that the results were accurate.

We believe that the approach adopted resulted in a robust methodology with technically sound results.

Findings

Relational Governance

Review of the Legal Agreements between the Scheme and the Administrator

Prior to the start of the review the Scheme had identified the need to renew the contracts between the Scheme and the Administrator. This review was initiated to assess the robustness of the contractual and service level agreements. To fully comment on the robustness of the contractual and service level obligations of the Agreements (and thereby comment on the delivery of the administration and managed health care services to the Scheme) we analysed the Agreements in terms of the following three components –

- Completeness: meaning the degree to which the Agreements comply with the existing regulatory universe applicable to them;
- Effectiveness: meaning whether or not the content of the clauses comply to existing best practice to enable efficient and effective service delivery to the Scheme; and,
- Enforcement: the extent to which the contractual and service level obligations of the Agreements are actually enforced while the Agreements are in operation.

Our findings revealed that the Agreements should be revised to align them to:

- The changed needs of the Scheme since the signature of the Agreements;
- International outsourcing best practices. Detailed service levels must be included and made legally binding as annexures to the Agreements; and,
- This process had already been initiated by the Scheme prior to the start of the Review.

Agreements Relating to the Management of the Outsourcing Relationship

Three further aspects of our findings must be highlighted, for actioning by the Board:

- To ensure that the Agreements keep pace with the changing needs of the Scheme, a formalised contract management policy and process should be put in place. This will facilitate the timeous and regular updating and amending of the Agreements to accurately reflect the relationship between the Parties;
- Particular attention, as a result of the recent changes in technology and regulation related to data privacy and data use, must be paid to developing comprehensive provisions relating to:
  - How the Scheme obtains access to the information the Administrator processes on its behalf;
  - The Scheme's ownership of the data;
  - The Scheme's usage of the data;
  - Protection of the data during the provision of services by the Administrator to the Scheme;
  - The business continuity mechanisms which the Administrator has in place in the event of disasters which could result in the loss of the information;
- The Scheme needs to keep pace with best commercial practice in terms of outsourcing best practice.

Business Exchange

The Scheme's operational functions are fully outsourced to the Administrator. Oversight and management of the relationship between the Scheme and the Administrator takes place at two levels, namely, through the Board and through the Scheme office.

Board Oversight

The Scheme's governance framework is structured to provide oversight of the Scheme's affairs by the Board through reporting lines between the Administrator, the Board and the Scheme Office. The Board has delegated certain oversight functions to its committees. Through effective oversight and reporting to the Board and its committees, management of the relationship between the Scheme and the Administrator takes place at the Board level.

Our review process indicates that there is good oversight by the Board and where there are weaknesses in the services being provided by the Administrator, the Scheme Office is in the process of addressing these gaps. Effective oversight is only possible with an effective, strong and independent Board supported by its committees and the Scheme office. An effectiveness assessment of the Board and its committees was conducted to establish this. This process is consistent with the approach and methodology of our standard Board assessment reviews.

Our review established that the Scheme is led by a strong Board with Trustees that are independent, and that have the right skills, knowledge and experience to act in the best interests of the Scheme and its members. The Board is led by a capable and confident Chairman. Trustees actively participate in board deliberations; have sufficient understanding of the context and content of the information provided, and Trustees provide constructive suggestions and direction to the Board, Scheme management and the Administrator.

Debate is robust and constructive and we noted that there were numerous instances where the Board both accept and reject the Administrator's recommendations over the last two years. Independence is taken seriously by Trustees and views are openly expressed without

restraint. Trustees view the interests of the Scheme and its members as paramount and central to all decisions to be taken by them in accordance with the Act, and the Scheme's Rules. Conflicts of interest are actively managed and this is supported by declarations being a standard agenda item for the Board and all its committees.

The Board is sensitive to the issue of solvency. This is a regulatory requirement and the Board's continued focus is warranted and legally required. The Administrator monitors and reports on the Scheme's solvency on behalf of the Scheme and the Board use the services of an independent actuary for review. Solvency is also addressed and monitored through the Audit and Risk Committees.

An important issue to consider is the balance of power between the Scheme and the Administrator as a result of the Scheme's information being held within the Administrator's systems. This information is complex and extensive. The balance of power is maintained by the Board having ultimate decision-making power for the Scheme; they can and we are informed that they do, request information as required for decision-making purposes. This is further balanced by the Principal Officer having operational insight into the Administrator through attendance at the Administrator's Exco and other relevant meetings where the Principal Officer has access to the Administrator's own performance monitoring. This provides the Principal Officer with the opportunity to oversee operations and to ensure that the Board is receiving the right kind and level of information. This information is incorporated and summarised in the dashboard provided to the Board in the Principal Officer report. Due to the outsourced relationship between the Scheme and the Administrator, it is imperative that the Scheme retain the right to free and complete access to Scheme information through its administration, managed care and service level agreements with the Administrator.

The current governance framework is structured to facilitate the process of obtaining information from the Administrator to monitor and oversee operations. These governance structures have evolved over time and are not all documented in standard operating procedures and are often an Administrator owned process/procedure rather than a Scheme policy/ procedure. To this point, we believe that all policies which the Administrator is implementing, and which affect the aims or performance measures which are agreed with the Scheme, should be developed in conjunction with the Scheme, rather than by the Administrator alone.

This will provide the Scheme with the opportunity to influence those policies such that the Administrator's execution of its services to the Scheme would be aligned to the needs of the Scheme. In addition, once detailed service levels have been developed based on global best-practice and the policies have been agreed; a detailed ARCI (Accountability, Responsibility, Consulted, and Informed) matrix should be developed to ensure clarity in respect of roles, responsibilities, communication and information dissemination.

Committees' Structure

The Board's committee structure is tailored to the Scheme's needs, complies with the Act's requirements and in most areas adheres to corporate governance best practice. The Board is increasingly focussing on clinical governance protocols and best practice with the introduction of a Clinical Governance Committee.

Certain Board committees are more mature than others, with the Clinical Governance Committee still in a process of evolution. Appendix A reflects the committees' adherence to corporate governance best practice and the Act's requirements in terms of composition. Committee members have the right level of skills, knowledge and experience and committees meet with sufficient frequency to fulfil their mandates. The committees are supported by Scheme management who attend committee meetings. Attendance includes the Principal Officer, the Clinical Risk Management Executive, the CFO and the Company Secretary; relevant Administrator functional heads, key administrator senior management and assurance providers, and the Scheme's external auditors also attend as required by the Scheme.

Audit and Risk Committees

The Audit Committee is a statutory committee. The Audit and Risk Committees are comprised of the same members and their meetings are conducted consecutively. The shared membership of the Audit and Risk Committees is good practice as issues that impact both committees can be dealt with appropriately by both committees without duplicating effort. The Scheme's Executive management are members of the Risk Committee and they attend the Audit Committee as invitees. The Chairman is prohibited from being a member of the Board by the Act. This prohibition does not accord with corporate governance best practice which recommends that the Chairman be a

non-executive director of the board. To compensate for this limitation, the Chairman reports to, and attends Board meetings to ensure that appropriate feedback on the committees' deliberations and recommendations is provided. We are satisfied that his attendance at all Board meetings addresses this concern. Trustees have also been appointed to serve on the Audit and Risk Committees which augments the feedback process to the Board.

An open, co-operative relationship with Scheme management, the Administrator, internal and external audit, the risk, compliance, forensic and finance functions is fostered by the Audit and Risk Committees. Debates are robust and committee members reportedly challenge the Administrator, where required. The Administrator's compliance, forensic, risk and internal audit functions are assurance providers to the Scheme and report to the Audit and Risk Committees, as do the external auditors. The clinical governance and investment committees and the Administrator's actuary provide reports, input and feedback as appropriate.

The governance structure is supported by a combined assurance model that is tailored to the Scheme's structure and needs. There are gaps which require attention, for example, the risk and compliance functions' independence, focus and/or skills have raised concern. The Scheme office has implemented SLAs across assurance providers to address these issues and the Administrator has explored options such as dedicated resources to address deficiencies. We have recommended a number of enhancements in this regard.

To address this gap, the Administrator is exploring assigning a dedicated compliance resource to the Scheme. We have been informed that a dedicated resource is now in place to ensure the compliance needs of the Scheme are met. We recommend that this resource be functionally accountable to the Scheme's Audit Committee and the Principal Officer. In terms of risk management, the Scheme is developing the risk management capabilities of executive management and has co-opted external expertise to assist in developing its enterprise risk management framework and reporting requirements based on best practice outsourcing. The continued residual reliance on the Administrator for execution of certain actions and the provision of information necessitates the careful definition of reporting lines, roles and responsibilities relating to the provision of risk management services, which we have recommended. The Scheme office is continually monitoring the provision of assurance from all assurance providers to ensure the right focus and completeness of assurance to meet the Scheme needs.

The quality of reporting and information provided by internal audit is considered to be adequate and at the right level to assist the Board and the Audit and Risk Committees to carry out their duties and responsibilities. Internal audit, risk and compliance annual plans and reporting should "talk a common language" to aid comprehension of the information reported and reduce complexity for the Audit and Risk Committees and the Board. We have recommended that their plans and outputs be harmonised, i.e. an integrated approach should be followed in accordance with corporate governance best practice and the intention of the combined assurance model.

Scheme Office Monitoring

The second level of monitoring is through the Scheme office and in particular the Principal Officer. Improvement and maintenance of the relationship with the Administrator by the Principal Officer has led to the current constructive relationship. Independence is critical in this monitoring. The Principal Officer's independence is a function of the independence of the structures within which he functions, as well as of the Principal Officer personally through his conduct. It is our view that the governance structure supports ensuring that dealings with the Administrator are at arm's length. The personal quality of independence is a state of mind which is indicated by a person's conduct. We are of the view that the Principal Officer applies his mind independently and is seen to be independent through his conduct and in line with the conduct one would expect to see in a relationship between arm's length parties.

The reliance on the Principal Officer personally is of concern, as is the size of the Scheme office. It may not have sufficient resources to assist the Principal Officer in performing the day-to-day functions required of him which is principally the management of the relationship with the Administrator. In addition, once the detailed service levels to be monitored are developed, we anticipate that the capacity required to monitor those detailed services levels will be insufficient. For effective management of detailed service levels, once these have been developed, the capacity needs of the Scheme office would have to be assessed. Since the service levels will be developed in accordance with international outsourcing best practice and thought leadership on this topic, the capacity requirements would have

to be aligned to this. Information provided by the Administrator is detailed, technical and of a high quality.

The Principal Officer plays a critical role in accessing and managing information received. The Scheme office drives the kind and level of information provided to the Board by the Administrator. The preference for a small, flexible team needs to be weighed against the benefits, and should not be guided by cost alone. We note that the Board has approved the position of CFO for the Scheme, and that a CFO has now been appointed by the Scheme. It is envisaged that this will facilitate operational continuity in the event the Principal Officer is unavailable. We have recommended that the Board ensure that the role of Chief Stakeholder Relations Officer (CSRO) is filled. This role would be responsible for inter alia media relations and stakeholder engagement management.

Concern around Scheme succession planning and continuity were noted. Succession planning is not currently in place. We remind the Board that corporate governance best practice recommends that the Board ensure that succession planning for the Principal Officer and other senior executives and officers is in place. We have recommended that the Board address succession planning generally and for the Principal Officer in particular.

Monitoring of service delivery is practical and occurs by virtue of the Principal Officer's attendance of the Administrator's Exco and other relevant meetings, and through the Scheme's governance structure into which reports and information are provided. However, more formalisation around monitoring of agreed service levels will take place once the new agreements with the Administrator have been signed off.

In respect of the marketing function, the Principal Officer currently has relatively less interaction and input in comparison with other functions. The Principal Officer has engaged the marketing function to commence addressing this. We have recommended that the CSRO's responsibilities include engagement with and monitoring of the Administrator's marketing function which in terms of the services provided (i.e. communication with members) is key to effective stakeholder engagement.

Oversight is only as good as the underlying structures and processes, and the transparent provision of information. Concern has been noted that control over information remains with the Administrator and oversight has been based on the information the Administrator provides to the Scheme in response to the Scheme's requirements. There has been an increased drive by the Scheme office to define its reporting requirements, reduce the amount of information provided and request specific key information required by the Scheme office and the Board. This has evolved over time with some areas being more mature than others, e.g. the provision of information relating to finance and solvency being more mature than clinical information.

Stakeholder Engagement and Management

Member Interaction and Communication

There is perceived confusion and lack of differentiation between the Scheme and the Administrator in the market, and importantly by members. This is as a result of a number of factors which include the sharing of the Discovery name and brand, the fact that interaction with the Scheme is through the Administrator by virtue of all services having been outsourced; and the Scheme having outsourced the implementation and operationalisation of the marketing and communication aspects of the Scheme to the Administrator.

The marketing function develops and drives the end-to-end marketing for the Scheme. Provision of marketing services is included in the administration agreement with the Administrator and forms part of the administration fee. These services include engagement with members which are the Scheme's key stakeholder group. The extent of the Scheme's influence is limited to managing communication with members, intermediaries and healthcare providers through the Communication Framework implemented between the Scheme and the Administrator. This framework is limited in scope to communication and does not amount to a marketing or stakeholder strategy for the Scheme.

We have made recommendations to enhance the Scheme's oversight of the marketing function. These include the introduction of a SLA with key performance metrics and defined reporting criteria; and that the Scheme drives its own marketing strategy with the Administrator, co-opting external expertise as required, with the aim of identifying the Principal Officer as the face of the Scheme and to educate members as to the difference between the Scheme and the Administrator. We have suggested that the CSRO oversee the marketing services through a marketing forum that could provide the platform for more active oversight of the marketing services being provided on behalf of the Scheme to ensure that actions taken are in the best interest of members and the Scheme overall.

We note the strength of the Discovery brand which benefits the Scheme. We do not support radical changes to the Scheme's brand, but point out the successful differentiation of Discovery's Vitality brand.

Stakeholder Engagement

The Scheme has outsourced its stakeholder engagement management to the Administrator. The Administrator engages with stakeholders across a number of service areas. There is, however, no monitoring of stakeholder engagement activities for which a consolidated dashboard can be produced. Key areas of direct interaction with members include the complaints (including complaints to the CMS), disputes and ex gratia processes which should form part of a stakeholder engagement framework for the Scheme. Development of a stakeholder relations strategy and framework for the Scheme itself is recommended with delegation for management of the processes associated therewith to the Administrator. Oversight could take place through a stakeholder forum chaired by the Scheme. This delegation must be founded on a robust SLA.

Transactional Governance

Non-Healthcare Expenditure (NHE)

The reporting of NHE varies within the South African medical scheme industry and often a distorted picture is painted through comparisons. The CMS as per the 2011/2012 annual report defines NHE as:

- Administration expenditure;
  - Direct administration fees paid to an administrator;
  - Trustees, Principal Officer and External Audit;
  - Marketing and advertising;
  - Balance of administration expenditure;
- Managed Healthcare: Management services;
- Commissions and service fees paid to brokers;
- Other distribution costs; and,
- Impaired receivables (this includes bad debt arising through non-payment of contributions, non-recovery of co-payments and saving advances to members, failure of payment from other third parties contracted to a scheme).

These are the constituents of NHE discussed below.

Background

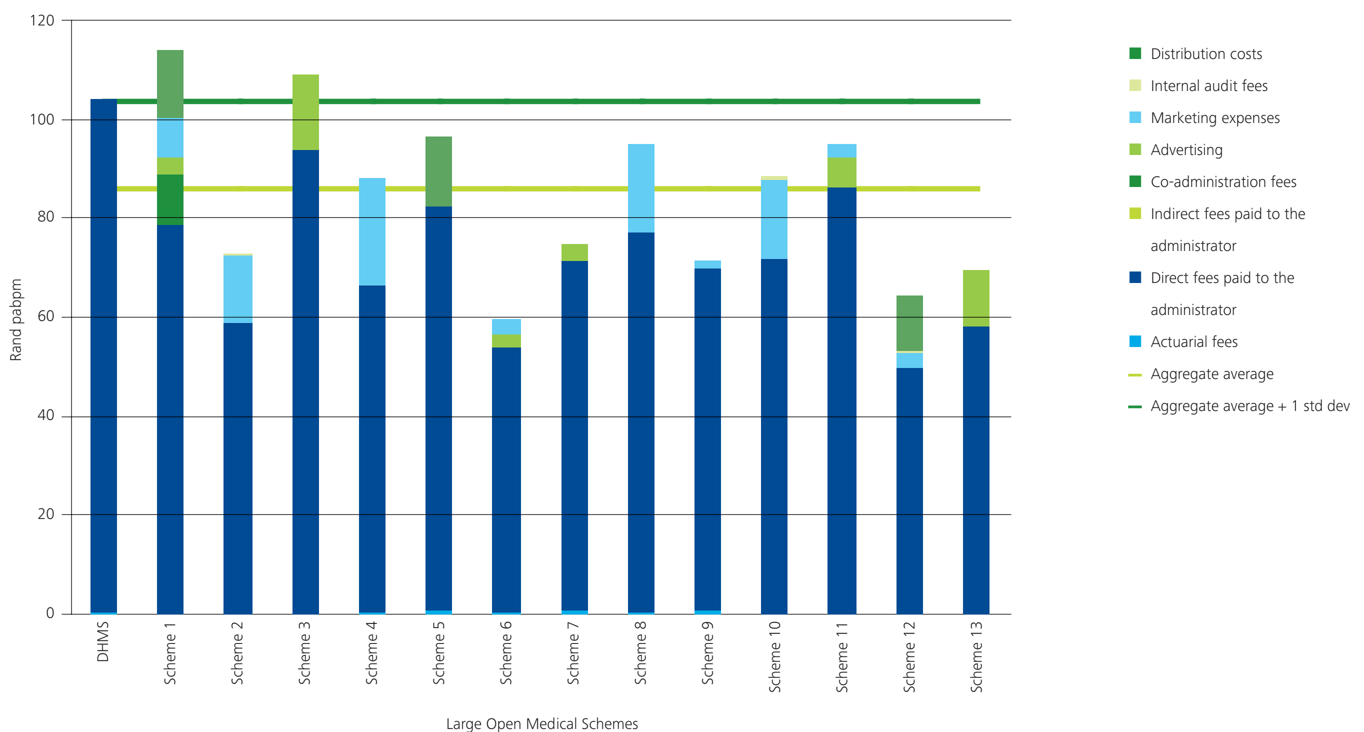
In 2011, approximately R8.5 billion (71% of total NHE was paid to for-profit TPA's. The Scheme accounts for R3.8 billion of this expenditure i.e. approximately 45% with a market share (measured in terms of total number of beneficiaries within both the open and restricted medical schemes) of 27%. In the context of open schemes, the Scheme's fees account for approximately 51% of TPA fees paid with a market share of approximately 48.5% in 2011. The obvious question that arises is: does the Scheme benefit from the scale of its size and outsourced operations?

Based on the 'Direct fees paid to the administrator' classification as per the CMS reports, the Scheme fees are the highest amongst the large open schemes on a pabpm basis. However, it is important to note that within the total administration and managed care fee paid by the Scheme to the Administrator, there are additional activities performed by the Administrator that benefits the members of the Scheme which are usually not included in most comparisons made by the industry. These include marketing and advertising, actuarial services, internal audit and distribution costs. In addition, the fees paid to the Administrator are all inclusive, whereas many open schemes pay additional fees for specific services to their administrator and/or to other third parties.

Figure 2 shows a comparable non-healthcare fee across the large open medical schemes (i.e. benchmark entities) allowing for comparable activities.

- It is interesting to note that on a like-for-like comparison in terms of activities conducted,

Figure 2: Comparison of Non-Healthcare Fees



the Scheme has the third highest comparable non-healthcare fee; and,

- Within the cohort of benchmark entities, the comparable non-healthcare fee charged to the Scheme falls within one standard deviation of the average (although on the upper end), implying that statistically the fee is not necessarily an outlier within its peer group.

Expenditure of Other Industries

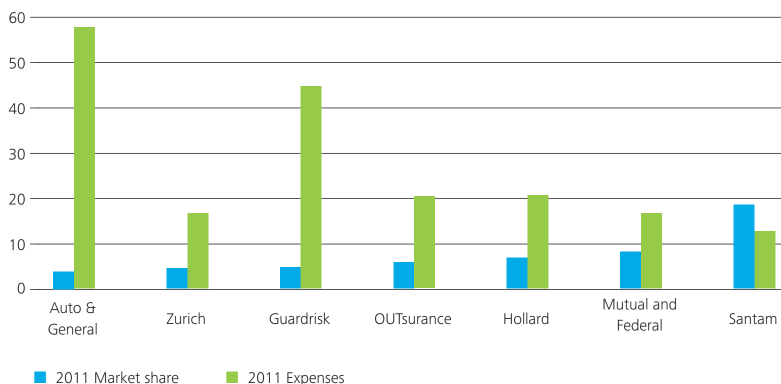
Currently, there is no official formal guidelines/best practice regarding non-healthcare expenditure for medical schemes, other than guidance from CMS that NHE (excluding broker fees) should not exceed 10% of gross contribution income received. This section of the report aims to understand the expenditure of "comparable" industries.

Table 3 below shows the cost of administration as a percentage of benefits paid out for a number of statutory social funds. The figures are extracted from the National Treasury Budget Review 2011 as reported in Healthcare in South Africa 2012.

Table 3: Administration Ratios

Administration Ratio	2010/2011 Revised Estimate	2011/2012 Medium Term Estimate	2012/2013 Forecast
South African Social Security Agency	6%	6%	6%
Compensation Commission for Occupational Diseases (CCOD)	10%	10%	9%
Road Accident Fund (RAF)	7%	7%	7%
Unemployment Insurance Fund	25%	23%	21%
Compensation Fund	40%	28%	31%

Figure 3: The Inverse Relationship between Market Share and Expenses – General Insurance Industry (2011)



- The Compensation Commissioner for Occupational Diseases (CCOD) and Road Accident Fund (RAF) experience administration expenditure that is 10% or less of benefits paid out. However, when interpreting these values, it is important to note the significant differences in the volume of transactions experienced by a medical scheme and these statutory funds; and,
- In fact, the claims processed by the CCOD and RAF, in most cases form a small subset of total claims processed or managed by a medical scheme. However, the legal and investigation costs of both the RAF and CCOD do represent a sizeable chunk of expenses.

Figure 3 below shows the percentage of expenses relative to premium income written within the General Insurance (GI) industry in 2011. The data was obtained from the Financial Services Board (FSB) Registrar of Short Term Insurance Annual Reports (Market share is based on the percentage of premium written).

- Within the GI industry, expenses for the largest players all materially exceed 10% of premium income, with only Santam being relatively close to the 10% benchmark;
- In addition, the volume of transactions of GI business is significantly lower than medical schemes and it could be argued that the complexity of healthcare administration and management is significantly more; and,
- An interesting point from Figure 3 is the impact of economies of scale in the general insurance industry. As the market share of a particular insurer increases, the expenses expressed as a percentage of net premium written, decreases exponentially.

The next section examines whether this trend is apparent in the medical scheme industry and the Scheme itself.

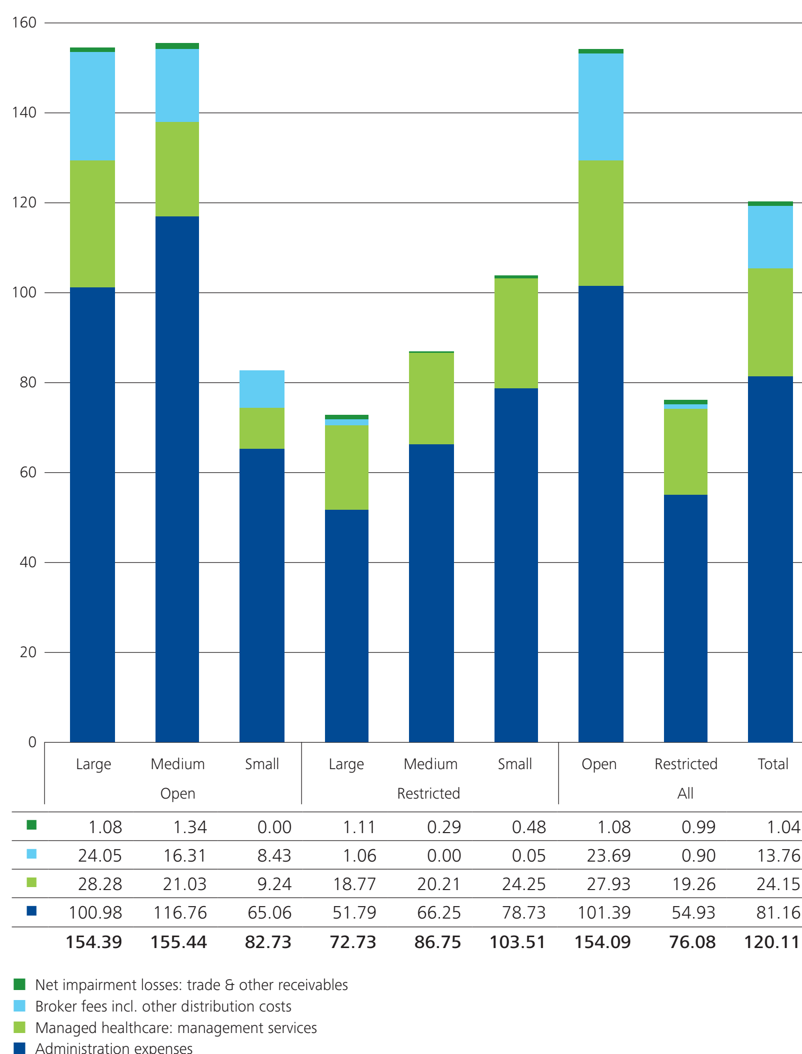
Economies of Scale in the Medical Scheme Industry

Theoretically, in microeconomics, economies of scale refer to the benefit of cost reduction as an organisation expands. Within a business, particularly administration, there are fixed costs that cause an organisation's average cost per unit to fall as the scale of output is increased. In a TPA business it is expected that as the volume of lives increase the fixed costs such as land, IT platform costs etc. will be spread over a larger base leading to a reduction in costs. However, this is subject to a diminishing return i.e. at some point the marginal cost of an additional beneficiary will be more than the marginal cost of the previous beneficiary owing to additional resources that would be needed to efficiently manage the scale of operations.

Within the South African environment, Figure 4 shows the total non-healthcare expenditure pabpm in 2011 for schemes categorised by the size of the scheme (based on the CMS definition of small, medium and large schemes) and whether it is open or restricted.

- Non-healthcare costs for open schemes are significantly higher than that of restricted schemes (R154.09 pabpm vs. R76.08 pabpm);
- Within restricted schemes, it appears that larger schemes have significantly lower average NHE compared to smaller schemes. However, it should be noted that since the majority of restricted schemes are employer group schemes, many of them are classified as small and as such the figures in Figure 4 reflect the influence of large restricted schemes such as the Government Employees Medical Scheme (GEMS);
- Administration expenses, which include the administration fees paid to the TPA; marketing and distribution costs; internal audit; actuarial costs and other operating expenses excluding broker fees and managed care costs are approximately half for large restricted schemes compared to large open schemes. This is presumably due to the fact that the large restricted schemes incur much lower marketing, distribution, risk management and underwriting costs than do large open schemes due to the different markets in which these schemes operate. In addition, administration expenditure of large open medical schemes is approximately 55% higher than that of small open schemes;
- It is interesting to note the significant differences in managed care costs between the different sizes of open medical schemes i.e. managed care fees of large open medical schemes are on average 3 times higher than the fees of small open schemes. This perhaps speaks to the varied managed care services that need to be provided on larger schemes to manage claims as a result of their diverse demographic and health profile. Given their individualised nature of managed care, the concept of economies of scale appears to be less relevant for this activity which is supported by the Milliman study below; and,
- Thus, within the open medical scheme industry there appears to be limited benefit from scale within the larger schemes when viewed on a static basis as in this analysis. It is important to note that in addition to ignoring the effects of scale over time, this analysis does not take into account other factors which can impact on changes in the costs of administration, such as the changing disease burden of the membership, benefit design and complexity, and changing marketing and distribution requirements.

Figure 4: Non-Healthcare Expenses papbpm



	Open: Large	Open: Medium	Open: Small	Restricted: Large	Restricted: Medium	Restricted: Small	All: Open	All: Restricted	All: Total
Net impairment losses: trade & other receivables	1.08	1.34	0.00	1.11	0.29	0.48	1.08	0.99	1.04
Broker fees incl. other distribution costs	24.05	16.31	8.43	1.06	0.00	0.05	23.69	0.90	13.76
Managed healthcare: management services	28.28	21.03	9.24	18.77	20.21	24.25	27.93	19.26	24.15
Administration expenses	100.98	116.76	65.06	51.79	66.25	78.73	101.39	54.93	81.16
	154.39	**155.44**	**82.73**	**72.73**	**86.75**	**103.51**	**154.09**	**76.08**	**120.11**

In order to understand if this is a common experience in the healthcare industry, Deloitte analysed the NHE in the American and Australian healthcare markets. The results are shown below.

Table 4 shows the results of a study performed by Milliman[1] on the administrative expenses of commercial health insurers in the United States (US) during 2010.

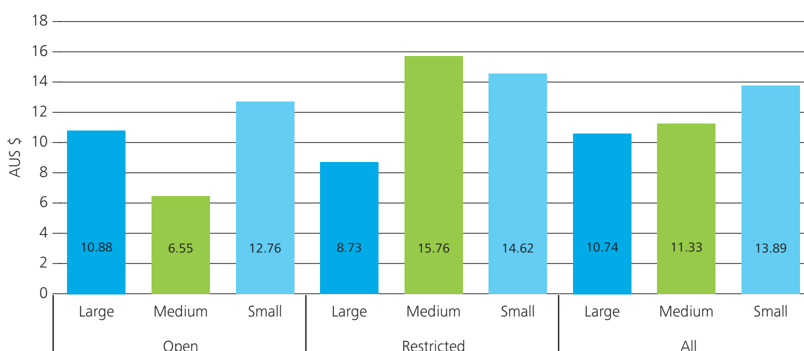
- Within the American Health Insurance environment the administrative costs of individual policies are on average 42% higher than the administrative costs of large group policies;
- It is interesting to note that the main driver of the difference in NHE in the US is broker fees and commission which is regulated in the SA market;
- Expenses for improving healthcare which is somewhat equivalent to South Africa's managed care is independent of size, with individual policies costing less to manage; and,
- Claims adjustment expenses and other general administrative expenses which account for the actual activities of the TPA are on average 14% cheaper on larger insurers than their smaller counterparts. This is most likely the consequence of the scale of operations.

Table 4: Administrative Expenses of Commercial Health Insurers in the US

Expenses Category	Insured Market		
	Large Group	Small Group	Individual
Expenses for improving healthcare quality	$ 2.36	$ 2.35	$ 1.40
Claims adjustment expenses	$ 7.88	$ 8.76	$ 8.26
Agents and brokers fees and commissions	$ 6.13	$ 15.34	$ 12.05
Direct sales salaries and benefits expenses	$ 1.69	$ 2.13	$ 2.16
Other general and administrative expenses	$ 12.78	$ 15.25	$ 16.44
Total administrative expenses	$ 30.84	$ 43.83	$ 40.31

Large groups = more than 100 employees, Small groups = 0 to 100 employees, Individual = single persons

Figure 5: Australian 2011 Scheme Management Expense pabpm



However, at face value it is difficult to compare the costs of administration between the US and South Africa due to the differences in activities, regulation, exchange rates etc.

A common ratio used to measure and compare administrative efficiency among private health insurers in Australia is the Management Expense Ratio (management expenses as a proportion of health insurance premiums received). Management Expenses are defined as "The operating expenses incurred in the normal fund operations (i.e. salaries, commission and rent)". These financial figures reported are further categorized into, viz., "Health Insurance Business Expenses" and "Health Insurance Business Claims Handling Expenses". Health Insurance Business is described as "the business of undertaking liability by way of insurance or an employee health benefits scheme that relates to hospital treatment and general treatment". Based on accepted industry norms, the management expense ratio is expected to average around 8% – 9% of premium income. Figure 5 shows the total management expenses pabpm in 2011 for health insurers categorised by the size of the scheme (based on the South African CMS definition of small, medium and large schemes) and whether it is open or restricted within the Australian Health Insurance market.

Overall, within the Australian market, it appears that there is a benefit from scale of operations in terms of lower management expenses pabpm between larger and smaller health insurers. On average, small insurers have approximately 30% higher management expenses compared to larger insurers. Interestingly, within the restricted market, there is a clear and marked benefit of scale between large and smaller insurers, with smaller insurers incurring management expenses that are 67% higher than larger insurers.

Whilst, a similar comparison of the open market shows a clear benefit of scale but markedly lower i.e. smaller insurers in the open market incur, on average, management expenses that are 17% higher than larger insurers. Consistent with the South African market, this in itself suggests an interesting finding i.e. a significant proportion of the difference in activities between open and restricted schemes such as marketing, advertising, underwriting may account for a sizeable proportion of the non-healthcare expenditure on an open scheme and are intuitively variable in nature; and hence, one would not expect "economies of scale" to realise from these activities. Thus, important questions to answer with regards to the impact of scale are:

- What administration activities realise the benefit of economies of scale?
- What percentage of total expenses do these activities constitute?
- What is the marginal reduction in costs of these activities?

Administration activities that realise the benefit of economies of scale

Intuitively, the types of activity expected to benefit from scale are those where the costs associated for that activity are fixed and not dependent on the membership basis. A study performed by the American Academy of Actuaries in 2009 divides the functions performed by a typical health insurance company into four broad categories listed in Table 5. These activities are an excellent representation of TPA activity in South Africa.

Based on Table 5, it is difficult to isolate which of the four categories are fixed and variable since within each high level grouping there are some activities that are variable and some fixed. To a large extent some elements of marketing as well as corporate services can be considered fixed. Intuitively, the land, IT infrastructure and in the short term, the labour component of account and member administration can be considered fixed or semi-fixed as well.

Based on a study of economies of scale in the services industry for multinational insurers, it was noted that insurance firms primarily gain economies of scale from four specialised insurance activities: rate making, underwriting, claims settlement, and investments. From Table 5, this ranges across all groupings as previously stated.

Percentage of total expenses that benefit from economies of scale

This is an important question as it identifies the proportion of total expenses that are expected to decrease with an increasing membership. In order to determine this proportion, various studies were considered. Based on the level of information available, focus was placed on the United States and Australia.

United States of America

The data in Table 6 is based on experience of the Blue Cross Blue Shield (BC/BS) plans (including plans of different sizes and both for-profit and not-for-profit plans) in 2009.

Table 5: Categories of Fixed and Variable Expenses

Marketing	Provider and Medical Management	Account and Member Administration	Corporate Services
Marketing	Provider and Medical Management	Account and Member Administration	Corporate Services
Market Research	Provider network/ contract	Enrolling & billing	Finance & Accounting
Plan/Product Design	Provider and program quality admin and reporting	Claims & member* administration	Actuarial
Market Campaigns/ Sales	Medical management	Information Technology	Risk Management
Advertising & Public Relations	Pharmacy management	Customer Services	Legal, compliance and filing
Rating & Underwriting		Member Communications	Corporate executive and governance
		Fraud Controls	Investment services

* For ease encounter was replaced with member

Table 6: Costs pmpm of the Blue Cross Blue Shield (BC/BS) plans

Costs	Per member per month (pmpm) costs (US$)			Percentage of total costs		
	25th Percentile*	Median	75th Percentile	25th Percentile	Median	75th Percentile
Marketing	5.36	7.46	9.89	24.34%	29.42%	32.38%
Provider and Medical Management	2.08	3.12	3.87	9.45%	12.30%	12.67%
Account and Member Admin	8.81	10.23	12.16	40.01%	40.34%	39.82%
Corporate Services	3.85	4.40	5.82	17.48%	17.35%	19.06%
Combined	22.02	25.36	30.54	8.3%	10.4%	12.4%

* X percentile: X percent of plans incur non-healthcare expenditure costs lower than this value. Median refers to the 50th percentile.

Blue Cross/Blue Shield currently operates and offers healthcare coverage in all 50 states. The 38 Blue Cross/Blue Shield companies cover over a 100 million Americans. The health insurance products are offered to all segments of the population, including large employer groups, small business and individuals. Thus, the above data represent a sizeable segment of the American Health Insurance market. Interestingly, from Table 6 it can be seen that the proportion of each type of expense of total expenditure is relatively similar across the distribution of companies, with the largest variability occurring in marketing costs.

Australia

As previously stated, the management expenses of a health insurer are defined as "the operating expenses incurred in the normal fund operations (i.e. salaries, commission and rent)" which is further categorised into, viz., "Health Insurance Business Expenses" and "Health Insurance Business (HIB) Claims Handling Expenses". Claims handling expenses include the land, labour, equipment and IT required for receiving, adjudicating and paying the provider with respect to all claims submitted. Thus, based on this definition, claims handling expenses account for the majority of expenses which are expected to benefit (reduce) from an increase in the membership base. This has been confirmed by Executives in the Australian Private Health Insurance market[2].

From Table 7 it can be seen that within the Australian Health Insurance market, claims handling expenses account for approximately 20% – 30% of total costs.

Claims Handling Expenses are a subset of the functions classified in "Account and Member Administration" above and, based on the above finding, appears to account for a sizeable proportion of costs in the "Account and Member Admin" grouping.

In addition, if one considers the list of activities in the "Account and Member Administration", it would be reasonable to expect that, for example, the computer systems and software costs remain the same for enrolling, billing and providing customer service to an additional member. There are no historic literature or cost studies regarding the proportion of fixed expenses within the other broad expense categories of marketing, corporate services and provider management; but, it is noted that a proportion of these activities benefit from scale. Based on discussions with Executives in the Australian Private Health Insurance market, it appears that roughly 75% of costs are expected to be fixed and that only a small volume of costs vary with activity levels.

Thus, based on international experience, the proportion of activities included in non-healthcare expenditure that realise the benefits of economies of scale ranges significantly between entities.

It should be noted that there are limitations which stem, in particular, from the differences in the Australian and American Markets.

Table 7: Australian Health Insurance market claims handling expenses as a % of total costs

	Health Insurer			% of total expenses		
	25th Percentile	Median	75th Percentile	25th Percentile	Median	75th Percentile
Cost of HIB* expenses pmpm	15.22	18.38	22.67	81.18%	77.96%	70.04%
Claims Handling Expenses pmpm	3.53	5.20	9.69	18.82%	22.04%	29.96%
Total Cost pmpm	18.74	23.58	32.36			

* X percentile: X percent of insurers incur expenses lower than this value. Median refers to the 50th percentile.

Marginal reduction in cost for activities that realise economies of scale

In order to understand the marginal reduction in costs expected to realise on a per member basis through economies of scale, the following analytical approach was adopted:

The claims handling expenses for the health insurance market (both open and restricted) in Australia was grouped by size of insurer. It is important to note that the claims handling expenses category is a subset of the "Account and Member Administration" classification as defined above. The group sizes are selected so as to reduce the variation in fund size within the groups and hence provide a more credible result. Table 8 illustrates the (weighted) average claims handling expenses pmpa for groups of insurers varying by size.

From Table 8 it is evident that the benefits of scale materialise with an increasing membership for claims handling expenses. It is interesting to note that for the "400 000 – 650 000" cohort, claims handling expenses per member per month are almost 70% lower than the comparable cost for the "0-15 000" cohort. The theoretical micro-economics argument for economies of scale illustrates that there is a point of marginal increase in quantity production at which the benefits of size cease to provide returns (savings) as fixed costs begin to increase to support the increased members. Based on the above analysis, the diminishing return appears when the number of principal members exceed 1 500 000. The limitation of this approach is that, between 650 000 and 1 500 000 members, the exact reduction in claims handling expenses per member is unknown.

At a high level, based on the results in Table 8 of the Australian PHI market, the product of the "% reduction relative to 0 - 15 000 members" and the proportion of total expenses that the reduction applies to, provides an approximate "high level" reduction structure applicable to total costs as a result of the scale of the operations.

The results in Table 9 assume that the proportion of total non-healthcare expenditure that is fixed ranges from 20% to 75% as experienced in the Australian market.

The results are shown relative to the average of the costs associated with administering and managing a population of lives of size between "0 – 15 000". The limitation of this approach is that one assumes the benefit arising from scale (i.e. reduction in costs for all activities which are expected to benefit from scale due to an increasing membership) is equal to the cost reduction experienced for claims handling expenses. One would expect varying benefits across categories, but in the absence of reliable information, this is a simplifying assumption.

From Table 9 it can be seen that, for example, relative to 0-15 000 members, the minimum expected reduction in costs assuming a 20% proportion of fixed expenses is approximately 13% for increases in membership in the region of 75 000 to 200 000. In addition, the corresponding maximum reduction in costs is approximately 50%.

Furthermore, based on the Milliman Study of administration expenses in commercial health insurers, the difference between administration expenses of large groups and individuals on a pmpm basis provides a high level indication of the marginal reduction in costs due to scale i.e. compared to a single individual membership, the cost on a pmpm basis for an employee group of more than 100 employees is 42% lower. This finding may indicate that the proportion of expenses that are fixed are at the upper end of the range of 25% to 75%.

Table 8: (Weighted) average claims handling expenses per member per annum for groups of insurers varying by size

Insurer Size	2011 pmpm (AUS $)	% reduction relative to 0 – 15 000 members cohort	2012 pmpm (AUS $)	% reduction relative to 0 – 15 000 members cohort
0 – 15 000	10.10		10.40	
15 001 – 25 000	5.20	-48.54%	7.64	-26.59%
25 001 – 75 000	5.79	-42.70%	4.80	-53.85%
75 001 – 200 000	3.22	-68.13%	3.49	-66.45%
400 000 – 650 000	2.94	-70.86%	3.40	-67.36%
1 500 000+	4.40	-56.42%	4.32	-58.45%

Table 9: Expected reduction in total non-healthcare costs based on the assumption of either 25% or 75% of total expenses being fixed

No. of members	2011		2012	
	Minimum (20%)	Maximum (75%)	Minimum (20%)	Maximum (75%)
15 000 – 25 000	- 9.71%	- 36.40%	- 5.32%	- 19.95%
25 001 – 75 000	- 8.54%	- 32.02%	- 10.77%	- 40.39%
75 001 – 200 000	- 13.63%	- 51.10%	- 13.29%	- 49.83%
400 000 – 650 000	- 14.17%	- 53.14%	- 13.47%	- 50.52%
1 500 000+	- 11.28%	- 42.32%	- 11.69%	- 43.84%

The Scheme's benefit from economies of scale

Currently, the agreement between the Administrator and the Scheme allows for some reduction in administration fees arising from the increasing scale of the Scheme in the form of a step function. Varying levels of discounts are applied when membership levels exceed defined thresholds. This structure essentially passes on benefit through scale; the question is whether this is sufficient. In Figure 6, the actual fees charged by the Administrator for the provision of administration, managed care and other services to the Scheme are shown. These figures are based on the financial year of the Administrator, although these are consistent with the financials of the Scheme and were provided by the Administrator. The values below are shown in June 2005 base terms.

Figure 6: Discovery Health (Administrator) Average Fee pmpm (CPI adjusted)

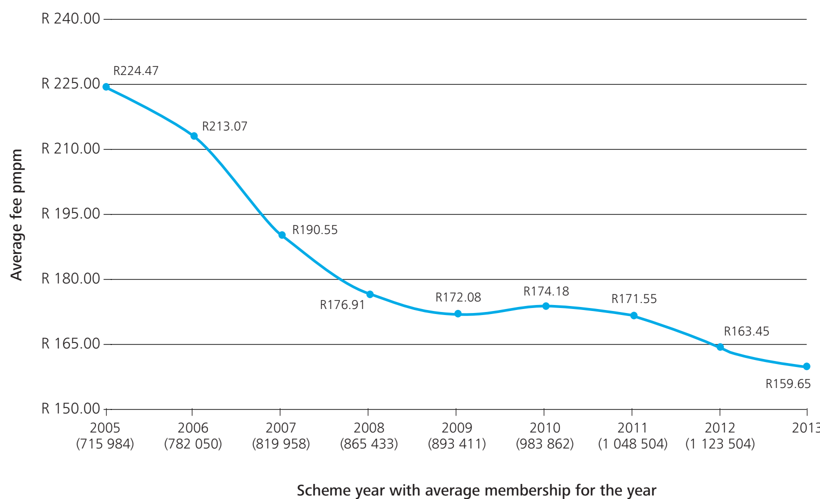


Table 10: Expected reduction in Administrators pmpm costs based on economies of scale in the Australian PHI market (2011 experience).

Year	Average Increase DHMS in members	Expected % reduction in costs pmpm (75% fixed)	Expected % reduction in costs pmpm (50% fixed)	Expected % reduction in costs pmpm (40% fixed)	Expected% reduction in costs pmpm (20% fixed)
2006	66 066	-32.02%	-24.14%	-17.08%	-8.54%
2007	103 974	-51.10%	-33.65%	-27.25%	-13.63%
2008	149 449	-51.10%	-33.65%	-27.25%	-13.63%
2009	177 427	-51.10%	-33.65%	-27.25%	-13.63%
2010	267 878	-51.10%	-33.65%	-27.25%	-13.63%
2011	332 520	-51.10%	-33.65%	-27.25%	-13.63%
2012	424 106	-53.14%	-34.55%	-28.34%	-14.17%

From Figure 6 it can be seen that with increasing membership (the Administrator has administered an increasing number of members over time), the fees charged in real terms have decreased over time i.e. compared to 2005, the average fee pmpm is 27% lower in 2012. This effectively shows that the Scheme has benefited from its size in terms of a reduced administration fee.

Table 10 shows the expected reduction in the Administrators per member per month costs that is anticipated to arise through economies of scale as based on the Australian PHI market seen above, again using the simplifying assumption that these returns to scale can be estimated from the returns to scale seen in the category "Claims Handling Expenses" in the Australian PHI market. Another important caveat that should be noted is that Australian PHI providers differ significantly from the Scheme and the Administrator in terms of scale, rates of change of scale (they tend to be stable in size, with relatively limited change from year to year) and product construct. For these reasons, comparisons should be made with caution.

Table 10 below shows the increase in members each year from 2006 onwards relative to 2005 on the Scheme with the corresponding expected reduction in costs relative to 2005. This expected reduction is based on the proportion of expenses that is fixed and the reductions experienced in the Australian PHI market. As a prudent assumption, we have shown the reduction in costs expected to realise if the proportion of expenses assumed to be fixed range from 20% to 75%.

It is evident from Table 10 that the expected reduction in costs pmpm that arise through scale is a function of the proportion of total expenses that is fixed. This is intuitive. In order to understand if the Administrator effectively "passes" on most of the cost reduction attributable to scale, the actual reduction in fees is included in Table 10.

Conclusion

Based on the international experience described above and discussions with industry participants both locally and internationally, Deloitte has assumed that, at a high level, the proportion of expenses that are fixed range between 40% and 50% of total expenses. Table 11 summarizes the actual reduction in fees as well as the expected reduction in costs based on the assumption that the proportion of expenses that are fixed are in the range of 40% to 50%.

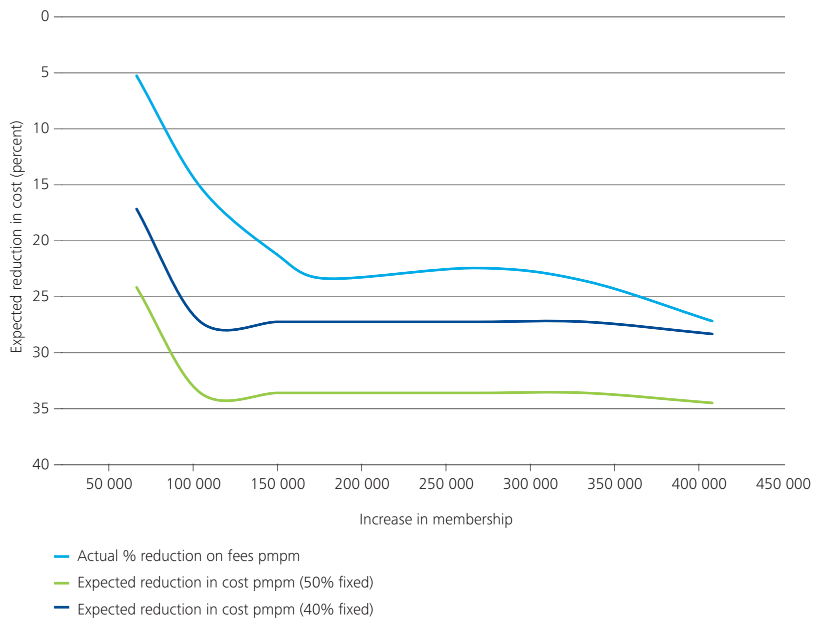
As per Figure 7, comparing the expected reduction in costs pmpm to the % reduction in fees pmpm it appears that, over time, the Administrator has been effectively "passing on" an increasing and reasonable proportion of the benefit that arises from scale to the Scheme. In addition, it appears that if the proportions of total expenses that are fixed are approximately 40%, then the Administrator is passing on a significant proportion, if not all, of the cost reductions that arise from scale. However, if the proportion of total expenses that are fixed is less than 50% and closer to 40%, the reduction in fees received from the Scheme (i.e. 27.18%) relative to the expected reduction in costs (i.e. minimum of 28.34%). This implies that the Scheme should continue to explore scope for further savings in administration fee. This will however need to be assessed through negotiation with the Administrator. The Administrator has indicated that approximately 16% of its costs are fully fixed, a further 33% are semi-fixed, with the balance being fully variable. This data has not been audited by Deloitte.

Based on limited information, we are able to conclude, as noted above, that the Administrator is passing on a significant proportion of the benefit derived from the increasing scale of the Scheme; however we are unable to conclude whether all of the possible benefits are being passed onto the Scheme.

Table 11: Actual reduction in fees as well as the expected reduction in costs based on the 40% to 50% assumption of fixed costs

Year	Average Increase in members relative to 2005	Actual % reduction in fees pmpm	Expected % reduction in costs pmpm (40% to 50%)
2006	66 066	-5.08%	(-17.08%;-24.14%)
2007	103 974	-15.11%	(-27.25%;-33.65%)
2008	149 449	-21.19%	(-27.25%;-33.65%)
2009	177 427	-23.34%	(-27.25%;-33.65%)
2010	267 878	-22.40%	(-27.25%;-33.65%)
2011	332 520	-23.58%	(-27.25%;-33.65%)
2012	424 106	-27.18%	(-28.34%;-34.55%)

Figure 7: Reduction with increasing membership



Benchmarking and Performance

Organisations benchmark performance for very tangible reasons. This is to manage costs, reduce spend and increase efficiency and productivity. The measurement of performance is both quantitative and qualitative in nature. The quantitative aspects of medical scheme performance are measurable, defined outputs such as their financial results, whereas the qualitative aspects relate to the degree of satisfaction or value for money obtained by members. The actual performance of a scheme is based on a multitude of factors, including its ability to effectively manage claims, expenses and utilisation of benefits irrespective of its risk profile whilst working towards the overarching objective of scheme sustainability.

As stated in the methodology section, the performance areas considered include:

- Financial strength;
- Growth and sustainability;
- Non-healthcare expenditure;
- Compliance, governance and reputation; and,
- Quality and value for money.

Table 12: Performance Model Results

Name of medical scheme	Financial strength	Growth and sustainability	Non healthcare expenditure	Compliance, Governance & Reputation	Quality and value	All Performance Areas	Overall Rank
	Scheme Rank						
Scheme 1	1	5	2	1	2	11	3
Scheme 2	2	5	2	4	2	15	6
Scheme 3	1	5	1	1	3	11	3
Scheme 4	2	4	2	2	3	13	5
Scheme 5	2	6	2	2	4	16	7
Scheme 6	2	4	2	2	2	12	4
Scheme 7	2	2	3	1	2	10	2
Scheme 8	2	4	1	3	3	13	5
Scheme 9	2	3	2	2	1	10	2
Scheme 10	3	5	2	4	3	17	8
Scheme 11	3	5	2	2	3	15	6
Scheme 12	3	3	2	2	3	13	5
Scheme 13	2	6	1	1	3	13	5
Discovery Health Medical Scheme	1	1	3	2	1	8	1

Performance Model Results

Table 12 shows the rank of each large open scheme within each performance area and the overall performance ranking of the schemes. As stated previously, based on this methodology, each performance area received equal weightings. The highest ranked scheme was assigned a rank of 1 in each performance area.

As per the scoring system detailed in the methodology section, many schemes ranked similarly in the performance areas. This is to avoid spurious division of results which may not necessarily reflect significant performance differences. Rather, the aim of the performance model is to assess how well a scheme performs relative to stated guidelines, compliance to regulation and its ability to outperform its peers whilst balancing scheme sustainability and meeting member need.

Overall, across the combined performance areas, the Discovery Health Medical Scheme ranked number 1 compared to its benchmarked peers (i.e. large open medical schemes).

Discovery Health Medical Scheme performed particularly well in the performance areas of Financial Strength, Growth and Sustainability and Quality and Value for Money. However, Discovery Health Medical Scheme performed below average in the NHE category. This is explored in more detail below.

Financial Strength

At a high level, this performance area aimed to capture the ability of a scheme to meet the following requirements:

- Large Scheme Risk Based Capital (RBC) requirements of 13.09% of gross contribution income as per the 2010 Deloitte Risk Based Capital study; and,
- Pricing sufficiency in terms of a positive net surplus over the past five years. Net surplus is defined as Contributions less Expenditure (both healthcare and non-healthcare expenditure) plus Investment Income.

Key Findings

- Risk Based Solvency levels of open schemes are generally sound with all but one scheme meeting RBC requirements. Ideally, scheme-specific RBC's would be more appropriate to use due to the actual variations within schemes. However, this was not possible as not all open schemes, nor all large open schemes, participated in the Deloitte analysis; and,
- The Scheme is one of only three large open schemes that experienced positive surpluses in each of the last past five years.

Overall, Discovery Health Medical Scheme performed very well in this area. The performance metrics inherently measure and reward the Scheme for its financial strength in terms of positive surpluses and risk based capital. Although the Scheme does not comply with legislated 25% requirement, this is more a matter of compliance rather than a sign of weakness in financial strength – particularly given the significant size of the Scheme's reserves in absolute terms, and its consistent record of generating surpluses.

Growth and Sustainability

The sustainability of a scheme points towards longer term objectives of maintaining a scheme such that it can provide benefits to its members at an affordable cost. This was captured with the following measures:

- Scheme size as per the CMS definition;
- Average age and trend in average age of new members;
- Membership growth;
- Number of small options; and,
- Trend in contribution increases.

Key Findings

- The Scheme performed well in this area, scoring a 1 for all but the size of options and trend in average age. However, majority of schemes, including the Discovery Health Medical Scheme, have done well to control their age profile in a community-rated environment without risk equalisation;
- Medical schemes are generally struggling to grow their membership with the Scheme being the only medical scheme, to have achieved steady growth over the past 5 years. According to the CMS reports between 2007 and 2011, DHMS grew by 466 891 lives whilst the rest of the open schemes collectively shrunk by 845 246 lives;
- Schemes experiencing fluctuating growth face retention issues as well as changes in family structure. This is due to changes in the family structure of new members (greater attraction for single members or smaller families) and a large outflow of dependants particularly in the 20-24 year age band (which is expected to an extent given these dependants become members on their employer's chosen medical scheme or a scheme of their own choice); and,
- It is acknowledged that with larger number of members it might be helpful to introduce more options as it gives consumers more choice and avoids anti-selective membership movements out of a scheme. However, the concept of risk pooling is central to the function of a medical scheme. A large number of options have less than 2 500 members in some of the large medical schemes and it is difficult to justify such small risk pools and increased risk for the achievement of a wider range of benefits. Thus, consistent with CMS guidelines and monitoring, schemes were penalised for having options with less than 2 500 members.

Limitation:

This performance area did not measure option movement. However, there are other measures that take account of factors related to the impact of option movement implicitly, namely the changes in scheme age profile over time, the size of options and the self-sustainability of options etc.

Total Non-Healthcare Expenditure
In order to measure performance in this area, the following metrics were considered:
- NHE relative to contribution income; and,
- NHE relative to contribution income over a period of five years.

Absolute measures of NHE do not take into consideration factors such as scheme size, growth, the level of benefits and the complexity of benefit structures. Hence, relative measures of NHE have been used to compare performance across schemes. These two measures aim to address current levels of NHE as well as a schemes ability to manage NHE over time.

Key Findings:
- The levels of NHE (% of gross contribution income) for the benchmark entities vary from 10.17% to 20.82%;
- The Scheme performed below average in this area and has an above average level of NHE relative to other large open schemes; and,
- Most large medical schemes, including Discovery Health Medical Scheme, have been reducing their NHE relative to GCI over the years; however this trend needs to continue to reach the Board's agreed target of being within 10% of gross contribution income. The Scheme's Board as well as the Administrator have agreed a 10% i.e. (NHE excluding broker fees) target of gross contribution income by December 2014.

Overall, it should be noted that above the measures of NHE relative to contribution income do have certain limitations. For instance, administrators assisting schemes in offering good value for money in the form of low overall contributions, and in the form of lower contribution increases, would be penalised using this approach. In addition, NHE forms a small proportion of total medical scheme spend, and the absolute value of NHE is less important than the value for scheme members that the spend on NHE creates. However, a scheme's ability to control NHE increases each year and their ability to control profit-extraction by third party entities is still important and thus remains relevant.

Compliance, Governance and Reputation
For this area of performance, the aim is to measure compliance with regulation, the strength of governance as well as the reputation of a scheme's Board in acting in a manner that is perceived to be fit and proper. This is measured through the following indicators:
- Statutory solvency requirement of 25% of gross contribution income;
- Regulatory interventions: Intervention by the regulator may be as a result of governance concerns, such as improper actions of the Board, or concerns over the financial soundness of a scheme; and,
- Trustee remuneration: Remuneration should be neither excessive (implying over-charging or perhaps unethical use of member funds) nor minimal (implying insufficient governance or stewardship of scheme) and should be related to the qualifications of the Trustees and the time spent conducting their duties to a scheme.

Key Findings
- Discovery Health Medical Scheme does not currently meet the statutory solvency requirement, with a solvency level of 23.50% as at 2011. It is interesting to note that approximately a third of the large open medical schemes do not meet the required statutory solvency requirement. Based on the current definition of solvency, consistently growing schemes will always face additional pressure of meeting solvency requirements as new members do not carry over reserves from their previous medical scheme and new entrants create capital strain;
- There are large variations in trustee remuneration across large open schemes with some schemes paying over R6 million per annum towards their Board; and,
- Trustee qualifications and time spent conducting their duties to a scheme is not published. Furthermore, there are no CMS guidelines or regulation regarding the level of trustee remuneration. Investigations are currently being conducted by the CMS to determine current practices and issues pertaining to trustee remuneration in an attempt to establish a possible framework to guide best practices, strengthen governance and protect the interest of beneficiaries in this regard.

Overall, Discovery Health Medical Scheme's average rating in this category is due to the Scheme's non-compliance with the statutory solvency requirements although it could be argued that the CMS has agreed to a business plan with an agreed solvency trajectory for the Scheme. Furthermore, it is arguable as to whether the 25% requirement which is aimed to ensure financial strength is indeed appropriate given the significant absolute reserves of the Scheme.

Quality

Quality and Value for Money are critical aspects of a member's perception and experience of a medical scheme. This relates to quality in terms of benefits, healthcare service delivery and also in the sense of the quality of non-healthcare services to the Scheme. From a quality perspective, the components of the performance model aim to encapsulate at a high level, the Scheme's ability to meet the needs of its members. In terms of healthcare, we have aimed to measure this by the level of out-of-pocket expenditure and in general terms by the number of complaints against the Scheme. The metrics used include:

- Out-of-pocket expenditure; and,
- Complaints.

Key Findings

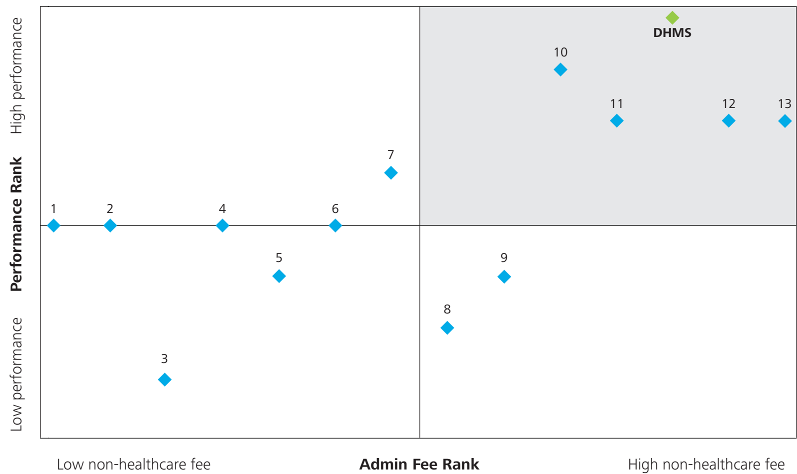
- The Scheme performed well in this area. Based on the statutory returns submitted to the CMS, the Scheme has the second lowest overall out-of-pocket expenditure compared to the benchmark entities; and,
- Most of the large open medical schemes, including Discovery Health Medical Scheme, are not ranked in the top ten CMS scheme complaints per 1 000 beneficiaries and thus scored well on this metric. However, these top ten scheme complaints do not reflect the nature of the complaint nor the resolution thereof. Ideally we would have preferred to use the actual level of complaints for each scheme in the assessment rather than only considering the top ten. Due to data constraints we were unable to source this information.

Summary

Referring back to the purpose of the benchmarking exercise and development of the performance model i.e. to enable comparison of medical scheme performance against fees paid for non-healthcare services (i.e. comparable activities), the scatter plot below shows the overall performance rank versus comparable NHE fee rank for the benchmark entities. Comparable NHE fee is ranked in descending order i.e. the highest fee is ranked 1 and performance is ranked in ascending order i.e. best performer scores a performance rank of 1.

From Figure 8, it is evident that the best performing schemes as determined by our methodology are those schemes with the higher comparable NHE fee. Hence, the overall performance of a scheme is positively correlated to its non-healthcare spend.

Figure 8: Comparable Non-Healthcare Fees versus performance



Note: Ideally it is anticipated that schemes would desire to be in the top left quadrant, but high performing schemes tend to be in the light grey quadrant.

Value for Money

In general terms, an institution's governing body i.e. the Scheme's Board, is responsible for the value for money that is obtained from the activities undertaken/procured. Consequently, a scheme's Board and its scheme office should ensure that its own processes are sufficient for it to be assured that TPAs are satisfactorily discharging their responsibility and creating value. As mentioned earlier, when considering value, price is often given a great deal of weight, and in most cases not because of its importance, but because it is easily quantified and compared. The TPA fee is a black-and-white fee that can easily be compared from provider to provider. However, price does not measure quality. Thus, Deloitte constructed the notion of a quality adjusted TPA fee as defined below:

Quality Adjusted TPA Fee	=	Cost of Basic Services
	+	Value added through TPA Management relative to the industry

Cost of Basic Services

Key Findings:

Based on the following list of basic services as outlined in the methodology section:

- Pure administration;
- Marketing, advertising and distribution costs;
- Internal Audit;
- Actuarial Function; and,
- Managed Care.

The total cost of providing these services within the open medical scheme industry amounts to approximately R88.64 pabpm in 2011.

In total Discovery Health Medical Scheme pays, R135.60 pabpm for pure administration and managed care plus a number of value added services which include investment by the Administrator into the activities mentioned above.

The next step in the assessment of VFM was to determine if the value created through innovation, convenience, value added services of the Administrator etc. exceeds the difference between the proxy for "cost" and the fee charged by the Administrator's management relative to the industry of R47 pabpm (i.e. R135.60 – R88.64) to answer the critical question of whether Discovery Health Medical Scheme members obtain value that is lower than, equivalent to or greater than the value of the administration fee paid to the Administrator.

Value-Added

Over time, many of the accumulated activities and strategies of a TPA aim to add/create additional value to the scheme/s they manage, mainly through aspects such as:

- Attraction and retention of members;
- Control/reduce claim costs;
- Value and convenience of services;
- Lower out-of-pocket/co-payment expenditure; and,
- Innovation in the delivery and management of services aimed at changing member behaviour e.g. for the Scheme the introduction of Vitality, as well as innovation on the supply side of the healthcare system to improve the quality of clinical care received by Scheme members.

The next section aims to firstly analyse the differences in performance of the Scheme relative to the identified benchmark entities using an analytical approach followed by a mathematical approach which aims to quantify the value in monetary terms.

Attraction and Retention of Members

Sufficiently large risk pools allow for cross subsidisation from the healthy to the sick, rich to the poor, and the young to the old rendering healthcare affordable. In addition, volume within a risk pool provides financial security. Building and growing a sustainable risk pool, is directly dependent on the quality of service provided by the administrators of the various schemes. Good and reliable service translates into lower lapses on a scheme as well as higher growth. However; sustainability is not only a function of volume but also the quality of lives attracted.

Key Findings

- Discussions with six large independent and corporate brokers raised the following points:
  - The wide range of benefit options offered by the Scheme meant that there was one to meet almost any requirement;
  - Recommend that more be done to use plain language and visual means to explain information;
  - Innovation (such as Vitality) is a key feature that attracts and maintains members;
  - Administration services perceived to be better than the rest of the market, which follows the notion that consumers choose a particular medical scheme based on the quality of their administration systems; and,
- In terms of organic growth, the Scheme experienced the highest net growth in 2011 both in relative as well as absolute levels. This is consistent with the pattern of the Scheme showing the highest net

growth in the open schemes environment for the past five years, and for the years prior to this as well;
- The Scheme has both the lowest withdrawal rate in 2011 and the lowest five-year annual average withdrawal rate as compared to the benchmark schemes;
- The other two brand sharing schemes within the benchmark group have withdrawal rates approximately double that of Discovery Health Medical Scheme in 2011; and,
- On average, the Scheme does attract a younger and by assumption healthier profile relative to its peers.

Control and / or Reduction in Claim Costs

Medical schemes, particularly large ones, are in a position to negotiate better payment arrangements/ tariffs with service providers relative to what individuals would be able to on their own. In addition, schemes are able to establish networks of providers who offer preferential rates to scheme members which aim to provide healthcare at an affordable level. Apart from TPA's assisting with the actual re-imbursement rate payable, members of a medical scheme benefit from pro-active management of diseases/injuries.

Key Findings

- Discovery Health Medical Scheme has experienced a steady decrease in the year-on-year increase in claim costs pbpa. In addition, the increases in claim costs are significantly lower than most of its peers within this comparison, particularly over time, with the year-on-year increase in claim costs dropping on average by almost 5% pabpm in 4 years; and,
- However, the trend of change in relevant healthcare expenditure (RHE) is influenced by a number of factors; with the most important being growth within the Scheme, changes to available benefits, movement between options and management of the Scheme. The effect of movement on the 5% reduction is diluted given the large membership base on the Scheme. Furthermore, given minimal changes to benefits over time, the 5% reduction in the past 4 years can for the most part be explained by the Administrator's performance in reducing and controlling claim costs, particularly within an environment of high healthcare inflation (risk claims increased by 8% pabpm from 2010 to 2011).

Value and Convenience of Services

Members benefit from the convenience of a medical scheme i.e. having their claims paid, providers managed and contributions collected by a TPA. In addition, members of a medical scheme also benefit from the activities of the TPA such as fraud management of members and providers, research and development into innovation which either indirectly benefits the member through more efficient administration or directly benefits the member through reduced claim costs (and hence lower contribution increases). The impacts of these innovations are most likely to be shown in service level indicators in terms of claims payment, contribution management, reduced claim costs, lapse and growth rates etc.

Key Findings

- Claims processing efficiency statistics are not reported publicly by all medical schemes. Only five of the benchmark schemes reported some form of statistics in 2011 indicating the efficiency of the TPA (or in-house administrative function) in processing claims. In addition, these statistics are not reported consistently, it is difficult to compare the relative efficiencies of the various administrators, however at a high level it appears that Discovery Health Medical Scheme pays out claims relatively quicker than its counterparts.

Impaired Loss Management Analysis

An important component of a TPA function is the control and management of money received and paid out. Good financial standing with providers results in more tariff-negotiating power for a scheme itself, a greater ability to establish larger and more convenient networks of providers which eventually leads to an improvement in member satisfaction and perception of a scheme.

Key Findings

- Discovery Health Medical Scheme has a net impaired loss in 2011 of R1.36 pabpm which is significantly lower than the industry average of large open schemes of R1.82 pabpm. In addition, the Scheme's five-year annual average net impaired loss is also lower than the industry average.

Out-of-Pocket / Co-Payment Expenditure
In general, the level of out-of-pocket expenditure is a function of the:

- Availability of benefits;
- Utilisation of benefits (function of demographic factors as well as member awareness); and,
- Scheme management.

Scheme-specific data relating to claims paid under each benefit category from risk contributions, from savings as well as the total amount charged by the provider was obtained from the 2011/12 CMS Annual Returns. It is important to note that the out-of-pocket analysis excludes medical expenditure that is solely funded by the member and/or not submitted to a scheme for processing.

Key Findings

- Discovery Health Medical Scheme experiences the second lowest out-of-pocket expenditure pabpm relative to the benchmark entities;
- Larger schemes tend to have lower out-of-pocket payments compared to the smaller schemes. This may be due to the size of the risk pool which inherently allows for better cross-subsidisation between members and the ability to most likely provide richer benefits since costs are shared/pooled across a larger cohort of lives; and,
- An interesting point to note is that the out-of-pocket expenditure of the "brand-sharing" medical schemes are the lowest amongst the cohort of peers. This business model most closely resembles that of the Administrator – Discovery Health Medical Scheme relationship.

Table 13: Categorisation of the Administrator's Innovations

	Innovation	TPA operations	Vitality
Additional Benefit Offerings		5	
Benefit Management		59	
Efficiency in administrator operations		8	
New Product Design		6	
Administrator requirement		29	
Sustainability		2	
Grand Total	40	109	47

Innovation in the Delivery and Management of Services
Innovation is the process of creating value through the invention of new processes or products or the implementation of new ideas. Innovation can be implemented internally within business operations to enhance efficiency or can be used as a tool to position oneself competitively in the market by creating added value for your customers. Therefore, the benefit gained from innovation will be determined by the intention of introducing the innovation and may influence a wide range of stakeholders, rather than simply the innovator themselves.

Key Findings

- The Administrator provided a list of innovations since 2004 identifying 196 innovations. The list of innovations were categorised into "pure" innovation as per the definition above, Vitality related innovation as well activities aimed at improving member experience.
- Based on the list of innovations 47 of the innovations were Vitality related whilst 40 are regarded as innovation and "cutting-edge" practices. The remaining list of innovations is essentially aimed at improving scheme experience. The innovations aimed at the Scheme experience are further divided as shown in Table 13.

From Table 13, it can be seen that more than half of the innovations aimed at improving scheme experience relate to benefits i.e. the management thereof and additional benefits to the Scheme's members. Furthermore, a sizeable proportion of the innovations are aimed at improving administration efficiency with the aim of improving convenience and member interaction.

Vitality
The Vitality programme promotes wellness and fitness-related activity, assessment, screening, healthy choices, and improving health knowledge. Participation in the various wellness services and / or programmes earns a member points, which can then be redeemed against a range of rewards. The Administrator has offered Vitality to members of the Scheme since 1998. Studies have demonstrated that active participation in Vitality can change behaviour not only in respect of once-off activities (e.g. preventive screening), but also in respect of complex behaviours such as sustained physical activity and making healthier food choices. This has a number of social and financial benefits to both the member and the Scheme itself. In addition, studies and verified data

from within the Administrator have demonstrated the effect of Vitality on attracting and retaining members, as well as impacting on the number, duration and ultimate costs of medical services e.g. hospitalisation.

- Discussions with key scheme brokers indicate that Vitality was one of two key features that attracted members to the Scheme, the other being the tie-ins to other Discovery products (e.g. Life, Invest, Insure);
- Data provided by Vitality indicates that the average age of a new member who takes up Vitality is lower than those who don't engage in the programme. Thus, the programme attracts a younger healthier profile;
- Furthermore, engaged Vitality members at higher levels have extremely low lapse rates;
- A 2011[3] study reported on a 3-year retrospective analysis of gym visits and participation in documented fitness-related activities of 304 054 adult Discovery Health Medical Scheme members. The longer members remained part of Vitality, the greater the proportion that joined the gym (an increase of 22% over 5 years). The study concluded that one additional gym visit per week was associated with a 7% lower odds ratio for the probability of hospital admission; and,
- A 2006[4] study of Vitality based on 948 974 members, who had been admitted to hospital in the year showed a clear inverse relationship between fitness-related activities among Vitality members and hospital claims and admissions. The study demonstrated that moderately active Vitality members (versus those not registered or low active) had significantly lower number of days hospitalised per patient and length of stay. However, highly active members (versus the same group) had significantly lower measures for:
  - Cost per patient;
  - Total number of days hospitalised per patient;
  - Cost per hospitalisation;
  - Length of stay per patient; and,
  - Number of admissions per patient.

The above findings were based on externally validated articles and publicly available data. It is evident that the Scheme outperforms its peers and significant value is created for the Scheme and its members through the activities of the Administrator.

The next step is to quantify in monetary terms the value of this out performance or superior quality, and compare it to the fee paid.

The Value Formula

A "Value Formula" was derived which aims to quantify the service levels of the activities of the Administrator carried out for the Scheme. The formula is a static measure and assesses the value generated in 2011. It is important to note that the value formula is a relative formula i.e. it compares the value created by the Scheme to the average of the open medical scheme industry. The details of the components can be found in the methodology section.

Value	=	TPA Management
	+	Out-of-pocket savings
	+	Impaired loss savings
	+	Pharmaceutical Benefit Management
	+	Non-Quantifiable Benefits

TPA Management

This component aims to quantify the impact of the Administrator management on claim costs. Table 14 shows the actual average statistics of the Scheme relative to the open medical scheme environment excl. the Scheme (DHMS).

Table 14: Impact of the Administrator's Management on Claim Costs

Statistic	DHMS	Open excl DHMS	% difference relative to open excl. DHMS
Average risk claim costs pabpm	R 725.93	R 891.28	-18.55%
Risk Contribution pabpm	R 883.93	R 1042.17	-15.18%
NHE pabpm	R 160.75	R 149.32	7.65%
Pensioner Ratio	6.31%	9.99%	-36.87%
Average Age	31.79	35.49	-10.43%

The comparison of claims and contributions between the Scheme and the open medical scheme industry was limited to the risk benefits. This is to ensure a more like-for-like comparison between schemes as well as to allow for the notion that administrator and managed care organisations have the most scope to manage risk benefits on a Scheme.

From Table 14, it is evident that the claims costs on the Scheme are significantly lower than the average of the open medical scheme industry excl. the Scheme.

Based on the statutory returns, the in-hospital cost per day on the Scheme is 11.70% lower than the average of the open medical scheme industry excl. the Scheme. This represents the minimum savings estimate attributable to the administrator, owing to the strength of their negotiating abilities. To estimate the additional savings attributable to the administrator through better fraud management, more advanced clinical risk management etc., the GLM approach (as explained in the methodology section) estimates an additional 4.88%

saving pabpm attributable to the administrator. Thus, based on the above results the savings attributable to the management functions of the Administrator relative to the rest of the open medical scheme industry ranges between 11.70% and 16.58% which is equivalent to a range of R84.92 pabpm to R120.34 pabpm).

Out-of-pocket expenditure

The difference between the average of the Scheme's out-of-pocket expenditure pabpm and the average of the open medical scheme (excl. the Scheme) out-of-pocket expenditure pabpm provides an indicative figure of the savings/value that accrues to a Scheme member. The results are shown below:

Open medical scheme industry (excl. DHMS)	R 114.51 pabpm
Discovery Health Medical Scheme	R 53.31 pabpm

Thus, the savings created for Discovery Health Medical Scheme members is R61.20 pabpm.

Impaired loss savings

Management of counterparty default is a direct result of the TPA function and hence is an important component of the "value-adds" provided to the Scheme by the Administrator. The results are shown below:

Open medical scheme industry (excl. DHMS)	R 2.10 pabpm
Discovery Health Medical Scheme	R 1.36 pabpm

From the above table, it can be seen that relative to the average of the open medical scheme industry, the sound financial management of Discovery Health Medical Scheme results in a saving of R0.74 pabpm.

Pharmaceutical Benefit Management

Based on the 2011 number of transactions, the total savings/value created through PBM by Discovery Health Administrator for Discovery Health Medical Scheme amounts to R4.20 pabpm.

Non-Quantifiable benefits

As mentioned earlier, innovation and the Vitality saving translates into three value creators, namely:

- Improved health/claim experience of its members due to active and innovative management;
- Improved member experience and satisfaction, which manifests in low lapse rates and high growth rates; and,
- Efficiencies within the Administrator itself.

The above calculation implicitly allows for the first two value creators. To some extent, the value created through efficiencies in terms of its impact on member satisfaction and perception of the Scheme is also captured in the above calculations.

The discounts offered through Vitality to Scheme members (e.g. flight discounts) are not quantified in the Value Equation.

Overall Findings

In summary, on a pabpm basis:

Value	=	TPA Management
	+	Out-of-pocket savings
	+	Impaired loss savings
	+	Pharmaceutical Benefit Management
	+	Non-Quantifiable Benefits
	=	(R84.92, R120.34) + R61.20 +R0.74 + R4.20
	=	(R151.06 pabpm, R186.48 pabpm)

Based on the Quality Adjusted TPA Fee = Cost of Basic Services + Value added through the Administrator's management relative to the industry, where cost of basic services amounts to R88.64 pabpm, the Quality Adjusted TPA fee of Discovery Health Medical Scheme is in the range of R239.70 pabpm to R275.12 pabpm compared to the actual fee paid of R135.60 pabpm.

In simple terms, a metric that encompasses both cost and quality is defined below:
VFM = Quality Adjusted TPA Fee pabpm / Actual TPA fee pabpm
If VFM > 1 it implies that an individual receives more than what he/she has paid and if VFM < 1 the converse is true.

Based on 2011 Discovery Health Medical Scheme values,
VFM = (R239.70, R275.12) / R135.60 = R1.77 to R2.03.

Thus, the VFM metric can be interpreted as:
"For every R1 spent on TPA fees, a Scheme beneficiary receives between R1.77 and R2.03 in terms of additional value created through the activities of the Administrator"

Limitation:
It is important to note that these figures are based on a number of assumptions and, as such, represent an estimate of the value created.

Thus, the higher spend on NHE relative to the industry, particularly administration and managed care, allows the Administrator to manage both the demand side and supply side in an environment of open enrolment and community rating. In addition, NHE only contributes between 10% and 15% to overall costs of a medical scheme. From the above it is shown that the 7.65% (or R11.43) higher NHE pabpm on the Scheme relative to the average open medical scheme industry is spent on offering good value for money in the form of lower overall risk contributions i.e. 15.18% (or R158.24) lower than the industry average as well as better management of claims i.e. a minimum of approximately 11.70% – 16.58% lower compared to the average of the industry. On a net basis, members are therefore R146.81 pabpm better off. Furthermore, since value is created over time, continuous innovation and monitoring is required to improve value and quality over time. This is vital for a sustainable medical scheme.

Assessment of the Model

Relational Governance

The Scheme has outsourced all its administrative functions to the Administrator through the conclusion of the Agreements. The intention of such outsourcing is to leverage cost efficiencies by outsourcing the administrative functions to an entity geared for the efficient execution of such activities.

Other medical schemes have taken to either using a completely insourced model where schemes have and execute their own operations or they have adopted the model of outsourcing functions to more than one administrator (fragmented). The insourced model requires the full implementation of an operational structure for which a scheme carries all the risk. A fragmented approach brings other complexities, such as:

- Supplier management: a scheme would need to manage more than one service provider. This would require specialist skills in a scheme office and complex performance monitoring mechanisms; and
- System interoperability: because of the nature of medical scheme operations, administrators' systems would need to be accessible and be able to interface with other administrators' systems.

Both approaches carry significant cost implications for schemes. The fragmented approach may stifle innovation, make a scheme less flexible to react to market needs and challenges, and necessarily requires a larger scheme office to manage administrators. A key driver to the Scheme remaining competitive is innovation and the Scheme contractually requires the Administrator to constantly innovate.

The outsourced relationship raises relational[1] and performance[2] risks for the Scheme. From a corporate governance perspective, the following are determining success factors that would mitigate these risks:

- Whether the Scheme has an effective process for monitoring and regulating the services provided to it by the Administrator and holding the Administrator to account if there are issues with service provision. A flexible and robust governance structure that is supported by comprehensive contracts and service level agreements, managerial arrangements and relationships, and other mechanisms is required to ensure that the Scheme exerts the right level of oversight. This governance structure is in place and will be strengthened with the updating of the Agreements and detailed SLAs that is currently underway. Once complete, proactive and comprehensive performance monitoring should take place to enhance the process; and,
- Whether there is trust between the Scheme and the Administrator. A transparent and open relationship through which the Scheme can influence the Administrator's behaviour is required. Relationships are one of the means through which flexibility can be introduced into a governance framework. A good relationship enhances the ability of the Scheme to react to business needs and facilitates effective decision-making. The relationship must, however, be sufficiently at arm's length to ensure independence and should be formalised as per the abovementioned point. The Scheme has a robust governance framework in place, one which has and is evolving over time in line with the Scheme's needs. Although structures are at different levels of maturity, the Scheme office is addressing identified gaps. It continuously drives refinement of the reporting requirements of the Administrator and interaction with the Administrator occurs at all levels of the governance framework. Formal (e.g. committees) and informal mechanisms (e.g. relationships) are balanced across the framework with the Board retaining ultimate decision-making power in all Scheme decisions. This facilitates achieving independence and ensures that the relationship is at an arm's length as required.

Transactional Operational Model

The fundamental predicament within the medical scheme industry is that stakeholders have myriad, often conflicting goals, which range from improving access and quality of service offered to members, to the profitability of TPA's. Thus defining best practice regarding non-healthcare expenditure needs to strike a fine balance of the above objectives.

Currently, there is no official guideline/best practice regarding non-healthcare expenditure for medical schemes other than a dated guideline which suggested that administration and managed care fees should not exceed 13% of gross contribution income. The CMS has however in deliberations with schemes indicated that they should target a benchmark where total NHE (excl. brokers fees) should not exceed 10% of gross contribution income. In general terms, most medical schemes and their non-healthcare providers have attempted to achieve such 'good practice' in the past as a recognised way of demonstrating that "value for money" has been sought with regards to NHE. However, the opinion as to the appropriateness of this measure for NHE is split within the industry.

The advantages of the current measure for NHE, which is expressed as a percentage of gross contributions, theoretically takes into account the following two factors implicitly, namely:

- The higher the average contribution, the richer the benefits, hence the higher 'good practice' benchmark for NHE in absolute terms; and,
- Based on the assumption that individuals select options based on health status, the less healthy lives tend to select more comprehensive options with a higher average contribution, hence a higher 'good practice' benchmark for their associated non-healthcare expenditure.

In addition, the current measure allows for easier comparison of NHE amongst schemes. However, the disadvantages of the current measure are that:

- Guidance from CMS that NHE (admin and managed care fees, excluding broker fees) should not exceed 10% of gross contribution income received;
- There is a mismatch between the nature of the measure and the nature of the expense i.e. gross contribution income increases with healthcare cost inflation (HCCI) whilst the expenses associated with administration, running the Scheme office and the majority of managed care activity are mostly CPI linked. Thus, a comparison of non-healthcare expenditure to gross contribution income over time may present a distorted picture of the trends in non-healthcare expenditure;
- Theoretically, economies of scale are expected to arise as the membership base of a scheme increases as fixed expenses such as land costs, IT costs etc. can be spread over a larger membership pool. However, as membership increases in a scheme so does the total gross contribution income and hence the 'good practice' benchmark for NHE. Thus, the current measure does not accurately measure efficiencies, if any, that arise from the scale of activity;
- Administrators that work to establish and maintain network plans to achieve greater value for money and overall lower contributions for their scheme/s would be penalised for the increased administrative costs involved with the increased complexity in administering such plans; and,
- It is also important to note that increasing disease burden leads to increasing administrative costs, for example, through increased chronic registrations, increased hospital and other managed care authorisations and activities. As all open schemes are experiencing consistent annual increases in disease burden, this may mitigate against economies of scale as schemes grow.

In defining best practice, the type of model that yields the best value for money is just as important as the attainment of NHE to a level of or below 10% of GCI.

Key findings

Based on the GLM approach as explained in the methodology section, the GLM, in simple terms isolates the impact of each of the type of model on the average NHE incurred in the open medical scheme industry.

Based on the analysis of the type of model, it appears that the model in which administration and managed care have been outsourced to the same provider (integrated), incurs on average 15% lower NHE than the model which outsources administration and managed care to different providers (fragmented model). However, the performance of the type of model needs to be compared with the relative cost difference. This is shown below.

Table 15: Administration and Managed Care Models

Administration and Managed Care Model	Average Performance Rank
Administration + Managed Care outsourced to same provider (integrated)	3.89
Administration + Managed Care outsourced to different providers (fragmented)	6.00

Overall Findings

In order to link the findings above more explicitly with the overall performance as per the benchmarking and performance model developed in the previous section of this document, the average performance rank of the delivery models were calculated.

The performance rank of each large open scheme along with the administration and managed care model used in 2011 were analysed. The administration and managed care classification have been determined based on data stipulated in the statutory return of the scheme.

It can be seen that an integrated model (i.e. average rank 3.89) out performs a fragmented model (i.e. average rank 6). From an overall performance point of view, schemes that adopt a model where administration and managed care are outsourced to the same provider results in a better performing scheme (based on our methodology) relative to that of the performance of a scheme that adopts a fragmented outsourced model.

Limitation:

The above finding is based only on the open medical scheme industry allowing for our performance based methodology.

Conclusion

In a normal business environment, comparing large outsourcing contracts is technically challenging. Successful outsourcing – and in particular, outsourcing that drives transformation and helps achieve broad strategic goals – requires organisations to follow a disciplined process that keeps them focused on taking the right steps and making the right decisions. In short, outsourcing initiatives succeed by collaboration and design, not luck.

In our assessment, we found the Scheme to be led by a strong, competent and independent Board that considers members' interests and the Scheme's interest as a whole in their decision-making process; and collectively and individually, the Board, Committee members and Principal Officer have the necessary skills, knowledge and experience to fulfil their mandate. And whilst there may be areas for improvement, on the whole the Scheme does receive significant Value for Money from the Administrator and the members of the Scheme benefit from the scale of operations, as well as from the skills, experience and systems applied by the Administrator to the business of the Scheme.

Although the Scheme is currently deriving value from the Administrator it is essential that the Board continually revisit service delivery to ensure that both parties are actively collaborating in searching for opportunities for fresh thinking around efficiency, demand management, pricing mechanisms and outsourcing best practice.

This approach will ensure that Scheme members continue to derive value from the administration and managed care contracts.

Footnotes

1. Milliman Research Report, "Administrative Expenses: 2010 Commercial Health Insurance", February 2012. Accessed from http://publications.milliman.com/publications/health-published/pdfs/commercial-health-insurance-admin-2010.pdf (page 34)
2. PHIAC, 2011 and 2012 (Private Health Insurance Administrative Council) (page 36)
3. Patel DN, Lambert EV, da Silva R, Greyling M, et al. Participation in Fitness-Related Activities of an Incentive-Based Health Promotion Program and Hospital Costs: A Retrospective Longitudinal Study. Am J Health Promotion 2011: 25(5). (page 47)
4. Lambert EV, da Silva R, Patel D, Fatti L, Kolbe-Alexander T, Noach A, et al. Fitness-related activities and medical claims related to hospital admissions – South Africa, 2006. Prev Chronic Dis 2009;6(4). (page 47)

Appendix A: Discovery Health Medical Scheme Board Committees – Composition

	Corporate Governance Best Practice	Discovery Health Medical Scheme		Comment	MSA requirement	Discovery Health Medical Scheme	
Audit Committee	Minimum of 3 independent non-executive directors	Three independent members (not "officers") and two Trustees	✓		At least 5 members	Total 5 members	✓
					2 must be trustees	2 members are trustees	✓
					Majority may not be officers of the Scheme or the Administrator	3 independent non-executive members (not "officers")	✓
					Audit Committee Chairman may not be "officer"	Complies	✓
Clinical Governance Committee	Majority should be independent non-executive directors	Comprised of two Trustees and a Scheme executive	✓	Executive Clinical Risk Manager is a member. In this case although not in compliance with general committee composition best practice we believe that the composition is practical and in line with business requirements.	None		
	Co-opt external expertise (if necessary)	Yes- as required					
Investment Committee	Majority should be independent non-executive directors	Comprised of two Trustee sand an independent member (not "officer")	✓	Terms of Reference prescribe composition as at least three members, a maximum of five and the majority must be trustees.	None		
	Co-opt external expertise (if necessary)	Riscura	✓	Administrator also provides expertise			
Remuneration Committee	Majority should be independent non-executive directors	Comprised of: - Board Chairman: Trustees and independent; - Audit Committee Chairman: not a Trustees and independent	✓		None		
	Have a minimum of three members		X	Although best practice recommends NEDs; if the Board believes that the committee is practical and meets the needs of the Board, this composition is acceptable.			
	Co-opt external expertise (if necessary)	PWC	✓				
Risk Committee	Have a minimum of three members	Same composition as Audit Committee- 5 members	✓		None		
	Should comprise executive and non-executive directors, members of senior management and independent risk management experts to be invited, if necessary	Two Trustees Three independent members Scheme executives, and Administrator executives and senior management attend as invitees. External auditors attend as invitees.					

The following committees sit at specific times of the year for a particular purpose:

- Non-healthcare Expenditure Committee (NHE Committee)
- Product Review Committee

Appendix B: Performance Rating Scale

Financial Strength and Compliance

Performance subarea	Performance Metric	Description	Timing	Rating (Best to worst performer)		
				1	2	3
Reserves	Sufficiency of Reserves (RBC)	Current solvency level in relation to RBC (based on scheme size)	2011	Solvency level >= RBC	Solvency level < RBC	
		This indicator assesses the sufficiency of reserves using a risk-based capital approach. Schemes holding more than the RBC level are considered to be holding sufficient reserves according to this methodology, although they may not be meeting regulatory requirements. Schemes holding less than the RBC level are considered to be holding insufficient reserves. The RBC benchmark value is the 99.5% sufficiency level for large schemes.				
	Operating and Pricing Sufficiency	Ability to produce a positive net surplus	2007 - 2011	Positive net surplus in all 5 years	Positive net surplus in at least 3 of 5 years	Positive surplus in less than 3 of 5 years
		A positive net surplus demonstrates the sufficiency of contributions in meeting claims and non-healthcare expenditure as well as contributing to reserves.				

Growth and Sustainability

Performance subarea	Performance Metric	Description	Timing	Rating (Best to worst performer)		
				1	2	3
Size of risk pool	Size of scheme	CMS classification based on average number of members and beneficiaries	2011	Large	Medium	Small
		The larger a scheme, the more risk pooling and cross subsidization is enabled. The CMS requires a new scheme registering to have at least 6000 members, however in the industry there are open schemes with fewer members, thus pointing to the importance of having large risk pools.				
	Trend in avg. age of beneficiaries	Change in scheme average age from 2007 - 2011	2007 - 2011	Change in average age < =0	0 < Change in average age =< 4	Change in average age > 4
		In a closed group of lives, over a period of one year the membership will age by 1. Therefore, for a scheme to improve its age profile, the average age should increase by less than 1 year in each year.				
	Average age of new beneficiaries	Avg. age of new beneficiaries in 2011 compared to lives that join open scheme industry in 2011 as well as impact on current risk pool	2011	Avg. age of new beneficiaries <= μ AND Average age of new beneficiaries < Scheme average in previous year	Avg. age of new beneficiaries <= μ OR Average age of new beneficiaries > Scheme average in previous year	
		The average age of new members provides an indication of the demographic profile schemes are attracting relative to the industry as well as relative to the existing risk pool.				
	Absolute net growth in risk pool	Absolute growth in beneficiaries from 2010 to 2011	2011	Absolute growth > μ + σ	μ < Absolute growth < μ + σ	μ > Absolute growth
		Given that open schemes are competing for the same lives, absolute growth provides a better measure of schemes' performance to increase membership and build a sustainable risk pool				
	Trend in growth in risk pool	Growth in beneficiaries from 2007 - 2011	2007 - 2011	Steady positive growth year on year	Overall growth but year on year fluctuations	Overall decline over the period
		Growth in membership is important in order to firstly maintain the risk pool and secondly to grow it further. Schemes that are able to do this consistently from year to year are achieving this objective.				
Option sustainability	Option membership size	Percentage of options with < 2500 members	2011	0%	(0%,100%)	100%
		The CMS monitors benefit options with a membership base of less than 2500 members. Schemes with such fragmented risk pools are potentially high risk and these small options may be an indication that a scheme has too many benefit options for the size of its membership.				
Contribution Increases	Average Contribution Increases relative to CPI	Average deviation of contribution increases relative to CPI from 2009 - 2011	2009 - 2011	Average deviation within CPI + 5%	Average deviation not within CPI + 5%	-
		CMS requires that contribution increases be within CPI+3%. Schemes need to manage their contribution increases within this limit. However, due to high medical inflation in recent years, few schemes were able to comply with this requirement and thus the band was expanded to CPI + 5%.Note: contribution increases each year for each scheme was based on the options that were in existence in all 3 years and assuming the beneficiary profile remained unchanged over the 3 years.				

Non Healthcare Expenditure (NHE)

Performance subarea	Performance Metric	Description	Timing	Rating (Best to worst performer) 1	2	3
Total Non-Healthcare Expenses	NHE relative to contribution income	NHE relative to GCI	2011	NHE (% of GCI) $\leq$ 10%	NHE (% of GCI) $\leq$ Average NHE (% of GCI) for all open schemes with NHE > 10% of GCI	NHE (% of GCI) > Average NHE (% of GCI) for all open schemes with NHE > 10% of GCI
		The CMS has set a guideline that schemes should not exceed 10% of gross contributions paid toward non-healthcare expenditure. The larger the proportion of contribution income consumed by NHE, the smaller the contribution available to fund healthcare claims.				
	Trend in NHE relative to contribution income	Average change in NHE (% of GCI)	2007 - 2011	Average change in NHE (% of GCI) $< \mu$	$\mu <$ Average change in NHE (% of GCI) < 0	Average change in NHE (% of GCI) > 0
		The change in NHE (% of GCI) over time indicates the schemes' performance in controlling and reducing their NHE over time through improved efficiencies, economies of scale, active management, administrator negotiations etc.				

Compliance, Governance and Reputation

Performance subarea	Performance Metric	Description	Timing	Rating (Best to worst performer) 1	2	3
Reserves	Sufficiency of Reserves (Statutory Requirement)	Current solvency level in relation the statutory solvency requirement	2011	Solvency level $\geq$ 25%	Solvency level < 25%	
		Schemes holding a minimum solvency level of 25% are complying with legislative requirements and are holding sufficient reserves in this context.				
Regulatory interventions	Regulatory interventions	Schemes holding a minimum solvency level of 25% are complying with legislative requirements and are holding sufficient reserves in this context.	2007 - 2012	No regulatory interventions	Provisional curatorship	Curatorship
		Schemes that have a curatorship or other regulatory intervention reported on score poorly.				
Trustee Remuneration	Trustee remuneration	Absolute levels of Trustee Remuneration	2011	$\mu - \sigma \leq$ Trustee Remuneration $\leq \mu + \sigma$	Trustee Remuneration $< \mu - \sigma$ OR Trustee Remuneration $> \mu + \sigma$	
		This indicates the cost of managing and governing a scheme and the duties for which the Trustees are responsible. Higher than average trustee remuneration may indicate over payment and underpayment of trustee may indicate poor management. The average is based on the trustee fees paid for open large medical schemes within South Africa. Information on number of Trustees and number of meetings was not available for all schemes; however these aspects in themselves do not necessarily drive good governance.				

Quality and Value for Money

Performance subarea	Performance Metric	Description	Timing	Rating (Best to worst performer) 1	2	3
Value	"Out-of-pocket" expenditure	Level of "out-of-pocket" expenditure pmpm	2011	"Out-of-pocket" expenditure pmpm $\leq \mu - \sigma$	$\mu - \sigma <$ "Out-of-pocket" expenditure pmpm $\leq \mu$	"Out-of-pocket" expenditure pmpm $> \mu$
		The level of co-payments made by members provides an indication of the value received by members by a scheme.				
Quality	Complaints to CMS	Number of complaints made to CMS per 1000 beneficiaries	2011	Not Top 10 most complaints	Top 10 most complaints	-
		The CMS reports on the top 10 schemes complaints, relative to the number of beneficiaries. However, this does not reflect the nature of the complaint nor the resolution thereof. This should therefore be interpreted in the context of scheme performance.				

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