DISCUSSION DOCUMENT

Development of Low-Cost Benefit Options within the Medical Schemes Industry

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Abbreviations

AIDS	Acquired Immunodeficiency Syndrome
BRICS	(Brazil, Russia, India, China, and South Africa)
CMS	Council for Medical Schemes
CSMBS	Civil Servants Medical Benefit Scheme
DoH	Department of Health
DMHIS	District Mutual Health Insurance Scheme
DSP	Designated Service Provider
FONASA	Fondo Nacional de Salud
FOSYGA	Fondo de Solidaridad y Garantia
GDP	Gross Domestic Product
GEMS	Government Employee Medical Scheme
HIV	Human Immunodeficiency Virus
ISAPRES	Instituciones de Salud Previsional
FSB	Financial Services Board
LCBO	Low Cost Benefit Option
LIMS	Low Income Medical Schemes
MHO	Mutual Health Insurance Organisation
MMR	Maternal Mortality Rate
MSA	Medical Schemes Act
NCD	Non-Communicable Diseases
NHE	Non-Health Expenditure
NHI	National Health Insurance
NHIF	National Health Insurance Fund
NHIL	National Health Insurance Levy
OHSC	Office of Health Standards and Compliance
PMB	Prescribed Minimum Benefit
PVHI	Private Voluntary Health Insurance
REF	Risk Equalisation Fund
SHI	Social Health Insurance
SP	Seguro Popular
SSNIT	Social Security and National Insurance Trust

TB	Tuberculosis
UHC	Universal Health Coverage
VHCS	Voluntary Health Card Scheme
WHO	World Health Organisation

Foreword

To expand access to medical schemes, cover for the low-income households, in 2015 the Council for Medical Schemes (CMS) initiated the introduction of the Low-Cost Benefit Option (LCBO) using an exemption framework in terms of Section (8)(h) of the Act. This section confers power on Council to exempt medical schemes from complying with any provision of the Medical Schemes Act (MSA.

The CMS also published four circulars in 2015 namely: Circular 9, Circular 37, Circular 54 and Circular 62. Three of these circulars sought to initiate the LCBO whilst Circular 62 highlighted to the industry that CMS was required to undertake further technical analysis based on submissions made by different stakeholders as well as the publication of the National Health Insurance White Paper.

In addition, in 2016 the Minister of Finance, with concurrence of the Minister of Health, published the Demarcation Regulations in Government Gazette No. 40515. In terms of the regulations, insurers are prohibited from providing primary healthcare insurance policies. In 2017, 23 exemptions were granted a two-year exemption, subject to certain conditions to continue to offer primary healthcare insurance policies.

Recently, due to the pending expiry of the exemption period, Circular 18 of 2019 requested entities to submit renewal applications which will be evaluated on merit to extend the exemption period to 31 March, 2021 pending the finalisation of the LCBO framework.

The Council for Medical Schemes commissioned research to examine the most appropriate policy option for the establishment of the LCBO framework within the South African context. Stakeholders are encouraged to review the discussion document and provide comments.

Dr Sipho Kabane
Registrar and Chief Executive
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Executive Summary

Introduction

Affordability in the medical schemes industry has become of increasing concern over the years. The Council for Medical Schemes is considering the establishment of a low-cost benefit option (LCBO) within the medical schemes environment, to address this problem. It is also envisaged that LCBO will also have the effect of reducing the burden on the public health system. LCBO is targeted at low-income earners; whose income is below the income tax threshold. This new cadre of health insurance benefit package will be more affordable than the PMB. There are concerns though whether the establishment of LCBO is the best approach to increasing affordability.

This discussion document seeks to stimulate discussion within the industry on matters related to the establishment of LCBOs. The objective is to present evidence and analysis that provides the CMS with the basis for taking the most appropriate decision on establishing LCBOs within the South African context. Both qualitative and quantitative methods were used in this study.

Review of government publications, academic research papers.

Information from local and international databases were also used to provide a context for the South African economy, the health system and historical accounts of prepayment schemes in South Africa. A review of international, theoretical and empirical literature on the key issues for extending insurance coverage to vulnerable groups was also conducted. In addition, the study reviewed 21 stakeholder inputs submitted in 2015 on the proposal to establish LCBO. These provided the basis for a framework for analysing the appropriateness of LCBO within the South African context. Regression analysis on national household survey data was used to estimate the likely uptake of LCBO among the target low-income group.

Context

The operation of medical schemes is guided by the following pillars of the Medical Schemes Act: open enrolment, community rating, prescribed minimum benefits and corporate governance. There is no compulsion to belong to a medical scheme unless it forms the basis of the employee's conditions of employment. Historically, annual medical scheme contribution increases have consistently been higher than overall salary increases. In addition, the income distribution of South Africa is skewed. Although

South Africa is a middle-income country, most households in the country can be low-income households. Various factors have been identified for the relatively high increase in the cost of care within the medical schemes industry. These include the increasing risk profile, market characteristics, focus on curative care and other inflationary factors. The proportion of the South African population covered by medical schemes has remained constant in the past 20 years, mostly between 15% and 16% of the population.

The review of literature on the medical schemes environment reveals that there have been previous initiatives to manage costs and extend medical scheme coverage to low-income earners. Not all of them were implemented. These include:

- Introduction of more cost-effective entry level plans, to provide an opportunity for low-income earners to access medical aid
- Publication of national health reference price lists
- Low-income medical schemes initiative

Recently, the Competition Commission initiated a health market inquiry into the private health sector. With affordability challenges caused by increasing health care costs in the private sector, alternative insurance products have grown in response to the demand for cheaper insurance products for health services. Insurance products such as gap (or top up) cover, cash plans and primary healthcare insurance have proliferated. A major concern for the medical schemes industry is the potential harm that the growth in these alternative products could cause, especially outside effective regulation and oversight.

South Africa has a quadruple burden of disease, with high prevalence of HIV/AIDS and TB; high maternal and child mortality; high levels of violence and injuries; and a growing burden of non-communicable diseases (NCDs). Over the last decade, the South African economy has not performed very well. The economy has become even more sluggish with growth rates often below 1% in the last 2 years. Nevertheless, health expenditure (both public and private) has continued to grow. The government intends to incrementally roll out a National Health Insurance (NHI) system. The NHI is "a health financing system that is designed to pool funds to provide access to quality affordable personal health services for all South Africans based on their health needs, irrespective of their socio-economic status." NHI embraces the goal of universal Health coverage and seeks to provide quality health services to all South Africans, ensuring that access to health does not result in catastrophic expenditures.

Lessons from International Experience

Review of literature and international experience of countries that have tried to extend insurance to vulnerable groups provide some key lessons for South Africa. An important point to note is that policy in favour of pre-payment schemes in low- and middle-income countries is primarily to address difficulties in funding of healthcare. The ability for any prepayment arrangement to provide adequate financial protection for the poor and low-income households still largely depends on the performance of the economy. Growth in the economy provides the enabling space to mobilise additional finances from tax revenue or household income to finance prepayment schemes. Also, a growing economy provides the space for instituting health insurance subsidies for the poor and low-income households.

Mandatory health insurance for those working in the formal sector is a more economically viable option than voluntary health insurance for providing cover to low-income households that are working in the formal sector. Depending on the configuration of the financing mechanisms, mandatory health insurance can potentially address insurance challenges such as anti-selection and cherry-picking. In addition, where contributions are income related, mandatory health insurance ensures both risk and income cross-subsidisation. These are important elements for sustainability of any insurance scheme in the context of extending cover to low-income households. Also, implementing a universal basic package is recommended. This reduces uncertainty and simplifies choice.

Using private voluntary health insurance (PVHI) to extend cover to low-income households often requires significant subsidisation from government. Even where contributions for low income households are a very small fraction of their income, this does not guarantee membership for those that consider themselves to be healthy. Only those who believe that they will benefit from their contributions will be sufficiently motivated to join. This has implications for the benefit package offered by PVHI. Low-income households would more readily subscribe to health insurance that provides cover for health services they can predictably utilise. Insurance packages that mainly cover high-cost services, with a low probability and low predictability of use will hold little appeal. In the absence of compulsory membership, the government would need to create the right regulatory environment to eliminate the negative effects of lack of income and risk equalisation, anti-selection, and cherry-picking that are associated with PVHI schemes.

Estimated LCBO uptake

Econometric analysis of survey data predicts that just over 100000 low-income households (who earn below R6000) will take up LCBO if it is introduced. If the threshold for eligibility of LCBO is increased to

R16000, this number can range between 299968 and 382269. These have been modelled on benefit packages that cost between R400 and R800.

1. Introduction

In February 2015, the Council for Medical Schemes (CMS) formally announced its decision to consider the introduction of low-cost benefit options (LCBOs) within the medical schemes industry[1]. This was in response to the ever-growing challenge of affordability associated with medical schemes membership. Over the past few decades, healthcare costs[2] have consistently increased at levels higher than general inflation, resulting in increases in membership contributions. As a result, low-income households that are members of medical schemes are facing significant financial pressures to maintain medical schemes cover. Also, low-income households which are not medical scheme members are becoming less and less able to access and enjoy the benefits associated with medical scheme membership.

Currently, medical schemes are allowed to have different benefit options, with varying levels of benefit cover. The richer the benefit options, the higher the monthly contribution. The operation of medical schemes is guided by regulations set out in the Medical Schemes Act (MSA) 131 of 1998, one of which is the Prescribed Minimum Benefit (PMB). This is a list of 270 diagnosis and treatment pairs that must be covered in full without co-payment from the scheme member. Even the lowest medical scheme option must adhere to this condition; if not they are exempted based on a criterion[3].

Evidence shows that even these lower options are becoming increasingly unaffordable to low-income workers and their families. The LCBOs being considered by the CMS are therefore a new cadre of benefit options that do not adhere to the PMB regulation. The CMS intends to invoke Section 8 (h) of the MSA to achieve this. This section states that: "*Council may exempt, in exceptional cases and subject to such terms and conditions and for such a period as the Council may determine, a medical scheme or other person upon written application from complying with any provision of this Act*".

Besides affordability of health insurance cover within the medical schemes industry, another reason put forward for the introduction of LCBOs is the need to reduce the pressure on an overburdened public health sector. More than 70% of the national population are uninsured and rely on health services provided by the public sector. It is envisaged that the introduction of LCBOs will significantly increase

[1] Council for Medical Schemes Circular 9 of 2015: *CMS Discussion on the Introduction of a Low-Cost Benefit Option (LCBO) Framework*. 13 February 2015

[2] This comprises two components: (1) actual prices of health interventions, and (2) the utilisation rate - the number of times that these health interventions are used per unit of time

[3] Bargaining Council schemes

medical scheme membership among low income households and increase reliance on private health care providers. Proliferation of non-medical scheme insurance products such as gap cover plans, hospital cash plans and primary health insurance policies are viewed as indications of the need and demand for LCBOs in the medical schemes industry.

1.1 Aim

This discussion document seeks to stimulate discussion on the best policy option for the implementation of the LCBO within the medical schemes industry.

1.2 Objectives

The objective is to present evidence and analysis that provides the CMS with the basis for taking the most appropriate policy decision for recommendation to the National Department of Health on the establishment of the LCBOs.

Specific objectives are the following:

- Undertake policy options analysis on the need, prospects and appropriateness for an LCBO package within the medical schemes industry
- Understand the perceptions and perspectives of various stakeholders around the LCBO package including the target population.
- Identify additional contextual factors that are necessary for generating evidence/direction for determining the best course of action about development of LCBOs.

1.2 Methods

Both qualitative and quantitative methods were used in this study. This included a review of government publications, academic research papers, secondary data from local and international databases including a review of theoretical and empirical literature on the key issues related to extending insurance coverage to vulnerable groups.

In addition, the study reviewed 21 stakeholder submissions which were inputs on the proposal to the establishment of the LCBO framework. These provided basis for a framework for analysing the appropriateness of LCBO within the South African context. Lastly, a regression analysis on national

household survey data was used to estimate the likely uptake of LCBO among the target low-income group.

2. Historical context

There have been previous attempts to extend medical scheme cover to low-income households, or to reduce the cost of care in the medical schemes industry in general. An overview of these initiatives is presented in this chapter. This is done with the view to learn lessons from previous policy options aimed at improving access to health insurance to low-income households. A brief overview of the medical schemes industry, including its history, key changes and current features are outlined first. Thereafter, initiatives that have been considered in the South African context to provide greater financial access to some form of health insurance to lower income households will be reviewed.

2.1 Medical Schemes

Medical schemes evolved from occupational health insurance within the mining industry as far back as 1889. Until 1969, health insurance in South Africa operated largely as unregulated private sector medical aid societies. As at 1940, there were 48 medical schemes in operation. Thereafter, the number of medical schemes grew in number, generating the need for regulation by government. Government promulgated the Friendly Societies Act, No. 25 of 1956, which required the registration of medical schemes and applied mainly financial controls over the operations of medical schemes. It was noted, however, that a more comprehensive legislation was required to control all other aspects of medical insurance. For example, there was no uniformity in benefit plans as medical schemes varied in the benefit packages they provided. By 1960, there were 169 medical schemes that were linked with employment, and provided cover mainly to the white middle class, mainly in urban areas. At this time, these schemes covered 368890 members and 588997 dependents[4]. Also, medical scheme members started to shift to private providers instead.

A Medical Schemes Act (MSA) was passed in 1967, which created the Council for Medical Schemes. The functions of this council were to:

- Control, promote, encourage and co-ordinate the establishment, development and functioning of medical schemes;

[4] Department of Health. (2002). Inquiry into various social security aspects of the South African health system. Based on the health subcommittee findings of the Committee of Inquiry into a Comprehensive System of Social Security 2002.

- Advise the minister of health on matters concerning medical schemes
- Investigate complaints and settle disputes in relation to the affairs of registered medical schemes; and
- Perform such other functions as may be prescribed.

There was an intention to grow the medical schemes industry (private sector financing of healthcare) and reduce any additional burden on the government. Several amendments were made to the MSA of 1967[5]. The MSA No. 131 of 1998 was promulgated to address challenges resulting from the response of the medical schemes market to the previous legislation. Under the dispensation of the MSA of 1967 and its amendments, schemes could risk-rate members individually, and they designed their benefit structures so as to attract the young and healthy (cherry-picking). Benefits offered to the elderly and the ailing were reduced. This resulted in increased pressure on the public hospitals as the elderly and ailing were 'pushed' out from medical scheme cover[6].

The MSA of 1998 brought significant changes to the operation of medical schemes. These included:

- *Open Enrolment*: no one may be declined membership of an open medical scheme, irrespective of their age or state of health, with the exemption of specific prescribed conditions.
- *Community Rating*: scheme contribution rates are not to differ based on a person's age or state of health (as opposed to individual risk rating in setting of contributions). Contributions were now to be determined on the basis of income and number of dependents.
- *Prescribed Minimum Benefits (PMBs*) – Currently, these are a list of 270 diagnosis and treatment pairs that must be covered in full without co-payment from the scheme member. All medical scheme options by default have to provide cover for these diagnosis and treatment pairs. Medical schemes are allowed to impose co-payments for conditions not designated as PMBs.

The MSA of 1998 sought to improve equity of access to medical scheme membership with better income and risk cross-subsidisation. At the time these regulations were instituted, two other regulatory pillars were being considered as well. The first was mandatory membership to medical schemes for certain income categories and a risk equalization fund for medical schemes. However, these were not instituted.

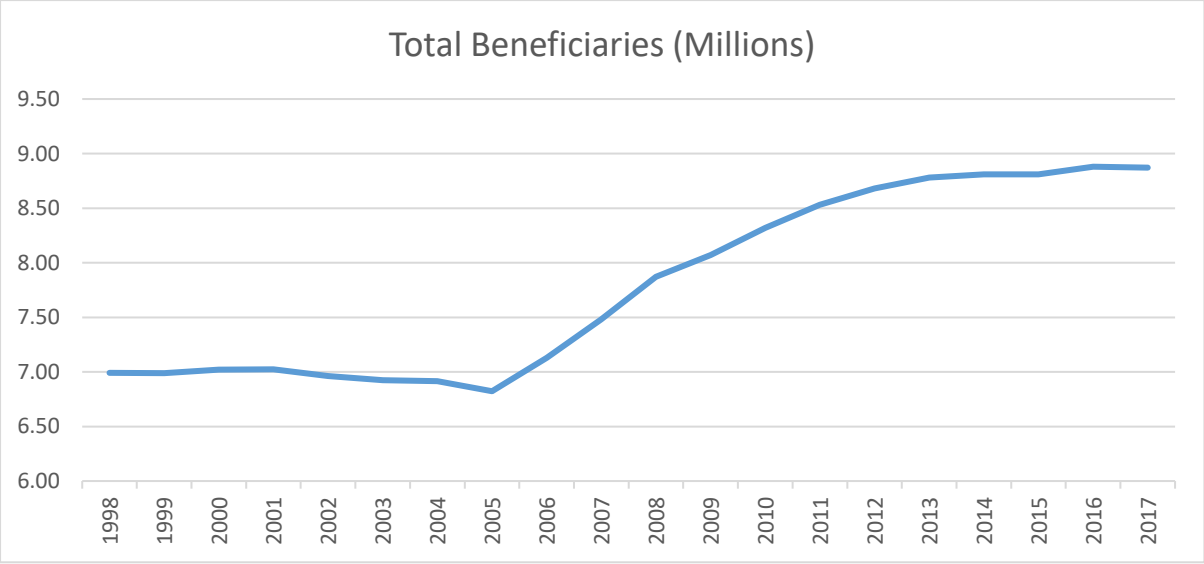
[5] Department of Health. (2002). Inquiry into various Social Security Aspects of the South African Health System. Based on the health subcommittee findings of the Committee of Inquiry into a Comprehensive System of Social Security 2002.

[6] Pearmain, Debbie (2000) Impact of Changes to the Medical Schemes Act. In: Health Systems Trust (2000) South African Health Review 2000. Durban

Open enrolment and community rating meant that any member of the population could join and leave a medical scheme whenever they wanted, and their contribution will not be based on their individual risk profile. However, medical schemes are allowed to use 'waiting periods' and late-joiner penalties as mechanisms for managing anti-selection. MSA of 1998 also changed the role of the Council for Medical Schemes. It increased the scope of the CMS's regulatory authority to include administrators, brokers and other contractors to medical schemes. These other players can be profit-making entities.

The number of beneficiaries covered by medical schemes has grown consistently over the years from 6.9 million in 1998 to 8.87 million in 2017. However, the number of medical schemes has reduced over the years, following a period of consolidation of medical schemes mainly driven by amalgamations and liquidations. In 2006, there were 124 medical schemes in operation. At the end of 2017, there were 80 medical schemes. Out of these, 21 were open schemes and 59 were restricted schemes[7]. There are more beneficiaries covered by open schemes than restricted schemes. In 2017, around 56% of beneficiaries were covered by open schemes.

Figure 1: Trend in Medical Scheme Membership



Source: Council for Medical Schemes Annual Reports [2000, 2002/03, 2004/05, 2006/07, 2017/18]

The proportion of the South African population covered by medical schemes has remained fairly constant in the past 20 years, mostly between 15% and 16% of the population. In 2017, 15.7% of the population was covered by medical schemes[8]. The rest of the population, especially lower income groups, has a

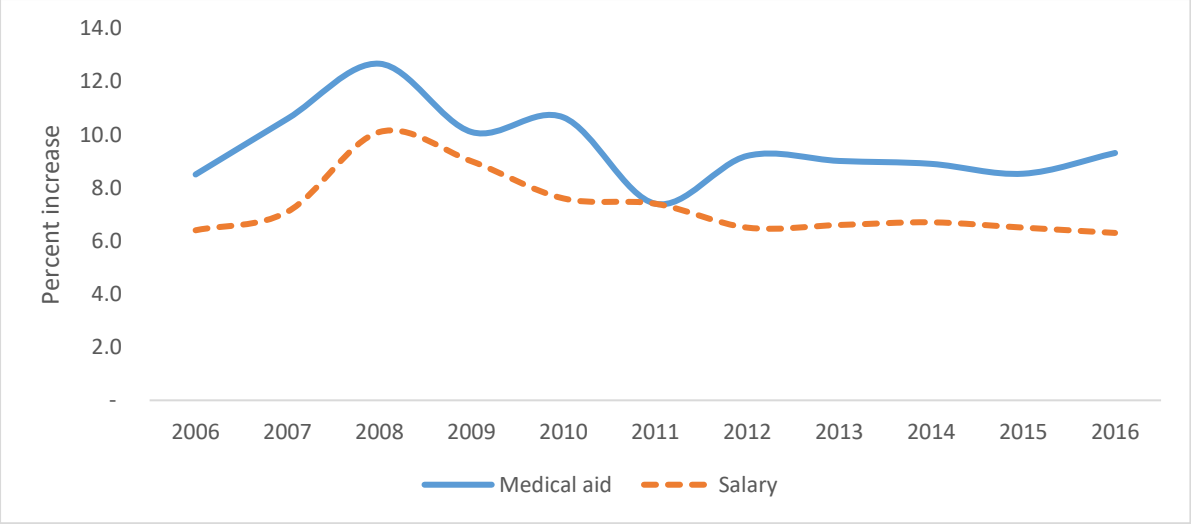
[7] CMS 2017/18 Annual Report
[8] Calculated from figures sourced from CMS annual reports and Statistics South Africa

greater dependence on the public sector for health care. There are noticeable trends in the age distribution of medical scheme beneficiaries. Of key interest is that the proportion of beneficiaries over the age of 50 years has increased significantly in the last 10 years; from 19.8% in 2007 to 24.1 in 2017. This has implications for the risk profile of the medical schemes industry.

2.1.1 Challenge of Affordability in the Medical Schemes Industry

A major challenge highlighted in the literature on the medical schemes industry has been the increase in the cost of care as reflected in contribution amounts. Gross contributions per average beneficiary per month increased in real terms by 72% between 2000 and 2017[9]. Increases in medical aid premiums over the period 2006 to 2016 averaged 9% per annum, compared to 7% for salaries (Figure 2). In fact, since 2011, marginal increases in salaries have been on the decline, while the opposite is true for medical aid increases. This places enormous financial pressure on medical scheme members from low-income households. For non-scheme members who are low-income earners, there is a consistently higher financial barrier to accessing the benefits of health insurance within the medical schemes industry.

Figure 2: Medical aid and salary increases, 2006-2016



Source: The GTC Medical Aid Survey, 2018

Various factors have been identified to have contributed to the increasing cost of care within the medical schemes industry thereby affecting affordability. These are summarised as follows:

[9] CMS 2017/18 Annual report

- Increasing risk profile in the medical scheme market due to changes in the demographic profile of the industry and the impact of anti-selection. The distribution of medical scheme members shows that young working age people have a higher tendency not to join medical schemes compared to the older working age and retired people. Also there is a common phenomenon for women of child bearing age to join medical schemes to have children, and leave if the child is healthy[10]. Anti-selection has the effect of increasing the general risk profile of medical scheme members, increasing utilisation of health care services (both intensity and frequency) per person and therefore increasing contribution per member over time. Higher contributions for medical scheme membership create additional incentive for anti-selection.
- Medical inflation increases at a higher rate than general consumer price inflation
- Fee-for-service model of reimbursement that is prevalent in the medical schemes industry[11], which creates incentives for higher levels of productivity and cost.
- With the introduction of PMBs, medical schemes are compelled to cover the full costs of 270 diagnosis and treatment pairs that are mostly provided as hospital services. The implication PMBs are to be reimbursed in full without co-payment. This has contributed to escalating costs in the medical schemes market due to increased hospitalisation[12] that is influenced by the changing risk profile of medical scheme beneficiaries.
- A lack of health technology assessment resulting in uncontrolled introduction of new healthcare technology. This leads to cost increases without an improvement in the quality of care.
- A health system with an emphasis on curative care without sufficient focus on preventive care[13].
- Segments of the market characterised by oligopoly.
- It is important also to note that the challenge of affordability is further exacerbated by the pattern of income distribution in South Africa. Low-income earners make up a large proportion of the population, and therefore most people in the country do not earn enough to afford medical scheme membership. This is partly responsible for the stagnation in the growth of the medical scheme industry.

[10] McLeod, H. (2009). Expanding health insurance coverage. IMSA NHI Policy Brief 2, 5 May 2009.
[11] Department of Health (2015) White Paper on National Health Insurance. National Health Act, 2003. Government Gazette No. 39506. 11 December 2015
[12] Department of Health (2015) White Paper on National Health Insurance. National Health Act, 2003. Government Gazette No. 39506. 11 December 2015
[13] Department of Health (2015) White Paper on National Health Insurance. National Health Act, 2003. Government Gazette No. 39506. 11 December 2015

Figure 3: Income distribution and medical scheme membership

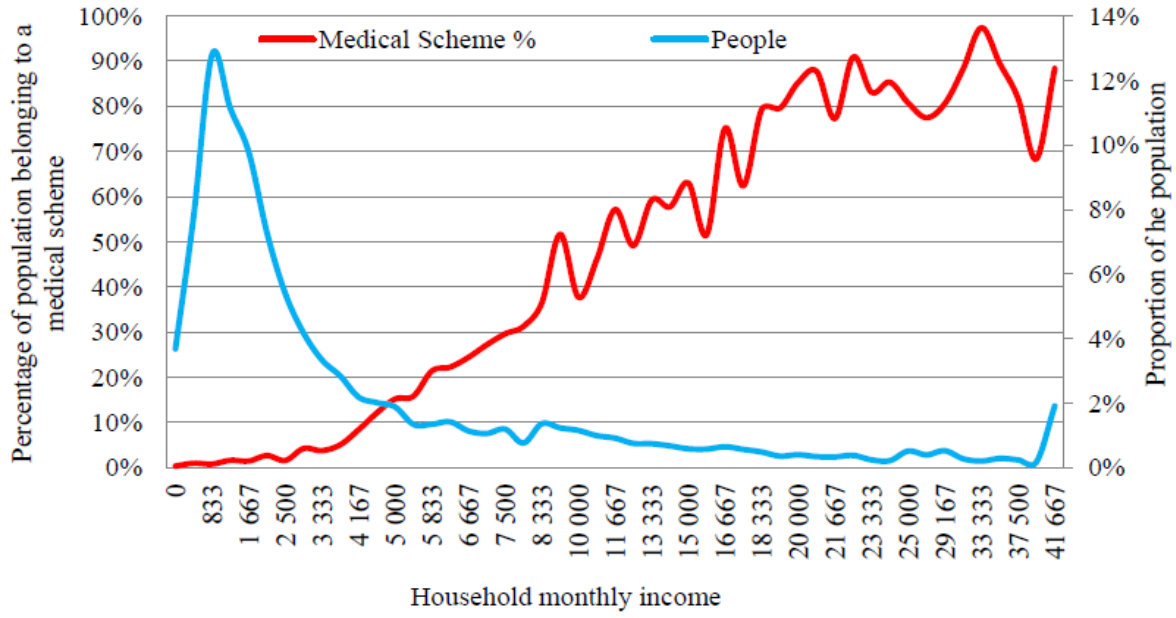


Diagram sourced from: Erasmus D, *et al* (2016) Challenges and opportunities for health finance in South Africa: a supply and regulatory perspective. Prepared for FinMark Trust by Insight Actuaries and Consultants. Data from Statistics South Africa.

Increasing inflationary trends exert pressure on households to spend less on services including medical cover. Subsequently, medical schemes have *introduced more cost-effective entry level plans, to provide an opportunity for low income earners to access medical aid*. As cost-cutting measures, existing members buy-down to cheaper plans than opt out of medical aid altogether. However, cheaper plans have fewer benefits, thus the implication for members who opt to buy-down is that they increasingly lose cover on certain services. This leaves beneficiaries exposed to out-of-pocket expenditures, which can be costly.

The government has in the past attempted to address the consistently high increase in the cost of health care. Since 2003, *the Department of Health (DoH) with the CMS has published National Health Reference price lists as a guide for price escalation in the private sector.* In October 2010, the DoH and CMS jointly published a discussion document on price determination to stimulate debate on an alternative process for price determination in the private sector. The discussion document considered the establishment of

healthcare price determination authority, and the establishment of voluntary interim tariff negotiations to be led by a public authority. The proposed changes to price determination were not successful[14].

As a result of healthcare price trends, in 2013, the Competition Commission of South Africa initiated a health market inquiry into the private health sector. Its provisional findings indicate that the private health sector suffers from multiple market failures. Some relevant recommendations from the provisional findings of this inquiry include:

- Need for more vigorous and effective competition within the funders market
- Better management of supplier induced demand
- Need to strengthen governance to ensure that medical schemes place greater pressure on administrators to deliver value to members
- Introduction of a stand-alone, standardised obligatory 'base' benefit package that all schemes must offer; and introduction of risk adjustment for this base package
- To address the needs of low-income scheme members, it is recommended that the current tax credit regime be reconstituted to take the form of a contribution subsidy administered through the risk adjustment mechanism (RAM) rather than though the South African Revenue Services. In this way the RAM would be able to integrate both a risk and income adjusted subsidy in a manner consistent with similar arrangements around the world[15].

A final report (following stakeholder input) is to be published in due course.

2.2 Low-Income Medical Schemes historical policy options

One of the most notable initiatives to extend medical scheme cover to low-income households was the LowIncome Medical Schemes (LIMS) project. By the early 2000s, the increasing level of unaffordability of medical scheme membership to low-income households was becoming more apparent. In a bid to extend health insurance cover to low-income households, the Ministerial Task Team on Social Health Insurance (SHI) and the Council for Medical Schemes established a Consultative Investigation into Low-Income Medical Schemes (LIMS) in March 2005. This was mainly prompted by two issues[16]:

[14] Department of Health & Council for Medical Schemes (2010) Discussion Document: The determination of health prices in the private sector, 28 October 2010.
[15] Competition Commission of South Africa (2018) Health Market Inquiry: Provisional Findings and recommendations Report, 5 July 2018
[16] McIntyre D et al, 2007. Shield Work Package 1: A Critical Analysis of the Current South African Health System

- Medical schemes expressed concerns about stagnating and declining, levels of membership. The vast majority of the population could not afford to belong to medical schemes, which threatened the survival of the private health sector.
- The Council for Medical Schemes faced growing applications for exemptions of the PMBs, as it was perceived that the full PMB was unaffordable at the low-income worker level.

The aim of the LIMS process was to research and consult widely with health sector stakeholders in order to establish the main obstacles to extending medical scheme coverage to low income households, and to propose solutions to overcome these obstacles. This process would serve two purposes:

i. To create a dispensation in which medical schemes could implement low-cost packages exclusively for low-income households.

ii. Review of prescribed minimum benefits aimed at optimising risk pooling in the industry through appropriate benefit design.

Extensive research was undertaken, including a national household survey of low-income households and interviews with key informants in the private sector. Three main task teams were established to consider: i) Demand and distribution issues; ii) benefit design, governance and regulation issues; and iii) supply-side issues.

The key recommendations of the LIMS consultative process were as follows:

- LIMS should be open to any formal sector employee or self-employed person who earns less than R6 500 per month, in 2005 terms, and their dependants.
- New schemes and new benefit options within existing schemes would be registered as LIMS schemes.
- Employers and employees would each make a 50% contribution to the premium, and the employees' share should not exceed 5% to 8% of household income.
- The report proposed a LIMS benefits package that would provide for acute and some chronic outpatient care and LIMS members would be expected to obtain inpatient care from a public hospital at no cost;
- The LIMS schemes would be kept entirely separate from other medical schemes, with a separate risk-equalisation fund (REF) to promote cross-subsidies within the LIMS environment, but no cross-subsidies between LIMS and other medical schemes would be allowed.

Although LIMS was never implemented, a medical scheme for government employees was registered in 2005. The study into the possible implementation of LIMS still provides important insights. For example, the study results indicated that the cost of funding the PMBs presented a significant affordability obstacle to the extension of medical scheme coverage to low income households. The study also proposed that a LIMS benefit package, if implemented, should be narrower than the PMBs. However, LIMS beneficiaries would still have protection of PMBs – with government covering the costs associated with the provision of services beyond the LIMS package. The PMB package is biased in favour of hospital services. Primary care services were purposefully removed from the PMBs because of the commitment of the government to provide free primary healthcare services through public facilities. This did not materialise as envisaged[17].

In 2005, the Government Employee Medical Schemes (GEMS) was registered. GEMS is a restricted scheme for government employees. Public service employees are eligible for medical scheme subsidies provided by the employer (government) of between 75% and 100%, up to a limit of R4,592[18]. Since the establishment of GEMS, the total number of beneficiaries of medical schemes experienced an upward trend, as can be seen in figure 1.

2.3 Demarcation of Short- and Long-Term Insurance Products

Inevitably, some low-income households benefitted from the introduction of GEMS. However, with affordability challenges because of increasing healthcare costs in the private sector, alternative insurance products grew in response to the demand for cheaper insurance products for health services. Insurance products such as gap (or top up) cover, cash plans and primary healthcare insurance have proliferated. A major concern for the medical schemes industry was the potential harm that the growth in these alternative products could cause outside a defined regulatory oversight. Subsequently, there was a need to make a delineation of these alternative insurance products from medical schemes, and how these alternative insurance products could operate. Gap cover provides cover for shortfalls in medical scheme benefits. In 2014, it was estimated that there were around 450000 policies[19].

[17] McLeod H (2010) Defining the Benefit Package. National Health Insurance Policy Brief 10. Innovative Medicines South Africa

[18] https://www.gems.gov.za/en/corporate/about-gems/fact-sheet

[19] Erasmus D, et al (2016) Challenges and opportunities for health finance in South Africa: a supply and regulatory perspective. Prepared for FinMark Trust by Insight Actuaries and Consultants

The final Demarcation Regulations governing health insurance products including medical gap cover, hospital cash plans, medical travel insurance and primary healthcare insurance, were signed into law in 2016. The Regulations were issued by National Treasury and were the result of a consultative process between the minister of finance, the minister of health, the Council for Medical Schemes (CMS), and the Financial Services Board (FSB). The first draft of the fegulations was published for public comment in March 2012, and revised after taking into account public comments. The second draft of theregulations was published for public comment in April 2014. The discussion on the regulations dates back to 2000 after the enactment of the Medical Schemes Act no. 131 of 1998 and centred on the impact of certain health insurance products, which unfairly competed with medical schemes but were not subject to the same regulatory requirements.

One of the objectives of the regulations was to prevent regulatory arbitrage, a practice whereby firms capitalise on loopholes in regulatory systems in order to circumvent unfavourable regulation, in this case between laws governing the financial sector and medical schemes. The fact that insurance firms and medical schemes were regulated by different statutory bodies increased the risk of arbitrage. Insurance firms operated on relatively favourable conditions with fewer regulations and restrictions than medical schemes and were allowed to profit from health insurance (see Table 1 for historical differences between medical schemes and health insurance until 2017[20]). In addition, the commissions earned by brokers selling insurance products was deemed to far exceed that of medical schemes. This created disparities in incentives, which allowed brokers to sell more health insurance products than medical scheme membership.

Table 1: Difference between medical schemes and health insurance products

Medical Schemes	**Health insurance products**
Medical schemes are not for profit organisations which operate like trust funds.	Short and long-term insurers providing health insurance products are commercially driven for-profit companies.
Medical schemes belong to their members.	Health insurance companies are owned by shareholders.
Open enrolment: anyone can join a medical scheme and that if you apply for membership, the scheme of your choice cannot turn you away.	Anyone can buy a short- or long-term health insurance policy, but premiums paid depend on the insurer's assessment of individual's health state.

[20] CMS continues to observe that some of the exempted entities still have discriminatory clauses in place which provides for the termination of a policy when the policyholder reaches the age of 65.

	Individuals deemed to be high risk can be denied cover.
Community rating: all members of a medical scheme pay the same monthly contribution for the same benefits.	Older individuals, or individuals with pre-existing health conditions, will pay more for health insurance cover.
PMBs ensure that members are fully protected against unforeseen and potentially catastrophic health events.	No PMBs

The regulations thus sought to create a balance between medical schemes and health insurance products, by clearly delineating the responsibility for supervision and ensuring that health products did not undermine the principles of social solidarity espoused by medical schemes, resulting in better protection for scheme members. *There was need to address the risk posed by health insurance products of drawing younger and healthier members away from medical schemes*. This would inadvertently undermine the effect created by medical schemes, of pooling healthier and sicker populations, thereby enabling risk cross-subsidisation and subsequently affordability of medical schemes.

The demarcation regulations process identified three types of health insurance products:

1. Products that explicitly constituted the business of medical schemes (such as primary care products), which could compromise medical scheme membership. These were not allowed to be sold to the public.
2. Products which explicitly did not constitute the business of medical schemes and could thus be sold to the public.
3. Products which unambiguously constituted the business of medical schemes but did not compromise membership and could be sold to the public under certain conditions

According to the published studies, the health insurance products that were deemed to be most controversial were gap covers, hospital cash plans and primary care policies. The three most significant changes brought about by the demarcation regulations focusing on these products were:

1. Gap cover benefit limitations were capped at R150000 per person per annum. This was specifically aimed at containing excessive costs, by scrapping the uncapped benefit levels offered by some providers. Specifying a cost per person per annum as opposed to 'per policy' further aligned health products to the structure of medical schemes.
2. No discrimination based on one's health status
   Pricing can be age-related, but that pricing must be applied to all new clients in that age range. In line with the requirement that medical schemes were obliged not to discriminate on the basis

of age. Gap cover policies now also have to subscribe to open enrolment for all age groups to support the objective of social solidarity.

3. Gap cover providers were to follow the same underwriting requirements as medical schemes. This included open, non-discriminatory enrolment and waiting periods for specified pre-existingconditions.

The demarcation regulations process highlighted some important issues and challenges faced by the medical schemes sector. Chiefly that these alternative health insurance policies flourished because medical scheme membership was becoming increasingly costly for the majority of the population, especially low-income households.

2.4 Low-Cost Benefit Options

With growing concerns for the affordability of medical schemes to low-income families, the CMS introduced the concept of LCBO within the medical schemes environment in February 2015[21]. Subsequently, the CMS engaged with key industry stakeholders to get inputs and recommendations on the features of a potential LCBO framework (including benefit package, pricing, etc). The objective for establishing LCBO within the medical schemes environment is to expand medical scheme cover to the formally employed that are not already covered by medical schemes. It is also hoped that drawing more people into the private health sub-sector will lower the burden on the public health system.

The CMS also seeks to meet the demand for health insurance that is currently being met by alternative insurance offerings such as hospital cash plans, primary healthcare insurance, and gap cover. The LCBO will ensure appropriate benefits for this target market and will also ensure that quality cover is provided. Following consultations with stakeholders and inputs from subject matter experts, the CMS has developed an initial LCBO framework guide on the basis for which medical schemes can submit proposals for LCBOs. These also provide guidance for further refinement of the proposed LCBO package and structure.

Broad principles guiding the development of the LCBO are outlined as follows:

a) Protecting risk-pooling – the existing medical scheme risk pool should not be undermined or fragmented.

[21] CMS Circular 9 of 2015: CMS Discussion on the Introduction of a Low-Cost Benefit Option.

b) Benefit design – proposed LCBO framework envisages a possible departure from the current requirement of PMB in the event that an exceptional circumstance is demonstrated, and that the proposed benefits in LCBO are based on affordability of the intended target market, cost-effective and evidence-based healthcare provision and responsiveness to market preferences. The framework intends maintaining the content and objective behind PMBs to the extent to which affordability is not compromised.

c) Continuation of care – The LCBO framework should ensure continuation of care in a setting that may be out-of-network, as these products are typically developed on the basis of contracted networks of primary healthcare providers.

d) Solvency protection – The statutory solvency requirement of the MSA should be maintained, as this is to protect the financial integrity of a scheme. An application for a LCBO that requires an exemption from the statutory requirement may not be under the proposed framework.

e) Non-health expenditure (NHE) – In evaluating the value proposition of any suggested product, the affordability of the proposed contribution must also ensure that the level of NHE is brought to an proportionate level to ensure that the benefits provided are optimised.

f) Marketing – The framework envisages the granting of exemptions subject to certain conditions and defined terms for the operation of the LCBOs. The purpose of the framework is to expand coverage to the persons that have not been members of a medical scheme previously (referred to as previously uncovered market). It is important to ensure that in marketing of the LCBOs it should be targeted at the previously uncovered market and that they are not misled into believing they are purchasing a more comprehensive product than is actually the case.

g) Underwriting - late joiner penalties should not be applied: The very rationale for exemptions is that these people have been excluded from risk-pooling opportunities not by virtue of voluntary risk selection, but instead by virtue of economic disadvantage.

h) The framework provides for the opportunity to be responsive to the needs of the environment while at the same time wishes to ensure that the policy objectives of open enrolment, community

rating, consumer protection, non-discrimination and expanding risk-pooling objectives are demonstrably furthered with each exemption[22].

Following further stakeholder engagement, the CMS provided additional guidelines to medical schemes and other entities interested in establishing LCBO.

- This will include, a mandatory minimum set of benefits geared towards preventive and primary healthcare, management of acute conditions and limited set of chronic conditions. In addition, a list of mandatory essential drugs, pathology tests, dental procedures, road transport and a limited chronic condition must be included as part of the benefit offering. For cost-effectiveness, the LCBO is to be delivered through a network arrangement. In addition, the public health system cannot be the default network provider.

- Medical schemes interested in offering LCBO would need to apply for an exemption from the MSA of 1998, especially as it applies to open enrolment, PMBs and broker remuneration. Only those below a certain income limit (below the tax threshold) will be eligible for membership. In addition, this option may not be available for buy-down for those already members of medical schemes. To minimise the cost of this option, broker fees have been capped to an upper limit well below the limit for normal medical scheme options, in line with the stipulations of the MSA. However, schemes can apply for exemption to amend the remuneration of brokers.

- LCBO will be restricted to employer groups with a minimum of 15 employees during the first year of inception and thereafter, the principle of open enrolment will apply.

- Medical schemes will not impose any co-payment for services covered under the LCBO. Healthcare provided will be remunerated at 100% of the negotiated tariff for services rendered[23].

- LCBO will be delivered through network arrangements for cost effectiveness.

[22] CMS Circular 9 of 2015: CMS Discussion on the Introduction of a Low-Cost Benefit Option.
[23] CMS (n.d.) Guideline for preparation of a business plan pursuant to an application for exemption as per section 8(h) and for the registration of a lowcost benefit option (LCBO) in terms of Section 33 of the Medical Schemes Act 131 of 1998, as amended.

Industry stakeholders such as medical schemes, administrators, managed health organisation, and health providers have had an opportunity to review CMS' pronouncement on establishing an LCBO (Circular 9) and proposals for the structure and features of LCBOs (Circular 37) to inform exemption applications. Most stakeholders are in favour of increasing access to low-income households, the idea of introducing a low-cost option, and increasing the number of medical scheme members. However, concerns have been expressed around some aspects of the LCBO proposal. These are mainly around:

i. *Considerations for the longer-term health sector policy agenda in South Africa*. Some stakeholders sought clarification around how the establishment of an LCBO fits into the overall long-term reform for the funding environment. The NHI proposal anticipates a diminished role for medical schemes from providing duplicate cover to providing complementary cover.

ii. *Potential for further exacerbation of an already fragmented medical scheme industry.* A common concern from most stakeholders was that the introduction of LCBO in the medical schemes industry will exacerbate fragmentation, and compromise sustainability of current risk pools.

iii. *Revision of PMBs as an alternative option*. Some stakeholders suggested a revision of the PMBs to focus less on hospital-based catastrophic care, but to on primary healthcare. Some stakeholders suggested the introduction of a low-cost PMB rather than a low-cost benefit option that is separate from the other medical scheme options. Those who want a more generous cover can then opt for higher benefit options.

iv. Oher suggestions by stakeholders included recommendations on areas such as:
    a. Solvency ratios
    b. Eligibility criteria
    c. Underwriting
    d. Brokerage fees.

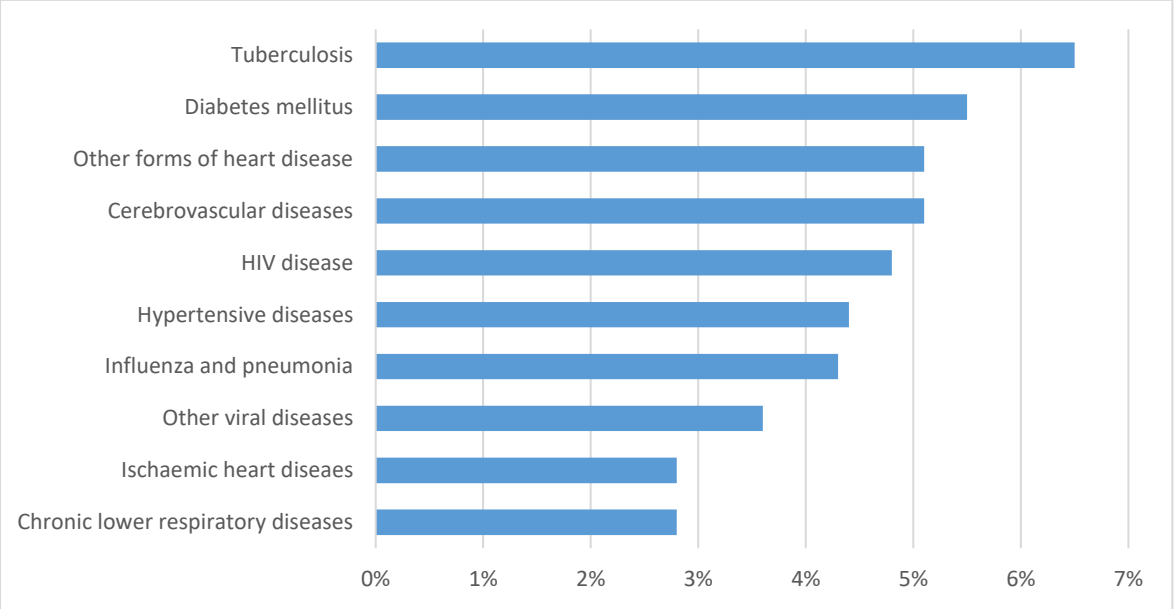
3. Current Health Policy Context

3.1 Burden of Health and Disease

South Africa has a quadruple burden of disease, with high prevalence of HIV/AIDS and TB; high maternal and child mortality; high levels of violence and injuries; and a growing burden of non-communicable diseases (NCDs). In 2016, the leading cause of death was TB, which accounted for 6.5% of all deaths

followed by diabetes with 5.5%. Of note is the number of NCDs in the top 10 causes of deaths, which together account for approximately 23% of deaths (more than half of all top 10 causes put together).[24]

Figure 4: The 10 leading underlying causes of death in South Africa, 2016

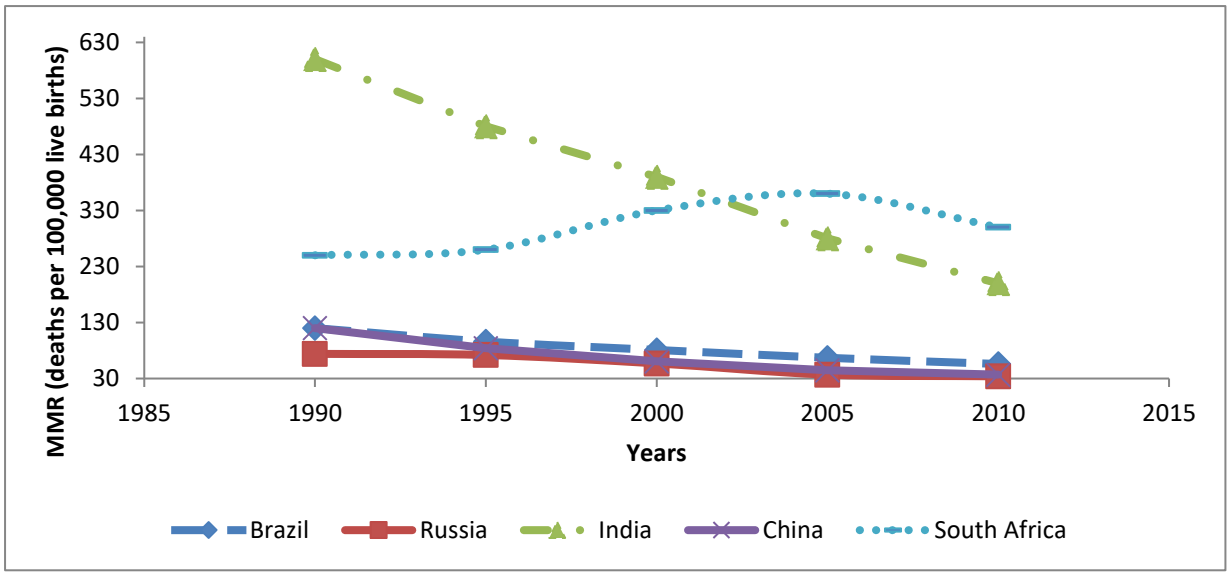


South Africa accounts for 19% of the global number of people living with HIV, 15% of new infections and 11% of AIDS related deaths.[25] With a population of 56 million in 2016, South Africa had an estimated 7.1 million people who were living with HIV. There was a significant drop in HIV/AIDS-related deaths between 2006 and 2017 (from 306000 to 126 000 deaths). This was mainly due to the rollout of antiretroviral treatment.

Maternal and child mortality in South Africa are high, particularly when compared to other middle-income countries. Child mortality has substantially declined over the last two decades, but at 43 deaths per 1000 live births in 2016, South Africa was ranked 53rd in the world among countries with high under-five mortality rate.[26] Figure 4 displays the trends in maternal mortality ratio (MMR) between BRICS countries between 1990 and 2010, and shows that South Africa had the highest MMR and was the only country that had not made progress in that period.

[24] Stats SA, 2018. Mortality and causes of death in South Africa, 2016: Findings from death notification. Stats SA, Pretoria
[25] UNAIDS, 2018 http://www.unaids.org/en/regionscountries/countries/southafrica
[26] WHO, 2017. State of the World's Children: Children in a Digital World. WHO, Geneva.

Figure 5: Maternal mortality ratios (MMR) in BRICS countries, 1990-2010



(Source: WHO. 2012. Trends in maternal mortality, 1990-2010)

In sub-Saharan Africa, South Africa has among the highest prevalence of obesity and corresponding NCDs, with increasing deaths from hypertensive disorders and diabetes. Socio-cultural, environmental and behavioral factors including socio-economic status are likely to explain this rapid epidemiological transition to increasing obesity and NCDs.

Despite this, there has been significant progress in health indicators, particularly since 2005. Overall mortality has seen a steady decline, peaking at 614000 deaths in 2006, but by 2016 this had reduced by approximately 26% to 456000. In 2017, life expectancy at birth was estimated at 63 years, compared to 55 years in 2000.

3.2 National Health Insurance and the Future Role of Medical Schemes

In June 2018, the minister of health simultaneously introduced the NHI and Medical Schemes Amendment Bills. The NHI Bill sought to introduce the NHI into legislation while the Medical Schemes Amendment Bill aimed to align the current Medical Schemes Act and the NHI. The NHI is "a health

financing system that is designed to pool funds to provide access to quality affordable personal health services for all South Africans based on their health needs, irrespective of their socio-economic status."[27] NHI embraces the goal of UHC and seeks to provide quality health services to all South Africans, ensuring that access to health does not result in catastrophic expenditures. The objectives of UHC are thus threefold[28]:

- to ensure equity in access of health services;
- to ensure that health services are of sufficient quality to improve health; and
- to protect people against financial risk that may arise from accessing health services.

The NHI Bill creates the legal framework for implementation of NHI and proposes the establishment of the NHI Fund and its governance and advisory structures, which will apply to both public and private health establishments:

- A single fund will be created to support the NHI for the purposes of purchasing services for the entire population
- The fund will have a tariff-setting function. Prices, budgets and revenue allocation will be determined annually
- There will be accreditation, certification and contracting of service providers by the Office of Health Standards and Compliance (OHSC)
- A beneficiary registry will be established, and a person seeking health services must be registered as a beneficiary of the fund
- Comprehensive health service benefits (which are not defined in the Bill) must be purchased by the Fund
- Beneficiaries to use their selected general practitioners as primary healthcare providers where a referral pathway upstream will need to be adhered to in order to access the NHI benefit

The NHI seeks to address the deep inequalities entrenched in the South African health system, which see more than 70% of the population without health insurance, and are dependent on an overstretched public health sector. The successful implementation of the NHI will require a significant overhaul of the system, to see a shift in resources to bridge the service delivery gap between the private and the public sectors. The implications for medical schemes are set out in the draft Medical Schemes Amendment Bill. The key aspects of the Bill are:

[27] https://www.gov.za/about-government/government-programmes/national-health-insurance-0

[28] https://www.who.int/health_financing/universal_coverage_definition/en/

- Abolishment of co-payments
- Establishment of the Comprehensive Service Benefits (not defined by the Bill) which will supersede prescribed minimum benefits (PMBs)
- Prevention of medical schemes implementing benefit options without the prior approval of the Registrar of the Council for Medical Schemes
- Prohibition of carrying on of the business of a medical scheme by a person not registered as a medical scheme
- Creation of a Central Beneficiary and Provider Registry under the auspices of the Council for Medical Schemes
- Introduction of income cross-subsidisation in medical schemes through income related premiums
- Medical schemes to pass back savings (in the form of reduced premiums) if a member uses a designated service provider (DSP)
- Cancellation of membership and waiting periods between joining schemes and accessing benefits

The Bill suggests that medical schemes will exist alongside the NHI and play a complementary role. The carrying on of the business of a medical scheme by a person not registered as a medical scheme is prohibited, and this may have implications for health insurance products, which in all likelihood will cease to exist. The White Paper on NHI indicates full implementation of NHI by 2025.

3.3 Social Context and Macro-economic Outlook

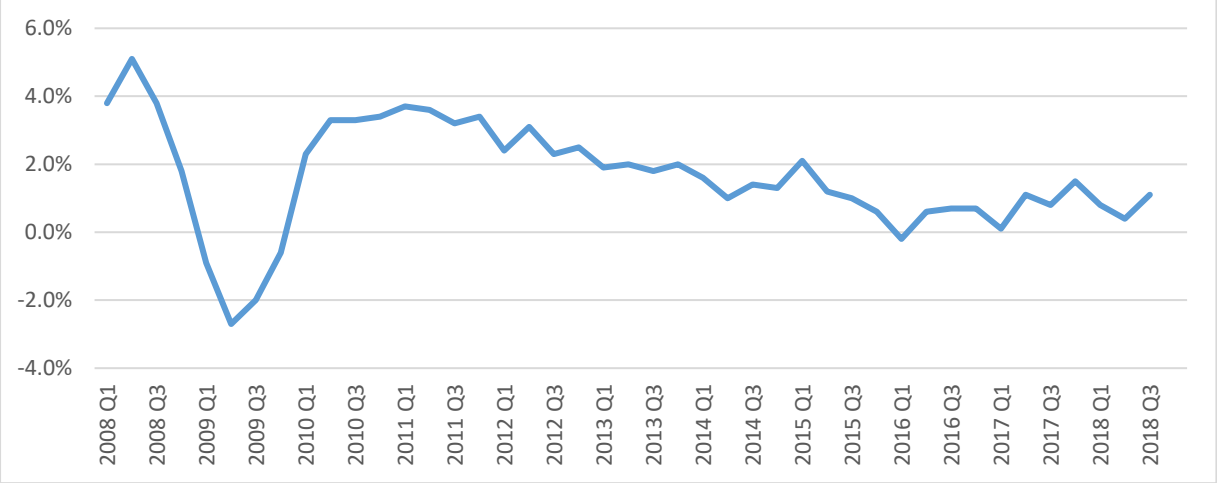
The current South African society still suffers from effects of the apartheid regime that officially ended in 1994. Apartheid systematically created unequal social and economic opportunities along racial lines[29]. With a Gini Coefficient of 63%, income inequality in South Africa is one of the highest in the world[30]. Unsurprisingly, redressing these challenges continues to underpin government policy, especially in the social sector. The National Development Plan 2030 at its core aims to eliminate poverty and reduce inequality by 2030[31]. Similarly, the Department of Health, in its strategic operations is guided by the provisions of the Constitution that places an obligation on the State to progressively realise socio-

[29] Bloom, G. & McIntyre, D. (1998) Towards equity in health in an unequal society. Social Science and Medicine, 47, 1529-1538.
[30] World Bank Open Data. Gini Coefficient for 2014.
[31] National Planning Commission (2012) National Development Plan 2030: Our Future - make it work.

economic rights, including access to healthcare. Also, everyone has the right to equality, including access to health services[32].

Over the last decade, the South African economy has not performed very well. Figure 5 shows the quarterly year-on-year growth in GDP over the last 10 years. The economy has become even more sluggish with growth rates often below 1% in the last 2 years. In this kind of economic climate, households will generally face affordability challenges in acquiring goods and services that are characterised by real increases in prices, such as health care. In addition, the sluggish economy places a downward pressure on government revenue, and therefore its expenditure capacity. The government of South Africa will operate a budget deficit in the short term, and in all likelihood in the medium term. However, the government of South Africa remains positive regarding the economic performance of the country going forward, and is working with a forecast growth rate of 1.8% in 2019 and 2.1% in 2020. The budget deficit is projected to narrow from 4.3% of GDP in 2017/18 to 3.5% in 2020/21.

Figure 6: Quarterly Year-on-Year GDP Growth Rate

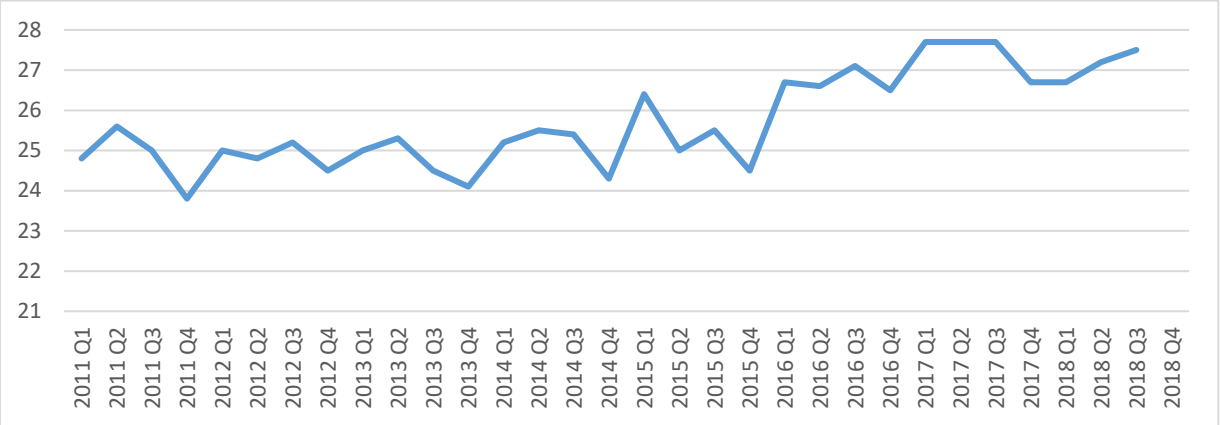


Source: Statistics South Africa

South Africa also faces an increase in the unemployment rate. From an unemployment rate of around 25% in 2011, the unemployment rate is above 28% in 2018. This indicates increased financial pressure on households at an aggregate level.

[32] National Department of Health Strategic Plan 2014/15-2018/19

Figure 7: Unemployment Rate 2011 to 2018

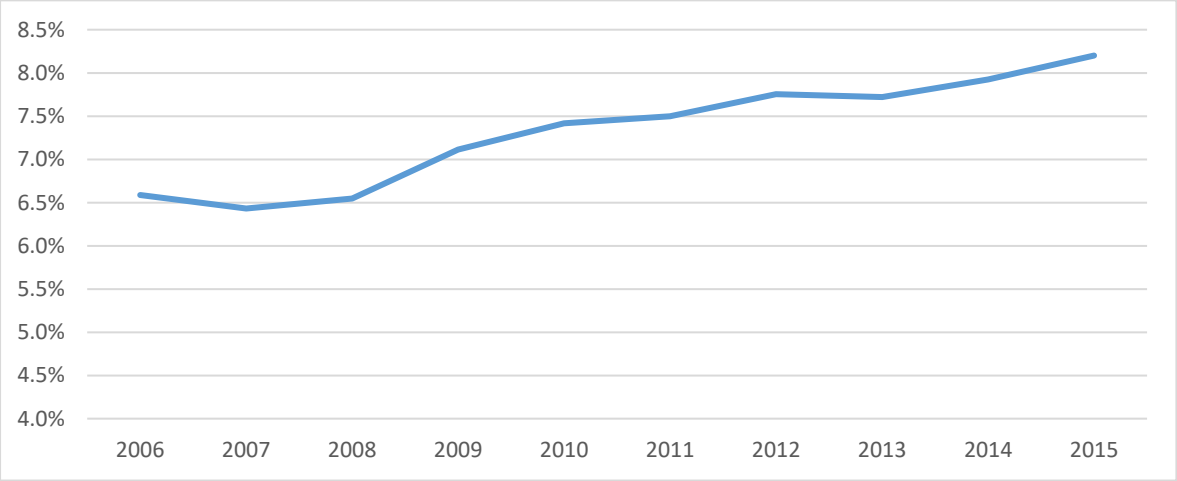


Source: STATSSA Statistical Release P0211 . Quarterly Labour Force Survey: Quarter 3: 2018

3.4 Trends in Health Financing

South Africa operates a dual health system, with a publicly funded and provided healthcare running parallel to a privately funded and provided healthcare sub-system. The public sector is funded mainly through taxes and private health system, and the private sector is funded through medical schemes contributions and out-of-pocket payments[33]. From 2006 to 2016, overall health expenditure as a percentage of GDP has maintained an upward trend.

Figure 8: Health Expenditure as Percentage of GDP

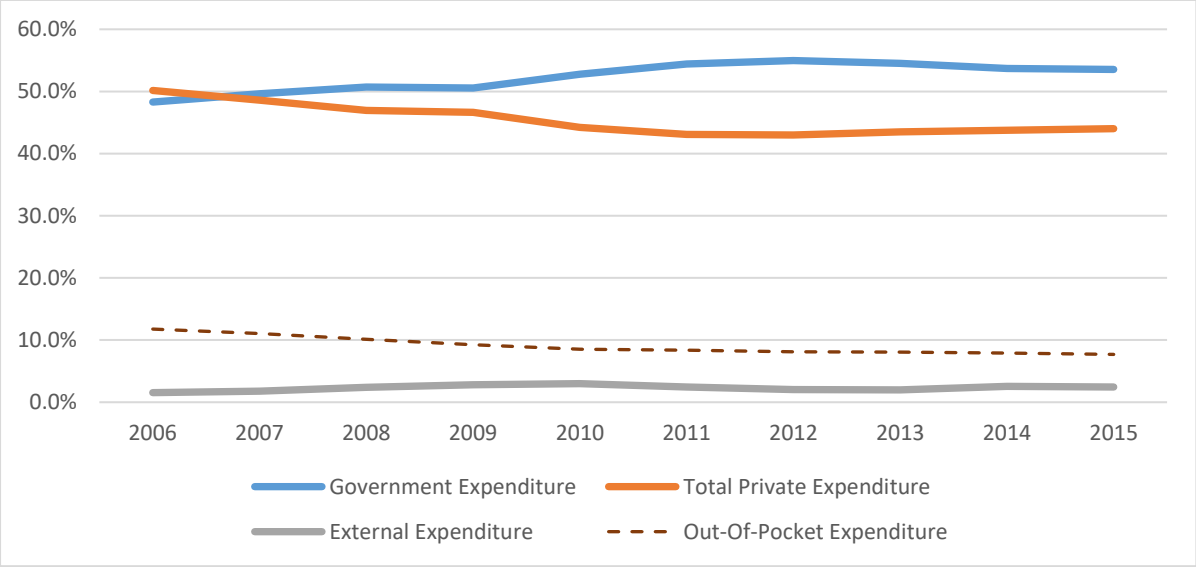


Source: World Bank Open Database

[33] Okorafor O.A. (2012) National Health Insurance reform in South Africa: Estimating the Implications for Demand for Private Health Insurance. *Appl Health Econ Health Policy* 10 (3): 189-200

Health expenditure is almost evenly split between the public and private sector, although public health expenditure accounts for a larger proportion of total health expenditure. Expenditure from external sources (grants and loans) form a very small proportion of total health expenditure. In 2015, only 2.4% of health expenditure was from external sources. Out-of-pocket expenditure as a proportion of total health expenditure dropped for the period from 11.7% in 2006 to 7.7% by 2015. The rest of private health expenditure can be attributed to medical schemes expenditure for those that are covered.

Figure 9: Government, Private and External Health Expenditure as Percentage of Total Health Expenditure



Calculated from data sourced from the World Bank Open Data Base

As previously noted, 15.7% of the population are beneficiaries of medical schemes. What is clear is that expenditure per person is much higher within the medical schemes environment than for the public sector. In 2005, it was estimated that expenditure per capita for medical scheme members was more than 6 times higher than for those without medical scheme cover[34]. It is important to note that every South African has the freedom to utilise public healthcare providers, even those that are covered by medical schemes. Generally, medical scheme beneficiaries and non-medical scheme members can use private healthcare providers and pay out of pocket.

[34] McIntyre D, van den Heever A. Social or national health insurance. In: Harrison S, Bhana R, Ntuli A, editors. South African Health Review 2007. Durban: Health Systems Trust. 2007

4. International Experience on Extending Health Insurance Cover

Providing financial risk protection for the population againt the cost of healthcare is a health policy concern for many countries[35]. The World Health Organisation (WHO) recommends prepayment financing mechanisms such as health insurance to protect against financial risk and also to improve access to healthcare[36]. The type, design and mix of health insurance in operation varies across countries. Many countries have adopted some form of pre-payment statutory health insurance system[37] to improve access and cover for health services to the population. High income countries have greater fiscal space for health and are more likely to be able to finance healthcare for their populations mainly through general taxes. Low- and middle-income countries often use prepayment schemes as an additional source of financing to help them address difficulties in funding healthcare[38].

Common prepayment schemes employed for achieving UHC are National Health Insurance (NHI) schemes and Social Health Insurance (SHI) schemes[39]. There is often some confusion around these technical terms. What is important to note is that they are usually characterised by some form of mandatory membership, based on criteria such as employment status and income level. There is a varying mix of key features of these insurance schemes. These schemes could be:

- single-payer or multiple-payer schemes;
- State-run insurance schemes, private insurance schemes, or a mix of the two
- State provided health services, private sector provided health services or a mix of the two

Regardless of the differences in the features of statutory health insurance schemes, a common challenge faced is how to effectively extend coverage to vulnerable groups: children, the elderly, women, low-income individuals, rural population, racial or ethnic minorities, immigrants, and those with disability or chronic diseases[40]. This is even more challenging in resource constrained environments. Given the

[35] Carrin G, James C. (2005) Social health insurance: key factors affecting the transition towards universal coverage. Internal Social Security Review 58: 45–64.
[36] WHO. (2005). Sustainable health financing, universal coverage and social health insurance. 57th World Health Assembly, Ninth plenary meeting, 25 May 2005, Resolution WHA58.33
[37] Statutory health insurance system refers to the primary publicly administered insurance system in the country, which can include contributory and tax funded sub-systems.
[38] Hsiao W, Shaw P. (2007) Social Health Insurance for Developing Nations. Washington, DC: World Bank.
[39] For SHI, only those who contribute are entitled to benefits of health insurance. Contributors are usually defined groups, by employment status, industry or tax payers. In an NHI, it is usually tax payers that are contributors, but everyone is entitled to the benefits of the health insurance.
[40] Meng, Q et al (2011) Expanding health insurance coverage in vulnerable groups: a systematic review of options. Health Policy and Planning 26: 93-104

subject matter of this discussion document, empirical and theoretical literature on expanding health insurance coverage to low-income groups will be the main focus.

The South African health insurance system is quite unique because the medical schemes industry is essentially a voluntary private health insurance system. Although there is some form of government subsidy to encourage membership and some firms include medical scheme membership as part of employee benefits, the population is in the main, free to decide to join a medical scheme or leave one. Other countries that have used health insurance as a vehicle to achieve health policy objectives of extending financial protection and access to care for a significant proportion of the population have made health insurance mandatory. The medical schemes industry is in this regard, quite unique. There is a public health system funded by general taxes, for which public sector health facilities are the main health service providers and all South Africans have an entitlement of access to this public health system, regardless of membership to medical aid. Nevertheless, literature on strategies, challenges and factors that influence the extension of statutory health insurance to low-income groups still provides some insight into how increasing access to the medical scheme industry for low-income households can be achieved and covers important issues to be considered.

A systematic review of literature on extending health insurance cover to vulnerable groups identifies the main strategies used as follows[41]:

i. ***Modifying the eligibility criteria*** – this strategy includes changes in legislation and regulation to make a target uninsured population eligible for insurance schemes. This strategy has been used in the USA for example, where the income threshold for Medicaid was increased in order to enrol more low-income populations. Another option could be to expand the categories of eligible population groups. For example, including legal immigrants and refugees.

ii. ***Increasing awareness of schemes and benefits*** – Some countries have used mass media campaigns to inform eligible populations of the availability, eligibility criteria and benefits of the health insurance scheme.

iii. ***Making the premium affordable*** – The main strategies for increasing affordability were the use of subsidies and the use of sliding scales for premiums. Subsidies can be by way of governments

[41] Meng, Q et al (2011) Expanding health insurance coverage in vulnerable groups: a systematic review of options. *Health Policy and Planning* 26: 93-104

paying for indigent populations in part or in full. This could also be in the form of tax credits. A third option for subsidisation was from donations made by non-governmental organisations for the premiums of the poor. Adjustments to the level of co-payments and deductibles, including placing ceilings on these have been employed to make health insurance more affordable to the target population.

iv. ***Modifying enrolment*** – This fourth approach to expanding coverage to vulnerable groups included initiatives such as: simplifying the enrolment procedure by reducing requirements for application; changing the unit of enrolment (e.g. from individual to family), improving premium collection approaches; integrating sources for enrolment (e.g. automatic enrolment based on eligibility to another programme).

v. ***Improving healthcare delivery*** – this includes strategies such as increasing the benefit package offered and improving the quality of care to attract more of the eligible population to enrol.

vi. ***Improving the management and organisation of insurance programmes*** – this includes improving information systems for measuring eligibility, staff training to improve efficiency and effectiveness, establishing/improving mechanisms for giving voice to the insured population in designing aspects of the insurance scheme (e.g. benefit package, co-payment, premium level, enrolment categories, waiting periods, etc.).

Some of these strategies do not have particular relevance for the South African context. There is currently no regulation or legislation that places income-related eligibility criteria for enrolment to medical schemes. Similarly, there is no legislative or regulatory limitation that excludes any demographic group or a sub-set of the population based on some other socio-economic criteria. Although awareness of the availability and benefits of cover from medical schemes is necessary for voluntary enrolment into medical schemes, evidence from research indicates that affordability is the key barrier preventing low-income households from enrolling into medical schemes, and not awareness. Increasing awareness of the benefits of enrolment into medical schemes would be necessary, following any changes to the operation of medical schemes to make enrolment more affordable. Modifying the enrolment process does not have any direct implications for increasing affordability or enrolment.

On the other hand, subsidising premiums and increasing the quality/quantity of services in the insurance package effectively reduces the real cost of health insurance to households, thereby improving

affordability. These strategies hold greater interest for this study. Also, these are the primary strategies used to extend coverage to low income groups, especially where affordability is the main barrier to access to insurance for this group. Their applicability and appropriateness will be discussed in greater detail in subsequent chapters.

Literature on expansion of SHI towards universal health coverage provides a good source for understanding the key issues regarding providing coverage to low-income groups. SHI offers a slightly different perspective because of the compulsory element in its membership. Typically, SHI schemes start off by covering only a part of the population. These are the employed and those able to afford the contribution to SHI. Research indicates that expanding SHI cover to depend on the following enabling factors:

i. *The level of income and economic growth* – countries that established SHI found it easier to expand insurance coverage during periods of high and sustained economic growth. This is because employment in the formal sector increased, overall increases in income levels made contributing to the SHI more feasible, associated increases in the public revenue allowed the government to subsidise (partially or fully) contributions for the poor.
ii. *Structure of the economy* – where there is a high proportion of informal employment, it is difficult to accurately assess levels of income and collect contributions.
iii. *Distribution of the population* – extending SHI cover to a densely populated urban centre with good infrastructure is generally easier than extending cover to rural areas that are sparsely populated, with limited communication infrastructure.
iv. *Management capacity within the country* – availability of highly skilled labour force in information processing, banking and bookkeeping is necessary for expanding SHI cover.
v. *Level of solidarity within the country*[42] – a society with a higher level of solidarity where individuals are more willing to support others creates an enabling environment for income cross subsidisation and expansion of insurance cover to those that are less able to contribute.
vi. Political stability and sustained political commitment[43] – empirical evidence shows that it takes many years for SHI, from inception, to cover most of the population. A long-term commitment to extending insurance cover in the national health policy arena is necessary to maintain momentum.

[42] Carrin G, James C. (2005) Social health insurance: key factors affecting the transition towards universal coverage. Internal Social Security Review 58: 45–64.
[43] Gottret P, Schieber G J & Waters H R (2008) Good practice in health financing: lessons from reforms in low- and middle-income countries. World Bank, Washington DC

4.1 Extending SHI cover to poor/low-income groups – international experience

For countries that have attempted to extend social health insurance coverage to low-income or poor households, their experience should provide some value to the LCBO discourse in South Africa. Particular attention is paid to low- and middle-income countries that face considerable financial constraints to health financing, much like South Africa.

4.1.1 Thailand

The first medical welfare programme started in 1975 when the government decided to provide medical services in public health facilities to the poor free of charge. This programme was later expanded to cover underprivileged groups, the elderly, and children. By 1999, there were 4 main insurance programmes:

- Civil Servants Medical Benefit Scheme (CSMBS) – tax funded insurance that is a fringe benefit for public civil servants. Provides comprehensive insurance and at the time covered around 9% of the population.
- Social Security Scheme – compulsory health insurance for private sector employees and covered about 7% of the population. Contributions made equally by employees, employers and the government. Employees contribute a fixed proportion of income.
- Medical Welfare – funded by general taxes and covers the poor (who earn cash income of less than B1,000 per month), children under 12, secondary school students, disabled veterans and monks. Services provided in public facilities. This covered about 32% of the population.
- Voluntary Health Card Scheme – voluntary health insurance that covered the non-poor households that were ineligible for medical welfare scheme. Households funded a third of the contribution and the government paid the rest. Covered about 19% of the population.

In 2001, a Universal Coverage (UC) Scheme was introduced to ensure that the non-insured in the country were covered. The UC scheme is a mandatory scheme that resulted from the merging of the Voluntary Health Card and the Medical Welfare Scheme. It is funded by general taxes and the beneficiaries only get to pay Bhat 30 per out-patient visit. It was agreed by consensus that relying on voluntary insurance to extend cover to achieve universal coverage was not realistic. The VHCS was subject to adverse selection and system abuse. Self-selection was also evident, with many cases where pregnant women and patients with chronic diseases frequently purchased health cards following diagnosis.

Low income households are covered by any of these three insurance schemes. Those who worked in the public sector were automatically covered by CSMBS and did not have to contribute. Those that worked in the private sector only contributed a third of the premium and they were cross subsidised by private sector employees in the same single risk pool, who earned a higher income. Those who were employed informally were covered by the government, although they would be required to pay a flat fee of Bhat 30 to use out-patient-services.

The three insurance schemes in Thailand are managed under different organisations, with different payment mechanisms and funding methods. Benefit packages, funding per person, quality of service and utilisations rates also differ. These have made it difficult for the government to move towards a single universal insurance scheme. Also, there are long-term funding concerns. Utilisation rates increased with the Universal Coverage Scheme. Also, changes in health technology and an ageing population are indications of additional sustainability pressures for the future [44].

4.1.2 Colombia

Colombia introduced a national Social Health Insurance scheme in 1993, with the aim of achieving universal health coverage. Due to resource constraints, the reform resulted in two separate insurance schemes that targeted different populations: A contributory regime that is mandatory health insurance for all formal sector employees, pensioners or independent workers and a subsidised regime which targeted the poor by subsidising their insurance premium using dedicated public resources and from the resource pool of the contributory regime. The contributory regime is financed from 12% of income (4 % by employee and 8% by the employer). The subsidised regime is funded from solidarity contribution (1% point contribution), and tax revenue (national and dedicated taxes local taxes)[45].

Within each regime, the population is free to choose health plans (insurers). These health plans compete for members based on the provider networks they offer, and efficiency in their operations. One institution known as '*Fondo de Solidaridad y Garantia'* (FOSYGA) is responsible for pooling health funds accruing to the contributory regime. Funds for the subsidised regime are pooled at the national and local levels of government. Health plans receive a capitated payment per enrolee, which is adjusted for geographic, demographic and epidemiological factors[46]. There is one benefit package within the contributory regime,

[44] Hsiao W, Shaw P. 2007. Social Health Insurance for Developing Nations. Washington, DC: World Bank.
[45] Hsiao W, Shaw P. 2007. Social Health Insurance for Developing Nations. Washington, DC: World Bank.
[46] OECD (2015), OECD Reviews of Health Systems: Colombia, OECD Publishing Paris. http://dx.doi.org/10.1787/978926448908-en

which is much richer than the benefit package of the subsidised regime. Almost all health interventions are covered under the contributory regime. However, only essential clinical services, a few surgeries, and the treatment of catastrophic diseases are covered by the subsidised regime. Insurance coverage in Colombia increased from 27%in 1992 to over 63% in 2003, mainly due to the increase in enrolment into the subsidised regime.

Enrolment into the subsidised regime systematically targeted the poorest and most vulnerable groups first. As more funds became available, other less vulnerable members of the population were gradually enrolled[47]. Data in recent years indicate that around 96% of Colombians are covered by health insurance (contributory or subsidised regime).

4.1.3 Ghana

Following the proliferation of Mutual Health Insurance Organisations (MHOs) in the early 2000s, the government of Ghana passed a healthcare reform that established a National Health Insurance Scheme in 2003. The MHOs had increased from 4 in 199 to 258 in 2003. The aim of the NHI scheme was to make healthcare more accessible to all, especially the poor and disadvantaged. The idea was to make NHI mandatory and extend it to all members of the population. Three categories of health insurance were authorised under the NHI scheme: District Mutual Health Insurance Schemes (DMHIS), Commercial Health Insurance Schemes and Private Mutual Insurance Schemes. Members of the population are free to select the type of scheme they would like to join[48]. A DHMIS is established in every district. It is responsible for establishing a district administration, enrolling and maintaining membership, collecting contributions from people who can pay, applying a means test to determine who is indigent, and administering subsidies received from the National Health Insurance Fund for the indigent[49].

The NHI Scheme is funded through a central National Health Insurance Fund (NHIF) which is sourced from the National Health Insurance Levy (NHIL) of 2.5% tax on selected goods and
Services; 2.5% of Social Security and National Insurance Trust (SSNIT) contributions, largely by formal sector workers; payment of premiums, and donor funds. Individuals who are employed in the formal sector and contribute to SSNIT are exempted from premium payment. As at 2012, over 70% of the NHIS

[47] Hsiao W, Shaw P. 2007. Social Health Insurance for Developing Nations. Washington, DC: World Bank.
[48] ACCA (2013) Key health challenges in Ghana. The Association of Chattered Certified Accountants. London, UK
[49] Hsiao W, Shaw P. 2007. Social Health Insurance for Developing Nations. Washington, DC: World Bank.

financial inflows came from the NHIL; 17.4% from SSNIT contributions and 4.5% from premium payments[50]. There is a minimum benefit package for all categories of health insurance. The NHIS provides a generous package of benefits covering 95% of conditions and includes inpatient and outpatient services for general and specialist care, surgical operations, hospital accommodation, prescription drugs, blood products, dental care, maternity care and emergency treatment. The government uses the NHI levy to subsidise premiums for the poor. A large proportion of the population are exempt from charges. These include:

- Children under the age of 18 whose parents/guardians belong to the scheme; and people aged 70 and above
- Pregnant women
- Indigents with no visible source of income and no fixed place of residence
- Pensioners (although they are required to pay the registration fee)[51]

These members that are exempt from charges make up more than 60% of active NHI scheme members. As at 2016, around 40% of Ghanaians were registered as active members in the NHI scheme. Literature from reviews of the performance of the NHI scheme of Ghana indicate that the scheme faces significant sustainability challenges. Financial sustainability challenges are as a result of cost escalation, the broadness of the benefit package, and the large proportion of members that are exempt from contributions. Poor quality of services provided in some accredited health facilities have caused decreases in re-enrolment and enrolment rates. Other challenges include political interference, lack of technical and management capacity[52].

At the time of the establishment of the NHIS, there were concerns that the benefit package was too extensive to be sustainable over the long term. In addition, the package did not appear to have been costed. Also, consideration was not given to cost escalation associated with increased utilisation that should be expected with the introduction of insurance[53].

[50] Alhassan RK, Nketiah-Amponsah E, Arhinful DK (2016) A Review of the National Health Insurance Scheme in Ghana: What Are the Sustainability Threats and Prospects? PLoS ONE 11(11): e0165151. doi:10.1371/journal.pone.0165151

[51] ACCA (2013) Key health challenges in Ghana. The Association of Chattered Certified Accountants. London, UK

[52] Alhassan RK, Nketiah-Amponsah E, Arhinful DK (2016) A Review of the National Health Insurance Scheme in Ghana: What Are the Sustainability Threats and Prospects? PLoS ONE 11(11): e0165151. doi:10.1371/journal.pone.0165151

[53] Hsiao W, Shaw P. 2007. Social Health Insurance for Developing Nations. Washington, DC: World Bank.

4.1.4 Chile

Chile operates a mandatory health insurance system that comprises a non-profit public insurer - Fondo Nacional de Salud (FONASA); and multiple private insurers - Instituciones de Salud Previsional (ISAPRES) – that can be either for-profit or non-profit. FONASA was created in 1979 as a public agency to collect and manage the resources coming from compulsory contributions of employees who chose to remain in the public system or could not afford an adequate plan with an ISAPRES[54].

By law, all formal sector workers, retired workers with a pension or self-employed workers with a retirement fund must enrol with FONASA. These groups contribute 7% of their income (up to a monthly cap). ISAPRE beneficiaries can voluntarily make extra contributions to their insurer to purchase additional coverage. Independent workers can voluntarily enrol with an ISAPRE of FONASA conditional on contribution of 7% of their income. Legally certified indigent citizens and legally unemployed workers are entitled to free coverage by the FONASA. In addition to contributions from its members, FONASA receives transfers from the Ministry of Finance to cover indigents and to carry out public health programmes. Prior to 2005, there was no set minimum benefit package. However, ISAPRES was not allowed to offer less financial cover than what was offered by FONASA. From 2005, with the establishment of the AUGE Plan, both public and private health insurance was mandated to cover 56 legally defined health problems[55]. FONASA covers 68% of the population and the ISAPRES covers around 18%. The rest are covered by other private plans such as the armed forces plan, or have no insurance at all.

The law that established the AUGE plan also introduced the adoption of a verification study, with defined methodology and implementation. This used cost information on health conditions to be added to the benefit package to determine expected resource needs for providing the services for the health condition to all subscribers over a 12-month period. The AUGE plan was financed from an increase in consumer tax from 18 to 19%, tobacco tax, customer revenues and the sale of the state's minority shares in public health enterprises.

[54] Missoni E and Solimano G (2010) Towards Universal Health Coverage: the Chilean experience. World Health Report (2010) Background Paper. World Health Organisation

[55] Bitran R. D and Urcullo G. C (2008) Chile: Good Practice in Expanding Health Care Coverage – Lessons for Reforms. In: Good practice in health financing : lessons from reforms in low and middle-income countries. Eds Pablo Gottret, George J. Schieber, and Hugh R. Waters

Services offered under the AUGE list of guaranteed conditions require co-payment. Financial protection is ensured by explicitly defining maximum required payments for each of the guaranteed conditions and by making services accessible to those who cannot afford the costs[56].

4.1.5 Mexico

Seguro popular (SP) was introduced in 2004, which extended publicly funded health insurance to poor citizens previously uninsured. By 2014, 50 million people were covered by SP. Nevertheless, there remains around 18% of the population that do not have health insurance coverage[57]. Prior to this, Mexico had two main social security insurance systems. IMSS covered unions and workers in different private sectors; ISSSTE provided cover to state workers; and other smaller schemes covered special groups such as the navy and the army. Both the IMSS and the ISSSTE provide health services themselves, rather than contracting out[58]. The current statutory health insurance system comprises mainly of these three sub-systems. The three systems of insurance have a tripartite financing arrangement.

The federal government finances a portion of the insurance contribution; employers contribute a portion; and the employees contribute a portion. For the SP, the entire contribution is from general tax revenue. Private health insurance is voluntary and duplicative, and covers around 2 to 3% of the population[59]. The SP has a defined positive list of available interventions, which is expected to grow over time to match the benefit package of the IMSS and ISSSTE. In contrast, the IMSS and ISSSTE cover, in theory, any and all healthcare needs. This entitlement on paper has been difficult to uphold due to gaps in accessibility and quality. A review of the health system shows that out-of-pocket spending in Mexico constitutes 45% of health system revenue, a signal of the failure of the health system to provide effective insurance, high quality services or both. Part of the reason for the high OOP spending may be dissatisfaction with the quality or accessibility of services provided by institutions to which individuals are affiliated.

A key recommendation for the Mexican health system has been to consider defining more explicitly the healthcare covered by the social security institutes, to ensure that only high-value services are funded – reducing the publicly funded benefit package, and then to explore the use of supplementary private health

[56] Missoni E and Solimano G (2010) Towards Universal Health Coverage: the Chilean experience. World Health Report (2010) Background Paper. World Health Organisation

[57] OECD. (2016). OECD Reviews of Health Systems: Mexico 2016. Paris: OECD Publishing. Retrieved from http://dx.doi.org/10.1787/9789264230491-en

[58] Frenk, J., Gonzalez-Pier, E., Gomez-Dantes, O., Lezana, M. A., & Nkaul, F. M. (2006). Comprehensive reform to improve health system performance in Mexico. The Lancet, 368, 1524-34.

[59] Knaul, F. M., & Frenk, J. (2005). Health insurance in Mexico: Achieving universal coverage through structural reform. Health Affairs, 6, 1467-1476.

insurance to cover services deemed to be of marginal value. Also, the government has been encouraged to allocate more resources to the health sector[60].

The defined benefit package of the SP scheme has been increasing on an incremental basis according to financial ability of the system. Benefits are divided into two segments; an essential package of primary and secondary care, and a catastrophic package. The package of essential services is covered by funds administered at the state level. The catastrophic package is administered at the national level. The number of interventions in both packages has gradually been expanded from the inception of the SP scheme. The criteria to select specific conditions and interventions are based on burden of disease, cost-effectiveness and resource availability[61].

4.1.6 Other Cases

Review of literature indicates that there are other examples of lower- and upper middle- income countries that have used SHI as a vehicle for extending insurance coverage to low income households that are formally employed. These include Costa Rica[62], Dominican Republic[63] , Vietnam[64], and Indonesia[65]. While there is some uniqueness in the design and implementation of SHI in all of these countries, they are quite similar on many fronts.

Common features in all of these cases are as follows:

- *Mandatory membership of the formally employed*. In some cases, there are exemptions or options for opting out. For example, in Vietnam and Indonesia, private sector employees from firms that employ fewer than 10 people can opt out.
- *Income-based contributions*. Contributions are usually based on levels of income and not on risk. Higher income earners contribute more in absolute terms. There is often an upper limit on

[60] OECD. (2016). OECD Reviews of Health Systems: Mexico 2016. Paris: OECD Publishing. Retrieved from http://dx.doi.org/10.1787/9789264230491-en

[61] Frenk, J., Gonzalez-Pier, E., Gomez-Dantes, O., Lezana, M. A., & Nkaul, F. M. (2006). Comprehensive reform to improve health system performance in Mexico. The Lancet, 368, 1524-34.

[62] Clark, A. M. (2002) Health sector reform in Costa Rica: Reinforcing a public system. Prepared for the Woodrow Wilson Center Workshops on the Politics of Education and Health Reforms Washington D.C. April 18-19, 2002

[63] Rathe M (2010) Dominican Republic: Can universal coverage be achieved? World Health Report (2010) Background paper, No 10.

[64] TienT. V. et al (2011) A health financing review of Viet Nam with a focus on social health insurance. World Health Organisation

[65] Sparrow R, Suryahadi A, Widyanti W (2010) Public Health Insurance for the Poor in Indonesia: Targeting and Impact of Indonesia's Askeskin Programme. SMERU Research Institute Working Paper May 2010, Jakarta

contributions. As a result of mandatory membership and income-related contributions, these schemes create significant scope for income and risk cross-subsidisation.

- Tripartite contribution models. Contributions are usually made by the state, the employee and the employer. The proportion of contribution often depends on whether the member is a government employee, an employee of a private firm or considered to be part of a vulnerable group. The state usually makes full contributions on behalf of vulnerable groups such as the very poor and indigent.
- *Differential benefit packages*. Where there are separate risk pools based on ability to contribute, the benefit packages often varies. Those who are formally employed usually enjoy a higher benefit package than those whose memberships are covered by the state (non-contributory regimes).
- *Challenges with expanding insurance cover to the informal sector*. A major challenge faced by most of these initiatives has been the expansion of insurance cover to those who earn income, but that are not formally employed.

The cases reviewed provide some understanding of key issues related to the use of SHI in providing health insurance for low-income households that include people who are formally employed. These insights are useful and inform the discussion and analysis around the appropriateness and form of LCBO to be adopted in the medical schemes industry. The next section considers theoretical and empirical evidence around the up-take of PVHI, and the key factors that are enablers or constraints to the uptake of PVHI among this target group.

4.2 Private Voluntary Health Insurance for Low-Income Groups

Many low and middle-income countries rely heavily on government funding and out-of-pocket payment for financing health care. Over the past three decades, there has been intentional movement towards the greater use of prepayment arrangements for financing healthcare. Besides the additional resources derived from pre-payment schemes, they also reduce exposure of households to financial hardship and impoverishment due to healthcare costs. Implementation of SHI as is the case for many Latin American countries is one option for using health insurance to mobilise additional revenue and to reduce financial exposure.

The use of Private Voluntary Health Insurance (PVHI) in low- and middle- income countries to achieve similar health policy goals is, however, seldom well received. This is because PVHI conjures up visions

of unequal access, large numbers of uninsured people, and elitist health care for the rich[66]. Indeed, experience has shown that unregulated (or poorly designed) private health insurance can exacerbate inequalities, lead to cost escalation and provide coverage only to the young and healthy[67]. Nevertheless, consideration for the potential for PVHI to be used to further health policy objectives of equity, financial protection, resource mobilisation and access in the context of low- and middle-income countries has received a fair amount of attention.

Private health insurance has historically been voluntary, for-profit commercial coverage. However, a more recent review of private coverage all over the world shows a variety of arrangements that are described as private health insurance. The boundaries between public health insurance and private health insurance have become increasingly blurred. A useful guiding for distinguishing the two is that in private health insurance, money comes from household income and goes directly to the private risk pool entity. For public insurance, the money is channelled through the State through a general or social insurance tax collector[68]. PVHI also serves different functions by design. They could be duplicative health insurance, complementary or supplementary to the public health system. For this document, duplicative private health insurance is of interest and focus.

Low and middle-income countries face significant financial limitations with regard to providing financial protection and access to health care for the entire population, from tax revenue and social insurance. The rationale for considering PVHI under these circumstances include that:

i. Private coverage can allow policy makers to target limited public resources towards the most vulnerable groups, while those who can afford it, can pay from their own income.
ii. Private coverage provides an opportunity for households to avoid large out-of-pocket (catastrophic) expenditures.
iii. Private coverage, when properly regulated may be a way of moving towards prepayment and risk pooling until publicly funded coverage can be expanded sufficiently[69].

[66] Sekhri N. and Savedoff W. (2004) Private health insurance: Implications for developing countries. Discussion Paper Number 3 – 2004. Prepared for the World Health Organisation.
[67] Zigora TA. Current issues, prospects, and programs in health insurance in Zimbabwe. Sustainable Health Care Financing in Southern Africa. 2003: 117-123.
[68] Sekhri N. and Savedoff W. (2004) Private health insurance: Implications for developing countries. Discussion Paper Number 3 – 2004. Prepared for the World Health Organisation.
[69] Sekhri N. and Savedoff W. (2004) Private health insurance: Implications for developing countries. Discussion Paper Number 3 – 2004. Prepared for the World Health Organisation.

Empirical evidence shows that in non-rich countries, PVHI is usually confined to the upper classes; and is considered unaffordable for the very poor. Despite this, there remains a school of thought that is of the perspective that PVHI is generally 'affordable' for low income contexts, and that within this group, a latent demand for PVHI exists, which has not been properly met. The reasoning stems from the often significant catastrophic out-of-pocket expenditure that is recorded for health care among this group. The amounts associated with these catastrophic payments may easily exceed the cost of health insurance premium for a year. It is assumed that low-income groups are more risk averse, and that taking up insurance would be the logical and rational behaviour. They should prefer to pay smaller amounts every month to prevent against a huge catastrophic outlay that impoverishes them. With persisting low up-take of PVHI in low-income groups, it is considered that affordability is not the only factor that determines up-take of PVHI.

Some important arguments (besides financial affordability) have been put forward for the low up-take of PVHI in low income countries, and these can also apply to low income households. For example, being averse to risk is not the same as attempting to estimate risks and confront them rationally. Households could prefer only to take insurance if they are confident that they will need health services at least up to and above the financial value of the premiums they are going to pay. Opportunity cost of a given health insurance premium amount will be much higher for poorer household than for a wealthier household.

The poorer household may feel cheated if they buy insurance and no one in the household gets sick. They may want their money back or decide not to renew their within the period they are insured for. This is the reason why some people are willing to buy insurance for care that is in theory not insurable – care for which the need is predictable. For example, taking out insurance for services covering maternity and infant care (including immunisations, etc.) when pregnant. People may demand insurance for this kind of care because they are sure to get some value out of it. In addition, large catastrophic out-of-pocket expenditure on health, does not indicate affordability of health insurance. It only means that the people would rather be economically ruined than die[70].

It could be argued that this behaviour shows a lack of understanding of the principle of solidarity implicit in health insurance, and that contributions for health insurance are more often than not to subsidize those less lucky – the poorer and sicker within community. However, low-income households may see

[70] Musgrove P. (2007) Economics of private voluntary health insurance revisited. In: Private voluntary health insurance in development: friend or foe? Eds. Preker A S, Scheffler R M, and Bassett MC. The World Bank. Washington DC

themselves as the right target beneficiaries of this 'solidarity principle' (and perhaps correctly so), and therefore will be less willing to subsidise others.

Where there is the existence of a publicly funded alternative (public insurance or publicly funded national health system), the choice of taking up PHVI by low income groups is conceivably lower. This is especially the case where there is zero cost at the point of use of publicly provided health care, or where the cost of public health care is heavily subsidised. The only basis for sustained demand for PVHI is in the face of significant quality differences between services obtained through the public health systems and those accessed via PVHI. In the absence of quality difference between the services accessed through PVHI and public sector, individuals would not see any benefit in paying for a good or service (via private health insurance) provided at a lower cost in the public system[71]. For low income households to voluntarily take up PVHI where there is a public-sector alternative, it must therefore be that services in the public sector are either inaccessible or of poor quality. If it is the case that quality of care from public sector is acceptable, then low income households will only use PVHI if there is no additional cost to them for utilising significantly higher quality care accessible through PVHI.

Overall, literature on the subject does provide some guidance around using PVHI to advance health policy objectives of improving equity, financial protection, and access to quality health care. Government regulatory intervention is important if PVHI is to play an important role in covering a large segment of the population. Regulations to address the challenges of anti-selection and cherry-picking; and incentives to foster risk and income cross subsidisation within and across risk pools are necessary. A universal basic package is encouraged, as it reduces uncertainty, simplifies choice and facilitates transfer from one policy to another. In addition to these, if the government is intent on making PVHI more affordable to lower income groups, then it can consider providing subsidies. However, the choice of subsidies raises the query as to whether the government saves money by shifting funds from the public sector to subsidies[72].

Within the context of achieving universal health care (UHC), PVHI is acknowledged as a potential vehicle (amongst others) for extending financial protection. However, because it is voluntary, it is not considered

[71] Emery H, Gerrits K. The demand for private health insurance in Alberta in the presence of a public alternative. In: Beach MC, Chaykowski R P, Shortt S,et al. Health services restructuring in Canada: new evidence and new directions. Deutsch Institute for the Study of Economic Policy, Queen's University; Institute for research on Public Policy; McGill-Queen's University Press. 2005.

[72] Musgrove P. (2007) Economics of private voluntary health insurance revisited. In: Private voluntary health insurance in development: friend or foe? Eds. Preker A S, Scheffler R M, and Bassett MC. The World Bank. Washington DC

a sustainable approach to provide cover for the poor. Compulsory membership, with subsidisation for the poor is considered a better approach by some commentators[73]. This is because compulsion addresses the pitfalls associated with voluntary health insurance (cherry-picking and anti-selection), which usually result in upward spirals in health care costs and therefore the cost of membership to insurance.

4.3 Summary and Key Lessons

They are some key lessons that can be learned from the experience of countries that have tried to extend insurance to a larger proportion of their population, including vulnerable groups. An important point to note is that policy in favour of pre-payment schemes in low and middle income countries is primarily to address difficulties in funding of healthcare. The ability for any prepayment arrangement to provide adequate financial protection for the poor and low-income households still largely depends on the performance of the economy. Growth in the economy provides the enabling resource space to mobilise additional finances from tax revenue or household income to finance prepayment schemes. Also, a growing economy provides the space for instituting health insurance subsidies for the poor and low-income households.

Mandatory health insurance for those working in the formal sector is a more economically viable option than voluntary health insurance for providing cover to low income households that are working in the formal sector. Mandatory health insurance addresses insurance challenges such as anti-selection and cherry-picking. In addition, where contributions are income related, mandatory health insurance ensures both risk and income cross-subsidisation. These are important elements for sustainability of any insurance scheme in the context of extending cover to low-income households. Also, implementing a universal basic package is recommended. This reduces uncertainty and simplifies choice.

Using PVHI to extend cover to low-income households requires significant subsidisation from government. Even where contributions for low income households are a very small fraction of their income, this does not guarantee membership for those that consider themselves to be healthy. Only those who believe that they will benefit from their contributions will be sufficiently motivated to join. This has implications for the benefit package offered by PVHI. Low income household would more readily subscribe to health insurance that provides cover for health services they can predictably utilise. Insurance packages that mainly cover high-cost services, with a low probability and low predictability of

[73] Kutzin J. (2016) Anything goes on the path to Universal Health Coverage? No. *Bull World Health Organ 2012;90:867–868*

use will hold little appeal. In the absence of compulsory membership, the government would need to create the right regulatory environment to eliminate the negative effects of lack of income and risk equalisation, anti-selection, and cherry-picking that are associated with PVHI schemes.

As noted in this chapter, the characteristics of health services offered through the public health sector also has implications for the demand for PVHI. Features such as the quality of care in the public sector, the level of subsidy applicable to the target population, and the level of access, all influence the resulting demand for PVHI. In considering how to increase the proportion of the population who are covered by medical schemes in South Africa (through LCBO, for example), it is critical not to lose sight of the relationship that exists between the performance of the public health sector and the need for extending private voluntary health insurance cover. However, analysis and discussion of the interplay between these two concepts are outside the scope of this document. Subsequent discussions and recommendations in this document consider the performance of the public health sector as given.

5. LCBO Target Market

In 2015, the initial pronouncement of the intention to establish LCBO identified the 6 million formally employed (approximately 15 million with spouses and children) who did not belong to a medical scheme as the target for the LCBO[74]. However, Circular 37 of 2015, in providing guidance to medical schemes around the application for exemption specifies that an important condition for LCBO is that it is structured in a manner that does not undermine the current risk pools within medical schemes (limitation to buy-downs). The working proposal is that only those below a certain income limit (below the tax threshold) will be eligible for membership.

5.1 Estimating the Size of the LCBO Target Group

The impact of establishing LCBO on the size of medical scheme membership within the target LCBO group has implications for determining the appropriateness and viability of LCBO. In this section, the aim is to estimate the likely uptake of LCBO within the medical scheme industry if it is introduced. For ease of modelling, it is assumed that medical scheme members whose earnings are below the tax threshold

[74]Circular 9 of 2015: CMS Discussion on the Introduction of a Low Cost benefit Option (LCBO) Framework

would be allowed to buy-down to the LCBO. The analysis is done using two possible income thresholds for the LCBO.

The LCBO target group can be defined by households that have earnings that are equal to or below the income tax threshold. Table 2 below shows the personal income tax brackets for 2018/19. A household income threshold of R6,000 is used to define this target group. For purposes of analysis, this group will be referred to as the '***Low threshold***' LCBO target group. It is worth noting from table 2 that most South African income earners fall below the income tax threshold.

Table 2: Personal income tax brackets (2018/19)

Taxable bracket (annual income)	**Number of Registered Individuals**	**% of Registered tax payers**
0 – 70,000*	6,555,245	46.7%
70,000 – 150,000	2,502,678	17.8%
150,000 – 250,000	1,790,280	12.7%
250,000 – 350,000	1,178,901	8.4%
350,000 – 500,000	934,615	6.7%
500,000 – 750,000	576,469	4.1%
750,000 – 1,000,000	233,652	1.7%
1,000,000 – 1,500,000	161,014	1.1%
1,500,000 +	109,783	0.8%
Total	**14,044,637**	**100.0%**

*Registered individuals with taxable income below the income tax threshold

Source: National Treasury Budget Review 2018

A second group can be defined, purely based on affordability pressure. It was estimated in 2016 that medical scheme membership only becomes significantly prevalent at household income levels above R15,000 per month[75]. Adjusting for inflation, this is approximately R15,795 per month in 2017 terms[76]. Based on affordability pressure, a threshold of R16,000 can be used to define a rather broad LCBO target market. This group will be termed the '***High Threshold***' LCBO target group.

[75] Erasmus D, etal (2016) Challenges and opportunities for health finance in South Africa: a supply and regulatory perspective. Prepared for FinMark Trust by Insight Actuaries and Consultants

[76] Calculated using CPI values from Statistics South Africa

Estimating the likely uptake of LCBO in the medical scheme industry is uses data from the South African 2017 General Household Survey (GHS 2017). The GHS 2017 contains information on households that have at least one member belonging to a medical scheme. It also contains data on household income, and other household characteristics that have been identified in the literature as factors associated with the demand for insurance. These are variables such as education, household size, age, type of dwelling location (rural or urban). Table 3 is generated from the GHS 2017, and shows that around 36% of the households in the country with at least one employed household member have an income that is below the tax threshold. The high threshold LCBO target group make up around 52% of the households in the country.

Table 3: LCBO Target Group

	Low Threshold LCBO Group Monthly Income < R6000*	**High Threshold LCBO Group Monthly Income <R16000***
Number of households	5,845,687	8,381,697
% of total SA households	36.1%	51.7%
% households with at least 1 medical scheme member	5.99%	12.92%

Data from 2017 General Household Survey, Statistics South Africa. *Note that this does not include households with zero income and only includes households with at least one employed individual.

Clearly affordability of medical schemes membership is a major challenge for these groups. Less than 6% of the households in the Low Threshold group have at least one person who is a member of a medical scheme. For the high threshold group, the proportion is just over 10%. This is in contrast with households from higher income groups. Approximately 62% of households with incomes between R16,000 and R20,000 had at least one medical scheme member in the household.

If the Low Threshold LCBO target group is used, then the target market is approximately 6 million households. The number increases to more than 8 million households if a more expansive definition of low-income is used, and raises the income threshold to R16,000. The LCBO target market is more than half of the population of the country. This is in line with data from table 2, which shows that registered tax payers in the two lowest income tax brackets constitute over 60% of all registered tax payers. Most households in the country can be categorised as low-income households and potential beneficiaries of an LCBO.

5.2 Likelihood of Uptake of LCBO

In determining whether to proceed with the establishment of LCBO in the medical schemes industry, it is also worthwhile to consider the likelihood of uptake of this new option. Based on the proposal to establish LCBO, there is to be no compulsion on the part of the target income group to take up membership. Although employers may be incentivised to contribute to employee membership, the uptake of medical scheme membership for LCBO will not be mandatory. The introduction of LCBO will change two important factors that impact on the propensity to take up medical scheme membership to LCBO. These are: (1) financial affordability, and (2) structure of the benefit package.

In this section, regression analysis is used to estimate the likely uptake of LCBO, measured as change in medical scheme membership due to a change in affordability. A few assumptions are made in order to conduct the analysis.

- There are two LCBO packages under consideration. Option A is a more basic package that covers mostly primary health care services. Option B is more generous and includes more hospital-based services[77].
- Option A is assumed to cost approximately R400 per principal member per month
- Option B is assumed to cost as high as R800 per beneficiary per month
- For ease of modelling, the effect of the introduction of the LCBO package is seen as having the same effect as an increase in monthly household income. In this analysis, this is captured as the difference between the current contribution price for medical scheme membership and the LCBO contribution price.
    - Currently, the average expenditure on PMBs per beneficiary per month (pbpm) is R746 and the average monthly gross contribution for 2018 is R2,436 for the principal member (R2,136.6 for adult dependent)
    - For every medical scheme member, there are a total of 1.21 additional beneficiaries – on average
- Average household expenditure on medical schemes is R5,021
- Expected household expenditure on LCBO Option A is R823 (this is equal to R400 multiplied by 1.21 beneficiaries), and expected household expenditure on LCBO Option B is R1,647 (R800 multiplied by 1.21beneficiaties)[78]

[77] More details on these benefit options are in CMS Circular 37 of 2015: Request for proposal –benefit design and pricing of a low cost benefit option (LCBO). See Appendix for summary of these benefit packages.
[78] Note that these do not explicitly consider any contribution from employers or effect of government subsidies.

Based on the above assumptions, uptake of LCBO is estimated by measuring the change in medical scheme membership for the target LCBO groups, following an increase in affordability.

- An increase in monthly income of R4,198 as a proxy for the effect of the introduction of LCBO Option A
- An increase in monthly income of R3,374 as a proxy for the effect of the introduction of LCBO Option B

A binary outcome regression model (probit) was used to estimate the probability of belonging to a medical aid. The following variables were used in estimating the model:

- Household income
- Highest level of education of the household head
- Area of residence (rural or urban)
- Household size
- Presence of a child 5yeas and younger in the household
- Presence of an elderly person from 60 years and older in the household.

The proportion of households with at least one medical scheme member is the dependent variable and is used as a proxy for the change in medical scheme uptake. The full regression result is included in the Appendix 3. The model specification is based on literature on the key factors that determine whether to buy private health insurance in South Africa[79]. Coefficients of the variables are all statistically significant with the exception of coefficients of '*household size*' and the '*presence of a child that is 5 years and younger in the households*'. Using the coefficients from the model, the predicted proportion of households with at least 1 medical scheme member in the sample data is 20.58%. The actual proportion in the data is 20.88%.

These same coefficients from the regression model were used to estimate the proportion of the various defined target groups that are likely to taking up medical aid membership, following defined increases in income. An appeal of this approach is that all other variables in the model remain constant apart from income. The results of this exercise are shown in the tables below.

[79] Okorafor O A (2012) National Health Insurance Reform in South Africa: Estimating the implications for demand for private health insurance. Appl Health Econ Health Policy 2012; 10 (3) 189-200

Table 4: Low Threshold LCBO target group with monthly income below R6000

	Predicted proportion with medical aid	**% Increase in membership**	**Estimated increase in # of households with membership**
No LCBO (current state)	7.59%	-	
LCBO Option B (more generous package)	9.79%	28.9%	101,195
LCBO Option A (less generous package)	10.42%	37.3%	130,608

The model predicts an increase in medical scheme membership due to the introduction of LCBO. For the more generous package, the increase in medical scheme members is less. This is because the more generous package will cost more. The model estimates an increase of around 37% (from 7.59% to 10.42%) in medical scheme membership for the Low Threshold LCBO target group due to the implementation of Option A.

Table 5: High Threshold LCBO target group with monthly income below R16000

	Predicted proportion with medical aid	**% Increase in membership**	**Estimated increase in # of households with membership**
No LCBO (current state)	10.92%	-	
LCBO Option B (more generous package)	13.94%	27.7%	299,968
LCBO Option A (less generous package)	14.77%	35.3%	382,269

Table 5 above shows that the percentage increase in medical scheme membership for the High Threshold LCBO target group is lower than for the previous group. This is expected because the effect of a unit increase in income on the demand for health insurance decreases with higher levels of income. The results from this exercise indicate that although the introduction of LCBO may result in a significant increase in membership, this is from a very low base. The proportion of the target group that is estimated to take up medical aid will remain low.

The analysis carried out in this section is done to provide a better perspective on the likely uptake of LCBO. It is important to reiterate that only the effect of a change in the financial barrier to membership is estimated. Given that the benefit package of the LCBO is proposed to be less than the PMB, the estimated changes to medical scheme membership estimated in this section may be on the high side. However, it should also be noted that where a revision to PMBs results in greater bias in coverage of primary healthcare services, lower income groups are likely to increase their demand for insurance.

6. Discussion and policy options for LCBO implementation

At the outset of this analysis, it is crucial to outline an important contextual issue that must be kept in mind in determining whether to go ahead with the LCBO or not. South Africa, like many middle-income countries faces significant limitations in generating sufficient resources to adequately provide comprehensive health services to its population. Similar to the strategies adopted in some of these countries, South Africa has encouraged membership to medical schemes (health insurance) to help address difficulties in funding health care. These additional resources from prepayment schemes help, but they do not guarantee sufficient funds for health care. Keeping this in mind ensures that one does not expect 'too much' from prepayment schemes.

The main appeal of the proposed LCBO is lower contributions for low-income households. This is achieved by designing a benefit package that is much narrower than the current PMB package. CMS has outlined two possible LCBO models, both with a greater emphasis on primary healthcare services than the current PMB package. The bias towards cover for primary health care services should also make the packages more appealing to low-income households. The proposal is to offer LCBO only to households with income below the income tax threshold. This is to prevent any adverse effects on the industry's financial sustainability that may result from buy-downs by the young and healthy that are already members of a medical scheme.

At first glance, this approach to increasing affordability of medical schemes membership, and extending financial protection for low-income households, may appear to be a good one. However, there are challenges associated with the design of the LCBO and its appropriateness for the South African context. Middle income countries that encourage membership to private health insurance usually do so with the explicit intention of getting the wealthier members of the population to pay for their health care needs, so that the limited public resources can be targeted at vulnerable groups. Medical scheme membership in

South Africa mainly, and unsurprisingly, consists of the wealthier members of the population. Some low-income groups are members of medical schemes mainly because of their place of employment. Most of South Africa's population belong to low-income households and are considered too poor to pay income tax. It is this same group that is targeted by the LCBO to pay for their health services by contributing part of their income. The reason for being exempt from paying taxes is to keep their net income as high as possible, while they also benefit from social programmes funded by a progressive tax system.

Indeed, being below the income tax threshold should be a pointer that the group should be benefiting from income cross-subsidy, rather than paying for their health care. It does seem counter-intuitive, and perhaps unfair to create incentives for low-income earners who are exempt from income tax to contribute to private health insurance when they should ideally be targeted for subsidised public health services. If there is a case for low-income households to be targeted for some insurance scheme, this should be accompanied by a significant subsidy from the government such that the benefit of the insurance package far out-weighs the cost to the low-income, and the contribution amount is minimal. This was acknowledged in the proposal for LIMS. The government was to subsidise LIMS beneficiaries by providing in-patient care at public hospitals at no cost. This is not the case for the LCBO. The proposal on LCBO is silent on whether it is to be accompanied by a dedicated subsidy programme by the government. It can then only be assumed that any relief from the government will be similar to what is obtained in the current medical schemes environment.

It is possible to argue that this is a purely voluntary scheme and that low-income households are free to join or not to. So, households make the choice as to whether it is worthwhile for them to commit some of their income to private insurance, and that this is not an imposition on them. Nevertheless, voluntary health insurance systems are associated with challenges that can compromise financial sustainability and cost containment. In voluntary insurance systems, there is less scope for income and risk cross-subsidisation. Also, anti-selection and cherry-picking tend to cause upward cost spirals. Countries that have sustainably extended insurance cover to the formally employed low-income groups have done so by using mandatory health insurance for the formally employed.

These have been characterised by income-based premiums. Such an arrangement allows for effective income and risk cross subsidisation. This points to another major problem of the LCBO proposal. In its current design, contributions by low-income households are not explicitly income-based. This means that households at the lower income spectrum of the LCBO target group will carry a disproportionately higher burdened in contributing to the LCBO than those at the higher income spectrum of the target

group. This is unfair and will create a new dimension of inequity in health financing in the South African health system. It is therefore contrary to the value proposition of policy around health insurance schemes for the poorer members of society.

One of the objectives of the LCBO is to reduce the burden on the public health sector. This would require that a large proportion of low income earners take up the LCBO. Based on the analysis carried out in the previous chapter, increase in medical scheme membership because of the LCBO will be quite small in absolute terms, although CMS has noted a significant increase overtime on uptake of demarcation products.

A condition for the establishment of the LCBO is that it will not undermine or further fragment the existing risk-pool of current medical scheme market. To address this, the proposal is that the LCBO will be exclusively offered to households that earn below the income tax threshold. However, CMS is aware that there is very limited scope for achieving income cross-subsidisation within a risk-pool of only low-income members. Also, evidence from literature indicates that risk cross-subsidisation can potentially be a challenge unless it is properly mitigated. Low income groups are also more likely to join a contributory insurance scheme if they expect to utilise health services equal to or more than the value of their contribution. As is the case within the medical schemes environment, there is a real possibility that high risk members of low income groups that are likely to join the LCBO dispensation.

Within this context, CMS notes that government subsidy programme for LCBO can have the same effect of promoting income and risk cross subsidy for low income population. This is because general taxes mainly come from those who earn income above the income tax threshold. So, higher income earners will pay part of the LCBO premiums.

Another challenge noted is the potentially higher administrative cost associated with monitoring changes and the impact of risk profile of the covered population associated with claims experience and its likely impact on LCBO pricing. This will have an impact on the income levels of members. Relatively healthy households that are experiencing an increase in income and are close to the income tax threshold may not see any benefit in joining the LCBO, only to be kicked out soon. Without income cross-subsidisation, the cost of contribution to LCBO will be mostly borne by the target low-income households. As already alluded, additional government subsidies combined with income-based contributions for LCBO could create the same effect as income cross subsidies and would be a strong incentive for the target group to

take up insurance. This is because the potential benefits would significantly outweigh the costs to the households. Where significant subsidies are considered, the government will have to weigh the cost of subsidising private health insurance against providing care to the target group through the public sector. Health expenditure per capita in the private sector is far higher than in the public sector. It might also be more prudent for the government to explore options for expanding and improving public health services for the target groups interim. Given the poor performance of the South African economy, which is forecasted to persist in the short to medium term, additional fiscal outlays for subsidising LCBO for low-income earners could prove to be difficult.

7. Conclusion

It is important to ensure that the construct of the LCBO package offer sufficient financial protection within the context of affordability. Whilst macroeconomic indicators show that government subsidy at this point might not be feasible, we believe that a review of data from demarcation products will enhance CMS's understanding on affordability, utilisation, risk profiles, benefit configurations and pricing. These products will also enable CMS to understand the likely impact of LCBO's within the medical schemes environment.

Annexures

Annexure 1: Tax payers and taxable incomes 2018/19

Table 4.6 Estimates of individual taxpayers and taxable income, 2018/19

Taxable bracket	Registered individuals		Taxable income		Income tax payable before relief		Income tax relief		Income tax from medical tax credits		Income tax payable after proposals	
R thousand	Number	%	R billion	%	R billion	%	R billion	%	R billion	%	R billion	%
R0 - R70[1]	6 557 245	–	170.2	–	–	–	–	–	–	–	–	–
R70 - R150	2 502 678	33.4	262.0	10.8	11.1	2.2	-0.9	12.5	0.04	5.0	10.2	2.0
R150 - R250	1 790 280	23.9	351.8	14.5	34.3	6.7	-1.3	17.3	0.16	23.1	33.2	6.6
R250 - R350	1 178 901	15.7	349.8	14.4	51.6	10.1	-1.3	18.4	0.15	22.1	50.5	10.0
R350 - R500	934 615	12.5	386.8	15.9	74.2	14.5	-1.6	21.5	0.15	21.9	72.7	14.4
R500 - R750	576 469	7.7	348.4	14.3	85.6	16.7	-1.2	16.1	0.10	14.3	84.5	16.7
R750 - R1 000	233 652	3.1	200.7	8.3	58.4	11.4	-0.5	6.5	0.04	6.1	58.0	11.5
R1 000 - R1 500	161 014	2.2	192.3	7.9	62.4	12.2	-0.3	4.5	0.03	4.4	62.1	12.3
R1 500 +	109 783	1.5	339.4	14.0	134.8	26.3	-0.2	3.1	0.02	3.2	134.6	26.6
Total	**7 487 392**	**100.0**	**2 431**	**100.0**	**512.5**	**100.0**	**-7.3**	**100.0**	**0.70**	**100.0**	**505.8**	**100.0**
Grand total	**14 044 637**		**2 601**		**512.5**		**-7.3**		**0.70**		**505.8**	

1. Registered individuals with taxable income below the income-tax threshold
Source: National Treasury

Source: National Treasury 2018 Budget Review

Annexure 2: Scope of minimum benefits that can be included in the LCBO package

LCBO product design* - Possible benefit offering			
		Option A	**Option B**
Consultations	General Practitioner Visits***	3 visits pbpy# and 12 visits pfpy**	Unlimited number of visits pfpy**
	Specialist visits with referral	None	1pbpy#
	Nurses		
	Oral care practitioners		
Medication	Acute	Basic	Basic/Advanced
	Chronic	Basic	Basic/Advanced
Auxiliary Services	Dentistry	None/Basic	Basic/Advanced
	Optometry	None/Basic	Basic/Advanced
	Pathology	Basic	Basic/Advanced
	Radiology	Basic	Basic/Advanced
Emergency Services	Transportation (Public/Private)	None/Basic	Basic/Advanced

	Casualty	None/Basic	Basic/Advanced
Level of Hospitalisation	Public/Private	None/Basic	Basic/Advanced

*Product innovation/enhancement in benefit design is allowed subject to minimum requirements

#pbpy: per beneficiary per year

**pfpy: per family per year

*** the number of visits needed to cater for additional visits that a person suffering from a chronic illness may require

Annexure 3: Regression Results

Dependent Variable = Membership to Medical Scheme		
Independent Variables	**Coefficients (dF/dx)**	**P>|z|**
Household Income	0.0000143	0.000
Household head level of education: category 2 (incomplete primary)	0.0428465	0.019
Household head level of education: category 3 (incomplete secondary)	0.1139031	0.000
Household head level of education: category 4 (complete secondary)	0.2699125	0.000
Household head level of education: category 5 (tertiary education)	0.4753935	0.046
Area type (rural or urban)	0.034592	0.000
Household size	-0.0005652	0.756
Presence of child under 5 in household	0.0039367	0.648
Presence of elderly over 64 in household	0.1093822	0.000
Obs. P = .2087		
Pred P= .1467 (at x-bar)		
Number of observations = 17846		
Prob >chi^2 = 0.000		
Pseudo R^2 = 0.3792		