

An actuarial perspective on medical scheme benefit design

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ABSTRACT

Healthcare actuaries in South Africa play a key role in advising medical schemes on benefit design. In this paper we reflect on the benefits offered by open medical schemes from a consumer perspective. We argue that the complexity of the benefits, the large number of available benefit options and the confusing terminology used in product documentation hamper consumer decision-making. This is particularly relevant given the increased emphasis on the fair treatment of customers in financial services more generally.

We also argue that the proliferation of offerings and market confusion is a direct consequence of a weak regulatory environment with schemes clearly incentivised to compete on the basis of risk selection. Benefit design is a powerful tool for both risk selection and risk pool segmentation. The challenge faced by actuaries is to provide consumer value within this context.

KEYWORDS

Medical scheme, benefit design, treating customers fairly

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1. INTRODUCTION

1.1 Health-care actuaries in South Africa play a key role in advising medical schemes on benefit design. The medical scheme industry provides near-indemnity cover for healthcare events. Medical schemes are governed by boards of trustees with a fiduciary duty towards members of the scheme. Hence, benefit design can be thought of as the development of products that deliver value to the member, and that are marketable and competitive. Value can be thought of as “achieving the best outcomes at the lowest cost” (Porter, 2010).

1.2 The aim of this research is to explore medical scheme benefit design from the perspective of the consumer and to identify whether medical scheme benefit offerings deliver value to the member. The research is intended for an actuarial audience, particularly those who advise schemes. This is particularly relevant given the development of “Treating Customers Fairly” (TCF) regulations which impacts on actuaries working on other non-medical-scheme product lines.

1.3 There is significant pressure on medical schemes, and their advisers, to improve the medical scheme value proposition. There is political pressure that arises from national shifts in health policy: it is unclear what role is envisioned for medical schemes under National Health Insurance (Ramjee et al., 2014). Increases in medical scheme contributions have consistently exceeded inflation, putting pressure on affordability (Ramjee et al., 2014). Medical schemes have also experienced increased competition from health insurance products such as hospital cash plans (Childs and Erasmus, 2012).

1.4 The paper begins by describing the regulatory and policy context, with particular emphasis on the implications for benefit design. We then describe the methodology used for this paper, and present the results together with a description of the benefit design mechanisms currently used by schemes. We then discuss the implications of the results for consumer decision-making and within the context of TCF. The paper concludes with a discussion of the tension for healthcare actuaries between scheme sustainability, consumer needs and social solidarity.

2. REGULATORY AND POLICY CONTEXT

2.1 Medical schemes are not-for-profit healthcare financing vehicles. They provide for privately-delivered healthcare, and are for the most part privately funded (with the exception of a tax subsidy). They are regulated on social solidarity principles with open enrolment, community rating and a minimum benefit package (McLeod and Ramjee, 2007).

2.2 Despite the intentions of the Medical Schemes Act 131 of 1998 to facilitate equitable access to cover, the move to solidarity principles was not accompanied by

compulsory membership or risk equalisation, both of which are essential to stabilise risk pools and ensure competition on the basis of efficiency and not risk selection (McLeod, 2005). Risk equalisation involves a transfer of funds between schemes on the basis of risk profile. The effect of this is that everyone pays the same industry community rate for a common package of benefits, and not the rate determined by the age and health profile of the medical scheme they have chosen to join (McLeod, 2005:23).

2.3 Investigations by Ranchod, McLeod and Adams (2001), Broomberg et al. (2006), Fish and Ramjee (2007), Makofane (2009) and Kaplan (2013) all demonstrated that cover is largely unaffordable for low-income families¹ – one of the consequences of this incomplete regulatory environment.

2.4 Medical schemes cover less than 17% of the population; 55.2% of these beneficiaries are in open schemes (Council for Medical Schemes, 2014c). Medical schemes are located within a highly inequitable two-tier healthcare system: medical scheme coverage is concentrated in the top two income quintiles (McIntyre, 2010) and per capita spend is seven times higher than in the public sector (Ataguba, 2010).

2.5 Each medical scheme is able to offer a range of products, referred to as benefit options. Medical schemes, and by extension their benefit options, are regulated under the Medical Schemes Act 131 of 1998 (Republic of South Africa, 1998) and their adherence to the Act is monitored by the Council for Medical Schemes (CMS). Each benefit option is required to be approved and registered with the CMS. Hence, their design needs to meet the requirements set out by the Act. This includes, *inter alia*, the nature and structure of the benefits they can offer and how they market their options to the consumer.

2.6 Risk Pooling

2.6.1 Risk pooling can occur either at the option level (where each option's risk pool is considered separately and community rating occurs within each benefit option), the scheme level (where the risk pools of the benefit options within a scheme are combined and treated as a single risk pool for community rating), or the industry level (via risk equalisation, where the risk pools of all schemes are combined into a single risk pool and community rating thus occurs across the industry). In South Africa, risk pooling occurs at the option level and schemes are required to treat each option as a separate risk pool for community rating. Each benefit option is required by law to be self-sustaining, "thus forcing risk pooling to occur at an option level resulting in fragmented risk pools" (McLeod and Ramjee, 2007:12). A possible implication is

1 Kaplan (2013) identified low-income families as all those where the principal member's income fell between a lower income threshold of R3 361.07 and an upper income threshold of R10 954.58

that the resultant risk pools are smaller, reducing the predictability of healthcare costs and limiting the extent over which the scheme can spread their risks and hence lower contribution rates and increase affordability (McLeod, 2010).

2.6.2 The number of benefit options has reduced from 217 in 2007 to 140 in 2013. The number of open schemes has reduced from 41 to 24 over the same period. In 2013 there were an average of 5.8 options per open scheme. A 0.71 correlation coefficient was observed between the size of the scheme (by number of beneficiaries) and the number of benefit options offered (Figure 1). In order to capture a full sense of the sustainability of risk pools at present, the size of schemes by their number of beneficiaries was compared to the weighted number of options on offer and the number of schemes (Figure 1).² In simple terms, Figure 1 shows, on average, the number of benefit options on offer for schemes within a certain size band. The ability of schemes to offer a large number of options allows them to appeal to a wide range of target markets and hence, increases their ability to create more homogenous risk pools (i.e. proxy risk rating).

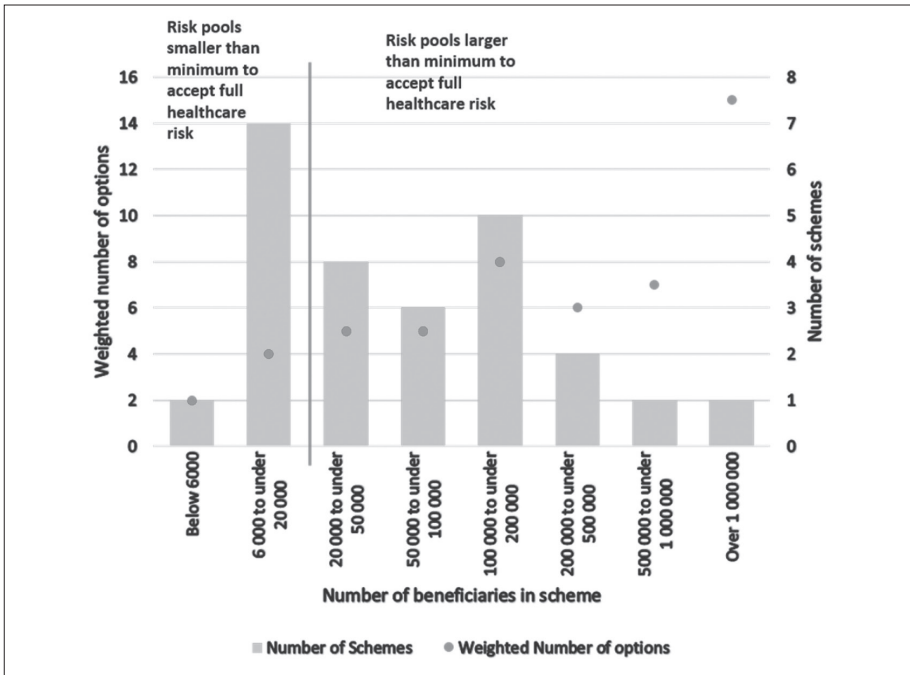


FIGURE 1 The average number of options on offer by scheme size

2 Whilst the optimum medical scheme risk pool size has not yet been studied in South Africa, the minimum size to accept full healthcare risk is considered to be 20 000 beneficiaries in America (McLeod and Ramjee, 2007). At the end of 2013, 67% of all open schemes had risk pools exceeding 20 000 beneficiaries.

2.6.3 In the medical scheme environment pooling risks together allows the costs of those at higher risk of high medical costs to be subsidised by those at lower risk. When healthier individuals perceive no economic benefit to purchasing medical scheme coverage, the risk pool becomes increasingly skewed to those with higher expected claims – also referred to as anti-selection (American Academy of Actuaries, 2009). Thus, in order to ensure its sustainability, the scheme needs to design options that will attract as healthy and as large a group as possible in order to subsidise the sick members who will have higher claims ratios. Benefit design in a community-rated environment therefore fulfils the fundamental function of attracting an appropriate risk pool that will ensure the sustainability and continued existence of the scheme.

2.6.4 McLeod and Ramjee (2007) explain some of the implications of an environment without the Risk Equalisation Fund (REF). “In a community rated environment without a REF, open schemes with a lower risk profile will be more competitive” (McLeod and Ramjee, 2007:12). There is thus a strong incentive to use benefit design to cherry-pick³ healthy members. Cherry picking could result in vulnerable members on schemes with relatively higher risk profiles facing increasingly unaffordable contribution levels relative to other schemes (Council for Medical Schemes, 2012a).

2.7 Prescribed Minimum Benefits (PMBs)

2.7.1 The PMBs consist of a list of some 270 diagnosis and treatment pairs (introduced 1 January 2000); emergency medical conditions (introduced 1 January 2003); diagnosis, treatment and medication according to therapeutic algorithms for 25 defined chronic conditions (introduced from 1 January 2004) (Actuarial Society of South Africa, 2014).

2.7.2 PMBs make up a large proportion of the benefits offered by schemes and create a high base cost of cover (Broomberg, 2006). Regulation 8(1) that states that medical schemes must “pay in full, without co-payment or the use of deductibles, the diagnosis treatment and care costs of the PMB conditions” (Republic of South Africa, 1998).⁴ This has shifted schemes away from relying on financial limits, co-payments and deductibles to the use of managed-care techniques such as formularies, designated service providers and treatment algorithms.

2.7.3 Taylor et al. (2007) state that PMBs are not the appropriate foundation for social health reform. They believe that “PMBs are failing in their key objective of promoting

3 Cherry picking (also called preferred risk selection or ‘cream-skimming’) is the selection that occurs because health plans prefer low-risk consumers to high-risk consumers (IMSA, 2010)

4 Regulation 8(1) is currently being challenged in court (Pearmain, D.L. 2015. Legal Challenge to Prescribed Minimum Benefits by Genesis Medical Scheme. *Law in my pocket*. lawinmypocket.co.za.). A revision to the regulation has been proposed by the Department of Health and is out for comment (Department of Health 2015. Amendment of General Regulations made in terms of the Medical Schemes Act, 1998. *Government Gazette* 38990).

efficiencies in the allocation of private resources, plus they have been identified as being too expensive to promote medical scheme growth” (Taylor et al., 2007:4).

2.7.4 The current PMB package is hospi-centric. Major medical expenditure accounted for 42.5% of pooled funds in 1974, 71.4% in 2005 and 72.2% in 2013 (McLeod and Ramjee, 2007, Council for Medical Schemes, 2014c). The report to the South African Risk Equalisation Fund Task Group by the International Review Panel recommends inclusion of all care that is usually delivered by primary care physicians (Armstrong et al., 2004). The reason cited for the inclusion of primary care was that primary care “plays a pivotal role in the realisation of efficiency gains within a framework of social health insurance, and that the current package is not marketable as a stand-alone product” (Taylor et al., 2007:3).

3. METHODOLOGY

3.1 A total of 118 benefit options (out of a possible 140 available in the market) offered in 2014 were analysed for their benefit offerings. These 118 benefit options were offered by 11 schemes and made up 92.63% of all beneficiaries in open schemes (Council for Medical Schemes, 2014c). These schemes were chosen for analysis as they contained at least 30 000 beneficiaries and offered at least four registered benefit options – all other options not meeting these criteria were disregarded.

3.2 Only large schemes (as per the regulator’s definition) were included as they have a sustainable number of beneficiaries and hence a greater chance of “claims volatility tending to claims predictability” (Actuarial Society of South Africa, 2014:292). In addition, the criteria requiring schemes to offer at least four benefit options was chosen so that the impact of different benefit designs within each scheme could be seen.

3.3 The analysis of benefit design was restricted to a family with a single member and one child dependant (1A1C). It is important to note, however, that most schemes cover the same benefits regardless of family size and merely create higher limits for each additional dependant included. A 1A1C family structure is the second most common family structure, with 11.67% of all families having this structure (Kaplan, 2013). It was used to gauge the impact of additional dependants on benefit design.

3.4 Scheme brochures were obtained for each benefit option and subsequently analysed. The benefits offered under each option were classified and recorded under five main categories. These categories were then broken down into further sub-categories to capture all benefits on offer and associated conditions⁵ respectively. The categorisations that were made are outlined below.

⁵ Conditions here denotes terms of usage and any limits, risk-management or managed care techniques employed.

Benefit Category	Benefit sub-category
Day-to-day benefits	Extent and form of day-to-day benefit coverage
Medicine benefits	Number of chronic conditions covered
Hospital benefits	Limits applicable to in-hospital benefits
	In-hospital provider reimbursement rate
	Choice of hospital
	Co-payments for hospital admissions
	Co-payments for specific in-hospital procedures
Cancer benefits	Oncology limits and co-payments applicable
	Choice of provider
	Provision of high cost oncology medicine
Additional benefits	Coverage for in-room procedures
	Post hospital benefit
	Preventative screening tests

3.5 The process above was, however, limited in that it was a simplification of a complex and intricate environment that required in-depth analysis and review. As such, further analysis through observation of each benefit option was done by looking at the schemes’ brochures.

4. COMMON BENEFIT DESIGN MECHANISMS

4.1 In this section we describe the benefit design mechanisms that are in common use and that are easily identifiable by medical scheme members. Benefit design mechanisms are ways in which benefits are rationed. Rationing can be thought of as either demand-side or supply-side.

4.2 “Any rationing mechanism which prevents patients from freely expressing demand for healthcare”, such as co-payments and benefit limits, are described as demand-side rationing (Econex, 2010:3). This is done by impacting on the price consumers pay out of pocket for healthcare services, either for all services or for a selective set of services – in theory, increasing consumers’ out-of-pocket expenditure per service should decrease their subsequent demand thereof, potentially resulting in the consumption of fewer services (Hicks, 2011).

4.3 “Supply side rationing involves a number of different strategies for impacting the choices made by the providers of healthcare services and often involves the regulation of providers in an effort to influence or control the provision of healthcare services” (Hicks, 2011:23).

4.4 If the goal is to achieve greater efficiency in the production and distribution of healthcare services, then supply side methods of rationing are usually more effective as they focus on changing how services are produced in the market in an effort to increase efficiency (Hicks, 2011). In circumstances where the scheme feels that providers are abusing services, interventions can be designed to lower payment to providers, or directly control the quantity supplied in the market (Hicks, 2011).

4.5 Demand-side Mechanisms

4.5.1 *PRE-AUTHORISATION*

4.5.1.1 “Pre-authorisation is a method of monitoring and controlling utilisation by evaluating the need for medical service prior to it being performed” (Hetico & Marcinko, 2006:237). It generally involves the healthcare provider submitting a treatment plan to the medical scheme or managed care organisation (MCO) before treatment is initiated. The medical scheme will then review the treatment plan, monitoring one or more of the following: the beneficiary’s eligibility, covered services, amounts payable, waiting periods, late joiner penalties in place, application of appropriate deductibles, co-payment amounts, limits and other relevant terms of coverage (Hetico & Marcinko, 2006). Pre-authorisation might then be considered to fall under both demand- and supply-side rationing.

4.5.1.2 All options that were analysed required hospital pre-authorisation – although there is some variation in the information required for pre-authorisation and the time period within which authorisation needs to take place. If authorisation is not granted, the claims for the hospital stay are either not reimbursed or the scheme will only reimburse a certain percentage with the member having to cover the residual – the exact terms will depend on the particular scheme. Doherty and McLeod (2002) state that the “aim of this mechanism is to reduce supplier-induced demand, as well as deter beneficiaries from unnecessary utilisation” (Doherty and McLeod, 2002:18).

4.5.1.3 In addition, many schemes required pre-authorisation as well as registration on a chronic medicine management programme or disease management programme before they will begin to cover chronic conditions. Schemes typically required pre-authorisation on the schemes’ Oncology Management Programme before oncology claims are covered.

4.5.2 *BENEFIT LIMITS*

4.5.2.1 Hetico and Marcinko (2006) define benefit limits as “any provision, other than an exclusion, that restricts coverage in the evidence of insurability, regardless of medical necessity” (Hetico & Marcinko, 2006:50). These limits may either be monetary or non-monetary.

4.5.2.2 The intention is to deter beneficiaries from utilising services unnecessarily but may, however, result in patients who legitimately need care being unable to obtain services when needed (Doherty and McLeod, 2002). To this end, they are not effective in accurately targeting those who need limits to prevent unnecessary utilisation, since it is members who are in need of cover who are most likely to exhaust their benefits (Söderlund, 1999, Ranchod, McLeod and Adams, 2001). Söderlund (1999) additionally states that the use of monetary limits to control utilisation may have no effect on the efficiencies with which the healthcare is delivered.

4.5.2.3 Non-monetary limits, such as a limit on the number of specialist consultations per beneficiary per year, are also fairly common place in the current medical scheme environment. A possible disadvantage of these limits is that they may be viewed as norms rather than extreme levels of utilisation by the members or beneficiaries of the option (Amelung, 2013). Setting a limit of 10 GP consultations per annum, for example, may give members the impression that this is the entitlement they are expected to use, as well as restricting the cover for care for those who are chronically ill (Amelung, 2013).

4.5.2.4 That being said, there is evidence to suggest that benefit limits have proven to be an effective way to contain costs since they are easy to specify and result in a reduction of risk to the scheme (Söderlund, 1999). Furthermore, benefit limits are effective in controlling utilisation of low-cost-high-frequency healthcare events, for example, dental and optical (Jurisich and da Silva, 1998).

4.5.2.5 As stated above, PMBs must be provided in full across all schemes, and benefit limits (monetary and non-monetary) may not be imposed on PMB provision. Monetary limits are allowed on all other conditions not included in the PMB package.

4.5.2.6 Unlimited hospital cover is offered in 96% (113) of options. However, sub-limits exist for certain procedures or categories of care (for example, prostheses, chronic dialysis, and mental health). Options will often specify a benefit limit covering non-PMB chronic medicines. For insured day-to-day benefits and above-threshold benefits (see ¶4.5.4.6) there will usually be a range of limits and sub-limits in place.

4.5.2.7 It is also common practice to have financial limits on (non-PMB) oncology benefits. The limits applicable to oncology benefits varied considerably between the options. 20% of options only covered oncology benefits that were included as part of the PMB package. 40% of options placed a monetary limit where after the members had to pay for the benefit themselves. Of these 47 options, 37 placed a limit that ranged from R91 000 to R300 000 per beneficiary per annum, whilst ten options placed a limit between R300 000 and R475 000 per annum. In 32% of the options, an annual monetary limit—ranging from R200 000 to R400 000—was in place, whereafter a co-

payment applied (between 10% and 20%) if the member exceeded this limit. Only 8% of options said they would provide unlimited cover for oncology benefits (these options required oncology services to be obtained from a provider in their network).

4.5.3 *LIMITING THE NUMBER OF CHRONIC DISEASES COVERED*

4.5.3.1 It is important to remember that all schemes are required by legislation to cover the diagnosis, treatment and care costs of 25 chronic conditions as specified in the PMB's Chronic Disease List (CDL). The diseases included in the CDL were chosen as "they are the most common, they are life-threatening, and are those for which cost-effective treatment would sustain and improve the quality of the member's life" (Council for Medical Schemes, 2014b:1).

4.5.3.2 In order to facilitate comparison, the number of chronic conditions covered over and above the CDL on each option were counted and grouped into six categories:

- 0: the scheme only provides cover for PMB conditions as specified in the CDL;
- 1: between 1 and 10 additional conditions are covered;
- 2: between 11 and 20 additional conditions are covered;
- 3: between 21 and 30 additional conditions are covered;
- 4: between 31 and 40 additional conditions are covered;
- 5: more than 41 additional conditions are covered.

4.5.3.3 McLeod and Ramjee (2007) explain how chronic diseases coverage is used by schemes to risk-select prospective members; i.e. by not covering conditions above the minimum level, schemes can effectively use benefit design to cherry-pick the young and healthy. The extensive nature of the CDL reduces the ability of schemes to use chronic disease coverage as a risk selection tool. The relationship between the number of conditions covered and age profile and contribution rates is illustrated in Figure 2.

4.5.3.4 Viewed from the perspective of beneficiaries and not options, the impact of the CDL legislation on beneficiaries with non-CDL conditions is significant. In 2003 (before the implementation of the CDL), 86.2% of beneficiaries had cover for more than 40 diseases; in 2004, 83.4% of beneficiaries were covered for 40 or fewer diseases (Fish et al., 2006). In 2014, 99.8% of beneficiaries were covered for 40 or fewer diseases. The results are more dramatic when viewed from the perspective of the number of beneficiaries in each category. The proportion of beneficiaries with no cover for non-CDL conditions increases from 13.5% in 2003 to 53.0% in 2004 (Fish et al., 2006) to 69.6% in 2014.

4.5.4 *CO-PAYMENTS, DEDUCTIBLES AND LEVIES*

4.5.4.1 The terms 'deductible' and 'levy' are used interchangeably. Co-payments are usually applied to individual claims, whereas levies/deductibles can be applied to an

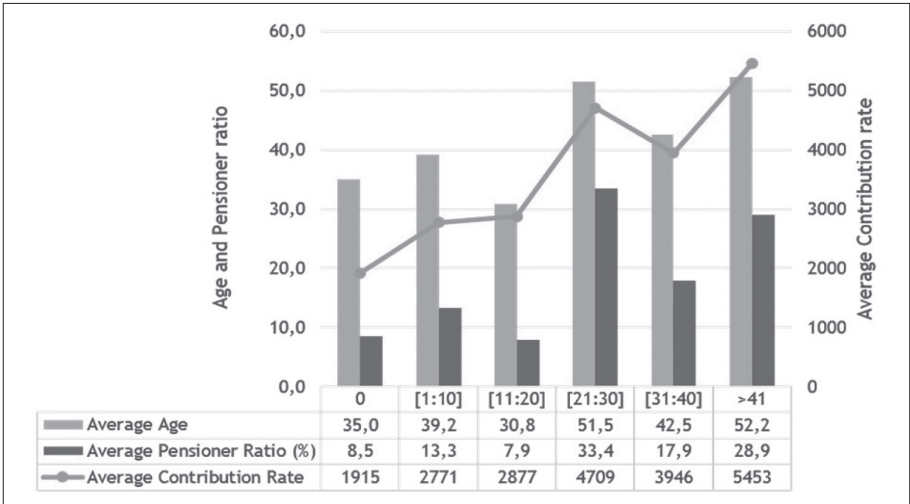


FIGURE 2 Average age, pensioner ratio and monthly contribution rates for options offering coverage for additional chronic conditions

accumulation of claims. “Levies are fixed amounts per claim, whereas co-payments⁶ are defined proportions of claims that are payable by members on each claim” (Doherty and McLeod, 2002:15). These amounts are required to be paid by the member at the time of service before cover will commence (Jurisich and da Silva, 1998). These mechanisms can become a financial burden and reduce access to appropriate care, especially in situations where high prices prevail (Doherty and McLeod, 2002). The proportionate nature of co-payments makes it more difficult for the member to budget since the cost of the service may not always be known beforehand (Jurisich and da Silva, 1998).

4.5.4.2 According to Jurisich and da Silva (1998), these mechanisms aim to serve three functions. Firstly, requiring a member to pay, regardless of the amount charged for treatment, should act as a disincentive for seeking treatment, and it could therefore prevent additional claims (Jurisich and da Silva, 1998). Secondly, the co-payment serves as a cost-sharing function and so aims to address the issues associated with the third-party-payer effect⁷ that exists in South Africa’s medical scheme environment. Thirdly, “the co-payment can also have the effect of channelling utilisation” (Jurisich and da Silva, 1998:14).

6 The term ‘co-payment’ and ‘co-insurance’ are often used interchangeably in benefit design.
 7 In essence, medical schemes act as a third party payer, whereby the scheme settles claims invoiced by the provider on behalf of the member or beneficiary. This shields patients from a full awareness of the costs and creates the incentive for providers to overcharge as well over-utilise services by invoicing largely on the basis of their own judgement (Doherty and McLeod, 2002; Amelung, 2013)

4.5.4.3 Use of these mechanisms is commonplace in medical scheme benefit design, particularly in cases where the member seeks treatment outside of contracted providers or obtains treatment without pre-authorisation. Cost-sharing is also used to channel members to more cost-effective settings. For example, deductibles that were charged for having the procedure performed in-hospital were not charged if they were performed in any of the environments mentioned above. For example, on Liberty's Hospital Plus option, endoscopic investigations had a co-payment of R1 600 if performed in-hospital and no co-payment if performed in the doctor's rooms (Liberty Medical Scheme, 2014).

4.5.4.4 McLeod and Ramjee (2007) found that increases in hospital expenditure have led to an increasing use of deductibles by schemes as a means of discouraging elective hospital admissions and some expensive diagnostic procedures. We found that cost-sharing for specific in-hospital procedures, either in a hospital or day-clinic, existed in 79% of options. The following procedures often required some form of cost-sharing:

- Endoscopic investigations (gastroscopy, colonoscopy, sigmoidoscopy and hysterectomy, etc.)
- MRI and CT scans;
- Joint replacements and prostheses; and
- Laparoscopic procedures.

4.5.4.5 The use of cost-sharing is a highly effective tool that schemes employ to prevent anti-selection. As an illustration, Networked plans are the cheapest (on average) and have the lowest age profile of all plan types (see ¶5.1.4). Younger members have less need for in-hospital cover and the scheme does not need to employ cost-sharing for specific procedures. By contrast, the more comprehensive plans employ more cost-sharing.

4.5.4.6 Above-threshold benefits (ATB) for day-to-day benefits are a particularly complex form of deductible. Here out-of-pocket (and/or medical savings account) day-to-day expenditure is accumulated up to a threshold before the member has access to an insured day-to-day benefit. The accumulation rules vary between schemes and will depend on the category of expenditure, the provider used, and the tariff charged. Over all options, 25% offered an ATB. These options were, on average, more expensive options having an average monthly contribution rate of R3 991.83 compared to R2 743.16 over all options.

4.5.4.7 There are large variations in the co-payments, levies and deductibles charged between schemes and benefit options. The amounts charged may also vary within an option (for example, different procedures may be subject to different deductibles).

4.5.5 MEDICAL SAVINGS ACCOUNT

4.5.5.1 The intention of medical savings accounts (MSAs) was to create the incentive for members to ration their own day-to-day expenditure by allowing any unused funds to be carried forward to the next year and removing cross-subsidisation, forcing patients to rely on their own resources (Goudge et al., 2001).

4.5.5.2 In terms of current legislation, up to 25% of a member's total contribution may be allocated to a MSA. Most savings accounts allow the member to receive a credit in advance at the start of the year (equivalent to 12 times the monthly savings contribution). The member will then pay back the amount through level monthly contributions. These options typically do not offer interest on positive savings balances and do not charge interest on the 'loan' established at the start of the year (Doherty and McLeod, 2002, Actuarial Society of South Africa, 2014).

4.5.5.3 Doherty and McLeod (2002) argue that "savings accounts fail as a cost control measure as they do not tackle the incentives to over-supply that are created by the fee-for-service reimbursement of providers" (Doherty and McLeod, 2002:16). The majority of schemes market a medical savings account as a 'benefit'. In reality, MSAs are a portion of the benefit entitlement that consumers fund themselves.

4.5.5.4 Over all options offering MSAs, the maximum per annum savings level for a 1A1C family was R14 628 and the minimum was R264. This variation adds an additional facet for consumers to consider in choosing an appropriate option.

4.5.6 PREVENTATIVE CARE AND INCENTIVES PROGRAMMES

4.5.6.1 Jurisich and da Silva (1998) stated that medical schemes tend to neither cover tests which screen for diseases nor wellness programmes to encourage healthy lifestyles. However, this appears to have changed. In particular, preventative care benefits are now abundant.

4.5.6.2 Incentives programmes, such as those that reward fitness levels and voluntary screening for certain diseases with low-cost movie tickets, airline tickets, and discounts on lifestyle electronic equipment and gym or sports club membership have also been introduced across a large number of schemes. These loyalty programmes are not technically part of medical schemes as members typically have to pay additional amounts to join these programmes. Yet these programmes are becoming more widespread and have become a major incentive for young and healthy members to switch to certain schemes (Doherty and McLeod, 2002). Incentives programmes are also used as a subtle form of risk rating by encouraging younger and healthier members to join and so enhance the implicit cross-subsidisation mechanism within benefit options.

4.5.7 CASE MANAGEMENT AND DISEASE MANAGEMENT

4.5.7.1 Case management and disease management are examples of rationing mechanisms which are not visible to the consumer from medical scheme brochures. No data exists on the extent of their use within schemes.

4.5.7.2. “Case management is the active monitoring of patients once in hospital with the aim of ensuring that the patient receives clinically appropriate care in the appropriate setting” (Doherty and McLeod, 2002:18). Furthermore, it attempts to manage claim costs by setting best practice clinical protocols for the treatment of patients once they have been admitted to hospital (Actuarial Society of South Africa, 2014). Case management aims to overcome the mis-utilisation of facilities and resources whilst maintaining continuity of service and accessibility (Hetico & Marcinko, 2006).

4.5.7.3 In practice this might involve monitoring high-risk beneficiaries where the cost to the scheme upon treatment is higher. Once the member has commenced treatment, case management might involve checking that the treatment plan is in line with relevant clinical protocols and cost benchmarks and whether ongoing treatment is being provided in the most appropriate setting (Actuarial Society of South Africa, 2014). The use of step-down facilities to rehabilitate patients in a lower-cost setting than a hospital is also common practice. This may involve moving patients to wards with a lower intensity of care once their condition permits (Doherty and McLeod, 2002). It also attempts to match the appropriate intensity of services with the patient’s needs over time (Hetico & Marcinko, 2006).

4.5.7.4 A disease management programme (DMP), on the other hand, “involves active management by the scheme administrators of the prevention, diagnosis and treatment of specific conditions such as asthma or diabetes” (Doherty and McLeod, 2002:19). In addition, it involves identifying members at risk, intervening where necessary, measuring the outcomes, all whilst providing continuous quality improvement (Van der Merwe, 2005).

4.5.7.5 The introduction of the CDL into the PMB package saw a subsequent increase in the roll out of DMPs, particularly in HIV/AIDS management (McLeod and Ramjee, 2007). McLeod and Ramjee (2007) states that the lack of ICD-10 coding prior to this, hampered the ability to perform disease-based analyses.

4.5.7.6 Disease management and case management programmes have become a popular approach in medical schemes because of their association with cost-reducing strategies and their potential for broad application (Van der Merwe, 2005).

4.6 Supply-side Mechanisms

4.6.1 PREFERRED PROVIDER NETWORKS

4.6.1.1 Medical scheme members may be restricted to obtaining their healthcare services from a network of providers. In South Africa these networks are referred to as Preferred Provider Networks (PPNs) or Designated Service Providers (DSPs) where PMBs are concerned⁸ (importantly, PPNs encompass DSPs).

4.6.1.2 If the member joins a benefit option that makes use of a PPN, a visit to a provider outside of the PPN may result in the member having to cover the cost of the service themselves or the scheme may only pay as much as it would have cost to make use of the PPN (Council for Medical Schemes, 2014e).

4.6.1.3 PPNs were established with the aim of reducing the cost of healthcare, through negotiating volume discounts from the providers or by securing agreements with providers to practise cost-effective medicine according to a defined set of clinical protocols (Jurisich and Da Silva, 1996, Actuarial Society of South Africa, 2014).

4.6.1.4 A recent trend of paying higher fees to providers within PPNs has been seen, for example, contracted GPs on Bestmed Medical Scheme's network are reimbursed R380.00 for a consultation, whereas uncontracted GPs are only reimbursed R295.70 (ASAIPA, 2014). A possible explanation for this trend might be that the increased engagement with and profiling of the providers might necessitate higher fees.

4.6.1.5 In theory, public hospitals should be attractive preferred providers for schemes, since the cost of care and the rate of cost escalation is comparatively low in this sector (Doherty and McLeod, 2002). However, perceived quality differences between public and private hospitals has resulted in very few schemes contracting with the public sector. This is despite the fact that many state hospitals have set up separate wards, designed to serve members whose treatment and hospital stay is paid for by their medical scheme and to whom the hospital can afford to provide better service (Council for Medical Schemes, 2014e).

4.6.1.6 Doherty and McLeod (2002) found that the use of hospital networks was quite low at 22% of schemes while the percentage for other types of provider was even lower (for example, 13% for general practitioners and 7% for specialists). These results were echoed by Ranchod, McLeod and Adams (2001) where they found that eight of the 41 options they examined made use of a network of hospitals in the private sector. However, these figures are likely to be considerably higher in 2014 owing to the increased usage of managed-care techniques as well as the introduction of Efficiency Discounted Options (EDOs).

8 The term Designated Service Provider was introduced in the PMB legislation.

4.6.1.7 EDOs are benefit options with network arrangements for healthcare provision. They were introduced in 2008 and allow monthly medical scheme contributions to be differentiated on the basis of the healthcare providers that are utilised to provide benefits (Council for Medical Schemes, 2014c). This practice is in conflict with the statutory principle that contributions may be differentiated only on the basis of income or family size, or both.

4.6.1.8 A scheme's benefit option must therefore obtain exemption from section 29(1) (n) of the Medical Schemes Act before it can operate as an EDO (Council for Medical Schemes, 2014c). Only open schemes have elected to offer EDOs to date and at present, 40 benefit options are classified as EDOs – an increase of 3 from 2013 (Council for Medical Schemes, 2014c).

4.6.1.9 Importantly, EDOs were established with the intention that the discounted contributions reflected the efficiencies of the PPN rather than the demographics and claims propensities of the beneficiaries that were expected to participate in the discounted structure. However, EDOs are powerful risk-selection tools since those members who are less likely to utilise their benefits are less concerned with restricted access to providers.

4.6.1.10 There were three choices on offer with regard to selection of a hospital. 59% of options allowed members to visit any hospital of their choosing, 39% made use of a network of hospitals and 2% required members to visit a state hospital. The composition of hospital networks will vary between benefit options.

4.6.2 ALTERNATIVE REIMBURSEMENT MECHANISMS

Alternative reimbursement arrangements are not directly visible in benefit design (i.e. members cannot see how providers are reimbursed and choose a benefit option accordingly) but it is important to recognise their existence and their potential impact on the member.

4.6.3 TREATMENT PROTOCOLS AND FORMULARIES

4.6.3.1 Treatment protocols are “a set of guidelines in relation to the optimal sequence of diagnostic testing and treatment for specific conditions” (Department of Health, 1998). The Council for Medical Schemes dictates that “all managed care protocols be developed on the basis of evidence-based medicine, taking into account considerations of cost-effectiveness and affordability” (Council for Medical Schemes, 2014e:58). If a member voluntarily chooses to use a different treatment protocol the scheme may charge a co-payment.

4.6.3.2 A formulary is a list of prescription drugs determined to be clinically appropriate and cost effective, that are approved for use and covered by a medical scheme (Hetic &

Marcinko, 2006). As with managed-care protocols, formularies must be developed on the basis of evidence-based medicine, taking into account considerations of both cost effectiveness and affordability (Council for Medical Schemes, 2014e). Reimbursement by schemes is then restricted to items on the formulary (Doherty and McLeod, 2002). However, if the member suffers from specific side effects from drugs on the formulary they will be able to put their case to their medical scheme and ask the scheme to pay for their medicine (Council for Medical Schemes, 2014e). In circumstances where a formulary drug is clinically appropriate and effective, and the member knowingly declines the treatment and chooses to use another drug instead, the scheme may impose a co-payment.

4.6.3.3 Formularies are in contrast to reference pricing, which requires that drugs be categorised into therapeutic classes, with a reference drug selected in each class (McLeod and Ramjee, 2007). The amount to be reimbursed is then set, based on this reference drug, with the consumer having to pay the difference in price if a more expensive drug is used (McLeod and Ramjee, 2007). McLeod and Ramjee (2007) then state that “one of the aims of reference pricing is to have manufacturers compete to be the reference product and thereby drive prices down” (McLeod and Ramjee, 2007:19).

4.6.3.4 The majority of schemes in South Africa have used formularies for chronic medicine since the mid-1990s and in addition, many schemes include a chronic medicine management programme in conjunction with their formulary (Doherty and McLeod, 2002). Beneficiaries seeking chronic medicine benefits are required to register on the chronic medicine management programme which allows close review of each prescription for each member (Doherty and McLeod, 2002).

5. PROVIDING CONSUMER VALUE

5.1 Product Complexity and Comparability

5.1.1 The review of benefit options highlighted the low level of comparability between products (Appendix A). Recapturing of benefit information in a standardised format was required to enable comparisons, and even then the multi-dimensional nature of benefits made the process manual and time-consuming. This raises questions about the ability of consumers, brokers and those advising on employee benefits to undertake meaningful comparisons.

5.1.2 In addition to identifying differences between options for individual benefits, there remains a question about aggregation. In other words, how does a consumer combine information about individual benefits to make a judgement on the overall value provided by a benefit option? This issue arises because of the multi-faceted nature of the cover being provided.

5.1.3 UNDERLYING COMPLEXITY OF MEDICAL CARE

5.1.3.1 Medical care is by nature complex with a wide range of potential care pathways, goods and services. Patient characteristics and needs also vary enormously.

5.1.3.2 While a variety of tools exist for rationing resources, explicit (direct) or implicit (indirect) are the two basic methods of rationing (Hicks, 2011). “With explicit rationing, the basis, or criteria, that are used in making the resource allocation decisions are clearly, openly, and directly specified” (Hicks, 2011:12). “Under implicit rationing, the criteria to be used to ration resources are implied, indirect, or not clearly expressed” (Hicks, 2011:13). Hicks (2011) states that many times, the criteria focus on inclusion of individuals or services, but do not directly stipulate who will be excluded. Rationing by inconvenience, rationing by policy, or rationing by contract⁹ are all examples of implicit rationing (Econex, 2010).

5.1.3.3 Much of what is contained in medical scheme brochures relates to explicit rationing – this leads to complexity as the products outline what will and will not be paid for. Despite the criteria being directly and openly specified, providers and consumers may not be able to keep track of all the different rules in place. Hence a paradox exists where increased product transparency can lead to reduced consumer understanding.

5.1.3.4 The variation between benefit options arises from differences in individual benefits (discussed in section 3), the overall structure of benefits, the scheme tariff rate and presentational differences.

5.1.4 STRUCTURE

Comparison of options is aided by categorising options into plan types: a ‘plan type’ might be thought of as a collection of options displaying the same day-to-day benefit characteristics. This categorisation allows a member to select the overall type of option they would like to purchase and hence narrow down their choices. The five plan types identified are hospital, new generation, traditional, hybrid and networked.

- **Hospital Plan** There is limited cover for out-of-hospital and day-to-day expenses. The term ‘hospital plan’ is outdated since all options, even if described as a ‘hospital plan’ must provide cover for PMB conditions.
- **New Generation** This is an option that combines an insured major medical benefit with a medical savings account for day-to-day expenses. The term new generation has been in use since the mid-90s – these options can hardly be considered new.

⁹ “Stating within the contract what services are covered at each level, with the patient deciding which level and amount he or she wishes to pay” (Econex, 2010:2)

- **Traditional** A traditional benefit option is one that is considered to offer both insured major medical benefits and insured day-to-day benefits (Ranchod, McLeod and Adams, 2001).
- **Hybrid** Hybrid plans are a mixture between Traditional and New Generation Plans, with a combination of day-to-day benefits paid out of a savings account and covered from insured benefits. Above-threshold day-to-day benefits fall into this category.
- **Networked** The member is required to obtain out-of-hospital benefits through a network of providers (or PPNs).

5.1.5 **TARIFFS**

5.1.5.1 All schemes reimburse providers at a multiple of their own tariff. There is a high degree of similarity between tariffs. However, consumers may be subject to balance-billing, and do not have adequate information to be able to assess a scheme’s tariffs. The healthcare practitioner reimbursement rate for hospitalisation ranged from 100% of the scheme’s rate to 300% of the scheme’s rate. 65% of all options reimbursed at 100% of their scheme’s rate, 31% reimbursed at a rate between 150% to 250% and 4% reimbursed at 300% (the remaining reimbursement rates were spread thinly over the entire range).

5.1.6 **PRESENTATIONAL DIFFERENCES**

5.1.6.1 The layout of benefit brochures is not standardised and there is little in the way of minimum information that schemes are required to disclose. Whilst the scheme rules are comprehensive by nature, benefit brochures need to provide information

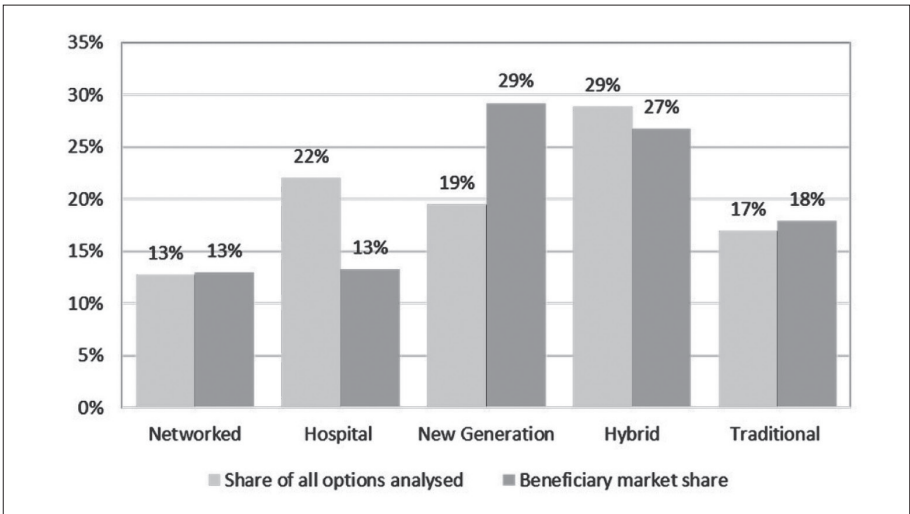


FIGURE 3 Share of options analysed versus beneficiary market share by plan type

more succinctly and hence select a sub-set of information to be presented to the consumer.

5.1.6.2 The use of medical terminology, jargon and abbreviations adds to presentational differences between schemes. Most scheme brochures include a glossary to assist the consumer with understanding the brochure.

5.2 The Decision-making Process

5.2.1 The product-choice decision process can be thought of as a two-tier process: first, the choice of scheme and second, the choice of benefit option. The choice of scheme may be constrained by the employer. Employers often select a sub-set of schemes on behalf of their employees.

5.2.2 Medical scheme members should have a high-level of involvement in the purchasing process, given the financial significance of the purchase and the impact on both their physical and financial well-being. Survey data suggest that 32% of households with medical scheme cover spend more than 10% of their income on contributions (Stats SA, 2011).

5.2.3 However, the low level of product comparability (Appendix A) hinders the decision-making process with the consequence being that consumers either make decisions without fully engaging, make decisions without full knowledge, or rely on the advice from brokers. The net effect of product complexity and wide choice are likely that decisions aren't based on intrinsic value. Proxy factors on which decisions are made may include financial strength, scheme size, brand awareness and add-on products such as loyalty programmes and gap cover. It is also likely that the strength of a scheme's distribution network will impact on their competitive position.

5.2.4 The nature of cross-subsidisation between medical scheme beneficiaries means that a high level of dissonance is likely: 80% of beneficiaries claim less than they contribute (Insight, 2015). For those beneficiaries who join the system young, the sense of benefit entitlement will accumulate over time. In addition, any denial of care or partial payment of benefits is emotive.

5.3 Treating Customers Fairly

5.3.1 A recent development, whilst not directly affecting medical scheme regulation, is Treating Customers Fairly (TCF). TCF regulation was implemented by the Financial Services Board (FSB)¹⁰ and is an outcomes-based regulatory and supervisory approach "designed to ensure that specific, clearly articulated fairness outcomes for financial

¹⁰ The Financial Services Board is an independent institution established by statute to oversee the South African Non-Banking Financial Services Industry in the public interest (Financial Services Board, 2014)

services consumers are delivered by regulated financial firms” (Financial Services Board, 2014). However, since medical schemes are supervised by the Council for Medical Schemes and not the FSB, they are not required to demonstrate a commitment to TCF principles.¹¹ However, Rusconi et al. (2014) argues that the manner in which insurers’ products (and by extension medical schemes’ products) are presented to the public for sale does indeed fall under the scope of TCF. Importantly, there has been little commentary on TCF within the medical scheme environment.

5.3.2 Whilst medical schemes do not directly fall under the scope of TCF regulations, they do fall under the scope of the Consumer Protection Act (CPA)¹² and of course, the Medical Schemes Act. The CPA overrides the Medical Schemes Act No. 131 of 1998. This means that in circumstances where these Acts conflict with regard to medical scheme regulation, the laws contained within the CPA will take legal preference over those contained within the Medical Schemes Act (SAICA, 2014). Thus, in theory, all interactions between medical schemes and their members will fall within the scope of the CPA.¹³ The following rules, inter alia, fall under the CPA and impact on medical scheme benefit design:

The CPA prescribes that any representation made to the consumer should be in plain language so that it can be understood by any ordinary person with average literacy and understanding” (SAICA, 2014:2);

The Act prohibits discriminatory marketing, i.e. excluding persons from any goods or services or targeting particular communities for exclusive supply of goods or services” (SAICA, 2014:3).

5.3.3 The Medical Schemes Act is also surprisingly silent on the topic of TCF. Although the Registrar of Medical Schemes assesses any new benefit option, it is not assessed in terms of its fairness and responsibility to the members (SAICA, 2014). Whilst the Council for Medical Schemes does require benefit option brochures to be provided before approval, there is no formal framework for their assessment with regards to TCF. Furthermore, “there is no prescription in terms of language in the Act and the Act puts the responsibility of the understanding of the rules on the member, irrespective of the industry complexities” (SAICA, 2014:7).

11 Organisations falling under the supervision of the FSB are expected to demonstrate six TCF outcomes in delivering services to customers, ranging from the appropriate and accurate marketing of services to consumers, to products performing in the way firms have led customers to expect (Financial Services Board, 2014)

12 “The Consumer Protection Act is a set of legislation designed to protect the South African consumer in general by establishing a legal framework that will achieve and maintain a fair, accessible, efficient, sustainable and responsible consumer market” (SAICA, 2014:1)

13 It is important to note that, owing to the fact that the CPA is in conflict with the Medical Schemes Act in some instances, the Council for Medical Schemes has applied for exemption of the medical schemes industry from the CPA (Nkonki, 2012).

5.3.4 Rusconi et al. (2014) highlighted the design of benefit options as a major issue in the medical scheme environment and stated that “there exists improper and inefficient regulation at present which has led to medical schemes trying to capitalise on these opportunities with the consumer bearing the brunt of these initiatives” (Rusconi et al., 2014:29). The presence of conflicts of interest between the multiple stakeholders has been cited as a major hurdle in trying to design and implement effective TCF regulations within the medical scheme environment (Rusconi et al., 2014). Rusconi et al. (2014) also states that members’ needs and perspectives have not been considered with sufficient attention in that “the quality of services provided by the administrator are inadequate or the fees paid for these services inappropriately high” (Rusconi et al., 2014:30).

5.3.5 The various challenges and issues presented by Rusconi et al. (2014), as well as the inadequate regulations surrounding TCF in medical schemes, highlight the need to consider the consumer’s perspective when analysing the current structure of benefit designs available in the market.

6. THE CHALLENGE FOR THE PROFESSION

6.1 The regulatory environment creates a clear incentive for schemes to use benefit design to risk-select members. The regulatory environment lacks the necessary protections against anti-selection (such as mandatory contributions or cover) to offset this incentive. Without a risk equalisation mechanism in place, it is inevitable that schemes will compete primarily on the basis of risk profile, and not on the basis of efficiency, value or service.

6.2 In addition, given that risk pooling occurs at the level of benefit options, there is an incentive to design benefit options in such a way that the risk pool can be split into more homogenous sub-groups. This allows for proxy risk-rating.

6.3 Using benefit design to risk-select members and to proxy risk-rate goes against the spirit of the Medical Schemes Act and undermines the social solidarity principles embedded in the Act. However, these actions are understandable from a scheme sustainability and risk-management standpoint. This tension between social solidarity and scheme sustainability creates a potential ethical dilemma for healthcare actuaries.

6.4 It is likely that product complexity and low levels of comparability are a result of an inherently unstable market and poorly defined PMBs. Again, a tension exists for actuaries between the imperative to treat customers fairly and the management of scheme risk profiles.

6.5 The challenge for actuaries advising medical schemes is to find ways of delivering value within the regulatory constraints. This may occur through improved

communication with members, a clearer separation between product positioning and the underlying detail, better use of rationing mechanisms (particularly supply-side mechanisms) and efforts to drive efficiency despite the temptation to compete only on the basis of risk profile.

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APPENDIX A

Dimensions of Choice

Benefit	Assumed benefit choices	Number of choices
Day-to-day Benefits		
How day-to-day benefits are covered	No benefit	5
	Paid from savings	
	Limited amount within a network	
	Combination of a MSA and risk benefit	
	Pure risk benefits	
Plan threshold	Yes	2
	No	
Medicine Benefits		
Conditions covered above PMBs	PMBs only	6
	Between 1 and 10 additional conditions covered in excess of PMBs	
	Between 11 and 20 additional conditions covered in excess of PMBs	
	Between 21 and 30 additional conditions covered in excess of PMBs	
	Between 31 and 40 additional conditions covered in excess of PMBs	
	More than 41 additional conditions covered in excess of PMBs	
Hospital Benefits		
Do limits apply to in-hospital benefits?	Yes	2
	No	
In-hospital provider reimbursement rate	100%	5
	101%–150%	
	151%–200%	
	201%–250%	
	251%–300%	
Choice of hospital	State Hospital	3
	Networked Hospital	
	Any Hospital	
Co-payments for hospital admissions	Yes	2
	No	
Co-payments for specific in hospital procedures	Yes	2
	No	

Benefit	Assumed benefit choices	Number of choices
Cancer Benefits		
Oncology limits and co-payments applicable	PMBs only	4
	Limited annual monetary amount	
	Limited annual monetary amount followed by a co-payment	
	Unlimited	
Choice of provider	State	3
	Networked	
	Any	
Provision of high cost oncology medicine	Yes	2
	No benefit	
Additional Benefits		
Coverage for in-room procedures	No benefit	4
	Paid from savings	
	Paid from DtD risk benefits	
	Paid from major medical benefit	
Post-hospital Benefit	No benefit	3
	Paid from savings	
	Yes	
Preventative screening tests	Yes	2
	No benefit	