Optimising beneficiary choices: standardisation of medical scheme benefit options

Authors

Phakamile W.F. Nkomo[i]
Steven F. Koch[ii]
Evelyn M.M. Thsehla[i]
Michael M. Willie[i]

Market segmentation analyses suggest that beneficiaries are confused by too many benefit options; that choice sets facing different beneficiaries are not the same; and that information is not equally accessible.

A salient finding of the Competition Commission's Health Market Inquiry Provisional Report on the functioning of the health market is that there is a lack of transparency for medical scheme beneficiaries, particularly in matters pertaining to medical scheme benefit options. Inefficiencies in the health market, such as unequal or incomplete information, are likely to impact premiums and lead to suboptimal decisions by consumers when considering their options. The policy challenge is to enable access to standardised information sets so that medical scheme beneficiaries can make optimal decisions when choosing benefit options.

This chapter investigates non-health price barriers (in this instance, the inability to choose optimally), and their impact on beneficiary benefit option choices. Emerging health economics literature was studied to ascertain the impact of these barriers in other voluntary health insurance markets. The provision of standardised choice sets (option standardisation) was found to be a common policy remedy.

Empirical methods were applied to test the existence of non-price barriers, using data from the Council for Medical Schemes. A descriptive analysis of benefit design configurations, developed by the authors, show that selection outcomes were different across benefit designs. Specifically, community rating and solidarity were not the same across benefit designs. More importantly, the results of both supervised (discriminant analysis) and unsupervised (cluster analysis) market segmentation analyses suggested that beneficiaries were confused by too many benefit options; that choice sets facing different beneficiaries were not the same; and that information was not equally accessible (some beneficiaries may make decisions with incomplete information).

i   Council for Medical Schemes
ii   Department of Economics, University of Pretoria

Introduction

The Council for Medical Schemes (CMS) is the regulator of the medical schemes industry in South Africa. The Medical Schemes Act (No. 131 of 1998)[1] regulates the industry in the interests of medical scheme beneficiaries. Beneficiary interests can be gauged by the frequently asked questions on the CMS website, which relate to how to choose an appropriate medical scheme and benefit option.

The proliferation of benefit options led to market fragmentation, which was identified as a policy issue in the National Health Insurance White Paper.[2] The White Paper took issue with market fragmentation as it impedes beneficiaries' ability to determine prices on the supply-side, and hampers the achievement of economies of scale. For example, the proliferation of benefit options means that beneficiary decisions become more complex, efficient price allocation (purchasing decisions) become less obvious, and appropriate cover is less easily accessed/achieved.

This chapter describes the extent of option proliferation, and the outcomes of beneficiary benefit option choices, in both open and restricted schemes. Empirical evidence is provided showing barriers to the ability of beneficiaries to make optimal benefit decisions, other than decisions on price, utilisation cost, and health enrolment profiles. There is a need to understand the possible behavioural factors not captured on our models that may explain the observations here related to healthcare utilisation and enrolment. Behavioural factors may be explained by data on the order or way that health-service items are chosen or preferred by beneficiaries or households. Recent health economics literature outlines the need to include behavioural or health-preference data to predict expected healthcare costs.[3,4] However, such data could not be included because they are not in the public domain.

The chapter also makes a case for health information systems (HISs) that provide decision-support tools for health information exchange (HIE). A recommendation is made for the sequencing of policy remedies to deal with adverse policy outcomes. Finally, the chapter contributes to the literature on the beneficial impact that HISs have had on health-system strengthening.[5] Since health information systems are one of the critical components of the building blocks of health system strengthening, they are elaborated on below and examples are given of the policy issues they may assist in alleviating.

Alleviating choice complexity through HIE

Health information exchanges have been widely used in the United States (US) to provide health information decision-support platforms for beneficiaries to make better health plan choices. In the Netherlands, information systems are used to disseminate knowledge about the quality of health interventions purchased by health funds.

The Competition Commission's Health Market Inquiry (HMI)[6] has made provisional recommendations on issues affecting the efficient operation of the market in the private health industry. The HMI has concerns about the transparency and proliferation of medical scheme benefit options. It found that there are too many options, which complicates decision-making for beneficiaries as it makes it difficult for them to distinguish between benefit options.

The difficulty experienced in choosing health insurance plans has been documented in the literature described in this paragraph. Health insurance consumers are not able to make optimal decisions in purchasing cover, especially when there are too many options available.[4,7,8] In some instances, irrational or inconsistent decisions were made, when alternatives were not reduced to manageable and simple options.[9] On other occasions, health insurance consumers had different cover from what they stated would have been most optimal in health insurance household surveys.[7] Wide variation in health insurance premiums were found for health plans with similar benefits.[10] Some health economists have found standard models to be inadequate, i.e. those that describe enrolment as being determined only by utilisation costs and premium mark-ups. Instead, they suggest that behavioural models are far more reliable.[3,4,11-13] Selection problems can further confound beneficiary ability to realise their preferred level of health utilisation. This confounding also impacts health fund ability to estimate expected utilisation costs reliably. Providing consumers with a common set of decision-making tools and information is critical.[14,15] Standardisation of benefit options and provision of information are among the most commonly recommended policy remedies.

Health information exchanges

HIEs and the selection problem

Another outcome of health plan selection processes in voluntary health insurance environments is the potential for adverse selection[a] and the counterpart to this, namely cherry picking.[b] International research on private health insurance has found that adverse selection and cherry-picking lead to a downward spiral, an unravelling of open enrolment and community-rated health funding systems. In this scenario, people who are old or who have high-risk profiles find it difficult to remain on comprehensive health insurance. Young and healthy health fund members are covered on the cheapest options, which reduces cross-subsidisation and solidarity. Selection problems usually leave high-risk groups without affordable health cover, which negatively affects beneficiaries; however, such consequences can be mitigated through risk-equalisation.

a   Adverse selection: the risk profile is covered in the wrong risk group. This is also called anti-selection or self-selection.
b   Cherry picking: strategy employed by insurers to attract preferable risk profiles for cover.

Emerging health economics research suggests a sequenced ordering of policy interventions.[4] The implementation of risk equalisation requires a carefully thought-out policy mix; on its own, it is an imperfect tool for eradicating cherry-picking. A policy mix would include the standardisation of benefit options and establishment of HIEs, with common information sets for health insurance enrolees. This is because all beneficiaries should have the same information in order to strengthen market stability and not create market uncertainty, as beneficiaries respond to market or regulatory changes. If benefit options are not standardised, well-intentioned policy initiatives will not be supported by the market-disciplining allocations of informed beneficiary decisions. Implementing mandatory cover and risk equalisation under such market conditions may lead to unintended policy outcomes.

HIEs, option standardisation and risk equalisation

The regulator of medical schemes has often been criticised for not implementing risk equalisation.[6] On the other hand, risk equalisation should not cross-subsidise what the HMI[6] findings identified as factors behind the perverse market outcomes of the private health financing sector. Factors contributing to such inefficiencies could be non-transparency of medical schemes, and product complexity. In fact these have been identified as two of the causes underlying market inefficiencies.[6] Therefore, under current market circumstances, risk equalisation may cross-subsidise market inefficiencies.

Some international experience suggests that without option standardisation, risk equalisation has not been able to stop cherry-picking.[16] If funders offer supplementary benefits that are risk rated, some funders will be able to cherry-pick enrolees for both the essential benefits package and the supplementary package.[16] Ericson and Sydnor evaluated the impact of imperfect health plan selection (adverse selection and cherry-picking) arising from extensive benefit option choices.[4] They identified policy remedies and concluded that without some standardisation of benefit options, risk equalisation is an imperfect policy solution. Withagen-Koster et al.[17] found that health utilisation is not fully explained by health-utilisation estimation models. Residual health utilisation was explained by consumer preferences solicited from a household health expenditure survey. They concluded that risk-equalisation models should incorporate economic behaviour. van de Ven and Ellis also described market power and preferences as factors impacting healthcare utilisation.[18] Ultimately, the absence of optimal consumer choice when selecting benefit options may impact negatively on initiatives to subsidise legitimate health needs and factors associated with socio-economic deprivation.

HIEs and managed competition

If beneficiaries are given information on the performance of disease-management programmes and networks contracted to their selected benefit options, their decisions will be simplified as they will be able to compare the efficiencies of services they access through their benefit options. Enthoven, for example, speaks of managed competition on the demand-side in order to actively monitor and evaluate quality outcomes on the supply-side (provider market).[19] van Ginneken and associates state that Europe has learned that "managed competition among health plans by itself will not substantially drive down health costs".[16] That is, interventions cannot only be made on the demand-side.

To allow managed competition to have an impact on the supply-side (health provider contracting), the Dutch Health Authority publishes an annual health quality performance report on the performance of the entire health system.[20,21] Included in the report are health access indicators, which capture the responsiveness of the authorities to equality-related issues. The provision of health-provider and health-fund-performance indicators on the HIE should allow beneficiaries to evaluate the quality they receive from their benefit options.

Generally, the cited literature suggests that HIS can empower policy initiatives aimed at health-system strengthening. Health information systems include enabling tools that support optimal consumer health plan choice. Beneficiaries need these tools to identify quality and cost-effective alternatives and to access affordable and effective health care.

The rest of the chapter provides an overview of the decision environment faced by medical scheme beneficiaries and comments on the impact that benefit option proliferation has on solidarity and choice complexity. The chapter provides a standardisation policy framework that could potentially make benefit option decisions less confusing, and make value more perceptible to beneficiaries. This solution should be rolled out on an HIE decision-support platform.

Methods

Population and data source

The analysis was conducted at the benefit option level. The information available covers 271 of the 277 benefit options registered with the CMS at 31 March 2014 (i.e. 98% of the benefit options), 137 in the open schemes and 134 in the restricted schemes, respectively[22] (not counting efficiency discounted options). The data reported for 2018 cover 89% of the 136 benefit options registered in March 2018, in the open schemes market. In terms of restricted schemes, the analysis covers 88% of the 135 options registered in March 2018.

Data on the benefit content of the options were sourced from the registered rules of medical schemes lodged at the Registrar for Medical Schemes' Office.[23] The data represent the scheme rules registered for the 2015 and 2018 benefit

years. The options were classified in 2015. No further work on coding classification has occurred since then. Therefore, the 2018 classification of benefit option designs assumes that most benefit options have continued operating with the same benefit structures since 2015. Demographic and financial data at the option level were sourced from the annexures of the CMS Annual Reports published in 2015[22] and 2019,[24] which are available on the CMS website.

Benefit option classification

The methodology for classifying benefit options is based on work previously conducted by the CMS in 2008.[25] The methodology used in this analysis extends to this work by using health service consumption bundles.

Classification 1

Table 1 describes benefit design classifications, which were developed by categorising the annual benefit entitlements submitted to the CMS for registration. This classification table shows scheme benefit option rules registered on 31 March 2014.[22] Numerous dimensions inform the configuration of a benefit option. For the purposes of this study, benefit options were limited to 12 benefit design categories (Table 1).

Classification 2

Table 2 summarises a revised benefit design structure that could be made available to members. The benefit options were allocated to three benefit design classifications from the previous list of 12 benefit designs (see Table 1, excluding PMB exempt options in registered bargaining council schemes).

Classification was carried out via supervised learning, discriminant analysis, and unsupervised learning, cluster analysis. The supervised process[c] involved pre-determining the benefit designs and asking the discriminant analysis model to confirm the classifications. The unsupervised[d] process involved simply asking the cluster analysis to group benefit options into clusters without any human intervention or judgement. Both models predicted three groups of benefit designs, labelled here as: hospital plans (HPs), partial cover plans (PCPs); and comprehensive cover plans (CCPs) (Table 2).

Variables

Table 3 shows the list of variables used in the cluster and discriminant analyses.

Table 1: Medical scheme benefit design classification, South Africa, 2014 - 2015

Benefit design name	Benefit description
No PMB Benefits	Exempt from PMBs
PMB Plans	Only PMBs & CDLs; no OOH benefits
Hospital Plans	Supplementary in hospital benefits relative to PMB; no OOH benefits
Traditional Plan 1	Comprehensive cover of OOH benefits; all risk cover
Traditional Plan 2	Partial cover of OOH benefits; all risk cover
Network Plan 1	Partial cover of OOH benefits at DSP; all risk cover
Network Plan 2	Comprehensive cover of OOH benefits at DSP; all risk cover
New Generation Plan 1	No cover for OOH benefits from risk; savings account and no ATB
New Generation Plan 2	Partial cover for OOH benefits from risk; savings account and no ATB
New Generation Plan 3	Comprehensive cover for OOH benefits from risk; savings account and no ATB
Threshold Plan 1	Cover of OOH benefits from risk after Threshold; risk ceiling after ATB
Threshold Plan 2	Cover of OOH benefits from risk after Threshold; no risk ceiling afer ATB

Note: extensive list of option classifications.
ATB = above threshold benefits; CDL = chronic disease list; DSPs = designated service providers; OOH = out of hospital; PMBs = prescribed minimum benefits (diagnosis treatment pairs).

c   Supervised option classification was used when conducting a discriminant analysis.
d   Unsupervised classification was used when conducting a cluster analysis.

Key findings

Results

Figure 1 shows a total of 137 benefit options in the open scheme, as at 31 March 2014. Figure 1 also shows how beneficiaries self-selected themselves into 121 options and their benefit designs, as at March 2018. Figure 2 shows the extent/degree of solidarity enjoyed by open scheme beneficiaries, in 2014 and 2018 respectively. Figure 3 reflects the different degrees of risk severity (community rate/risk profile) associated with benefit designs in open schemes, for 2014 and 2018.

Collectively, Figures 1 - 3 show that benefit designs with relatively lower community rates were associated with larger risk pools and fewer options to choose from. The opposite was true for benefit designs with relatively higher levels of risk severity. For example, New Generation 1 Plans had relatively high levels of solidarity and relatively low levels of severity, and Traditional 1 Plans had relatively lower levels of solidarity and high levels of severity. The selection process yielded favourable solidarity for specific types of risk. The greater the number of benefit options for a benefit design, the lower the solidarity and relatively higher the community rate.

Figures 4, 5 and 6 illustrate the outcome of selection processes in the restricted schemes. Results were different from those in the open market scheme. There is evidence that restricted schemes have not left high-risk individuals in small risk pools. Thus, restricted schemes incorporate some degree of solidarity, which is consistent with the experience of employment group plans relative to individual insurance in the US.[12] Relatively higher risk profiles in open schemes could benefit from option standardisation and access to HIS platforms that provide health information and decision-support tools.

Table 2: Revised medical scheme benefit design classification, South Africa, 2014 - 2015

| Old benefit design classification	New benefit design classification
Hospital Plans	Hospital Plans
New Generation Plan 1	Hospital Plans
Traditional Plan 1	Comprehensive Plans
Network Plan 2	Comprehensive Plans
New Generation Plan 3	Comprehensive Plans
Threshold Plan 1	Comprehensive Plans
Threshold Plan 2	Comprehensive Plans
Traditional Plan 2	Partial Cover Plans
Network Plan 1	Partial Cover Plans
New Generation Plan 2	Partial Cover Plans

Note: Collapsed list of option classifications.

Table 3: List of independent variables for analysis model

| List of variables	Description
Average_age_pb	Average age per beneficiary per annum for beneficiaries on a benefit option
Pensioner_ratio	The percentage of pensioners relative to total beneficiaries on a benefit option
Community_Rate	The expected cost of PMBs per beneficiary on a benefit option
NRHE_pbpm	Net relevant healthcare expenditure per beneficiary per month on a benefit option
RCI_pbpm	Risk contribution income per beneficiary per month on a benefit option
Premium_2014_fam	Family premium for 2014 on a benefit option, the premium is based on a family of three

PMB = Prescribed Minimum Benefit.

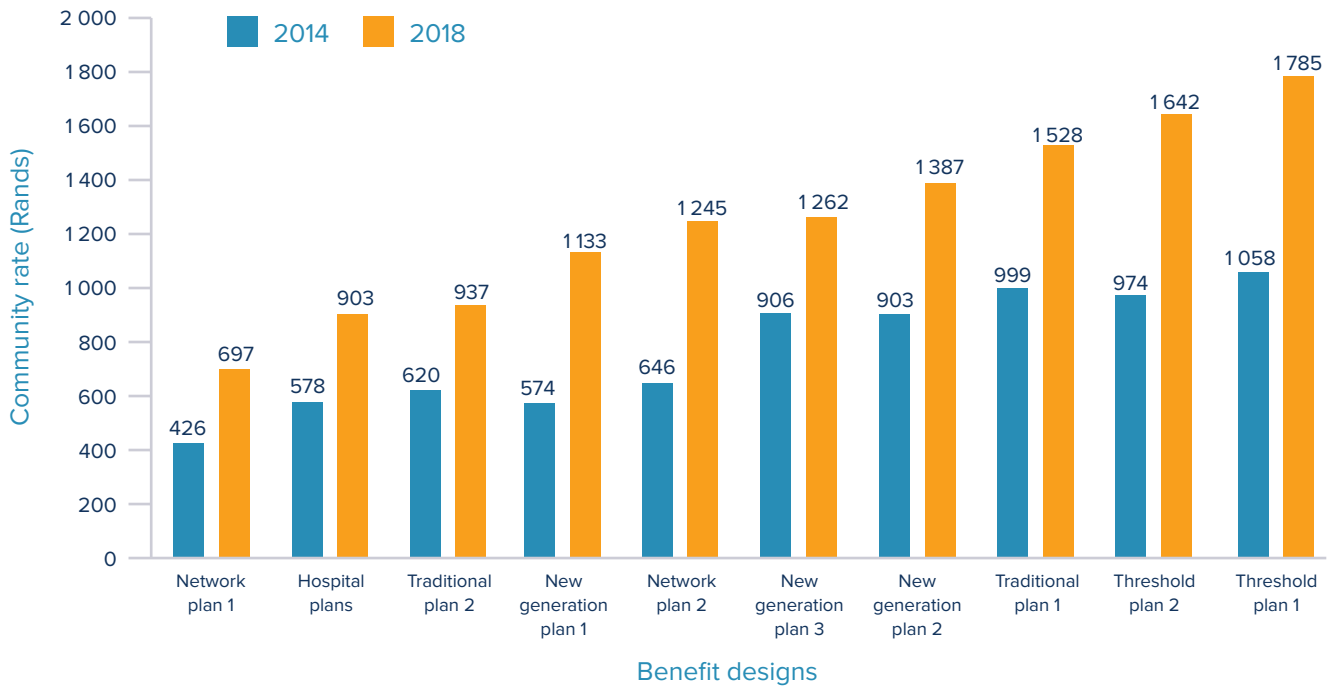Figure 1: Open medical schemes – number of benefit options by benefit design, South Africa, 2014 v. 2018
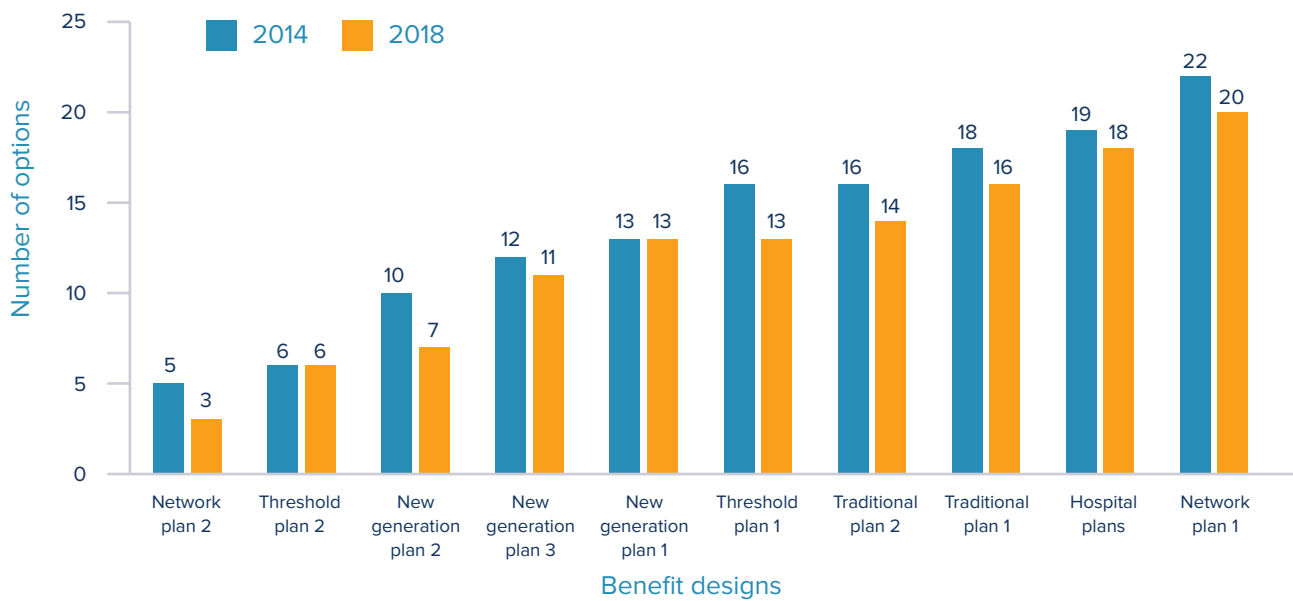
Figure 2: Open medical schemes – average number of beneficiaries by benefit design, South Africa, 2014 v. 2018
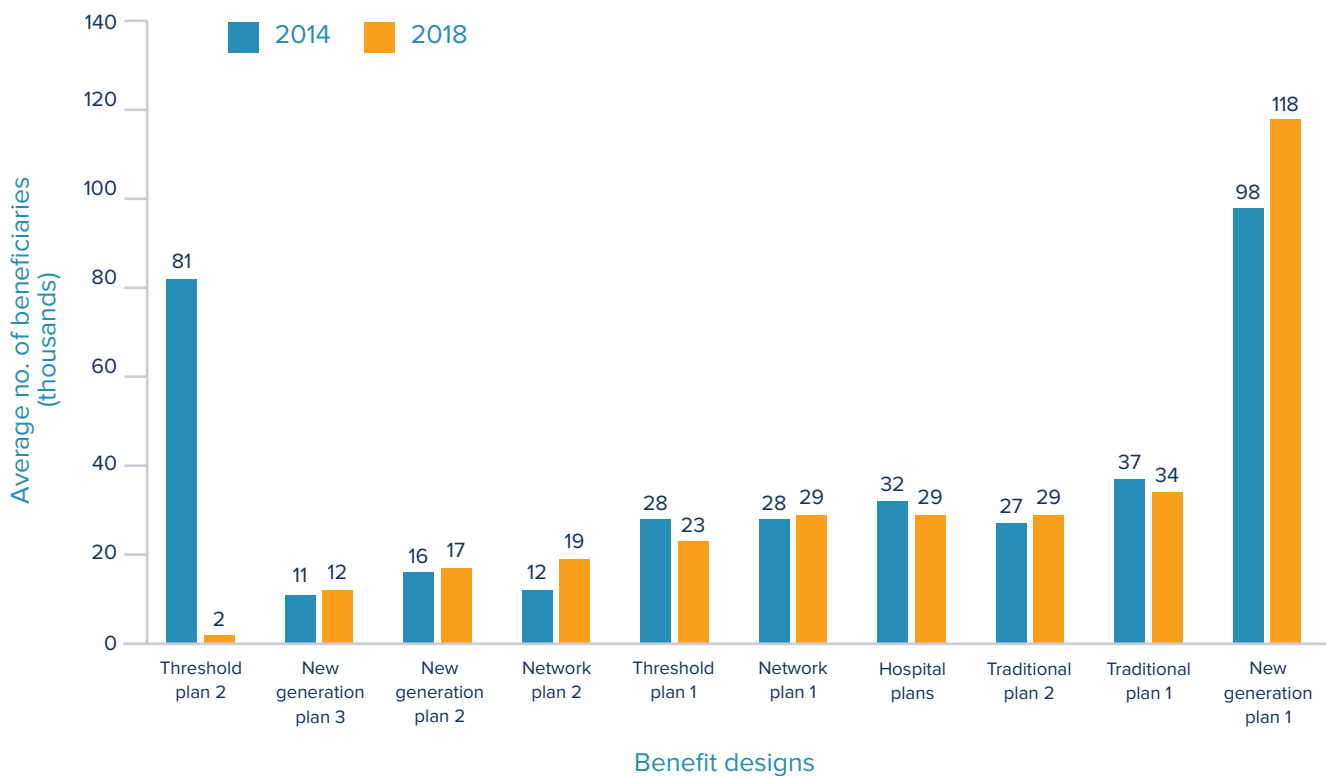
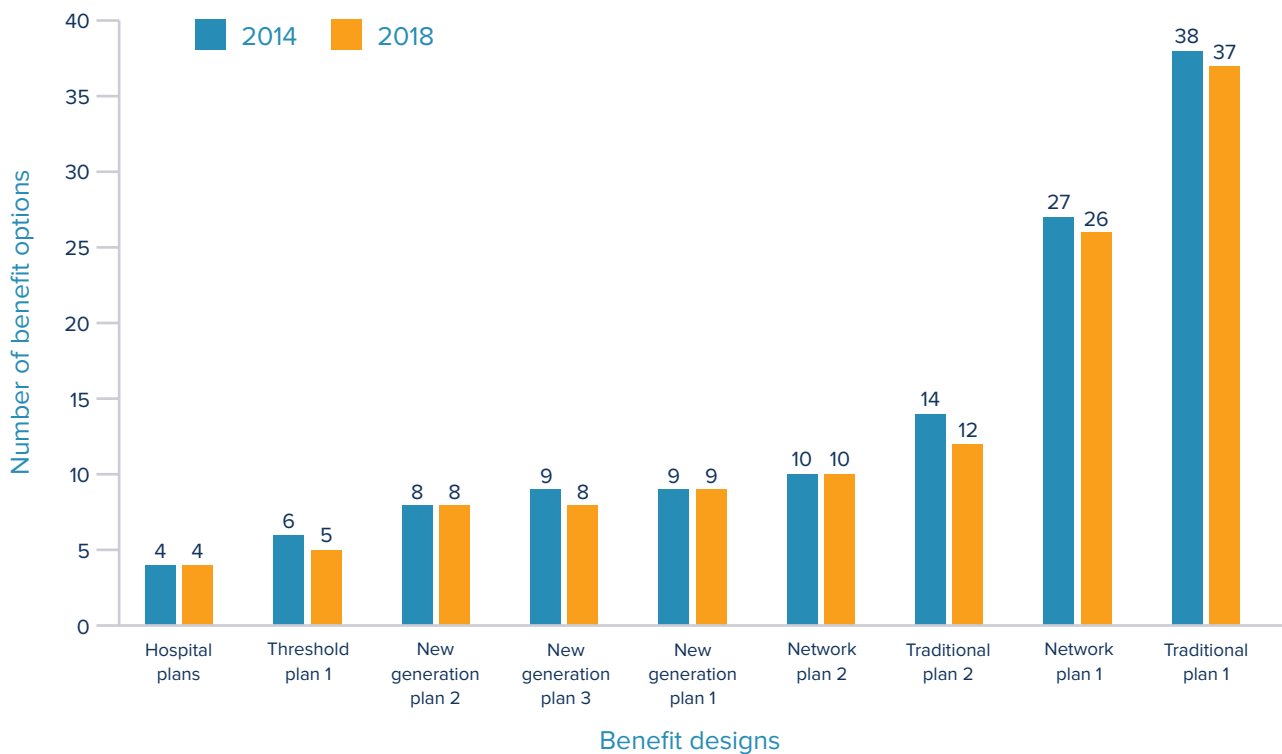## Figure 3: Open medical schemes – community rate by benefit design, South Africa, 2014

Data source: CMS, 2015;[23] CMS, 2019.[24]
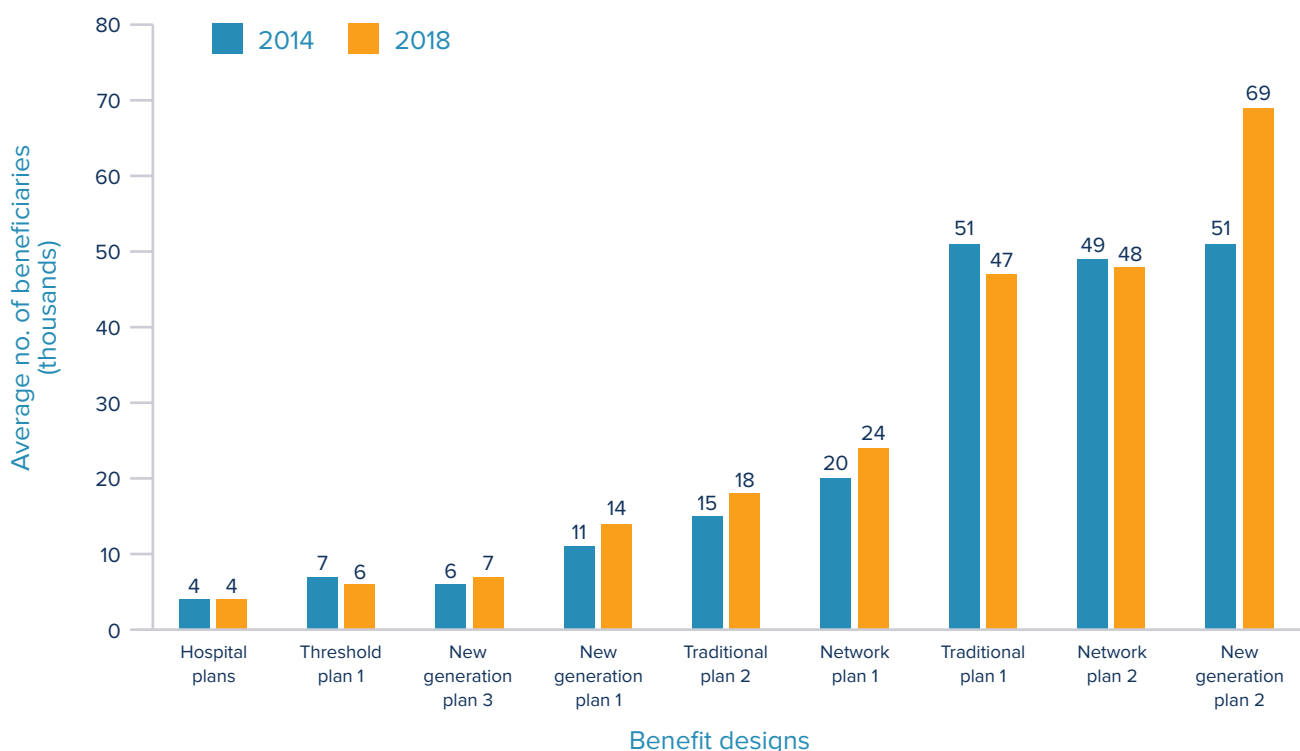
Figure 4: Restricted medical schemes – number of benefit options by benefit design, South Africa, 2014 v. 2018
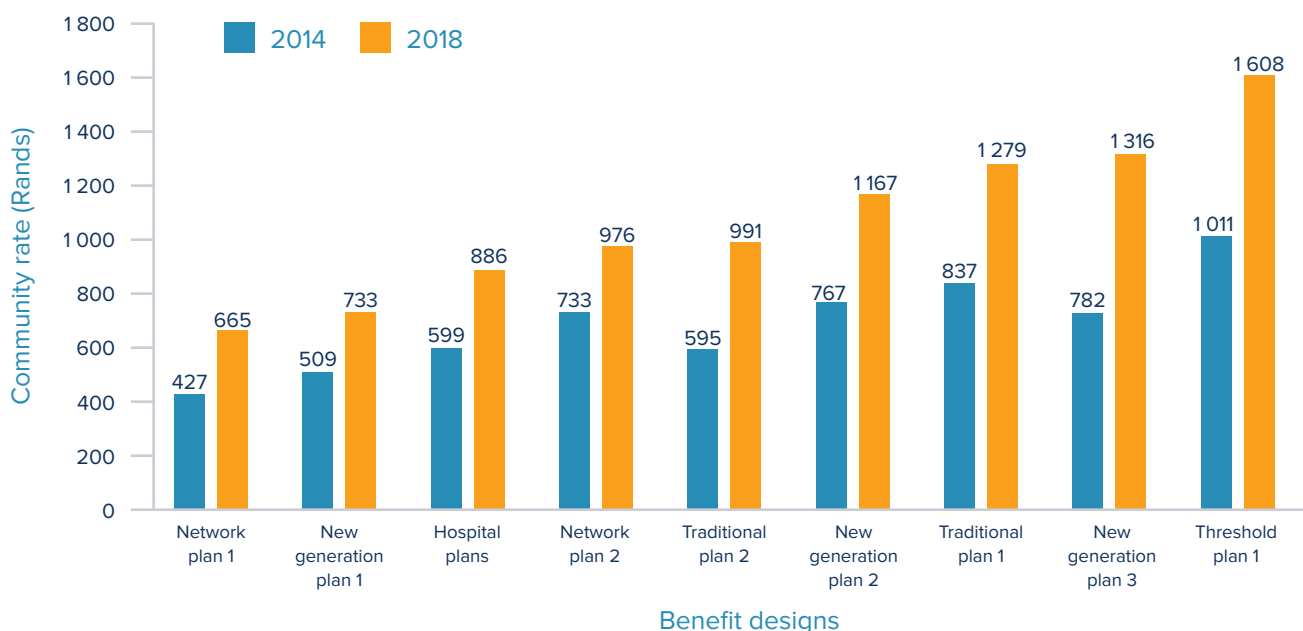

Data source: CMS, 2015;[23] CMS, 2019.[24]
Note: These option classifications are based on Classification 1 (see Table 1).

Figure 5: Restricted medical schemes – average number of beneficiaries by benefit design, South Africa, 2014 v. 2018

Data source: CMS, 2015;[23] CMS, 2019.[24]

Figure 6 : Restricted medical schemes – community rate by benefit design, South Africa, 2014 v. 2018


Data source: CMS, 2015;[23] CMS, 2019.[24]

Figure 7 shows the extent to which supplementary out-of-hospital (OOH) health services were covered by the different benefit designs. The actuarial claims levels were not standardised, and only the scope of health services was considered.

Effectively, in terms of health services: if a benefit was covered in a benefit design, at least 79% of the options would cover that OOH benefit; and if a benefit was not covered in a benefit option, at most it would not be covered by 21% of the benefit options in that benefit design.

Figure 8 shows the average number of beneficiaries (solidarity) per benefit option for each benefit design. Figure 9 shows the community rate (risk severity) for benefit options within each of the benefit design groups. A comparative analysis of the two Figures (8 and 9) was consistent with analyses based on 11 benefit designs in the open schemes. There was less solidarity for CCPs (comprehensive cover) than for PCPs (partial cover). Beneficiaries on CCPs were spread across a larger number of benefit designs than beneficiaries on PCPs. The selection processes experienced by these two groups were different, based on the availability of benefit options in the open schemes environment.

Figure 7: Out-of-hospital benefits by medical scheme benefit design, South Africa, 2014 - 2015
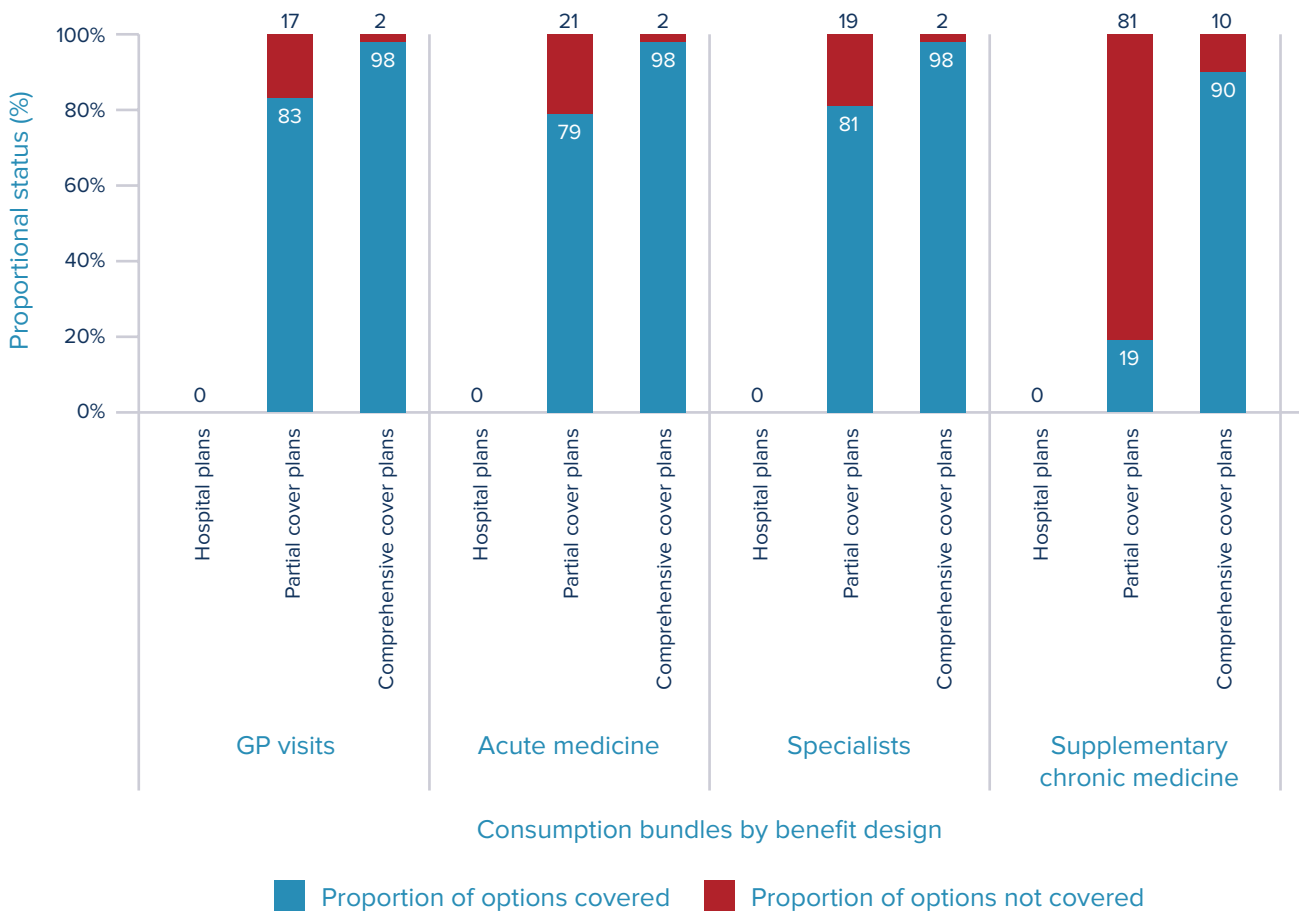
Note: These option groupings are based on classification 2 (see Table 2).

Figure 8: New classification – average number of beneficiaries by medical scheme benefit design, South Africa, 2014 v. 2018
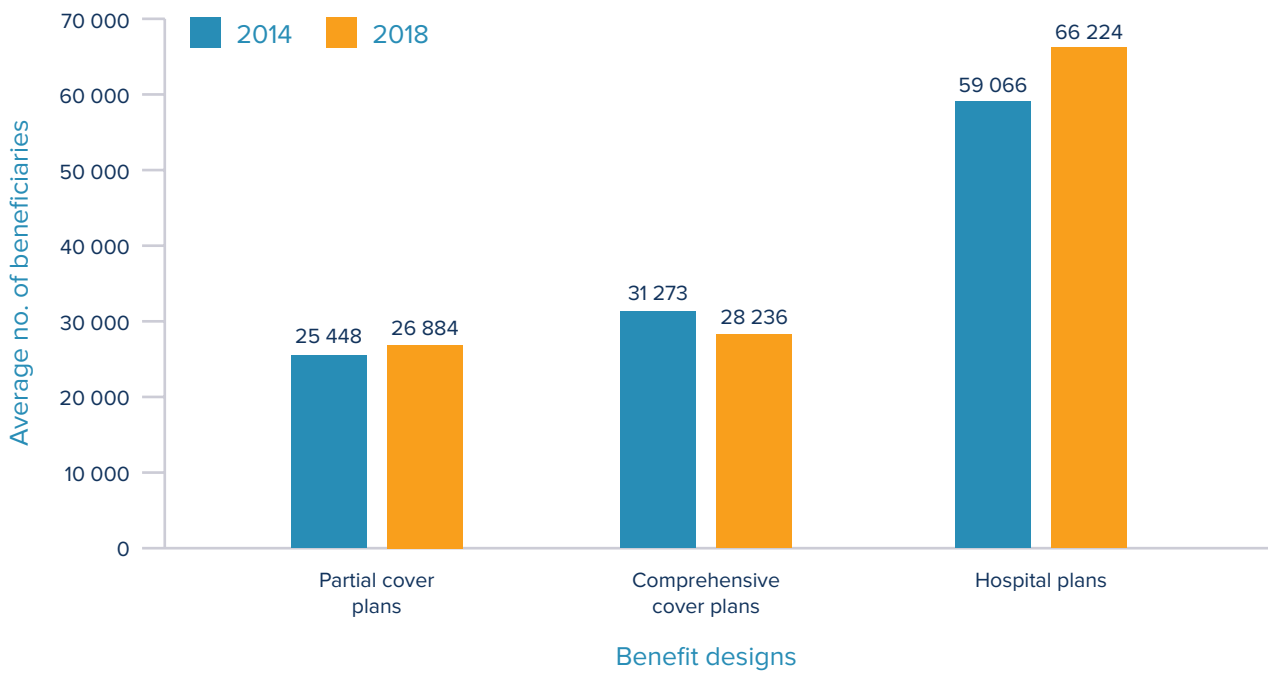

Figure 9 : New classification – community rates by open medical scheme benefit designs, South Africa, 2014 v. 2018
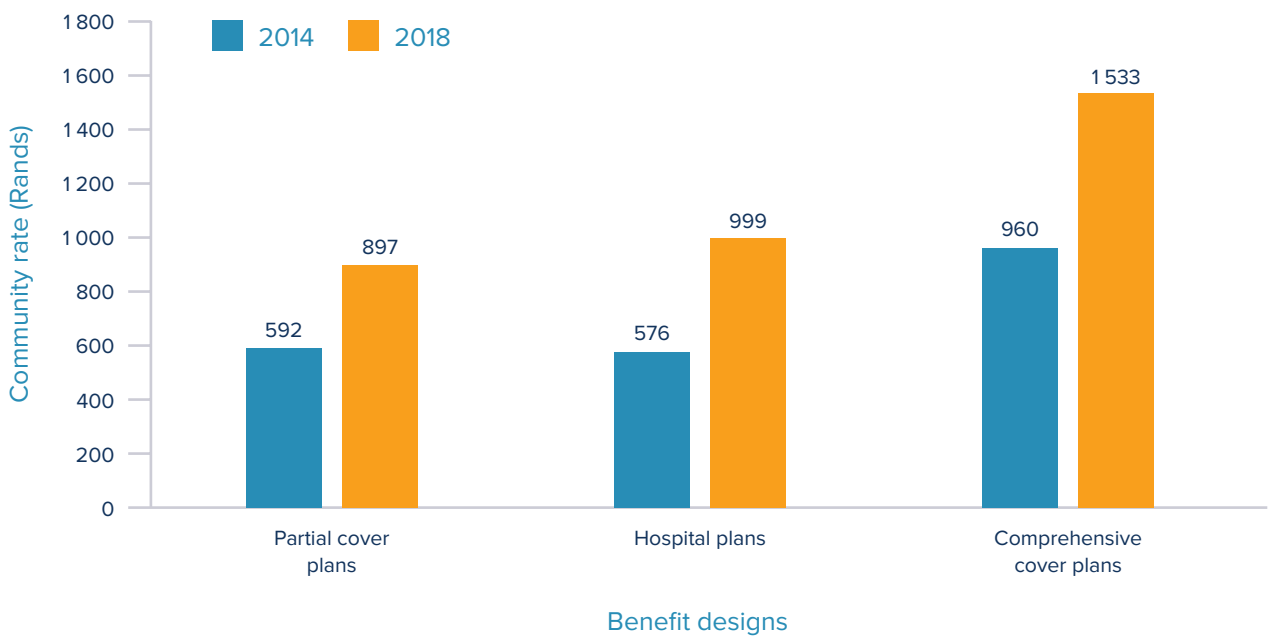
Figure 10 reflects the findings of the discriminant analysis. Interpretation of the results suggests the following:

- The CCPs (labelled comprehensive) are on the extreme right of the plot (meaning their location confirms their similarity); however, these options are widely distributed, thus there is still some confusion or ambiguity associated with the purchasing decision;
- The PCPs (labelled partial cover) are in the centre (middle) of the plot; however, these options are also widely distributed; and
- The HPs (labelled hospital plan) are on the left of the plot, and widely distributed.

The wide dispersion of observations within a benefit design classification (Figure 10) suggests that although the benefit content was similar across options in a benefit design, the observed behaviour patterns were different among benefit options within a benefit design classification. As such, there may have been some confusion among beneficiaries.

Figure 11 shows that in the 2018 benefit year, the degree of intra-class variation in open schemes was still wide for benefit options with similar characteristics. Much like in 2014 (Figure 10), beneficiaries may be faced with confusion resulting from too many options to choose from.

Figure 10: Plot of open medical scheme benefit designs using discriminant analysis, South Africa, 2014
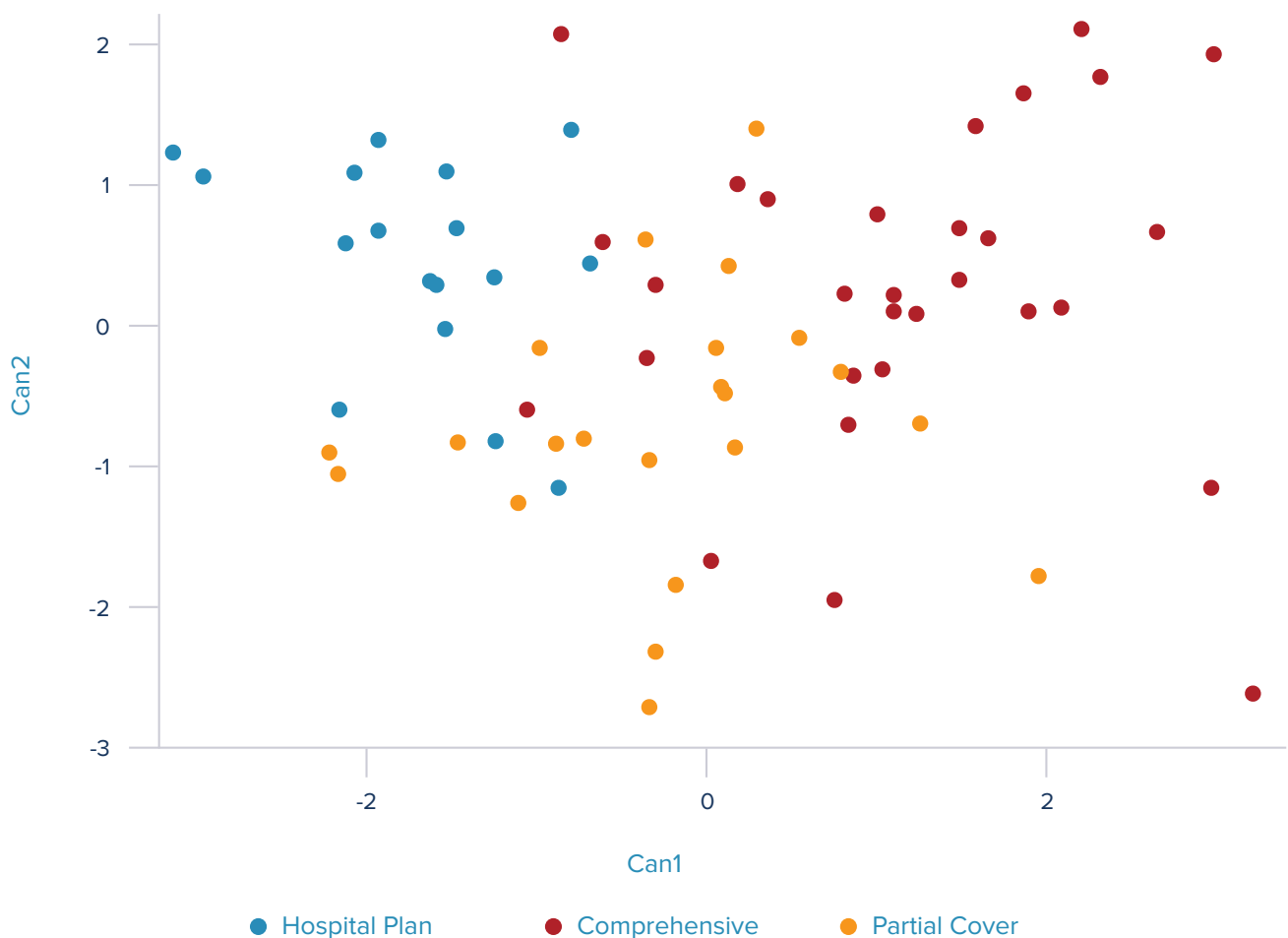
Generated in SAS 9.4.

Note: Can1 and Can2 are canonical variates showing the covariance between independent variables that best explain differences between benefit option designs, namely: hospital plans, partial cover plans, and comprehensive cover plans.

Figure 11 : Plot of open medical scheme benefit designs using discriminant analysis, South Africa, 2018
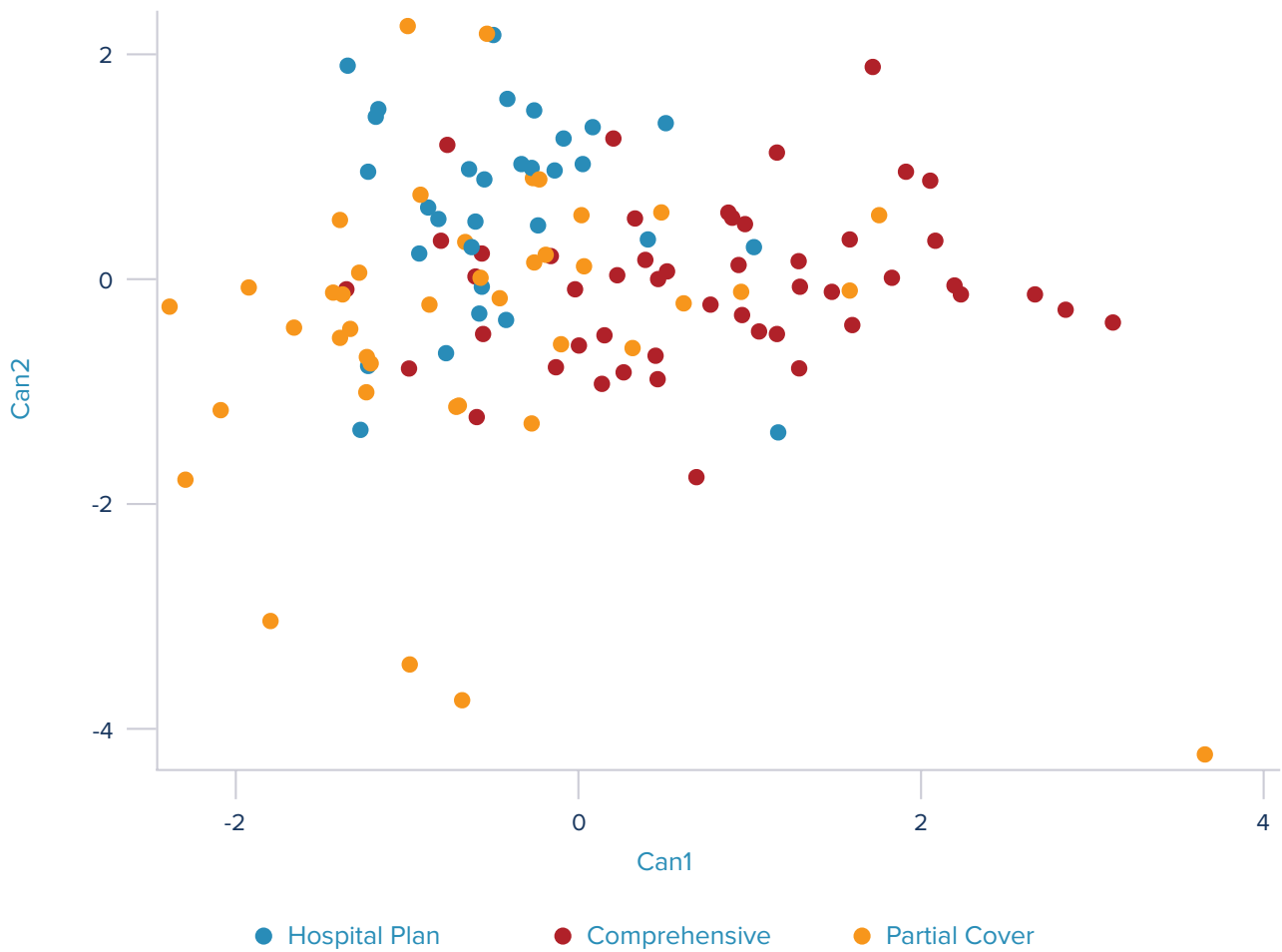
Generated in SAS 9.4.

Note: Can1 and Can2 are canonical variates showing the covariance between independent variables that best explain differences between benefit option designs, namely: hospital plans, partial cover plans, and comprehensive cover plans.

Figure 12 reflects the results of the cluster analysis. Although this analysis was unsupervised, the model suggests that there were three types of benefit options in the open schemes. That said, the identified clusters do not form compact groups at all, which suggests that people were either confused and not able to distinguish between benefit option designs, or they were not making decisions based on common information sets.

The results from Figures 10 to 12 should be interpreted with caution as: the data used as determinant variables were limited to financial performance and age/sex data; no data were included on stated preferences (behavioural assertions associated with likely taste preferences, except for revealed purchases); no socio-economic information was collected; and the data were aggregated and as such do not include other information that might have helped to explain individual choice. This means that there is misspecification in the model; conducting a market segmentation survey is likely to rectify this.

Significance of the findings

What is most significant from the analysis is that beneficiaries are making benefit option choices from options with similar benefit structures, yet consumption behaviour within similar choice alternatives yields variant

Figure 12: Cluster plot of open medical scheme benefit designs, South Africa, 2014
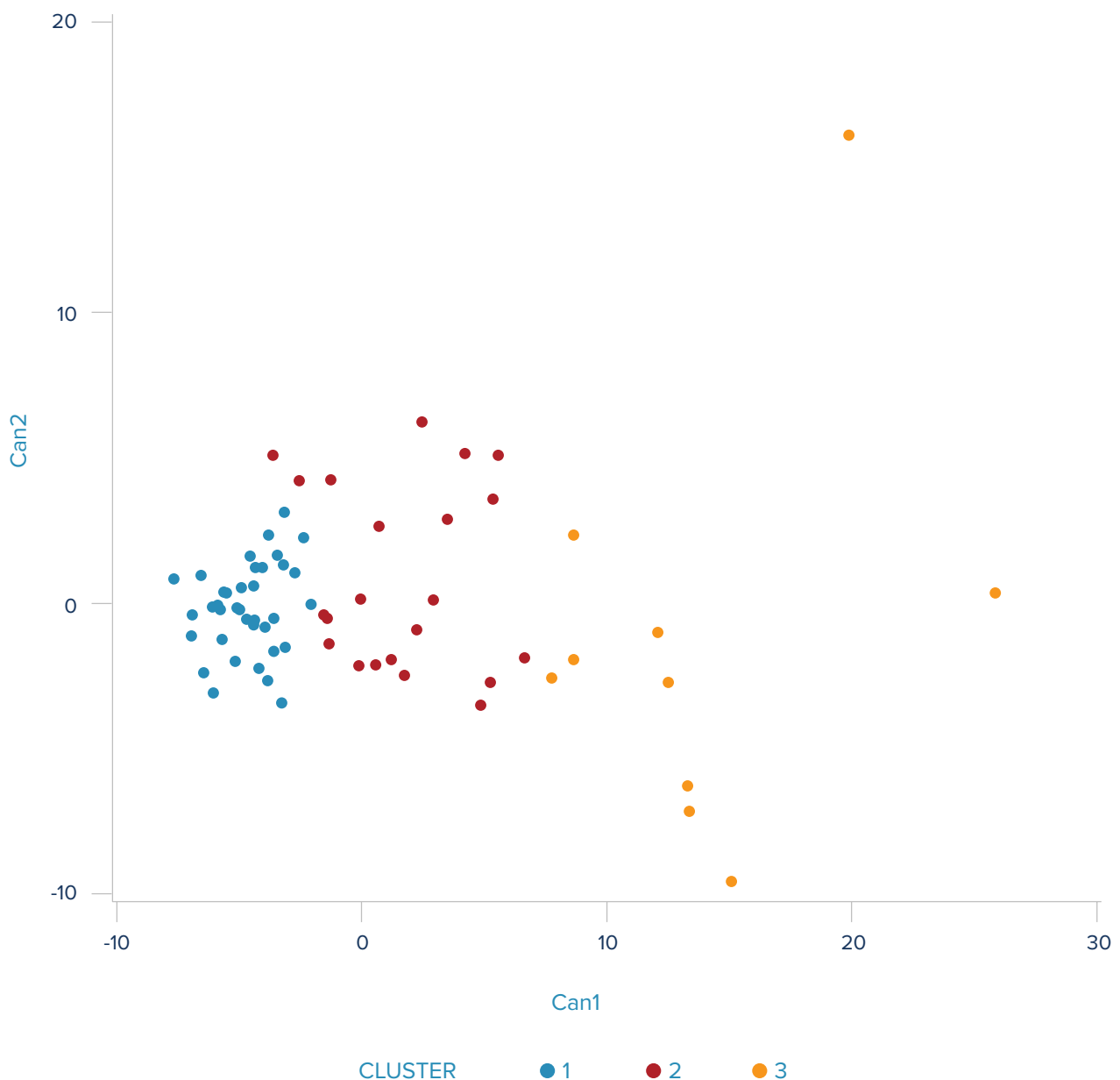
Generated in SAS 9.4.

Note: Can1 and Can2 are canonical variates showing the covariance between independent variables that best explain differences between benefit option designs, namely: hospital plans, partial cover plans, and comprehensive cover plans.

outcomes that make benefit designs seem more dissimilar than expected. Alternatively, it seems that products within common benefit design groupings (having similar health service consumption bundles), do not seem to be perceived to be the same by beneficiaries. The choice environment for beneficiaries seems to be somewhat fuzzy, and therefore may not lend itself to optimal decision outcomes. For example, there are large intra-group variances in the cluster analysis results. The complexity of the decision environment has been mentioned in the provisional findings of the HMI,[6] and subsequently made firm by the recent final recommendations and findings.[26]

Another pertinent finding, particularly in open scheme options, is that beneficiaries with relatively lower community rates[e] enjoy a relatively higher degree of solidarity (risk pool size) than beneficiaries with relatively higher community rates. The profiles with lower health risk severity are also covered on benefit designs with relatively fewer benefit options to choose from. Thus, option choices are likely to be more satisfying and easier for people with relatively lower-risk profiles, than for those with relatively high-risk profiles (i.e. risk profiles with health co-morbidities).

If the most ill members of the community are not able to make optimal choices to finance health-maintenance interventions, then their health costs are likely to occur at the most financially catastrophic healthcare levels of intervention. This cannot aid the achievement of cost-effective healthcare outcomes for the healthcare system. A report by the World Bank makes it clear that even with risk equalisation, efficient outcomes cannot be achieved.[27] The report explains that a health insurance environment with incomplete information makes the problem even worse. Beneficiaries who are more ill seem to have incomplete information.

Conclusions

Drawing on the literature, this chapter outlined the selection problems endemic to private voluntary health insurance environments. Using that as a background, data were extracted from the CMS to empirically assess the relevance of the selection problem in the South African private health financing system. Much like in the individual health insurance market in the US, data from the open medical scheme market show that there are selection problems, which impact negatively on the welfare of vulnerable groups.

The reason for this is twofold. Firstly, benefit option decisions are difficult for consumers due to the proliferation of benefit options in the open medical schemes sector. The numerous dimensions used to configure utilisation rationing mechanisms, such as co-payments, levies and deductibles, also add confusion to the decision-making

e   The cost of health risk severity for a benefit option.

process. Secondly, risk groups that are likely to purchase comprehensive health care find themselves on options with relatively less solidarity than hospital and partial cover plans, as seen in the greater levels of solidarity attained on other benefit design options.

The literature on consumer decisions when purchasing health plans advocates for the use of behavioural models. The latter have been shown to increase understanding of healthcare expenditure. The emerging message in the literature is that selection issues can be identified more clearly in experiments or detailed healthcare expenditure data.

Health-information-system-driven HIEs are useful in providing relevant and standardised information for health plan beneficiaries to optimise their healthcare decisions. A common view in the literature is that HIE is important for the design of responsive healthcare policy. For example, risk-equalisation should not be implemented without concerted effort to implement managed competition, because on its own risk-equalisation has not been able to stifle risk-selection practices. In those instances, vulnerable groups have found it difficult to retain adequate cover.

Concerning the supply-side, HIE should provide information on re-imbursement contracts, as well as optimal arrangements for at least some set of specific risk profiles. Re-imbursement contracts might cherry-pick preferential risk groups, otherwise providers may bear the risk of not being able to recoup costs.

When such data are collected, the regulator and medical schemes will be in a position to build an HIS platform that enables better decision-making – one that makes the private healthcare funding market more efficient through consumers acting on common and standardised information sets.

Recommendations

Health information exchange platforms should be made available on HIS with the architecture to support beneficiary health plan decision making. The HIS should have tools to compare the performance of healthcare interventions, such as networks and disease-management programmes. When these information sets are standardised and accessed on a HIE, consumer-directed interventions in the healthcare market can usher in the managed competition that Enthoven envisaged.[19]

The health policy agenda in South Africa is to have a single National Health Insurance (NHI) fund that purchases an essential minimum benefit package. Medical schemes are to dovetail their health service benefits with those of the NHI, incrementally phasing in the health service regimen to cover

supplementary and complementary healthcare services. There ought to be room for private-public partnerships (PPPs) to augment the administrative and financing capacity of the state with regard to long-term diseases. However, this should only be in instances where private entities have revealed their true administrative capacities; otherwise, non-profit Blue-Cross-type models should be used. Blue-Cross models are healthcare delivery arrangements that can include PPP collaborations.

During the NHI phase-in period, the architecture of the decision-support system should group health services as consumption bundles within the basket of goods offered by benefit options. In the case of non-emergency out-of-hospital services, the consumption bundles should have standardised groups covering the following categories of healthcare services: preventive; acute care; acute medicine; specialist services; and supplementary chronic medicine for non-Chronic Disease List (CDL) formulary treatment regimens.

The decision tool information sets should standardise health-finance offerings for each health-service consumption bundle across the following two dimensions: expected actuarial claims costs; and expected out-of-pocket expenditure (co-payments, savings account, levies, self-payment gaps, etc.).

The decision tool should include an optimisation simulation for current and inter-temporal expenditure. It is crucial that young people should not delay their purchase of health insurance. Optimised decisions made by consumers are probably better than expecting risk-equalisation to eradicate cherry-picking practices or selection problems. Consumers able to optimise their decisions will also vote with their feet and choose the most efficient options, thus affording natural consolidation and solidarity in the medical schemes industry.

To standardise benefit designs properly, it is essential that the CMS collaborates with medical schemes to conduct market segmentation surveys. The stated beneficiary preference order for consumption bundles will help standardise services and keep them relevant to what beneficiaries' value.

Performance outcomes from Patient Reported Experience Measure (PREM) and Patient Reported Outcome Measure (PROM) surveys could be used to rate the value derived from treatment interventions. Incorporating PREM and PROM results in HIS decision-support platforms would be a responsive policy intervention to improve beneficiary decisions, since beneficiaries would be immediately able to distinguish benefit options from a benefit design and quality perspective.

The HIS platform could probably start identifying opportunities for PPPs, possibly in funding collaborations for long-term diseases, and in provider-integrated network plans that can be subsidised for providers working in economically deprived or underserved markets.

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