ANNEXURE 5.1 PRESCRIBED MINIMUM BENEFITS

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1. Introduction

1. Prescribed minimum benefits (PMBs) form part of the regulatory framework in which the South African healthcare market operates. The main context of our analysis of PMBs is encapsulated in the HMI's revised statement of issues (RSOI):

> *"Government failure could be argued to exist in any of three forms. First, poorly designed regulation could establish structural market features which weaken competition. Second, regulations which are needed to ensure pro-competitive outcomes may not be adopted. Third, properly designed regulation could be poorly enforced for various reasons (e.g. regulatory capture, or ineffective oversight). Poor regulatory design or implementation can generate unhealthy forms of competition while healthy competition is a possible outcome of good designs and effective implementation."*[1]

2. The HMI is therefore interested in whether PMB regulatory design and the manner or extent to which PMB regulations have been implemented and enforced have had an overall negative impact on competition or access in healthcare markets, or other undesirable market outcomes.

3. The Council for Medical Schemes (CMS) defines PMBs as:

> *"a set of defined benefits to ensure that all medical scheme members have access to certain minimum health services, regardless of the benefit option they have selected."*[2]

4. Each medical scheme in South Africa is required to provide minimum healthcare benefits in meeting the requirements of PMBs. The list of minimum benefits covers 270 acute conditions such as certain types of cancer and meningitis as well as 25 chronic conditions such as diabetes and asthma.[3] Regulation 8 of the Medical Scheme Act No 131 of 1998 (MSA) requires medical schemes to pay in full for any acute or chronic condition on the PMB list, as long as members procure services from a Designated Service Provider (DSP).[4] The source of payment is legislated to derive from the risk pool as opposed to members' medical savings accounts.

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[1] HMI Revised Statement of Issues, 11 February 2016, paragraph 109.

[2] CMS definition of PMBs, available at: http://www.medicalschemes.com/medical_schemes_pmb/

[3] CMS Script, Issue 7 of 2010-2011, *The ABC of PMBs*, page 1.

[4] Regulation 8(2)(a) of the Medical Scheme Regulations.

5. The functioning and impact of PMBs have been called into question on numerous occasions since the regulations were introduced. Stakeholders have expressed varying concerns. For example:

    5.1. Some consumers are concerned they are not receiving appropriate PMB cover as funds are being drawn from savings accounts, or they are having to pay out of pocket for treatment which should be covered from risk;

    5.2. Medical schemes are concerned with unlimited liability given the Regulation 8 interpretation;

    5.3. The CMS advocates for schemes to cover PMBs in full, at invoice cost;

    5.4. The Department of Health is concerned as to whether more primary care elements should be included in the suite of PMB cover; and

    5.5. The HMI is concerned that the overall regulatory framework may lend itself to poor competitive outcomes.

6. Below we systematically address the impact of this regulation on the efficiency and competitiveness of the market.

2. Background: PMBs in South Africa

7. Before examining the impact of PMB regulations on competitive outcomes, we provide some background of their original purpose, and the implementing mechanisms that are in place.

The purpose and design of the PMBs

8. The ANC National Health Plan of 1994 introduced the concept of a basic minimum healthcare package in South Africa. This plan described a statutory basic package of care,[5] which was then implemented by the MSA. This policy initiative drew heavily on international regulatory developments, dating back to the 1970s and 1980s,[6] as regards the usefulness of defining a

[5] ANC. (1994). *A National Health Plan for South Africa*. (W. a. UNICEF, Ed.) Johannesburg, page 54. Available online at: http://www.anc.org.za/docs/pol/1994/health.htm

[6] World Health Organization. (2008, July 3*). Essential Health Packages: What Are They For? What Do They Change?* WHO Service Delivery Seminar Series DRAFT Technical Brief No. 2. Page 3.

set of essential health benefits that a (public) healthcare system should provide. Benefits of such systems were felt to include:

8.1. Improving access to healthcare, and doing so on an equitable basis that would, for example, divert funding away from tertiary care and specialist training towards essential clinical services, in order to improve access to healthcare by the poor;

8.2. Providing an opportunity to tweak the efficiency of healthcare provision, by coming up with a rational means of deciding whether or not to include an intervention in the basic package, in order to ensure that society is *"getting the maximum health gain per dollar spent"*;[7]

8.3. Preventing financial ruin for individuals faced with catastrophic healthcare costs; and

8.4. Reducing/preventing dumping from the private healthcare system into the public system.

9. The benefit design process should, in principle, be a highly technical evaluation of the relative merits and costs of various possible health interventions, based on an objective comparison of a measure such as disability adjusted life years per rand spent, for example. However, in practice, political considerations and data availability have tended to severely constrain this first-best method of essential services package design. Healthcare systems which have attempted to design a basic package in a rigorous way, which includes consideration of cost effectiveness, have tended to encounter problems with public buy-in. This is because a rational ranking of healthcare priorities may tend to offend public sensibilities.

10. An example of the issues that may arise in essential services package design is evident in the Oregon Medicaid experiment from the early 1990s. In an attempt to extend healthcare services to a wider base of recipients by saving costs through restricting the types of treatment which would be made available, the Oregon Health Services Commission issued a ranked list of condition-treatment pairs, which explicitly considered cost effectiveness. In the resulting list, effectiveness was assessed in terms of quality-adjusted life years saved. This initial published list was heavily criticised because many life-threatening conditions were located lower on the list than seemingly trivial ones. Hadorn (1991) has termed this inherent preference for treating

[7] Bobadilla, J. L., Cowley, P., Musgrove, P., & Saxenian, H. (1994). *Design, content and financing of an essential national package of health services*. Bulletin of the World Health Organization, 72(4), pp. 653 – 662.

life threatening conditions, regardless of cost effectiveness, the 'Rule of Rescue'.[8] The net result of the exercise in Oregon, after extensive public consultation, was the production of a prioritisation system which took little or no account of cost effectiveness.[9]

11. The manner in which PMBs were designed for South African conditions has drawn heavily on international experience and has similarly reflected the need to augment efficiency considerations with equity concerns and social preferences. The initial proposal produced by Soderlund and Peprah reduced the 750 DTPs listed by the Oregon authorities into just under 600 DTPs. These were further reduced into 271 DTPs which were legislated into use as the first PMB package in October 1999. The adaptation of the Oregon list to South African local conditions was primarily achieved through a process of elimination in which a number of urgency and effectiveness rankings were thought inappropriate for South Africa.[10] A weighting exercise was conducted to evaluate conditions for inclusion, in which the following weights applied:

    11.1. Hospital (weight of 4);

    11.2. Urgency (weight of 3);

    11.3. Effectiveness (weight of 2); and

    11.4. Costliness (weight of 1).

12. The inclusion of chronic conditions followed the Department of Health's May 2002 inquiry,[11] which ultimately recommended that in order to help remove residual risk-selection concerns and to increase coverage, PMBs should include chronic conditions.

13. Taylor et al (2007) note that "*there were some noteworthy, yet unexplained, differences between the seminal work and the final regulations. Despite broad adaptation of the principle that minimum care was limited to urgent, cost-effective hospital-based care in public facilities, some isolated highly discretionary services, as well as primary care interventions, had been added to*

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[8] Khosa, S, Soderlund, & Peprah, E (1997) *An Essential Package of Hospital Services Review of International Experience with reference to South Africa.* Johannesburg: Centre for Health Policy p. 23.

[9] Khosa, S, Soderlund, & Peprah, E (1997) *An Essential Package of Hospital Services Review of International Experience with reference to South Africa.* Johannesburg: Centre for Health Policy p. 25.

[10] Provincial Health Restructuring Committee, (April 1999). *Item 5.2 Draft regulations on medical aid schemes*. Agenda, Special PHRC meeting. p. 17).

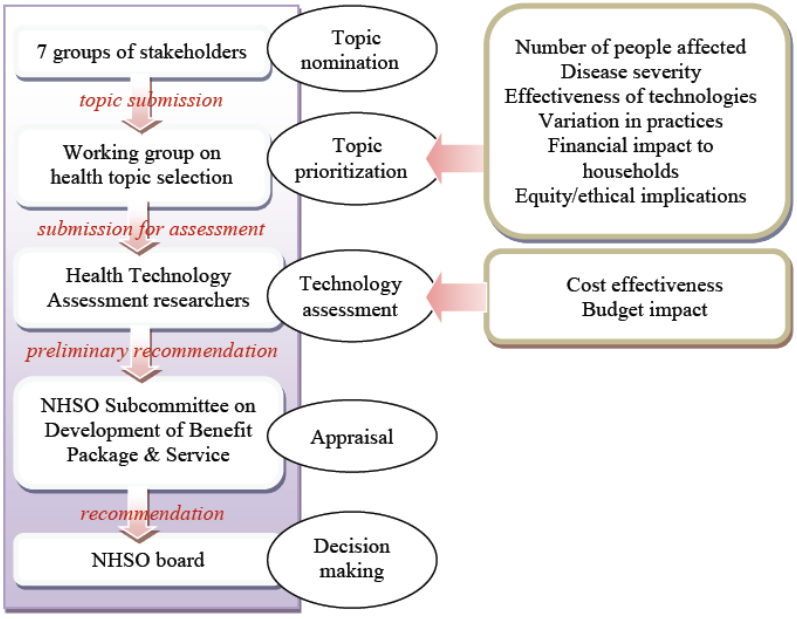
[11] Department of Health. (2002). *Inquiry into the Various Social Security Aspects of the South African Health System: Policy Options for the Future. Pretoria*. Page 156. Available online: http://www.gov.za/sites/www.gov.za/files/complete_5.pdf.

the minimum benefits package (e.g. screening for breast cancer and cervical cancer, hormone replacement therapy, and infertility treatment)."[12]

14. Interestingly, some of these changes (and in particular the inclusion of some primary care interventions) may increase the cost efficacy of the package given their preventative nature, while others may have the opposite effect. A clear rationale for the changes is thus not easily discernible. Over time, it seems as if public communication on the basis for inclusion in the PMB package has become more opaque. The net effect of this on compliance is unclear.

15. This is in stark contrast to the Thai system which has, since 2010, implemented a clear and transparent decision process when considering new additions to its Universal Coverage Scheme benefits package. The figure below outlines the process adopted by the National Health Security Board Committee on Benefits Package:

FIGURE 1: DIAGRAM OF BENEFITS PACKAGE DECISION PROCESS



Source: UNRISD The Impacts of Universalisation 2014, adapted from Teerawattananon 2012

[12] Taylor, B., Taylor, A., Burns, D., Rust, J. D., & Grobler, P. (2007). *Prescribed Minimum Benefits – Quagmire or Foundation for Social Health Reform?* SAMJ, 97(6), page 447.

16. The systematic and transparent nature of the Thai decision making process allows for new requests for health technologies, medical interventions, and medicines or biologicals to be included in the benefits package. Inclusion is, however, predicated on a technical assessment by qualified agencies to ensure any additions are effective in terms of both cost and health outcomes. Effectiveness is not the only criteria, as the figure above illustrates, with financial feasibility, budgetary impact, and ethical considerations forming part of the decision making process.[13]

17. Theoretically, a well-constructed PMB package could help to increase the efficiency of healthcare markets, by channelling healthcare expenditure towards interventions which are most cost effective in improving healthcare outcomes for medical scheme members. However, the amount of data and analysis needed to achieve this optimal outcome is prohibitive. In addition, public buy-in for "cold blooded" calculations of cost effectiveness is limited. The goal of PMB design thus becomes about incrementally improving the cost effectiveness and health impact of the benefit package, within the parameters allowed by other policy considerations. These include the need to protect consumers from catastrophic expenditure, preventing dumping on the public healthcare system and acknowledging the need to make design decisions in a publicly acceptable manner.

18. The best case scenario is a slow and steady process of incremental improvement to the design of the PMB package, which addresses cost effectiveness within a framework of wider social acceptability. There is little evidence of this occurring in the South African healthcare market. Greater transparency on the manner in which alterations to the PMB package are decided would be helpful going forward. The PMB definition project currently underway at the CMS is a useful means of addressing cost effectiveness concerns, and is thus welcomed.

BOX 1: SUPPORTING REGULATORY FEATURES

A number of supporting regulatory mechanisms were originally planned when PMBs were introduced, but they have not been implemented. These include the risk equalisation fund (REF), mandatory membership and pricing guidance. We deal briefly with these issues here as they are

[13] Mongkhonvanit PT, and Hanvoravongchai P. (2014) *The Impacts of Universalization. A Case Study on Thailand's Social Protection and Universal Health Coverage.* United Nations Research Institute for Social Development, working paper 2014-17. Pages 25-26.

dealt with in more detail in Chapter 5 of the report titled “Partial Regulatory Framework for Medical Schemes”.

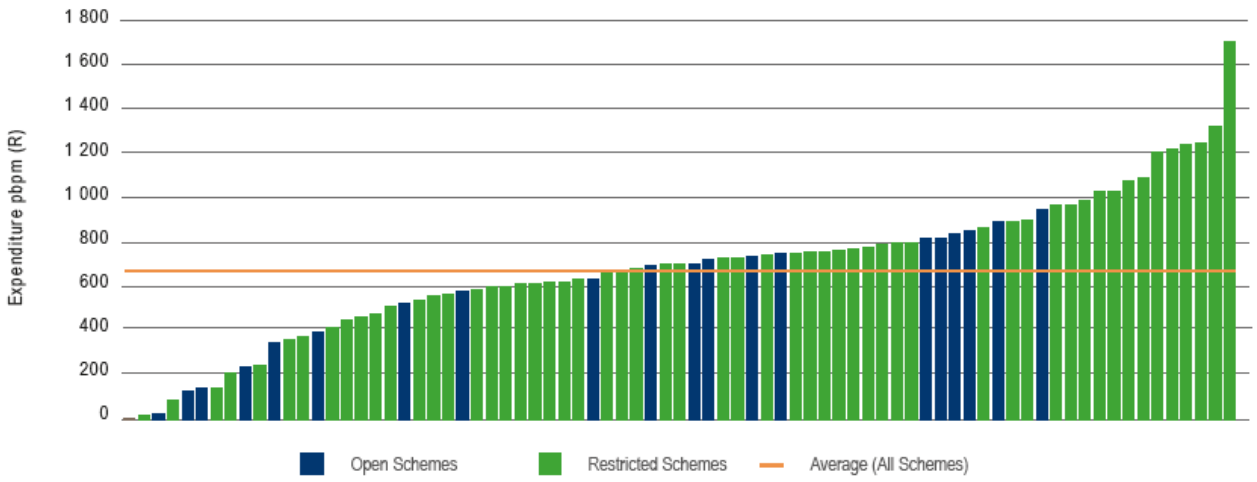
Risk Equalisation Fund (REF).[14] The REF creates a mechanism for cross-subsidisation, such that low risk medical schemes partially fund high-risk medical schemes. High risk medical schemes refer specifically to risk arising from the community profile of the medical scheme and not arising from operational inefficiencies or mismanagement. This compensates for the fact that the cost of the PMB package has a strong relation to age – a medical scheme with a greater number of older members is likely to carry more PMB associated costs than a younger medical scheme. With a REF, medical schemes will compete on the basis of their efficiency and the attractiveness of the benefits offered, regardless of member age profile. Without a REF, open medical schemes in particular will instead concentrate on attracting younger, healthier members,[15] which then allows them to manage costs. A REF also allows medical schemes with older/riskier members to provide the same minimum benefits as low risk medical schemes in an affordable way.[16] The implementation of a REF will still support intentions to develop an NHI as it begins to pool health spend money.

[14] Theophanides, A., Wayburne, L., & Padayachy, S. (2012). *Prescribed Minimum Benefits: Looking Back to Look Forward*. Page 11.

[15] McLeod, H., Rothberg, A., Pels, L., Eekhout, S., Mubangizi, D. B., & Fish, T. (2003). *The Costing of the Proposed Chronic Disease List Benefits in South African Medical Schemes in 2001*. Cape Town: The Centre for Actuarial Research. Page iv.

[16] Department of Health. (2002). *Inquiry into the Various Social Security Aspects of the South African Health System: Policy Options for the Future.* Page 62 - 63.

FIGURE 2: PMB EXPENDITURE BY SCHEME FOR 2016



Source: Council for Medical Schemes Annual Report 2016/2017 pg. 139

Given that medical scheme member profiles differ, the lack of an effective risk equalisation mechanism in South Africa means that some medical schemes face a substantially higher cost of PMBs per beneficiary per month than others, as illustrated in the CMS figure (Figure 2) reproduced above.[17] The CMS estimated that expenditure on PMBs varied between medical schemes with 10 medical schemes reporting PMB expenditure below R250 per beneficiary per month (pbpm) and 10 medical schemes reporting PMB expenditure above R1000pbpm.[18] By pooling risk, the REF would decrease the large difference between medical schemes. This will shift the competitive focus of medical schemes away from competing for young, healthy members, and towards competition based on the value of the offering provided, which would likely be a strongly pro-competitive result.

Van den Heever (2012) describes the impact that the partial framework without a REF has had on some medical schemes as a "price-related death spiral," which has effectively been in place since 2001. Community rating and PMBs without risk equalisation force medical schemes with high risk profiles to price above medical schemes with low risk profiles, eventually leading to medical scheme failure and consolidation. As they are prevented from explicitly risk-rating contributions, medical

[17] Council for Medical Schemes, Annual Report 2016/2017, page 139.

[18] Council for Medical Schemes, Annual Report 2016//2017, page 139.

schemes have focused their energies on using option design to encourage members to self-select.[19] PMB implementation without the REF alters the competitive landscape, as cost structures between schemes can become significantly different, indirectly raising barriers for those schemes that end up with riskier pools.

PMBs and REF are closely linked. Some commentators go as far as to suggest that the one cannot be successful without the other: "*The urgency of introducing risk equalization is predicated by the evidence that the government's decision to apply community-rating of PMBs cannot be fully implemented and supervised without REF*."[20] In spite of the clear complementarities, however, REF was not implemented as planned in 2007.

Mandatory membership. The size and composition of the risk pool has a strong effect on the affordability of health insurance. Ideally, members should join medical schemes when they are young and healthy, which allows for intergenerational cross subsidisation between the young and the old, as well as between the healthy and the sick. In practice, members often only join medical schemes until they are older, for various reasons as discussed in Chapter 5 in the section titled "Partial Regulatory Framework for Medical Schemes." Mandatory membership is one policy tool that seeks to addresses this problem. It was initially proposed for the higher income groups who disproportionately acquire private insurance,[21] however, it has not been introduced.

There are complex interactions between PMB regulations, mandatory membership requirements and other policy goals, such as affordability and social equity. Specifically, the requirement on medical schemes to fully fund PMBs affects the cost of providing health insurance, with knock-on effects for affordability and thus the feasibility of mandatory membership. The CMS estimated that, for 2016, the minimum PMB cost to the scheme pbpm to be R680 pbpm, or R8160 per year[22]. This effectively creates a minimum price for which cover can be offered, which immediately introduces

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[19] Van den Heever, A. M. (2012). *The role of insurance in the achievement of universal coverage within a developing country context: South Africa as a case study*. BMC Public Health, 12, (Suppl 1):S5. Available online: http://www.biomedcentral.com/content/pdf/1471-2458-12-S1-S5.pdf.

[20] Armstrong, A., Deeble, J., Dror, D. M., Rice, N., Thiede, M., & van de Ven, W. (2004). *Report to the South African Risk Equalisation Fund Task Group. Pretoria: Department of Health*. Page 8. Available online: http://www.medicalschemes.com/files/Risk%20Equalisation%20Fund/REF_Task_Group_Jan_2004.pdf .

[21] Department of Health. (2002). *Inquiry into the Various Social Security Aspects of the South African Health System: Policy Options for the Future* page. 158.

[22] Council for Medical Schemes, *Council for Medical Schemes says industry healthy but needs to grow.* Press Release 12 of 2014, page 3.

an affordability cut-off in the industry. As Magennis and van Zyl (2009) put it, "*the scope and price of PMBs play a central role in determining the extent to which health insurance includes low earners in South Africa*."[23]

On a per-member basis, the cost of providing PMB benefits reduce under mandatory membership, in a once off step change. However, it will not fix the bigger problems within the system. While there may be an initial decrease in the real average age of medical scheme members, and with that, a decrease in expenditure on PMBs, the year on year expenditure patterns will not change significantly for medical schemes. This is because mandatory membership does not change the current contracting with providers or over utilisation of healthcare services in the system (See Chapter 7 and 8 on Practitioners and Facilities as well as Chapter 9 on Supplier Induced Demand) In addition, given the substantial poverty which exists in South Africa, and the fact that many middle and high-income earners support large numbers of impoverished dependents, careful attention would need to be paid to the ultimate net social equity effects of any mandatory membership regulatory reform. While mandatory membership thus remains an interesting and potentially extremely useful policy option, the pre-conditions for implementing it are probably not yet in place.

Pricing guidance. Historically, the National Health Reference Price List (NHRPL), which the Board of Healthcare Funders (BHF) published did play a role like this. However, in 2004 the Competition Commission resolved a dispute with the BHF over the competitive impact of this price list, in terms of which the BHF agreed to cease publishing it.[24] At the time the expectation was that this would catalyse competition in healthcare. However, in practice the combination of the absence of the NHRPL and the requirement on funders to pay PMB claims in full creates a "blank cheque" for providers, which results in the escalation of costs through various mechanisms, including over-servicing, code manipulation, excessive hospitalisation and the charging of high fees for the treatment of PMB conditions.[25] The HMI discusses this in more detail in the Recommendations.

[23] Magennis, R. H., & van Zyl, J. (2009). *Making health insurance work for the low-income market in South Africa: Cost drives and strategies*. FinMark Trust, CENFRI. Page 70.

[24] See description of settlement objectives and terms in http://www.compcom.co.za/wp-content/uploads/2014/09/Oct-04-Newsletter.pdf..

[25] Theophanides, A., Wayburne, L., & Padayachy, S. (2012). *Prescribed Minimum Benefits: Looking Back to Look Forward.* Page 13.

Process complexity and principal-agent problems

19. The actual impact of regulation depends on how well it is implemented, which in turn is affected by how difficult it is to implement. Ideally, the designers of a regulatory system should try to ensure that the incentive structure that principals and agents face is, where possible, aligned. In addition, the various components of a system should be able to monitor each other to reduce the amount of oversight needed.

20. In practice, PMB regulation takes place in a highly complex environment, where each PMB transaction may involve multiple agents (doctors, hospitals, laboratories, and so on), monitored by an under-resourced and unwell agent (the patient), as well as the funder (medical scheme) on behalf of the patient. Regulatory oversight of the system is also patchy and incomplete. In the following sections, we set out the institutional framework of PMBs, and the claims process for PMBs in order to illustrate these arguments.

Institutional arrangements

21. Regulation 8 of the MSA sets out the PMB coverage requirements of medical schemes. Specifically, a medical scheme is required to pay in full for the diagnosis, treatment and care costs of a PMB. However, these payment obligations are subject to a number of conditions, namely:

    21.1. Medical schemes may use DSPs, and only refund members at DSP rates;

    21.2. If treatment for the PMB is not available from a DSP, immediate treatment is required, or a DSP is not located within reasonable proximity to the beneficiary, then there can be no co-payment by the beneficiary.[26]

22. While PMB regulations specify which conditions are included in the PMB basket, they do not define the type of treatment which must be provided with much specificity.[27] One of the industry

[26] Regulations in Terms of the Medical Schemes Act 131 of 1998. Regulation 8.

[27] For example, for treatment of pregnancy, the regulations prescribe that "Antenatal and obstetric care necessitating hospitalisation, including delivery" is included in the PMB package. No guidance is provided on the various treatment options available, such as length of hospital stay, use of midwife assisted deliveries, and when a caesarean is appropriate, for example. The regulations further state that "*Where the treatment component of a category in Annexure A is stated in general terms (i.e. "medical management" or "surgical management"), it should be interpreted as referring to prevailing hospital-based medical or surgical diagnostic and treatment practice for the specified condition. Where significant differences exist between Public and Private sector practices, the interpretation of the Prescribed Minimum Benefits should*

responses has been to introduce managed care organisations (MCOs). These MCOs are responsible for the construction of treatment protocols/formularies, which detail the basket of care for a given medical condition, including relevant therapies, drugs and so forth. Medical schemes then deploy these Managed Care Protocols (MCPs) as a way to ensure that care is consistent with medical best practice and is cost effective. Although it should be noted that medical schemes are able to put in place different protocols, so the standard of care is not necessarily consistent between medical schemes and even between benefit options in one medial scheme. They also place boundaries on what will be considered appropriate treatment, and thus reimbursable as a PMB.

23. The CMS is responsible for monitoring medical scheme, MCO and administrator PMB compliance. As noted from the CMS's submission to the HMI, a finding of systematic non-compliance with PMBs in Circular 37 of 2009 came about as the result of the CMS's accreditation and on-site processes, as follows:[28]

    23.1. "On-site evaluation findings of administrators and schemes' compliance with the administrator accreditation standards which indicated that PMB claims were not processed and paid in terms of the PMB legislation; and

    23.2. Review of managed care organisations' clinical protocols indicated that PMBs were not being funded correctly or access to PMB level of care was not provided."[29]

24. In other words, the CMS found that certain baskets of care for PMBs were not adequately providing the minimum level of care, and that PMB claims were not being processed correctly, which created a *prima facie* presumption of widespread non-compliance by medical schemes.

25. The CMS published the PMB Code of Conduct in July 2010 in response to the compliance issues described in CMS Circular 37 of 2009. Part III of the Code seeks to *"establish clarity and certainty of the benefits prescribed in Annexure 'A' to the regulations."*[30] In practice, doing so is

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follow the predominant Public Hospital practice, as outlined in the relevant provincial or national public hospital clinical protocols, where these exist. Where clinical protocols do not exist, disputes should be settled by consultation with provincial health authorities to ascertain prevailing practice."

[28] CMS, (2009). *Non-compliance by the medical schemes industry in respect of provision and payment of prescribed minimum benefits (PMBs).* Circular 37 of 2009.

[29] Council for Medical Schemes. (2016). *Competition Commission's Data and Information Request: PMB Regulation and Enforcement (Prospective, Concurrent and Retrospective Regulation),* 14 September 2016.Pages 11-12.

[30] *Code of Conduct in respect of PMB benefits*, 2010, page 5. Available at: https://www.medicalschemes.com/files/Guidelines%20and%20Manuals/CodeOfConduct_20100803.pdf.

extremely complex. One of key sources of complexity in identifying PMB claims is the fact that each PMB has two components, namely i) a diagnosis with a PMB condition and ii) a PMB treatment. It is only when a diagnosis-treatment *pair* (DTP) is formed that a PMB claim must be paid as a PMB benefit. It is largely owing to the ambiguities around what constitutes a PMB treatment that the code of conduct was developed.

26. The Code of Conduct states that:

"Benefit definitions must consider the level of appropriate clinical practice as desired in the public sector, supported by well researched evidence based clinical protocols, formularies or treatment guidelines, which are based on repeatable procedures that have demonstrated significantly improved clinical outcomes, and which have been tested on large numbers of people and for which there exists a high level of agreement among academic health professionals."[31]

27. This requirement helps to ensure that, while MCOs design PMB treatments in ways that manage costs, they do so within parameters that do not compromise the clinical efficacy of the treatments that are developed. To contextualise, the development of a full PMB basket of care including medical services, care, and goods needs to be specified in substantial detail, down to consumables (i.e. surgical gloves, swabs and so forth), where relevant. In principle, greater detail in the basket of care should reduce ambiguity in claims identification, but in practice this has not always been the case. In a bid to further reduce ambiguities and obtain even clearer benefit definitions, the CMS has launched its 'PMB Benefit Definition Project'[32] which seeks to define the treatment protocols for each and every PMB-DTP.[33]

28. Medical schemes are considered compliant with PMB regulations when payment in full has been made from the medical scheme's risk pool for legitimate PMB-DTP, PMB-CDL, and emergency conditions (provided the use of a DSP and MCPs have been observed by members in non-emergency settings). In practice, the sheer number of claims and the multiple data points necessary to assess compliance with all aspects of PMB regulation make ongoing regulatory monitoring of all claims for accuracy and compliance prohibitively difficult.

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[31] *Code of Conduct in respect of PMB benefits*, 2010, page 5.

[32] CMS (2010) *Invitation to participate in the Prescribed Minimum Benefit (PMB) benefit definition project.* Circular 45 of 2010.

[33] The treatment protocols for PMB-CDLs are contained in the MSA Regulations.

29. Data from the CMS's complaints process indicate that a fairly large number of complaints relate to PMBs annually. These complaints from medical scheme members have an important role to play in the compliance system as they are typically the primary means whereby mistakes in the identification or processing of PMB claims is picked up for correction. However, medical scheme members are often not in the position to complain, partly because of the sheer complexity of the claims process, which we will discuss in the following section.

Process complexity

30. A number of features of the PMB environment contribute towards making enforcement of member rights particularly complex.

31. The first source of complexity is associated with the measures that schemes may use to control the escalation of the cost of PMB provision, namely *DSPs and MCPs*. Where members do not use a DSP or where the treatment is off the MCP, then the medical scheme/ administrator will initially not pay the claims from risk. This is even if the patient has a legitimate reason for the deviation (for example if the formulary drug on the MCO gives the patient an adverse reaction). DSP and MCP requirements often differ by medical scheme and by benefit option, and some medical schemes do not make the necessary information readily available in an easily understandable manner, for example, on their websites.

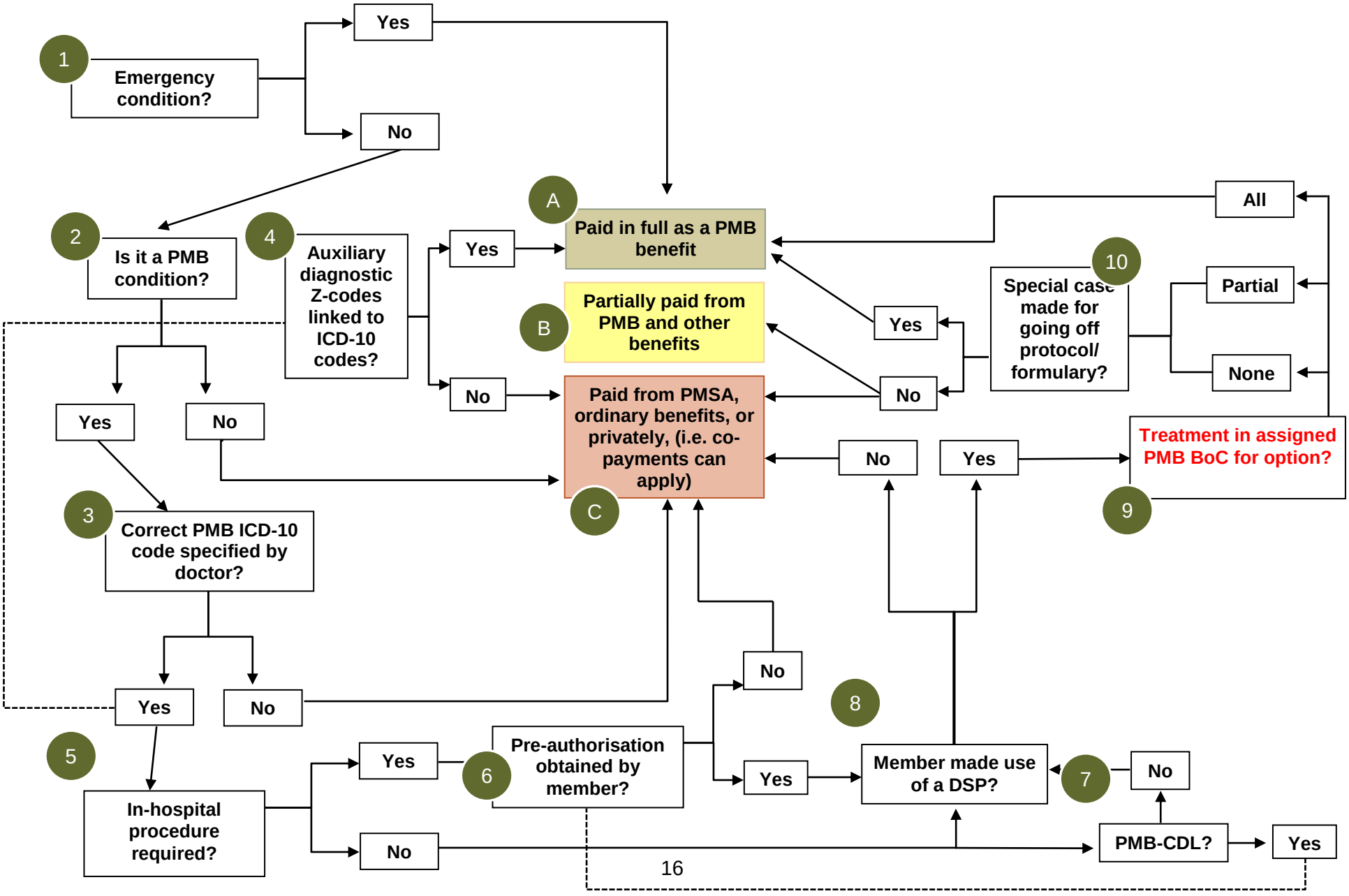
32. In addition, claims must be accurately coded in terms of *the coding system* to be properly reimbursed. While the ICD-10 codes used to identify PMBs are standardised, widely accepted and subject to independent oversight, other codes are not standardised, and may sometimes be unilaterally modified by provider associations. Claims coded using other systems must also be linked to the ICD-10 diagnosis code to be paid, which can be problematic if, for example, the claim for a diagnostic test is made before the diagnosis is even reached.

33. *Medical savings accounts* also arguably introduce complexity into the PMB benefit claims process. If a medical scheme does not refund a claim, and this triggers an out-of-pocket payment, the medical scheme member receives a clear signal that PMB benefits have not been accessed. However, if the claim is paid partially or fully out of a medical savings account, there is no immediate cash flow implication for the member, and thus a higher risk that the member will not pick up on the denial of PMB benefits.

34. The figure below shows the decision tree framework underpinning the establishment of PMB-DTPs, PMB-CDLs and emergency conditions, and the various paths which result in PMB

conditions being paid or not paid as PMB benefits. It shows the complex navigational pathway that ordinary members must take (either actively or passively) in order to secure PMB protection.

FIGURE 3: PMB BENEFIT PAY-OUT IDENTIFICATION PATHWAY



Source: Designed and collated by DNA Economics (2016), based on the MSA, MSA Regulations & various HMI submissions and interviews

35. As the figure shows, the process of arriving at a point where the medical scheme/ administrator pay the PMB condition as a PMB benefit in full, from risk, has many pitfalls for members. Any failure along the chain to maintain the link between a PMB condition and a PMB treatment, whether by providers, funders or members themselves, results in members either partially or fully losing out on their PMB protection. The principal safeguard against denial of PMB protection is the knowledge and vigilance of members in monitoring the results of the claims process.

36. This dynamic is an example of the principal agent problems in the sector. The principal (the medical scheme member) has much less of the specialised medical and administrative knowledge required to navigate the PMB claims process than most of the various agents (doctors, medical schemes, administrators, hospitals, and so forth). However, the medical scheme/ administrator will only address any mistake made by an agent in the PMB claims process if the scheme member picks up on it. Agents are sometimes incentivised to assist members to fully realise PMB claims. For example, if the patient is unable to afford the service unless a PMB right is available, doctors are likely to have strong motivations to assist the patient to navigate the claims process. But in many cases, the agents are likely to find it easier and/or more profitable to let the principal navigate the process alone. Because the principal is often the person with the least resources to do so successfully, the expected result will be a significant under-realisation of PMB rights by medical scheme members.

3. Market Distortions and PMB design

37. The benefits covered by PMBs are a significant proportion of all medical expenditures, and the manner in which PMBs are implemented thus potentially has knock-on effects on how the market itself operates. In a number of areas, it is likely that PMB regulations do distort market mechanisms to some extent, and by doing so, impact on the efficiency of the competitive process. It should be noted that if PMBs damage competition, but in doing so successfully achieve wider social priorities, then the trade-off is potentially acceptable from a wider policy perspective. What is more clearly problematic is if the impact on competition is avoidable and unnecessary to achieve other objectives.

Impact on medical cost escalation

38. PMBs have the potential to impact on market outcomes in a number of ways. A key effect that they have on the competitive process is that they establish a baseline product specification, by

setting out the minimum characteristics that a plan must contain. By doing this, they also affect the minimum cost of such plans. The CMS acknowledges in its 2014/15 annual report:

"The total expenditure on PMBs by medical schemes amounted to R73.1 billion in 2016. The total risk benefits paid in 2016 was R136 billion. Therefore, the PMBs constituted 54% of total risk benefits paid. In 2015, PMBs constituted 51% of total risk benefits paid."[34]

39. The CMS indicated in their submission to the HMI, that PMB expenditure grew from 38.96% of the total in 2005 to 53.07% in 2012, which they suggested implied that the PMB package may be "crowding out other risk benefits"[35] with the richness of the benefit package potentially being reduced in order to manage overall costs. The HMI's analysis of the claims data revealed that the PMBD cost per admission increased from R27 139 in 2010 to R39 008 in 2014.[36] .The cost of the PMB package impacts on the affordability of access to healthcare insurance as a whole, a key metric given healthcare access concerns.

40. There is also some evidence that growth in treatment costs for PMBs is higher than for non-PMBs. The HMI's analysis of the claims data is shown in Table 1 below. As can be seen, for both in- and out-of-hospital claims per beneficiary per annum (pbpa), the cost trend for PMB diagnosis claims is substantially higher than for non-PMB diagnosis claims. It should be noted that this analysis is on trend rather than absolute costs, and doesn't distinguish between treatment costs and treatment frequency or complexity, and thus it is not clear which is driving the trend.

TABLE 1: CLAIMS COSTS PER BENEFICIARY PER ANNUM, IN- VERSUS OUT-OF-HOSPITAL, AND PMBD VERSUS NON-PMBD

		2010	2011	2012	2013	2014	Overall trend
Out-of-hospital claims	PMBD Claim Cost pbpa	998	1 106	1 213	1 381	1 573	
	PMBD Trend		*10.79%*	*9.75%*	*13.84%*	*13.88%*	***12.05%***
	Non-PMBD Claim Cost pbpa	3 530	3 766	3 913	4 102	4 422	

[34] CMS Annual Report, 2016/2017, page 139.

[35] CMS submission to HMI, *Comments on the Competition Commission Market Inquiry: Responses to Inaccurate statements* 2015, page 9.

[36] Report on Analysis of Medical Schemes Claims Data: A focus on Prescribed Minimum Benefits 8 December 2017, Table 90.

	Non-PMBD Trend		*6.69%*	*3.91%*	*4.83%*	*7.80%*	***5.79%***
In-hospital claims	PMBD Claim Cost pbpa	2 894	3 196	3 529	4 037	4 616	
	PMBD Trend		*10.46%*	*10.42%*	*14.40%*	*14.34%*	***12.39%***
	Non-PMBD Claim Cost pbpa	2 434	2 756	3 031	3 234	3 425	
	Non-PMBD Trend		*13.26%*	*9.95%*	*6.71%*	*5.89%*	***8.91%***

Source: Report on Analysis of Medical Schemes Claims Data: A focus on Prescribed Minimum Benefits 8 December 2017, Table 69 and Table 73

41. Care must be taken to differentiate between the various potential causes of cost escalation in medical services. In particular, it is important to differentiate between price inflation versus increases in the amount of health goods and services consumed (utilisation). There is also a distinction between increased consumption which comprises over-servicing, as opposed to increased consumption which improves the quality of care received.

42. There are good reasons to suspect that markets for medical goods and services often fail to produce efficient price outcomes, regardless of PMB regulations. The contracting process in health services typically involves a sick and ill-informed patient with an inelastic demand for services; and a well-informed and at least partially self-interested medical expert. This is a highly sub-optimal environment for effective price negotiation.

43. Medical schemes and their administrators are in a better position to engage in price and service level negotiations – as they purchase in bulk, they have more negotiating power than individual members. They can hire skilled staff to assist them in fee negotiation processes and in setting the standard of care. This negotiating power is however partially constrained by the requirement that medical schemes must pay PMBs in full.

44. As stated above, medical schemes have mechanisms (DSPs and the ability to develop baskets of care) to manage over-servicing. However, available evidence suggests that, to date, the role that medical schemes have played in helping to prevent price inflation and over-servicing has been limited. The fee for service (FFS) environment predominates in South Africa.[37] While there is some use of alternative reimbursement models (ARMs), they often display carve outs for key

[37] NDoH Submission to HMI (2014), specifically: *"An additional problem faced is that South African private health care providers are largely reimbursed by medical schemes using fee-for-service (FFS) methods."* page 93, paragraph 260.

service types, and therefore have weak effects on price and volume management.[38] The problems with FFS models are well-documented and widely accepted as incentivising over-servicing and thus, contributing to cost acceleration in healthcare markets. In this already problematic environment, therefore, the PMB requirement to pay in full acts as an additional complicating factor.

45. PMB regulations also affect the contracting environment by reinforcing the incentive of unscrupulous service providers to up-code. Cost inflation via up-coding occurs when service providers use the discretion they have in coding to change codes specifically to access PMB benefits, rather than out of clinical necessity. One of the most often cited examples of code manipulation is tweaking the ICD-10 codes for major depression to bipolar mood disorder. Major depression is not covered as a PMB while bipolar mood disorder is. The incentive faced by the provider is two-fold. Firstly, access to PMB benefits increases patients' purchasing power, so they may purchase more services if they can access PMB benefits (which may or may not be clinically appropriate); and secondly, Regulation 8(1) means that schemes have little or no bargaining power on price once PMB up-coding has been put in place. Code manipulation to access PMB benefits may thus produce an outcome which is at both at a higher price and higher quantity exchanged than the efficient outcome.

46. There is much heated debate around the issue of code manipulation, with some stakeholders arguing that the effects of upward pressure on pricing are wide-spread and significant, causing PMB expenditure to increase more quickly than non-PMB expenditure. The CMS acknowledges that:

> *"On provider behaviour, there has been poor harmonisation of regulatory provisions for the determination of the scope of provider practice and tariffs; this situation has led some providers (outliers) to abuse the PMB legislation … It must, however, be noted that this is a minority group."*[39]

47. Some PMB conditions are more susceptible to code manipulation than others, particularly where diagnosis of condition severity can be ambiguous, which allows a higher degree of discretion

[38] Industry Overview chapter in this report for a more detailed discussion on the state of ARMs in South Africa.

[39] CMS News (2014) *Costing of PMBs*, Issue 1, page 17.

on the part of the practitioner, or where PMB definitions are not particularly clear.[40] The control provider associations have of modifier codes may also be used to access PMBs on some conditions.

48. The ability of medical schemes to negotiate with providers is also likely affected by the impact PMB regulations have on the incentive for providers to negotiate on price in this manner. Medical schemes have less negotiating power with providers who primarily treat PMB conditions than with those who operate in non-PMB settings. This will make it very challenging for medical schemes to establish networks with providers who predominantly treat PMB conditions. In addition to network contracting, medical schemes have even less ability to persuade PMB focused providers to enter risk sharing arrangements, which could help address over servicing issues more generally. Medical schemes have reported that in order to encourage providers to join DSPs they may need to be paid at a higher rate, and it is not clear whether the net impact of this on total medical fees (i.e. including member co-payments) is positive or negative, and whether medical scheme members realise benefits or costs from it.

49. The HMI's analysis of the claims data determines how much of rising costs per admissions could be attributed to changes in PMB diagnosis levels, as opposed to other factors which may affect case severity and thus admission cost, such as patient age and disease profile. The HMI found that the increase in cost per admission on average from 2011 to 2014 was 8.79%, with CPI contributing 5.6% and increasing proportions of PMB diagnoses contributing a mere 0.11%. It should be noted, however, that the model found explanatory factors for only 1.20% of cost escalation, with unexplained factors contributing 1.99%.[41]

50. The HMI also sought to determine if there was evidence of up-coding and excessive price inflation in certain medical specialities. We found a "*shift in diagnosis patterns from non-PMB to PMB diagnoses, across all medical service providers but particularly medical specialists*."[42] However, few other firm results were found, possibly because the data set examined spanned

[40] It should be noted that while unscrupulous doctors can use code manipulation to increase their profits, altruism may also cause up-coding, particularly if the PMB system is not adequately designed to cover the true burden of disease, and/or where patients are facing catastrophic expenditures. Up-coding patterns can thus be evidence of either over-servicing, fraud, or flaws in PMB system design, or some combination thereof.

[41] Report on Analysis of Medical Schemes Claims Data: A focus on Prescribed Minimum Benefits 8 December 2017. Page 48 Table 91. The HMI uses the Narrow Disease Burden definition – please refer to the Chapter titled Healthcare Practitioners

[42] Report on Analysis of Medical Schemes Claims Data: A focus on Prescribed Minimum Benefits 8 December 2017. Page 54.

only 2010-2014, so if any step wise adjustments to prices occurred when PMBs were first introduced in 2000, they would have been missed. The trend analysis will not uncover changes that are already in the base. Other factors, such as changes to ICD-10 coding structures, also impacted on results and made it more difficult to derive firm conclusions.

51. The HMI also considered, in the analysis of the claims data, the pattern of payment of PMB claims, distinguishing between chronic conditions and acute treatments, and whether acute treatments occur in or out of hospital. *Chronic PMB conditions* are typically simpler for all parties to manage – the patient suffers with the condition on an ongoing basis, so diagnosis, treatment and accessing benefits all occurs over a fairly long period of time, allowing member, medical scheme and service provider to get their paperwork in order. Members need to register chronic conditions with the medical scheme, and once approved, the medical scheme will cover the condition as a PMB benefit and pay for benefits from the risk pool.[43]

52. In contrast, managing claims for acute conditions should be much more challenging. In these instances, the patient needs treatment, often abruptly, and may be unfamiliar with the treatment protocol and PMB rights associated with the treatment. Furthermore, the patient is often already sick and ill-placed to negotiate the system. However, despite this, compliance levels with regards to member ability to access *in-hospital PMB-DTPs* are fairly non-problematic. Medical schemes typically cover in-hospital events in full by most schemes irrespective of PMB status. This may be because hospital administrations are simply highly skilled at navigating the PMB system. But the high proportion of PMB claims handled by hospitals also suggests that these institutions may have systematic bargaining power when negotiating with medical schemes.

53. In contrast, *acute, out-of-hospital conditions* appear to cause more compliance difficulties. The HMI's analysis on the claims data supports this result, as shown in the table below. The data analysis uses PMB diagnosis treatment costs assigned by funders to analyse PMB expenditure patterns (which will probably include some misclassified data, given potential mistakes at the diagnosis level). As shown, PMBDs are roughly 55% of in-hospital claims, and 23% of out-of-

[43] The PMBs define a package of treatment for chronic conditions, which may include medication, testing, hospital treatment, doctor consultations and so forth. Medication for chronic conditions is probably the easiest part of the package to regulate, as it is typically prescribed over a long period, and once CDL registration has occurred, will be fully reimbursed. However, other aspects of the package of care may be more problematic. For example, scheme members may not be aware of their ability to claim for doctor appointments and lab costs associated with a CDL. Conversely, healthcare providers may be able to tailor treatment to utilise CDL benefits, for example by unnecessarily hospitalising psychiatric patients to make use of the hospitalisation provision in the CDL, once benefits for consultations with physicians are exhausted. Thus while enforcement of chronic PMB regulations is less problematic than other PMBs, they are not without issues.

hospital claims. While over 96% of payment of in-hospital PMB claims comes from the risk pool, only 85% of out-of-hospital claims are paid from this category.

TABLE 2: PMB CLAIM PAYMENT SOURCES, ALL SCHEMES, IN- AND OUT-OF-HOSPITAL: AVERAGE FOR 2010-2014

	% PMB Diagnoses	% PMBD claims from risk	% PMBD claims from savings	% PMBD claims unpaid
Out-of-hospital claims	23.03%	85.01%	9.75%	5.24%
In-hospital claims	55.21%	96.30%	0.40%	3.30%

Source: Report on Analysis of Medical Schemes Claims Data: A focus on Prescribed Minimum Benefits 8 December 2017, Page 7 (averages from Table 1 and Table 2).

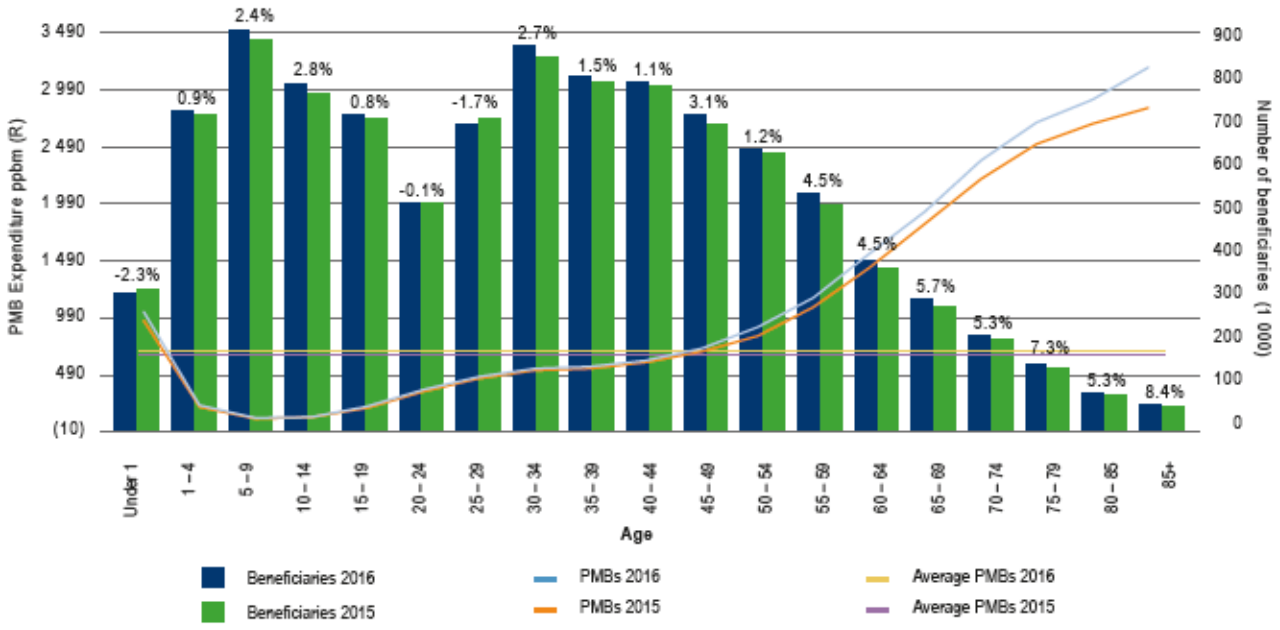
54. It is not necessarily problematic to see some proportion of PMB claims not being paid from risk, as there may be valid reasons for this. For example, the treatment may not follow the protocol/formulary or the member makes use of a non-DSP. However, a pattern of less being paid from risk and more from savings/out-of-pocket for out-of-hospital settings, is potentially consistent with a pattern of PMB payments being more easily accessed by larger, more sophisticated institutions (in other words, the hospitals themselves); and in addition exacerbates the cost effects of the hospi-centric nature of the current PMB package.

55. Given these factors, it seems clear that, while PMBs are probably not a primary driver of cost escalation in healthcare, they are nevertheless a complicating factor, with material effects on over-servicing and the price formation process which may need to be mitigated against. These effects moreover do not appear to arise as a necessary side-effect of achieving other social goals. Instead, cost escalation associated with PMBs further exposes members to potential catastrophic expenses, and over-servicing will tend to reduce the quality of clinical outcomes.

Inter-medical scheme competition

56. As has already been mentioned, a REF was a regulatory feature which was initially planned to accompany the introduction of PMBs. The lack of an REF incentivises medical schemes to compete for lower risk members, rather than on the price and quality of their service offerings. Figure 4 below shows that older age cohorts disproportionately incur PMB liabilities. Without an effective REF, the costs associated with PMBs are borne disproportionately by schemes with older, sicker members.

FIGURE 4: PMB COST BY AGE BAND FOR YEARS 2015 AND 2016



Source: CMS Annual Report, 2016/17 p. 140.

57. It is the interaction of three regulatory systems, namely PMBs, community rating, and REF, which in the absence of the REF produces the damage to competitive mechanisms. While the PMB package is not the primary cause of the problem, it is a necessary component of it, as without PMBs, medical schemes could decrease the services offered to high risk clients in order to manage costs. PMBs without REF create an incentive for schemes to compete for low-risk members, rather than on price and quality.

4. Conclusion and Recommendations

58. Medical insurance covers a large number of potential liabilities, which occur with unknown frequency. Member behaviour and the behaviour of the member's service provider affect the monetary value and probability of the insurer. The high level of information asymmetry within health care markets means that consumers purchasing medical cover will find it difficult to understand exactly what they will require and thus evaluate which product will meet their needs.

59. If consumers cannot understand product characteristics, then they are unlikely to be able to assess the competitive merits of competing offerings. PMB regulations could help to address this aspect of the complexity of this environment, by ensuring that all medical schemes offer a minimum set of benefits, thus improving product comparability and facilitating the operation of the market mechanism. However, the task of accessing PMB benefits is in itself onerously

complex and confusing with the net effect potentially leading to increased difficulty for consumers to understand and compare products.

60. The complexity of the PMB system creates a non-trivial enforcement problem. The process of claiming for a PMB has multiple steps and involves a large number of players, and failure at any point of the chain will result in the liability not being paid from risk. At present, the onus for ensuring that the claim is correctly processed falls on the member, who is typically the least informed and least resourced part of the process. Given these characteristics, it is probable that substantial proportions of PMB obligations are not honoured.

61. PMBs also change incentive structures by placing a statutory obligation on medical schemes to refund claims in full. This weakens medical schemes' bargaining position with service providers, and incentivises unscrupulous doctors to manipulate codes and/or over-service PMB conditions, with the result that health care market outcomes deviate further from the efficient output level. Over-servicing, such as hospitalisation and/or additional investigations, benefit both facilities and non-diagnosing providers. All these factors are likely to be contributing factors to medical cost inflation.

62. The HMI makes recommendations in relation to PMBs in the recommendation chapter