



The private sector in national health financing systems: the  
role of health maintenance organisations and private  
healthcare providers in Nigeria

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## Declaration

I, Chima Ariel Onoka, confirm that the work presented in this thesis is my own.

Where information has been derived from other sources, I confirm that this has been indicated in the thesis.

Signature:

Date: 21 July, 2014

## Abstract

Little is known about the role of the private sector in low and middle income countries moving towards universal health coverage (UHC). This thesis presents a case study of the role of the private sector (health maintenance organisations (HMOs) and healthcare providers) in the national health financing system in Nigeria. The analysis draws on both economic and policy analysis theories and frameworks.

The analysis of the policy development process for national health insurance in Nigeria reveals that private sector actors and the political context influenced the pace and outcome of the policy-making process, including the institution of a role for HMOs to supply the government's social health insurance (SHI) alongside their private health insurance (PHI) plans. However, an analysis of the market for the health insurance products supplied by HMOs revealed imperfect competition in the (PHI) sub-market which was characterised by product differentiation, multiple private pools, relatively higher premiums for benefits compared to the SHI, and adoption of harmful pricing strategies. The analysis of the agency relationship between HMOs as purchasers, and healthcare providers also revealed that healthcare providers respond to incentives created by the business strategies of purchasers, in such a way as to protect their own income, but their ability to do so rests on the distribution of power within the agency relationship. Finally, the weak regulatory system that emerged from the policy making process influenced (and was influenced by) the behaviours of actors in the HMO industry, and influenced the agency relationship between HMOs and healthcare providers.

Overall, this thesis provides insights about the influence of context on policy processes for national health insurance proposals, and considers the effectiveness of PHI and private financing organisations in a national healthcare financing system that aims to achieve UHC.

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## Table of Contents

Declaration.....	1
Abstract.....	2
Acknowledgements.....	3
List of Tables .....	6
List of Figures .....	7
List of Boxes .....	7
Abbreviations.....	8
Chapter 1: Introduction .....	9
1.1 Background .....	9
1.2 Structure of the thesis .....	11
1.3 References .....	13
Chapter 2: Literature review.....	15
2.1 Introduction .....	15
2.2 Healthcare financing functions .....	15
2.3 Healthcare financing strategies in low and middle income countries.....	18
2.4 Managed care and health maintenance organisations .....	21
2.5 Theoretical frameworks for studying health financing systems.....	23
2.6 Overall conceptual framework for this thesis.....	31
2.7 Aims and objectives of the thesis .....	36
2.8 Conclusion.....	36
2.9 References .....	37
Chapter 3: Study setting and research approach .....	45
3.1 Introduction .....	45
3.2 Context of the study .....	45
3.3 Overall research approach.....	52
3.4 Ethical considerations for the study .....	56
3.5 The researcher’s contribution to the thesis.....	58
3.6 The researcher’s position and potential implications for the study.....	59
3.7 References .....	60
Chapter 4: Towards Universal Coverage: a policy analysis of the development of the National Health Insurance Scheme in Nigeria .....	64
4.1 Preface to research paper 1.....	64
4.2 Research Paper 1 .....	66

Chapter 5: Competition in the market for health insurance operated by health maintenance organisations in Nigeria .....	98
5.1 Preface to research paper 2.....	98
5.2 Research Paper 2 .....	100
Annex 5.1: Information from websites of HMOs.....	139
Chapter 6: Agency in purchaser and provider split arrangement in a national health insurance scheme: the case of HMOs and healthcare providers in Nigeria.....	146
6.1 Preface to research paper 3.....	146
6.3 Research Paper 3 .....	148
Chapter 7: Discussion.....	183
7.1 Background .....	183
7.2 Overall findings of the thesis .....	184
7.3 Strengths and limitations.....	188
7.4 Main contributions of the thesis to methods and theory .....	191
7.5 Main contribution of the thesis to policy debates on universal health coverage .....	193
7.6 Conclusions and areas of further research .....	202
7.7 References .....	204
Appendices.....	208
Appendix 1: Quantitative data form for all HMOs.....	208
Appendix 2: Tools for selected HMO interviews .....	209
Appendix 3: Tools for data collection from health care providers .....	220
Appendix 4: Ethics clearance .....	224
Appendix 5: Information sheet and consent form.....	228

## List of Tables

Table 2.1: Characteristics of various market structures .....	26
Table 3.1: Macroeconomic indicators for Nigeria in 2005 and 2012.....	47
Table 3.2: Health status and health service indicators for Nigeria in 2012 .....	49
Table 3.3: Healthcare financing and expenditure indicators.....	50
Table 4.1: Stakeholders involved in the NHIS policy reform .....	70
Table 4.2: Methods used for data collection .....	71
Table 4.3: Key coordinating roles played by the Minister of Health and the President to address contentious issues constraining implementation.....	79
Table 4.4: Key coordinating roles played by the Minister of Health that facilitated the actual take-off of the FSSHIP .....	80
Table 5.1: Characteristics of the health plans supplied by HMOs .....	113
Table 5.2: Similarities and differences in the benefits packages and associated premiums of healthcare plans during 2012-2013 period.....	115
Table 5.3: Basic market performance indices of selected HMOs .....	128
Table 6.1: Methods used for data collection .....	154
Table 6.2: Healthcare provider characteristics .....	156

## List of Figures

Figure 2.1: Conceptual framework for the analysis of the market for health insurance in Nigeria .....	35
Figure 3.1: Qualitative data analysis process.....	55
Figure 4.1: Changing positions and influence of stakeholders regarding the national health insurance policy .....	84
Figure 5.1: Change in the market structure 1996 - 2011.....	108

## List of Boxes

BOX 2.1: Health financing terms and definitions used in this thesis .....	17
Box 2.2: Market structure categories .....	27

## Abbreviations

CR: Concentration Ratio

DHS: Demographic and Health Survey

FMOH: Federal Ministry of Health

FSSHIP: Formal Sector Social Health Insurance Programme

GDP: Gross Domestic Product

HCP: Healthcare Provider

HHI: Hirschman-Herfindahl Index

HIO: Health Insurance Officer

HMCAN: Health and Managed Care Association of Nigeria

HMO: Health Maintenance Organisation

HPAN: Healthcare Providers Association of Nigeria

LMIC: Low and Middle Income Countries

NEIF: New Institutional Economics Frameworks

NEIO: New Empirical Industrial Organization

NHI: National Health Insurance

NHIS: National Health Insurance Scheme

PHI: Private Health Insurance

SCP: Structure Conduct Performance

SHI: Social Health Insurance

TISHIP: Tertiary Institutions' Social Health Insurance Programme

UHC: Universal Health Coverage

VHI: Voluntary Health Insurance

WHO: World Health Organisation

## Chapter 1: Introduction

### 1.1 Background

National health systems aim to improve population health, ensure fair financing, and be responsive to population needs (WHO, 2000, Mills, 2007). Such goals are critical to the attainment of universal health coverage, which aims to guarantee that all persons are able to access needed and effective healthcare without facing financial ruin by using services (WHO, 2013, Kutzin, 2000). To achieve universal coverage goals, national health systems need to function in such a way that in a sustainable manner, people who need health care obtain services of appropriate quality at a cost they can afford, with payment made based on their ability to pay. These functions may be performed by public or private organisations, or a combination of both, and through public or private strategies (WHO, 2005).

The private sector plays an important role in the health systems of many low and middle income countries. Private organisations include profit making non-state organisations that are licenced to do business and whose employees earn regular salaries (the formal sector), unlicensed organisations with sole or group ownership that have non-salaried employees (informal sector), not-for-profit organisations such as faith and community based organisations, and commercial institutions with financial interests such as banks and insurance companies (Center for Global Development, 2009).

Recognising the need for improvements in efficiency in the health systems of developing countries the World Bank and other global financial institutions encouraged the private sector to develop private sector strategies for financing health care based on the neo-liberal economic view that markets are capable of allocating resources optimally (World Bank, 1987, World Bank, 1993). Hence, private health insurance (PHI), which developed in such countries as a private strategy for healthcare financing (Pauly et al., 2006, Drechsler and Jutting, 2007a), has been experimented with in low and middle income countries (Campbell et al., 2000, Zigora, 1996, Sekhri and Savedoff, 2005, Bitran et al., 2008). In Chile, South Africa, Zimbabwe

and Namibia, private firms have provided PHI to private formal sector employees and sometimes to public employees. Some authors have also suggested a role in developing countries for PHI that is tailored to suit low-income population, and a mix of PHI plans that target various population groups (Drechsler and Jutting, 2007a). Indeed, anecdotal evidence regarding two HMOs in Uganda suggests that they may play the above roles, and may also provide tailored packages for people with chronic conditions including HIV/AIDS (Taylor, 2008), but how well they are able to do these is unknown.

The private sector can assume a broader role within health financing systems in low and middle income countries (IFC, 2007). In settings with a substantial private sector presence such as in South Africa, such firms could potentially play the role of managing contributions, and purchasing health services in mandatory health insurance systems (Mills, 2007). For instance, India uses both public and private insurers to provide cover for hospital services for its national health insurance scheme (Devadasan et al., 2013). However, much of the available information about the experiences with private sector in health financing in developing countries is limited to Latin American countries (Drechsler and Jutting, 2007a, Drechsler and Jutting, 2007b), where private insurers have played roles in national financing strategies to provide mandatory health insurance to public sector employees. Evidence of private sector roles in national health financing systems that can provide lessons for low and middle income countries moving towards universal health coverage is inadequate and merits investigation.

Nigeria's national health financing policy recognises the need to mobilise revenue for healthcare through prepayment strategies that enhance efficiency and equity, to pool and manage financial risks in a way that protects vulnerable groups from financial ruin due to healthcare use, and to ensure efficient purchasing arrangements for health services (FMOH, 2006). In achieving these goals, the health financing strategy includes the mobilisation and pooling of funds for healthcare through use of government revenues, social health insurance, private health insurance and community-based health insurance. It also stipulates the

separation of purchasing and provision of healthcare. A role is recognised for the private sector as key stakeholders within the national health financing system. Specifically, private for-profit health maintenance organisations<sup>1</sup> (HMOs) play an essential role as intermediary financial and purchasing organisations for the national health insurance scheme (NHIS), which is a social health insurance programme of the federal government (Federal Government of Nigeria, 1999). HMOs purchase healthcare for beneficiaries from autonomous healthcare providers as required by the law establishing the NHIS (NHIS, 2012, Federal Government of Nigeria, 1999). Remarkably, HMOs also provide their traditional PHI plans in parallel. Such a situation is uncommon in low and middle income countries and justifies enquiry into the processes that led to the establishment of the strategy of using HMOs in the health financing system, and the way HMOs play their ascribed roles, since a country's health financing strategy has the potential to affect its progress towards universal coverage. Insights generated from such analysis should provide lessons to inform the development and implementation of universal coverage proposals in Nigeria and other low and middle income countries on the effectiveness of a national financing strategy that includes a critical role for private financing organisations.

## 1.2 Structure of the thesis

This chapter has provided an overall background to the research presented in this thesis. The rest of the thesis comprises six chapters: a literature review, an overview of the research methods, three results chapters and an overall discussion chapter. The thesis has been prepared as a "research paper" style thesis, in which the results chapters are presented as standalone research papers.

Chapter 2 presents a review of the literature on healthcare financing in low and middle income countries and the theoretical frameworks in the policy and economics analysis literature that

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<sup>1</sup> The National Health Insurance Scheme (NHIS) in Nigeria, which regulates HMOs' operations, defines a HMO as "a private or public incorporated company registered by the Scheme solely to manage the provision of health care services through Health Care Facilities accredited by the Scheme" (NHIS, 2012).

have been used in the study of health financing systems. The chapter draws on the literature to define the conceptual framework used in this thesis and the research aims and objectives. Chapter 3 presents the study settings in order to locate it within the Nigerian context. This is followed by a description of the overall research approach, the overall ethical considerations, and the researcher's position and contribution to the thesis.

The next three chapters (4 to 6), represent three research papers that are based on the objectives of the thesis. Each paper is prefaced with a brief summary that explains the main content of the paper and how it links to the overall narrative of the thesis as reflected in the conceptual framework. Chapter 4 presents findings on the way HMOs were introduced into the Nigerian health financing system to carry out health financing functions. The paper uses a stakeholder analysis approach to examine the interests, positions and influences of actors that played roles in the development of Nigeria's National Health Insurance Scheme (NHIS), which is the major focus of Nigeria's health financing strategy for universal health coverage. This paper has been submitted to *Health Policy and Planning* and a final decision is awaited from the editors. Chapter 5 analyses supply of health insurance by HMOs by examining the nature of competition in the market for health insurance, and the market conduct, which is reflected in the business strategies HMOs adopt to increase their membership and maximise profits. It draws on economic theories and concepts from industrial organisation, and uses mixed methods to examine market structure, conduct and performance. Chapter 6 further considers the agency problems that arise in the purchaser-provider split arrangement between HMOs and healthcare providers, and how the incentives within the arrangement affect the efficient provision of quality services.

The final chapter (7) reflects on the study objectives and conceptual framework to summarise the main findings of the thesis, its limitations, contribution to methods, implications for policy, and the potential future research areas. In this manner, the chapter contemplates on the effectiveness of private organisations in the national health financing strategy, and draws

lessons for low and middle income countries that are considering or implementing universal health coverage proposals.

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## Chapter 2: Literature review

### 2.1 Introduction

This chapter reviews the key literature in the area of healthcare financing in low and middle income countries (LMIC). It first presents the health financing functions and the strategies that national healthcare financing systems in low and middle income countries adopt to carry out these functions. It then focuses on the role that the private sector plays in national healthcare financing systems, and more specifically, the roles that private health maintenance organisations play. The chapter then reviews the theoretical frameworks in the economics and policy analysis literature that are useful in analysing health financing systems in order to develop an appropriate conceptual framework for the thesis. The chapter concludes by presenting the aims and objectives of the research reported in this thesis.

### 2.2 Healthcare financing functions

Functionally, the health system has four components that are pivotal to achieving its goals, namely, revenue collection, pooling, purchasing, and provision of health services (Mossialos and Dixon, 2002, Kutzin, 2001, WHO, 2000, Gottret and Schieber, 2006). Together, the functions of revenue collection, pooling and purchasing are referred to as the health financing function. Revenue collection is the process by which the health system receives money from households and organizations, companies, as well as from donors. Pooling refers to the aggregation and management of collected revenue and its use in such a way that financial risks are shared by members of the pool. The greater the risk pool, the better able it is to manage the uncertainty associated with an individual's need for health care and the more likely the ability of the financing system to provide better health insurance coverage for members of the pool (Davies and Carrin, 2001, WHO, 2010). Conversely, fragmented pools may be small and therefore lack the resources to withstand heavy financial shocks. Purchasing is the process by which pooled funds are transferred to providers on behalf of a population for whom such resources were pooled, in order to deliver a specified or unspecified set of health

interventions. The payment mechanisms (retrospective or prospective) used to reimburse providers create incentives that affect their behaviours and may have negative impacts on the goals of the national health system (Barnum et al., 1995, Kutzin, 2001).

The basic health financing functions of revenue collection, pooling and purchasing can be carried out by a single third party payer organization or may be spread out across a number of public or private organizations even within a single health financing system (Kutzin, 2000). Organizations that collect revenue often pool the accumulated funds as well (McIntyre, 2007). Within a single system there may also be a market that comprises different private organizations that compete to collect revenue, pool resources and/or purchase health care (Kutzin, 2000). The way resources are pooled may also vary, even within the same country, as countries attempt to apply strategies that work best for their citizens. Private organisations may also carry out the purchasing functions even when revenue is collected through taxation and pooled by public systems. The result is that healthcare financing strategies that are developing in many low and middle income countries do not typify any one of the historical models that premised health financing strategies of several more developed countries (Lagomarsino et al., 2012, Kutzin, 2012a). This makes the characterisation of health financing concepts and models challenging. It also informs the use of simple healthcare financing terminologies in this thesis (see Box 2.1).

## BOX 2.1: Health financing terms and definitions used in this thesis

To overcome the challenge posed by the variety of descriptions of health financing concepts in the literature, this thesis uses simple terminologies to capture health financing concepts. Though the term “(healthcare) financing system” is often used (Mossialos and Dixon, 2002, McIntyre, 2007, Kutzin, 2001), its actual components are not explicitly mentioned. This thesis mirrors WHO’s characterisation of a health system (WHO, 2000), to refer to a health financing system as comprising *all state (public) and non-state (private) actors and institutions that carry out one or more health financing functions, with the intention to finance health care*. Healthcare *financing options* are represented by recognised terms, namely, tax-based financing, social health insurance, and private health insurance and “community” based health insurance. The organisations that carry out one or more health financing functions are called *health financing organisations*, and these organisations may be private or public entities (Carrin et al., 2008). *Regulators* are legally empowered to guide the way the financing functions are carried out (i.e. the institutions). *Insurers* (including public or private organisations) are the organisations that carry out the pooling and purchasing functions, both of which provide *coverage* to a specified population (Kutzin, 2001). The combination of the financing option, and how that option should be applied (including the health financing organisations to apply it) is referred to here as the *financing strategy*. Where this strategy involves the use of a health insurance mechanism, it is referred to here as a *national health insurance strategy*. Implementation of this strategy is legally guided by one or more *policy documents* (such as parliamentary Acts and financing policies, and implementation guidelines) that indicate the desired health system goals, and the strategies to achieve them.

There are many options for carrying out the health financing functions (Mossialos and Dixon, 2002, Gottret and Schieber, 2006, WHO, 2000). Historically, tax-financed systems and wage-based social health insurance represent the financing options that require people to contribute compulsorily to healthcare financing. Generally, tax-based financing works best when it is possible to collect enough taxes in a sustainable and equitable manner. Public agencies statutorily collect revenue in health systems that are predominantly financed by tax payments (Normand and Busse, 2002). Social health insurance requires that majority of citizens have salaried employment so that their contributions or payroll taxes can be easily collected (Normand and Busse, 2002).

Financing options that allow voluntary participation by people can also be used, and these include those run by profit-making companies (typically called private health insurance), government and non-governmental organisations, and groups of individuals that share some common socio-demographic characteristic, often referred to as “communities”. The use of voluntary options is premised on the argument that any financing option for prepayment and risk pooling that helps overcome the challenges of out-of-pocket expenditure is welfare enhancing (Sekhri and Savedoff, 2005, IFC, 2007, Gottret and Schieber, 2006). While voluntary systems face the risks that people with bad health risks may predominantly enrol in the prepaid pools (adverse selection) and insurers may preferentially enrol healthier people (risk selection), all financing options other than user fee-for-service payment face the risk that services in excess of those that are needed are either supplied by a health provider or demanded by a user because the cost is borne by a third party (moral hazard) (Maynard and Dixon, 2002, Mossialos and Thomson, 2002a, Austin and Hungerford, 2009).

### 2.3 Healthcare financing strategies in low and middle income countries

The health financing strategies adopted by countries to help them progress towards universal coverage require careful analysis to ensure that they support the goals of universal coverage. Doing so entails identifying and examining the health financing options countries adopt, how these options are implemented, and the nature of the organisations that implement them.

In their attempt to expand healthcare coverage, several countries have experimented with mandatory and voluntary health financing options. Most African countries historically financed their health care with tax revenue, but poor government revenues made them look to additional sources of revenue for healthcare. In more recent times, the focus has been on expanding different models of health insurance (McIntyre and Mills, 2012). For example, Ghana uses revenue from taxes, complemented with premium contributions from individuals to finance its national health insurance. Nigeria opted for social health insurance in the 1980s in order to mobilise resources from private sources. However, social health insurance fails to

mobilise resources from people that do not have regular income, leading some countries to look to community financing options to raise revenue from them. The Indian government uses private health insurance to supplement tax revenues in the provision of coverage for hospitalisation to the poor (Devadasan et al., 2013). There are also experiences with voluntary insurance programmes such as community health financing schemes, cooperative driven schemes, employer-based schemes as well as individual based private insurance (Carrin et al., 2005). These experiences show that there is no single best way to reach universal health coverage (WHO, 2010).

In terms of implementation of health financing options, most health systems combine different financing options which results in the parallel existence of fragmented pools. For instance, social health insurance was allowed to co-exist with competing private health insurance schemes in Chile. However, such fragmented pools may later be merged as these countries progress towards universal coverage (Iriart et al., 2000). In Thailand's pathway to universal coverage, citizens with different group characteristics were initially targeted as segments using different financing options, but were later included into the national insurance system in a stepwise manner (Tangcharoensathien et al., 2010, HISRO, 2012). Tanzania established a formal sector mandatory insurance scheme in 2001 alongside a voluntary community health fund, and by 2009, initiated a reform in which the mandatory scheme took over the management of the fragmented and weak community health funds (Borghi et al., 2013). National health insurance systems emerged in Ghana and Rwanda as both countries sought to more effectively coordinate disjointed community based health insurance schemes. Where a mix of financing options (and as such, fragmented pools) exist in a national health system, lessons can be learnt about how their parallel existence undermines or enhances their effectiveness, in order to inform UHC-related proposals (Mills et al., 2012).

It is also important to ensure that the financing organisation that implements the health financing option promotes the intentions of using them to achieve the intended objectives of

the financing system. In some situations, public systems carry out (most if not all) the health financing functions (Thailand) (HISRO, 2012), an implementing role is created for private organisations in tax-funded systems as in India (Devadasan et al., 2013), or the government initiates “community” financing schemes as in Nigeria (FMOH, 2010). The motivations of different financing organisations may differ and may affect the way they play their financing roles. Public systems may be predominantly motivated by the need to ensure fairness and social solidarity, while private organisations may focus on value for money or on profitability. Private organisations adopt favourable market strategies that enable them achieve their objectives. Hence, the choice of a financing strategy is usually influenced by the availability and nature of public and/or private organisations that can effectively carry out the financing function (Carrin et al., 2008, Kutzin, 2001). This highlights the need to understand the business strategies of private organisations that have a responsibility to purchase healthcare services, in order to inform government policies that aim to promote active purchasing.

Overall, the dialogue on the effectiveness of various health financing strategies in promoting universal coverage seems to focus on a number of issues from a technical viewpoint. First, the strategy should recognize the importance of contextual factors (such as political factors) and how they interact with the participants in the financing system (Savedoff et al., 2012, WHO, 2014). Secondly, the financing strategy (including the financing option, and the financing organisation) should have the potential to raise more resources for health, achieve larger pools that include diverse population groups, and to purchase required health services effectively (WHO, 2010). The impact on universal coverage can be measured in three dimensions: the percentage of the population covered, the health services that are available to the population, and share of the healthcare costs that are covered by prepayment pools (Lagomarsino et al., 2012, WHO, 2010, Spaan et al., 2012). Thirdly, the regulatory systems that guide the implementation of the strategy should be robust enough to ensure that policy prescriptions are implemented in a way that contributes to universal coverage goals. Specifically, private financing systems can be tilted to improve population coverage and risk

pooling if they are better regulated (van den Heever, 2012). Hence, it is important to carefully analyse strategies used by countries to make progress towards universal coverage for their utility in contributing to universal coverage goals as some strategies actually impede such goals (Kutzin, 2012b).

## 2.4 Managed care and health maintenance organisations

One way through which private firms provide private health insurance is by integrating the functions of health financing with that of provision of a defined set of health services through a set of affiliated and/or owned health providers and facilities to a defined set of people. Such integrated systems referred to as “managed care” systems, aim to ensure delivery of cost-effective health care (MedlinePlus, 2010b). Theoretically, managed care systems emphasize prevention and promotion services in order to keep people well and thus reduce expenditure, and also ensure provision of treatment services for those who are ill thereby providing a continuum of care (Folland et al., 2007). Although various managed care arrangements have developed over time, a common feature of firms providing managed care, referred to as Managed Care Organizations or Health Plans, is that they contract with a specific network of health care providers and health facilities to provide health services to enrollees (MedlinePlus, 2010a, Folland et al., 2007, Wagner and Kongstvedt, 2007). Three main types of plans are Health Maintenance Organisations (HMOs), Preferred Provider Organizations (PPOs) and Point-of-Service Plans (Folland et al., 2007, MedlinePlus, 2010a).

Health maintenance organizations emerged in the USA and several other countries to provide private health insurance primarily to formal private sector employees. The rising medical care costs associated with the publicly-funded Medicare and Medicaid programs led to the establishment of a programme by US President Nixon in 1971, aimed at encouraging the development of prepaid health plans that combined the functions of health insurance and health care provision (Austin and Hungerford, 2009). The resulting Health Maintenance Organization Act of 1973 provided a legal framework for financial support in form of grants

and loans to defray costs of feasibility assessment, initial development and operational costs for the expansion of the number of HMOs (Uyehara and Thomas, 1975) to enable them provide health insurance cover for 90% of Americans within a 10-year period (Austin and Hungerford, 2009). These organizations were developed with the goal of achieving cost efficiency while providing quality care through a third party payment system (Schieber, 1997, Tollman et al., 1990), but the extent to which HMOs are able to attain this goal still remain a subject of debate (Shin and Moon, 2007, Markovich, 2003).

Through one of three models, HMOs manage the provision of basic and supplementary health services to insured members who are required to make periodic, prepaid, community-rated contributions irrespective of service utilization (Uyehara and Thomas, 1975). They attempt to assume financial risk for provision of health services and through a contractual arrangement, ensure that health services are provided to enrollees (Tollman et al., 1990, Wagner, 2001). In the staff model, HMOs own health facilities and employ the doctors and workers who deliver services. In the group model, HMOs set up contracts with a set of independent providers for delivery of primary, secondary or tertiary care. Providers serve only HMO members in the 'captive group model' but also serve non-members in the 'independent group model'. Doctors are not employees of the HMO but are employees of the provider facility or group practice (Wagner, 2001). The third model is mixed, with HMOs sharing characteristics of the staff and group models (Awosika, 2005).

Over two decades ago, Tollman et al. (1990) noted that little attention had been paid to the operations of HMOs introduced outside USA. Experiences in low and middle income settings are mainly limited to Latin American countries, where HMOs that were introduced primarily by companies in the USA have provided private health insurance to public sector employees as part of a national health financing strategy (Iriart et al., 2000). HMOs as private firms, have also assumed roles in national health financings systems of some low and middle income countries (IFC, 2007). HMO arrangements have also been suggested as potential ways for national health

systems to provide health insurance coverage to informal sector employees (Arhin-Tenkorang, 2001). However, a number of challenges are noted as capable of constraining the effectiveness of HMOs and limiting their market penetration in developing countries. These include a low-sized urban wage-earning population, a paucity of skilled manpower to manage the complex transactions involved, a low provider-population ratio, the challenge of securing the capital required for market entry and an absence of competition required to drive efficient supply if only few HMOs are able to enter the market (Tollman et al., 1990, Fuenzalida-Puelma et al., 2007). Where HMOs exist and participate in national health financing systems, their roles need to be carefully analysed with respect to how they can contribute to or derail universal healthcare coverage.

## 2.5 Theoretical frameworks for studying health financing systems

Health financing systems are notoriously challenging to conceptualise and analyse due to the variety of health financing systems typologies, objectives and interests (Kutzin, 2001). The review of health financing strategies presented in this chapter has noted the need to analyse the nature, roles and influence of actors within the health system and the contextual factors that influence the choice and implementation of health financing strategies, the nature and strategies of the healthcare financing organisations that are involved in implementing the health financing strategy, and the effectiveness of such strategies in contributing to universal coverage. Hence, a number of theoretical frameworks that have been recently applied in the literature have adopted both policy analysis and economic analysis concepts. These are reviewed below and include frameworks based on policy analysis and economic theories.

### 2.5.1 Frameworks based on economic theories

The descriptive framework developed by Kutzin (2001) that is applicable to any health financing system, takes a health systems approach to examine health financing arrangements. The framework distinguishes the health financing systems' functions, and leans on health economics concepts to consider the structure of the market for health insurance and the

characteristics of insurers. It identifies the four functions of a health financing system, namely, revenue collection, pooling, purchasing and provision of services, describes the way funds and benefits flow through the system, and the relationships between the various functions, individuals and organisations within the system.

Robinson et al. (2005) focus only on the purchasing function of health financing organisations, and explore the components of strategic purchasing using a framework based on the principal-agent economic theory. While the principal refers to the party in a relationship that wishes to obtain a certain service about which he has limited information, the agent is the party that gets engaged and empowered by the principal to help with obtaining this service (Forder et al., 2005, Cutler and Zeckhauser, 2000). Three relationships exist, the first between the insured and the purchaser, the second between the purchaser and the healthcare provider, and the third between the government as a steward, and the purchaser (Robinson et al., 2005). More specifically, in the second relationship, the purchasing organisation uses a set of management mechanisms including contracts, reimbursement systems and monitoring tools to ensure that the provider (such as a hospital), as its agent, provides the right healthcare in a way that assures value for money.

The frameworks applied by Mossialos and Thomson (2002b) and Preker (2007) were developed for analysis of voluntary health insurance systems. These frameworks have been used to analyse supply of voluntary health insurance in the European region, and developing countries respectively. The frameworks focus more on the role of the organisations that supply voluntary health insurance. Although these frameworks pay little attention to the behaviours of healthcare providers in the health insurance market, they both consider the business strategies of the health insurers and the structure and performance of the health insurance market (even though in Preker's framework different typologies are used).

The structure-conduct-performance (SCP) framework or paradigm has its roots in neoclassical theory of the firm (Bain, 1951, Bain, Mason, 1939). The framework indicates that market

performance (measured in terms of efficiency and profitability) depends on the conduct (business behaviours and strategies) of firms within that market, which in turn is determined by the market structure (measured as market share, concentration ratios and Hirschman-Herfindahl Index (Parkin et al., 2008, Bain, 1956, Stigler, 1983, Ferguson, 1974, Fisher, 1979, von Weizsacker, Gilbert, 1989, Carlton and Perloff, 2005, Morris et al., 2007, Ferguson and Ferguson, 1994).

Although the SCP framework has been criticized as being overtly deterministic and too loose for a complex relationship as SCP (Ferguson and Ferguson, 1994, Waterson, 1984), the framework has remained a commonly used method for analysis of supply given its straightforward intuitive nature and the ease of use by policy makers (Ferguson and Ferguson, 1994, Waterson, 1984). Though proponents of an alternate model (the efficiency structure hypothesis) argue that good performance is a consequence of efficiency rather than collusive behaviour (Molyneux and Forbes, 1995, Demsetz, 1973), collusion occurs (Levenstein and Suslow, 2004), and overlooking it will lead to incorrect conclusions (Ferguson and Ferguson, 1994).

To improve the analytical power of the SCP model, the one directional deterministic relationships between the SCP elements have been modified to allow for observed two-way influences (Waterson, 1984, Scherer and Ross, 1990, Shepherd, 2004). In other words, though structure affects conduct, changes in a firm's conduct can also affect the market structure, and changes in performance can influence conduct and market structure. The business conduct element can include a broad range of marketing strategies such as strategies that firms employ to understand the demand for their products (market segmentation) (Engel et al., 1972, Sheth, 1992, Wedel and Kamakura, 2000, Frank et al., 1972, Wind and Cardozo, 1974, Yankelovich, 1964, Yankelovich and Meer, 2006, Griffith and Pol, 1994), the production of varieties of products in response to demand characteristics (product differentiation) (Lancaster, 1975, Philips, 1981), the pricing strategies employed to maximize profits (pricing

behaviour) (Varian, 2010, Tirole, 1988, Philips, 1981), and measures to increase market share and profits such as mergers.

In practice, the SCP framework models four market prototypes on which analysis of markets are premised: perfect competition, monopoly, oligopoly and monopolistic competition (Ferguson and Ferguson, 1994). The key elements that define these markets are shown in Table 1 and further described in Box 2.2.

**Table 2.1: Characteristics of various market structures**

	MARKET STRUCTURE			
	Perfect competition	Monopolistic competition	Oligopoly	Monopoly
<b>Structure elements</b>				
Concentration (number of firms)	Low (many firms)	Low (many firms)	Few (2-5 firms)	Very high (One firm)
Entry/exit barriers	None	None	Restricted	Substantial/Blocked
Nature of Product	Homogenous	Differentiated	Either differentiated or undifferentiated	Unique
Market power (Control over price and output)	No	Some	Some	Considerable
<b>Conduct</b>				
Market segmentation	No	Yes	Yes	Yes
Product differentiation	No	Yes	Possible	Unique
Price discrimination	No	Yes	Yes	Yes (for the unique product)
Collusion	No	Yes	Yes	Single firm
<b>Performance</b>				
Profitability	Normal profit	Variable	Variable	Very large profit
Efficiency	Optimal	Variable	Variable	Low

## Box 2.2: Market structure categories

<b>Perfect competition</b>	A competitive market is characterized by presence of many fully informed buyers and sellers that operate in such a way that the behaviour of a single participant is unable to affect market price, barriers to entry and exit from the market do not exist, and the sellers and buyers of commodities aim to maximize profits and well-being respectively (Austin and Hungerford, 2009, Folland et al., 2007).
<b>Monopoly</b>	This refers to a market structure characterised by only one firm within the industry (Varian, 2010). Significant barriers to entry of the market exist making the product of the firm the only available one. The monopolist has market power, i.e. can independently choose what quantity of goods to make available, or what prices to attach to its products. Although monopolists can produce at efficient levels, their behaviour of determining product price and the level of output results in allocative inefficiency which makes their performance inferior to competitive market structures.
<b>Oligopoly</b>	Oligopolies are characterized by the existence of few sellers in the market (because entry is restricted for some reason) and interdependence of firms within the market (Morris et al., 2007). Through a variety of theoretical models, firms are believed to attempt to gain some market power through competitive or collusive behaviours. Competitive models may be based on price (Bertrand Competition and Kinked demand model), or on the output level (Cournot equilibrium) (Varian, 2010). Collusive form of oligopoly would occur where the product of firms is relatively homogenous. Firms may form <i>Cartels</i> that collectively behave like a monopoly supplier through covert or overt formalized agreements. Informal collusion may occur with firms adjusting their prices (Markham, 1951, Rotemberg and Saloner, 1990) (Cooper, Morris et al., 2007) or outputs (von Stackleberg, 2011) based on that chosen by a market leader.
<b>Monopolistic competition</b>	The theory of monopolistic competition originated from the work done by Chamberlain and Robinson in the 1930s (Stiglitz, 1984). Here, even though there are many producers, and barriers to entry do not exist, firms sell products which have some degree of uniqueness, enabling them to retain some market power (Morris et al., 2007). Firms also engage in product promotion to attract brand loyalty in order to increase demand and to make demand less elastic. Consumers see the products in the market as substitutes and demand will be affected by the price and characteristics of substitute goods (Varian, 2010).

Other theoretical frameworks that can be used to analyse organisations' supply of health insurance include principal-agent theory and the new institutional economics frameworks (NIEF) such as transaction cost theory (which are based on typical real-world scenarios), and the concept of contestable markets and the new empirical industrial organization (NEIO)

approach, that are based on theoretical neoclassical economics like the structure-conduct-performance (SCP) paradigm. Principal agent theory retains the neoclassical view that overall, firms require full information to achieve their aim of profit maximization, which leads firm owners (the principal) to rely on an informed party (agent) to achieve their aims (Ferguson and Ferguson, 1994, Folland et al., 2007). The role of the theory is complementary as it does not provide an overall view of a market. Similarly, NIEFs (Coase, 1961) help explain firm behaviours in situations of partial information but focus narrowly on transaction costs of developing relationships and negotiating contracts (Ferguson and Ferguson, 1994). Contestable markets theory (Baumol, 1982) suggests that the absence of entry or exit barriers, sunk costs, and the equal access of existing and potential market entrants to production technology, tilts markets towards competitive states due to the existing threat of entry by firms. However, it is hard to find markets where such conditions exist. The NEIO model focuses on firm behaviours (Bresnahan, 1989, Gaynor and Vogt, 2000) and incorporates advances made in game theory and the study of oligopolistic behaviours with respect to conduct (Ferguson and Ferguson, 1994, Kadiyali et al., 2001), but pays little or no attention to market structure (Gaynor and Vogt, 2000). It also depends intensely on quantitative data, which limits its use in developing countries where this is lacking (Lee, 2007).

### 2.5.2 Policy analysis frameworks

Even though economic theories form the basis for the earlier presented frameworks, both Mossialos and Thomson (2002b) and Preker (2007) recognise the importance of the political and regulatory environment within which health financing organisations operate. Such considerations suggest scope for use of policy analysis frameworks to understand the roles of actors within the health financing system, and the contextual factors that influence policy development and implementation. Hence, existing policy analysis frameworks have helped broaden the understanding of the actors that shape and implement health policies, how they influence policy, and the conditions or environment under which they undertake their actions (Gilson, 2012).

The roles of health financing organisations can be viewed from the perspectives of “actors”, which refer to individuals that play (or should play) roles in shaping health policies because they have responsibility over implementation of a policy, a stake or interest in the policy, or can affect or be affected by the policy (Brugha and Varvasovszky, 2000, Gilson, 2012, Glassman et al., 1999, Walt and Gilson, 1994). The terms “actors” and “stakeholders” are used interchangeably in the literature to include state and non-state individuals and groups, private organisations, development partners, technical experts, civil society, academics, and politicians (Seddoh and Akor, 2012, Walt and Gilson, 1994).

Non-state actors including private organisations can significantly contribute to agenda setting for, and the formulation and implementation of a policy (Tantivess and Walt, 2008). Non-state actors are often part of the policy making process in many countries and the intention is usually to ensure stakeholder representation in order to enhance the chance of policy acceptance and translation (Glassman and Buse, 2008). They may also play a role because government officials lack the technical capacity for developing reforms, and so depend on other actors including the private sector which they are meant to regulate, thereby handing it an agency role (Walt et al., 2008). However, non-state actors such as private sector participants often have varied interests in the policy outcome (Pillay and Skordis-Worrall, 2013). Actor positions can be fluid (Green, 2000), and their interests and preferences can be brought to bear on the policy formulation process itself over time to favour them in roles which they may play afterwards, for instance, during implementation. Such actors may significantly influence the regulations that are meant to guide their operations.

In practice, actors can exert their influences on the policy process in various ways. Using the political economy framework by Grindle and Thomas (1991), Agyepong and Adjei (2008) show that powerful political actors dominated the less powerful ones - civil society and technical experts - in determining the strategy for Ghana’s national health insurance scheme. Actor influences can be exerted through policy networks that consist of groups of actors with shared

interests who have the potential to act collectively (Walt et al., 2008, Schneider et al., 2006, Gilson and Raphaely, 2008). “Social network analysis” identifies actors’ networks, and how actors influence the policy process through these networks (Blanchet and James, 2012). Using the policy triangle, Walt and Gilson (1994) have noted the central role of actors (including their interests, positions and influence) in determining the development and outcome of health policies, and the interactions of actors with the policy context, process, and content.

Some authors advocate the use of “stakeholder analysis” techniques to analyse the interactions and influences exerted by actors in the process of policy making, and the dynamics of actor position and power (Gilson et al., 2012, Varvasovszky and Brugha, 2000). Apart from its value in analysing stakeholders’ roles in health financing policy processes, stakeholder analysis also helps to guide the development of strategies for management of actors and the politics of the policy making process for proposals that aim for universal health coverage (Gilson et al., 2012, Thomas and Gilson, 2004).

Finally, policy analysis frameworks can also highlight the influence of contextual factors such as the political system and the political events in a country on actor roles, and the pace and outcome of policy-making and implementation (Gilson, 2012). Financing strategies that work in one country do not necessary work in others and the strategies chosen and implemented by countries is affected by the contextual factors. The experiences in many developing countries show that political factors are an important influence on policy reforms for developing or implementing health financing strategies (Greer and Jacobson, 2010, Mahmood and Muntaner, 2013, Onoka et al., 2013, Savedoff et al., 2012, Tangcharoensathien et al., 2013). Political events may lead to emergence of powerful political actors. The interests of such actors including the head of state and health minister can be key to facilitation or restriction of a policy (Martins et al., 2013, Thomas and Gilson, 2004). In some cases logical steps required to inform policy change may even be considered unnecessary (Agyepong and Adjei, 2008, Martins et al., 2013). These observations underscore the relevance of carefully analysing the

contextual factors within a country and how they affect the design and implementation of financing strategies, in order to ensure that the financing strategy of choice can advance a country towards universal health coverage (WHO, 2005, Carrin et al., 2008, McIntyre et al., 2013, Lavis et al., 2012).

Overall, the policy analysis literature provides useful guidance for analysing actor roles in policy processes for developing healthcare financing strategies, and the contextual factors that affect actors' behaviours in developing and implementing such strategies. Theoretical frameworks in the economics literature provide insights into the analysis of supply of health insurance by private health financing organisations. These considerations suggest a scope for application of both policy and economic analysis in this thesis to provide a more comprehensive understanding of the effectiveness of the health financing strategy in Nigeria.

## 2.6 Overall conceptual framework for this thesis

The conceptual framework for this thesis builds on the concepts in health policy and economics literature presented in this chapter to develop an overall framework to achieve the study objectives (Figure 2.1). In line with economics literature, a market is defined in this thesis as comprising one or more economic units (firms that produce and sell a good or service (product), and consumers or buyers of the product, which is the output of the firm's production process (Morris et al., 2007). Consumer and provider behaviours are reflected in the quantity of products available at given prices that they are willing to consume (demand) or produce (supply), respectively (Folland et al., 2007, Varian, 2010, Parkin et al., 2008). Firms serve a defined area of operation (Zwanziger et al., 1994, Robinson and Luft, 1987) and may produce more than one product or variants of the same product (Waterson, 1984) meant for a single or different markets defined by different consumers' characteristics.

For health financing systems, a market comprises suppliers and consumers of health financing options including "health insurance products". The products supplied by an insurer within the health insurance market may include Social Health Insurance (SHI), Voluntary Health Insurance

(VHI) and Community-Based Health Insurance (CBHI). In supplying the product, health insurance firms carry out health financing functions, while healthcare providers deliver the benefits of the product. HMOs are depicted as health financing organisations that supply health insurance products, and as significant actors within the health financing system. They operate a market where different health insurance products are supplied through autonomous healthcare providers. Their behaviours are guided by regulations established within the health financing system to ensure the implementation of the healthcare financing strategy. The effectiveness of the financing strategy of using HMOs as financing organisations depends on their ability to carry out the health financing functions and the prevailing contextual factors in the policy environment. The framework has four cardinal features: it recognises the importance of contextual factors (including political factors), allows the examination of the market for health insurance and the business strategies of HMOs as health financing organisations, recognises the importance of the behaviours of providers within the context of health insurance, and also enables the analysis of the effectiveness of the strategy of providing a role for the private sector in a national health financing system.

As stated above, the framework makes provision for a consideration of the political and regulatory factors that exist in the policy environment in which the private insurers carry out health financing functions (WHO, 2014). It situates the healthcare financing organisations in the context within which they play their roles, and permits the analysis of the influence of contextual factors in the determination and implementation of the health financing strategy as well as the roles of various actors within the policy environment. In this way, the framework recognises the importance of context and actors in line with the reviewed literature.

The framework allows the examination of the nature of HMOs as health insurers in order to better understand the health financing functions they carry out, given the regulations that guide their actions (Carrin et al., 2008). It depicts the dimensions to consider in analysing the nature of these private health financing organisations at the firm and industry levels, including

the structure, conduct and performance of the health insurance market and how these dimensions interact to determine HMOs' ability to carry out their financing functions. The conduct of insurers forms a central component of the framework as it answers the question of "how" health insurance is supplied. Insurer conduct includes their behaviours towards enrollees (whose characteristics and preferences the insurer may observe and respond to), towards providers (whose behaviours would affect the performance of the market), and towards other insurers in the market (since their own behaviours would affect the structure and performance of the market). Insurer conduct will also affect and be affected by demand factors, and provider conduct and performance, and will ultimately affect the performance of the market. The bidirectional relationship between the market elements is portrayed in line with the evidence in the literature.

The framework recognises the importance of the behaviour of providers within their purchasing relationship with HMOs, in order to understand the strategies they adopt in response to HMOs' purchasing behaviours, and how their conduct can affect the HMOs market structure, conduct and performance of HMOs. Since consumer and insurer related factors may affect provider profit, the profit making health provider may behave differently to enrollees with different characteristics and HMOs with different behaviours, in order to control the type and number of enrollees they attract and their profits. Provider behaviour within this relationship would be influenced by the monopolistic, competitive, or profit-driven nature of the market environment, and the ability to leverage across the financial and clinical responsibilities of the organization (Robinson et al., 2005).

The framework takes a comprehensive view of the health insurance system by considering the characteristics of HMOs, providers, and the regulations that guide the implementation of the national health financing strategy, as well as the actual interactions that occur within and between these components. Hence, it allows knowledge to be generated about the private sectors' role in shaping the national health financing strategy and how this affects public

regulation of their behaviours, how they implement their assumed roles, how they manage their other private interests (provision of private health insurance) and how these interests and behaviours impact on the broader health financing system.

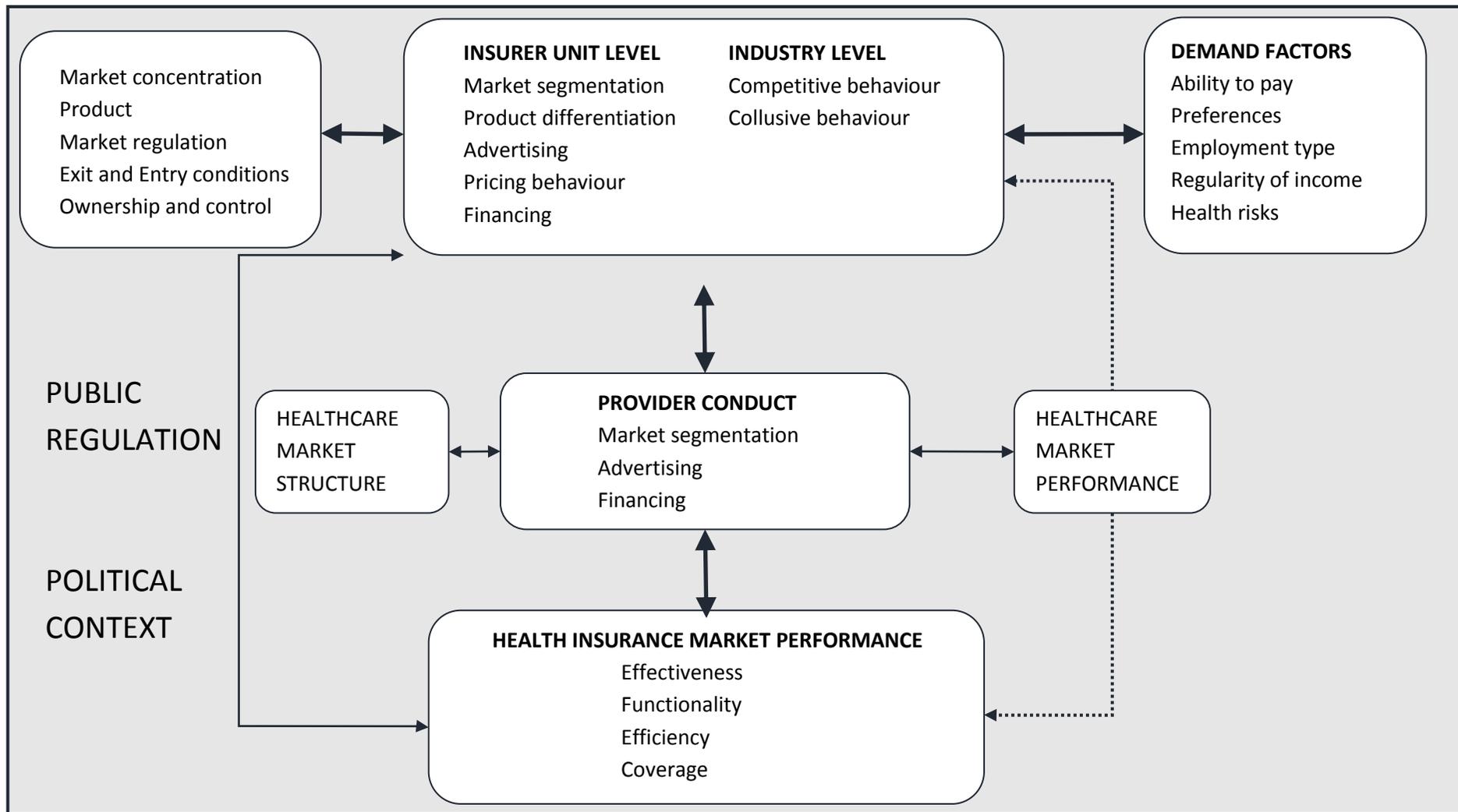


Figure 2.1: Conceptual framework for the analysis of the market for health insurance in Nigeria

## 2.7 Aims and objectives of the thesis

In line with the conceptual framework above, the aim of the study reported in this thesis was to generate understanding of the role of private sector actors (health maintenance organisations and healthcare providers) in the national health financing system in Nigeria, and the implications for universal health coverage.

The objectives of the study are:

1. To examine how a role emerged for HMOs within the context of the national health insurance strategy in Nigeria
2. To analyse the structure, conduct and performance of the health insurance market operated by HMOs in Nigeria
3. To analyse the relationship between HMOs as purchasers of services for the insured population, and private health care providers.
4. To draw lessons about the effectiveness of providing a role for the private sector in the national health financing system in contributing to universal health coverage

## 2.8 Conclusion

The literature abounds with theories and frameworks that are useful to analyse roles and influence of actors in health policy making processes. The economic literature also offers insights into the analysis of supply by firms from an industrial organisation perspective. The concepts they provide have been applied in frameworks that specifically focus on analysing health financing systems and health financing organisations. Insights from the literature have been applied to develop an overall conceptual framework to guide the aims and objectives of the research reported in this thesis. Chapter 3 provides a description of the study setting and the overall methodological approach taken in this thesis. Various aspects of the framework provide guidance for the research papers presented in chapters 4 to 6 which also include a description of the specific methods used in each chapter. The comprehensive view of the

health financing system that it provides, allows a reflection on the effectiveness of the strategy of using private financing organisations to achieve the goals of universal health coverage, which is the focus of the concluding chapter (chapter 7).

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## Chapter 3: Study setting and research approach

### 3.1 Introduction

Chapter two presented the objectives of the thesis, together with the conceptual framework that provides a guide to the analysis of the health financing strategy that includes a role for profit-making private organisations. To enable the analysis of the financing strategy to be situated within the Nigerian context, this chapter (three) describes the study setting in order to guide an understanding of the research presented in this thesis. This is followed by a presentation of the overall research approach, ethical considerations, contribution of the researcher to the study, and a reflection on the researcher's position and its potential implications for the study.

### 3.2 Context of the study

Nigeria has a population of 168.8 million (2012) that live within an area of approximately 923,768 square kilometres (World Bank, 2014). The country is divided into 36 States and a Federal Capital Territory (Abuja), and is politically grouped into six geopolitical regions. There are 774 local government areas. There are over 250 ethnic groups although the Hausa-Fulani tribe, Yoruba and Igbos predominate. The estimated birth rate is 2.47% while the net migration rate is -0.22 migrant(s)/1,000 population (2014 estimate) (Central Intelligence Agency, 2014). Based on the 2013 Demographic and Health Survey (DHS), the overall literacy rate among women aged 15-49 years is 53% (National Population Commission (NPC) and ICF International, 2014). However, women in the urban areas are twice as likely to be literate as those in the rural areas, while those in the richest quintile are 13 times more likely to be literate than those in the poorest quintile. The most common occupations among men are agriculture (33.7%), sales and services (24.8%) and skilled manual work (23.7%), while most women (61%) are employed within the sales and services sector.

The country achieved independence from the British colonial administrators in 1960 and also adopted a national constitution that was based on the principles of federalism (Adamolekun,

1991). Federalism, which is opposite of 'centralized' systems of government where total power rests on the national (federal) government, operates in developing countries such as Nigeria, Ethiopia, Brazil, India and Mexico while United States of America (USA) stands out amongst developed countries that practice federalism. A key implication of federalism is that 'power' or the authority a societal unit holds which enables it administer some or all of the public resources including wealth and labour within the unit, is shared between national, and subnational (state and in some cases, local) governments (The American Heritage, 2000, Elaigwu, 1988, Lee and Estes, 1983). While not specific to health, the political science literature on Nigeria is replete with information about the practice of federalism in Nigeria (Okpanachi, 2011, Elaigwu, 2002, Osaghae, 1992, Adamolekun, 1991, Afigbo, 1991, Olowu, 1991, Osaghae, 1990, Elaigwu, 1988).

Table 3.1 presents macro-economic indicators for Nigeria including the per capita gross domestic product (GDP), the GDP growth rate, per-capita gross national income, and the human development index. The table shows an increase in the indices in 2012 compared to the figures in 2005 (which was the year the National Health Insurance Scheme commenced its first programme – the formal sector social health insurance programme). The per capita GDP based on constant 2011 rates rose from 4,154 purchasing power parity (PPP) international \$ in 2005 to 5,440 in 2012. Agriculture was the main contributor to the economy prior to independence in 1960 and provided employment for over 90% of the population at that time (National Population Commission (NPC) and ICF International, 2014). The exploration of crude oil afterwards led to the displacement of agriculture as the main source of foreign exchange earnings and national income. Recently, the agricultural, services and information technology sectors have expanded significantly, such that together, they account for over 50% of the GDP of Nigeria (National Population Commission (NPC) and ICF International, 2014). Nonetheless, unemployment rate in Nigeria remains high at 19.7% in 2009 (19.2% and 19.8% for urban and rural areas respectively) (NBS, 2010).

**Table 3.1: Macroeconomic indicators for Nigeria in 2005 and 2012**

	<b>2005</b>	<b>2012</b>
Income level (2012)	Lower income	Middle income (lower)
GDP per capita, PPP (constant 2011 international \$)	4157	5440
GDP growth (annual % based on constant 2005 \$)	3.4	6.7
Population (2012)	139.6 million	168.8 million
Human development index (HDI)	0.434	0.471

**Source:** World Development Indicators. <http://data.worldbank.org/country/nigeria>; HDI Source: United Nations Development Programme <http://hdr.undp.org/>

Although growing GDP positions the country amongst the lower middle income countries, significant inequalities exist in the country and account for a low Human Development Index (HDI) of 0.471, which ranks Nigeria 153 out of 187 countries in 2012 (UNDP, 2013). Though this figure is higher than the average of 0.466 for countries in the low human development group, it is lower than the average of 0.475 for the sub-Saharan African region. The multidimensional poverty index, reflecting both the incidence (headcount) and intensity of poverty reduced from 0.310 in 2008 based on the 2008 DHS to 0.240 in 2011, based on the 2011 Multiple Indicator Cluster Survey (Alkire et al., 2014, Oxford Poverty and Human Development Initiative, 2013, NBS et al., 2011). The 2011 figure compares to 0.139, 0.229 and 0.283 for Ghana, Kenya and India respectively. The southwest region of Nigeria has the lowest poverty index (0.12), while the northeast has the highest (0.56).

Nigeria has a weak health care system comprising a poorly managed public health sector, and a poorly regulated private sector (FMOH, 2010). The public health sector is organized in three levels, primary, secondary and tertiary levels, with the local, state and federal governments respectively bearing responsibility for the three levels. Public health facilities include comprehensive health centres, and general, specialist and teaching hospitals. Nonetheless, the federal government also bears responsibility for primary health care through the National

Primary Health Care Development Agency. Many state governments have also set up tertiary health care facilities, and tertiary healthcare facilities provide primary care as well, and referral systems are largely non-existent. Primary care facilities are also often by-passed by healthcare seekers for higher level facilities. Hence, the healthcare delivery systems are weak, fragmented and characterised by vertical systems.

Nigeria has a very large and active private healthcare sector (FMOH, 2005). Private health facilities include general and specialist private hospitals (including for-profit and not-for-profit private hospitals), laboratories and pharmacies, and a significant number of informal providers including patent medicine dealers, maternity homes and traditional healers. Although 88% of doctors in Nigeria work in hospitals, 74% of these doctors work in private hospitals. These private providers account for up to 60% of healthcare delivery in Nigeria (FMOH, 2010). Most of these facilities are only available to the urban dwellers and wealthier members of the society. There are very few public private partnerships in Nigeria, even though the National Health Policy encourages such partnership (FMOH, 2005). There is also very poor information about the nature of services they deliver, and their performance in terms of efficiency, quality, affordability of services, and effectiveness.

Table 3.2 shows the health status indices for Nigeria and compares the figures with the averages for the World Health Organisation's African region, as well as lower middle income countries of the world (WHO, 2014). Life expectancy increased from 49 years in 2005 to 54 years in 2012. However, it remains lower than the average for the African region and for lower middle income countries. The infant mortality rate per thousand live births is higher than the African average (63 years) and for low and middle income countries (46 years). The DHS obtained a lower figure of 69 deaths per 1000 live births. Even though the under-five mortality rate has decreased in recent times, the rate is still higher than the values for the African region and for lower middle income countries. The maternal mortality ratio decreased from 740 deaths per 100,000 live births in 2005 to 560 in 2012. Women in urban areas are

more than twice as likely to deliver in a health facility as their rural counterparts (60 percent compared with 25 percent) (National Population Commission and ICF Macro, 2009). The percentage of pregnant women that attend antenatal care is higher in Nigeria than the average for the African region (47%), and similar to that of the lower middle income countries (56%). Fewer births are attended to by skilled personnel even though the number of physicians and nursing personnel is higher in Nigeria compared to the figure for the African region. Fewer children are also immunized than in both the African region and lower middle income countries.

**Table 3.2: Health status and health service indicators for Nigeria in 2012**

<b>Indicator</b>	<b>Nigeria</b>	<b>African region</b>	<b>Lower middle income countries</b>
Life expectancy at birth (years)	54	58	66
Infant mortality rate (per 1000 live births)	78 (69)	63	46
<5 mortality rate (per 100 live births)	124 (128)	95	61
Maternal mortality ratio (per 100,000 live births)	560 (576)	500	240
% of births attended by skilled birth personnel	38 (38.1)	48	64
% of pregnant women with at least 4 antenatal care visits	57 (51)	47	56
% of 1 year olds with measles immunization	42 (42)	73	75
Physicians per 10,000 population	4.1	2.6	7.8
Nurses and midwives per 10,000 population	16.1	12.0	17.8

**Source:** WHO statistics 2014. Values in parentheses are from the 2013 National Demographic and Health Survey of Nigeria.

Inequities exist in access to and utilisation of basic health services (National Population Commission (NPC) and ICF International, 2014). Even though 36% of births in Nigeria take place in a health facility, the proportion of births occurring in a health facility increases steadily with increasing wealth quintile from 5.8% in the lowest wealth quintile to 79.9% percent in the highest quintile. Similarly, 4.6% of births to mothers in the lowest wealth

quintile occur in a public health facility, compared with 39% of births to women in the highest wealth quintile. These figures reflect worsening of inequities when compared with the figures in 2008 (National Population Commission and ICF Macro, 2009). Similarly, children in urban areas are three times as likely to be fully immunized as children born in the rural areas, while children in the highest quintile are nearly 15 times more likely to be fully immunized than those in the poorest quintile (National Population Commission (NPC) and ICF International, 2014).

To ensure that health care is well-financed in order to achieve improved health status, the existing national health financing policy seeks to promote social justice and equity in line with the constitution of the country, to promote equity and access to quality and affordable health care, and to ensure a high level of efficiency and accountability in the healthcare system (FMOH, 2006). The overall goal of the policy is ‘to ensure that adequate and sustainable funds are available and allocated for accessible, affordable, efficient and equitable health care provision and consumption.’ The policy encourages the federal, state and local governments to allocate at least 15% of their total budgets to health in line with the 2000 Abuja Declaration. The revenue generation strategies include use of taxes, subsidies and payments of insurance contributions for the poor. The policy also emphasises the need to mobilise and pool revenue for healthcare through a National Health Insurance scheme and community based health insurance schemes (for those outside salaried employment and rural populations). It also seeks to support private (voluntary) health insurance, and development of partnerships with the private sector and development agencies for healthcare financing. The policy also seeks to reduce out-of-pocket payments to the barest minimum level.

Table 3.3 shows the health financing and expenditure indices for Nigeria and compares these with figures for countries in the African region, and lower middle income countries of the world.

**Table 3.3: Healthcare financing and expenditure indicators**

Indicator	Nigeria	African region	Lower middle income countries
Total Health expenditure (THE) as % of GDP	5.7	6.2	4.4
General government expenditure on health as % of total government expenditure	6.7	9.7	8.1
Per capita government expenditure on health (PPP int. \$)	49	76	60
Per capita THE (PPP int. \$)	143	158	163
Government expenditure as % of THE	34.0	48.3	36.6
Private expenditure on health as % of THE	66.0	51.7	63.4
Out-of-pocket expenditure on health as % of THE	95.6	56.6	87.1
Private prepaid plans as % of private expenditure on health	3.1	31.7	4.4
External funding as % of THE	5.1	11.8	2.3

**Source:** WHO statistics 2014

Generally, government expenditure on health is lower and private expenditure higher in Nigeria than in other countries of the African region and in lower middle income countries. Total health expenditure (THE) as a percentage of gross domestic product rose from 4.6% in 2000 to 5.4 in 2010 (WHO, 2013) and then to 5.7% in 2012 (WHO, 2014). Similarly, the per-capita government expenditure on health rose from \$19 (purchasing power parity international \$ (PPP int. \$)) in 2007 to 49 PPP int. \$ in 2012. A national health bill that proposes additional funds for the health sector has undergone repeated revisions by several governments over the last 10 years and is yet to be passed into law. However, allocation of the available funds favours secondary and tertiary health services, with insufficient funds allocated to primary health services. In 2012, there was greater government commitment to ensuring that salaries of health workers are paid when compared with actual release of budgeted funds for capital projects (FMOH, 2013). For instance, 60% of the federal capital budget for health was actually released, while 100% of overhead and personnel budget was

released. Additionally, between 2010 and 2012, there was 72.8% increase in the resources of the federal government that was allocated to health, but while the revenue for capital expenditure increased by 14.9%, recurrent expenditure (mainly accounted for by personnel budget) rose by 100%.

Private spending as a percentage of total health expenditure has decreased from 74.7% in 2002 (WHO 2010) to 66% in 2012 (WHO, 2010, WHO, 2014). However, out-of-pocket payments has continued to account for over 90% of private health expenditure and no reasonable change has been recorded in private prepaid plans over the last decade. As was the case in 2008, only 2% of women and 3% of men had health insurance coverage in 2013 (National Population Commission (NPC) and ICF International, 2014, National Population Commission and ICF Macro, 2009). While 7.1% of men and 4.6% of women in the highest quintile had employer based insurance in 2013, those in the lowest quintile do not have such insurance at all. In 2008, coverage figures for the highest quintile were 5.1% and 4.5% for men and women respectively, indicating that little has changed even among the highest quintile. The dominance of out-of-pocket spending (OOPS) as the major health financing mechanism leads to the situation that people who cannot pay for needed healthcare in Nigeria are undersupplied with services (Onwujekwe et al., 2009, Onoka et al., 2012).

### 3.3 Overall research approach

This research used a case study design (Yin et al., 1983, Yin, 2009, Creswell, 2009), which draws on both economic theory and policy analysis theories and frameworks and adopts a mixed methods approach involving qualitative and quantitative methods. Because this thesis takes a “research paper” style, each results chapter is written up as a stand-alone research paper and therefore contains a detailed description of the specific methods used. An overview of the main methods is provided here while the tools used for data collection, are included as Appendices 1-3.

First, to achieve the first objective of analysing how a legal role emerged for HMOs in the national financing system required examination of the processes that led to the development of the national health insurance strategy. Health policy processes are commonly examined using health policy analysis theories and frameworks (Walt et al., 2008). Hence, the first research paper (Chapter 4) employs policy analysis theories and uses a stakeholder analysis approach to provide insights to the first objective of this thesis (Varvasovszky and Brugha, 2000).

Since HMOs are private organisations that supply health insurance products (private health insurance and social health insurance), it was considered imperative in this thesis to apply research methods that allow the analysis of supply. This informed the use of the Structure-Conduct-Performance framework that is based on economic theories of industrial organisation (Ferguson and Ferguson, 1994, Waterson, 1984, Scherer and Ross, 1990, Shepherd, 2004), and quantitative and qualitative data (Creswell, 2009, Creswell and Clark, 2011, Coast, 1999, Yin, 2009), to analyse the supply of health insurance by HMOs. This is the approach for the second paper (Chapter 5). The third paper (Chapter 6), which provides insights into the third objective, focuses on behaviours and interactions among HMOs and healthcare providers in a healthcare purchasing arrangement where a potential existed for an agency problem (Shapiro, 2005). Thus, the principal-agent theory from economics and social science literature was suitable for the analysis (Shapiro, 2005, Ferguson and Ferguson, 1994).

In order to generate robust conclusions about the effectiveness of the health financing strategy that includes a role for the private sector, it was necessary to use research methods that allow in-depth investigation of a phenomenon of interest, and that provides a comprehensive picture of an issue. This motivated the use of a case study design for the study (Yin, 2009). Studies of health financing reforms have employed case studies to investigate the policy processes of health financing reforms (Gilson et al., 2003), to investigate how the agenda for a health financing reform developed (Pillay and Skordis-Worrall, 2013), the

effectiveness of purchasing services from faith-based facilities (Chirwa et al., 2013), providers' reactions to implementation of a reimbursement strategy (Mills et al., 2000), and adoption of a national social health insurance programme at a sub-national level (Onoka et al., 2013). These studies have revealed the utility of case study designs in allowing comprehensive examination of health financing reforms within their contexts, exploring and explaining actor behaviours, generating insights into the politics of health financing reforms.

This thesis adopted a mixed methods approach to enrich the case study. Qualitative methods were applied in Chapter 4. In Chapter 5, quantitative methods enabled measurement of structural and performance variables of the market for health insurance, while qualitative methods enabled investigation of behaviours of HMOs and providers involved in the market, as well as some structural and performance characteristics of the market. Qualitative evidence also helped provide explanations for some quantitative results presented in the chapter. In Chapter 6, qualitative methods were applied to understand the nature and effects of the agency problem in the purchasing relationship between HMOs (principals) and health care provider (agents).

Overall, data analysis was interactive and reflexive so that issues arising from document reviews, interviews, and quantitative and qualitative analyses helped improve the entire research process and output. The accumulated information was approached in a way that ensured data triangulation across the multiple sources of information, which enabled identification of corroborating, contradicting and complementary evidence from interviews, documents and quantitative data. Transcripts of voice records, field notes and the output of document reviews were imported into QSR NVivo 9 software. Analysis of the qualitative dataset involved a combination of inductive and deductive reasoning in an interactive manner in order to achieve data reduction, organization, explanation and evaluation. The inductive approach was useful in providing insight into the accumulated data and enabled a movement from specific data contents to broad theories and generalizations (Thomas, 2006, Miles and

Huberman, 1994, Pope et al., 2000). The deductive phase enabled examination of the data against predefined generalizations and themes from the theoretic framework in a top-down manner. The complementary mixed methodological approach that combines inductive and deductive reasoning is argued to enhance interpretive understanding of the research data (Fereday and Muir-Cochrane, 2006, Johnstone, 2004).

As shown in Figure 3.1, the analysis involved an initial coding of ideas arising directly from the contents of the transcripts through an inductive approach. Then, repeating ideas were added to already existing codes to generate a set of emerging themes. The second level of coding involved the use of an established coding template to code the interview transcripts and field notes in a deductive manner. The template was based on the themes from inductive process and the research theory from the literature. The template frame allowed modifications for new ideas arising from the analysis process. A pattern matching technique was employed to allow comparisons between the embedded sub-units studied and for data emerging from within and across the groups of interviewees. Common patterns were identified and examined for similarities and differences.

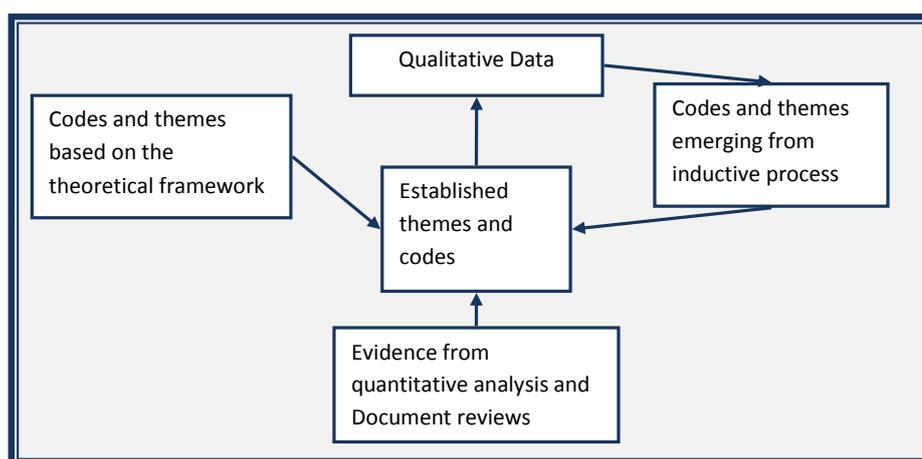


Figure 3.1: Qualitative data analysis process

Quantitative data were analysed using Microsoft Word Excel. Descriptive data analysis was undertaken to compute summary statistics including proportions and ratios of variables of interest to the study. Data from all HMOs were used to compute market structure variables

such as market share and market concentration, and performance indicators while data about healthcare providers were used to describe their basic characteristics. Quantitative data analysis output was also connected to the evidence from the qualitative analysis to interpret the research findings.

Based on the conceptual framework, it was also necessary to consider interrelationships between various research objectives. Hence, data analyses examined relationships between the policy making process (objective 1), and the business strategies of HMOs and providers that reflected their appraisal and application of policy prescriptions (objectives 2 and 3). Linkages existing between the levels of analysis were examined in a vertical manner. For instance, data were examined to understand how market concentration and regulation, determined at the broad level, influenced the behaviours of HMOs (such as product differentiation and purchasing strategies), how healthcare providers responded to such strategies, and the observed or perceived impact on the objectives of the health financing strategy. The approach helped in drawing overall conclusions for the research.

### 3.4 Ethical considerations for the study

Ethical approval to carry out the study was obtained from the Observational/Interventions Research Ethics Committee of the London School of Hygiene and Tropical Medicine, London. Ethical approval was also sought and obtained from the National Health Research Ethics Committee of Nigeria, Abuja (Appendix 4). The approval followed a successful completion of the requirement to undertake the Nigerian National Code for Health Research Ethics online training program of the West African Bioethics Training Program and the National Health Research Ethics Committee of Nigeria, for which a certificate was awarded (Appendix 4). The training on human-subject protection was based on the Collaborative IRB Training (CITI) Program – an online training program of the West African Bioethics Training Program and the University of Miami, Florida (CITI Program, 2012).

At the beginning of the study, it was anticipated that for confidentiality reasons, some HMOs and providers would not be willing to divulge information about their operations or grant access their administrative documents. Hence, data collection and reporting required prior interactions with heads of HMOs such that the heads of these firms were engaged on the way data would be presented and used. To ensure in advance that such an engagement process would achieve the intended aim, the heads of HMOs and healthcare providers to be used for the in-depth sub-unit analysis were approached ahead of the finalization of the research proposal to determine their willingness to participate in the study given the above challenge. Their responses were positive with the agreement being that identifiers would not be used. Nonetheless, they were informed of the chance that potential readers who are familiar with the study context could ascribe the evidence to them given the small number of firms in the market. Subsequently, the heads of these organisations gave informed consent to allow use of information provided from their organisation (Appendix 5). Specific consent was obtained to record, store and use interview records and transcripts. A similar strategy was applied to health care providers and the policy makers to be interviewed. Specific consent was requested for audio recording of interviews.

Overall, the response to requests for participation was very positive following advocacy visits (before the study) that I undertook to assure potential participants that the names of their firms would not be published unless they grant permission for this. This strategy enhanced trust. Additionally, participants were enthusiastic to provide information since issues regarding HMOs, the National Health Insurance Scheme, and Universal Health Coverage were topical amongst people with interest in the health sector, during the period of the research.

During data organisation and analysis, people who were interviewed on behalf of their organizations were assigned study code numbers (*Participant 1 to n*) and were not identified by their names in transcripts, audio records or data analysis. Enumeration details and the codes assigned to participants were only accessible to me. Results have been reported based

on the category of respondents and do not identify specific respondents. All data collected for the study were saved in a dedicated computer for the project which is accessible only to me. A data disk that was used to back up the data was saved in a steel cabinet at my home institution, the University of Nigeria, Enugu Nigeria which is only accessible to me and will be destroyed 3 years after the data has been used for this thesis.

### 3.5 The researcher's contribution to the thesis

During the first year of my study for the degree of PhD which commenced on 26th September, 2011, I (the researcher) carried out a review of literature, theories and methods that were relevant to the proposed study which was conceived with my supervisor (KH). This helped me to shape the research questions, the objectives of the study, a conceptual framework and the research proposal, under the guidance of my supervisor and my advisory committee. Following my upgrade from the MPhil to PhD student status on 19th June, 2011, I finalized the study tools under the guidance of my supervisor and advisory committee, undertook advocacy visits to HMOs, healthcare providers and policy makers, and executed the main phase of data collection from October 2012 to April 2013. I carried out all the interviews and the data analysis, under the observation of my supervisor. Subsequently, I developed the initial draft of the research papers. These were reviewed by my supervisor and advisory committee members, who also provided insights on the themes and concepts in the literature that were useful to improve the research papers. As the first author of the first paper, I took responsibility to prepare and submit the paper to a journal (Health Policy and Planning) for publication and provided leadership for the revision in line with the comments of reviewers. I also presented the first research paper (Chapter 4) at the 3<sup>rd</sup> Scientific Conference of the African Health Economics and Policy Association (AfHEA) that held in Nairobi, Kenya in March, 2014.

### 3.6 The researcher's position and potential implications for the study

It is necessary to consider the researchers position with respect to the analysis presented in policy analyses studies because of its potential influence on the interpretation of phenomena of interest. While working as a lecturer/researcher in Nigeria before studying for the degree of PhD, I carried out health financing related research in the country (Onoka et al., 2013, Onoka et al., 2011). Some heads of HMOs served as interviewees in one of these studies. There was the risk that my linkage to the policy environment could shape my interpretation of the findings. However, the iterative process that involved repeated interactions with sources of evidence and reviewers that had knowledge of the health financing issues in the policy space, allowed the evidence and the analysis to be tested for accuracy.

Overall, participants' perception of my position (as a researcher) seemed to be that of an outsider in terms of the private market operated by HMOs, but one that is reasonably knowledgeable about the health financing policy process in Nigeria and has played roles of engaging with the policy environment for research evidence translation, which made me an insider on a broader level. This position limited my access to information that some HMOs considered sensitive. However, my broad knowledge of the health financing environment in the country helped enhance the likelihood that I asked the right questions, such that much of the relevant information was collected. My previous experience with the policy environment (in terms of getting research into policy) also enhanced the access I had to some key actors that played policy making roles in the past, and encouraged them to share information they believed would help guide current policy processes.

There was also a possibility that my linkage to the policy environment may increase my focus on the Nigerian policy space rather than paying attention to the broader issues across lower and middle income countries. However, this challenge was minimized by the efforts to relate the findings of the study to the broader research environment in the study report in line with the reviewed literature from low and middle income countries.

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## Chapter 4: Towards Universal Coverage: a policy analysis of the development of the National Health Insurance Scheme in Nigeria

### 4.1 Preface to research paper 1

The conceptual framework for this thesis located HMOs as health financing organisations in the political and regulatory environment that guides the operation of the market for health insurance in Nigeria, which is regulated by the National Health Insurance Scheme. The idea was to provide a basis on which HMOs' supply of health insurance in the market could be analysed for its effectiveness. This chapter provides information on the policy development process for national health insurance in Nigeria and how a role developed for HMOs in the national health financing system. The chapter provides background evidence that will help in understanding the business strategies adopted by HMOs in supplying health insurance (Chapter 5), and purchasing services from healthcare providers (Chapter 6). The work presented in this chapter has been submitted to *Health Policy and Planning* and awaits the final decision of the editors. When published, the paper will represent the first systematic analysis of the policy development process for national health insurance in Nigeria.

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As the first author, I designed the study, including the instruments used, undertook the data collection, analysed the data, prepared and submitted the manuscript, and revised the manuscripts following comments from the journal's reviewers. I have also resubmitted the paper and await the final decision of the editors.

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Date 21/07/2014

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**SUPERVISOR/SENIOR AUTHOR'S SIGNATURE (3 above)**

## 4.2 Research Paper 1

### ABSTRACT

This paper examines why and how a national health insurance (NHI) proposal targeting universal health coverage (UHC) in Nigeria developed over time. The study involved document reviews, in-depth interviews, a further review of preliminary analysis by relevant actors, and use of a stakeholder analysis approach. The need for strategies to improve healthcare funding during the economic recession of the 1980s stimulated the proposal. The inclusion of health maintenance organisations (HMOs) as financing organisations for national health insurance at the expense of sub-national (State) government mechanisms increased credibility of policy implementation but resulted in loss of support from states. The most successful period of the policy process occurred when a new Minister of Health (strongly supported by the President that displayed interest in UHC), provided leadership through the Federal Ministry of Health (FMOH), and effectively managed stakeholders' interests and galvanised their support to advance the policy. Later, the National Health Insurance Scheme (the federal government's implementing/regulatory agency) assumed this leadership role but has been unable to extend coverage in a significant way. Nigeria's experience shows that where political leaders are interested in a UHC-related proposal, the strong political leadership they provide considerably enhances the pace of the policy process. However, public officials should carefully guide policymaking processes that involve private sector actors, to ensure that strategies that compromise the chance of achieving UHC are not introduced. In contexts where authority is shared between federal and state governments, securing federal level commitment does not guarantee that a national health insurance proposal has become a "national" proposal. States need to be provided with an active role in the process and governance structure. Finally, the paper underscores the utility of retrospective stakeholder analysis in understanding the reasons for changes in stakeholder positions over time, which is useful to guide future policy processes.

## INTRODUCTION

Global attention has recently converged on the need for countries to achieve universal health coverage (UHC), which aims to guarantee that all persons are able to access needed and effective healthcare without facing financial ruin by using services (WHO, 2013). In the attempt to move towards UHC, several low and middle income countries are developing more sustainable revenue sources, expanding pooling arrangements, and employing more efficient and sustainable purchasing strategies (HISRO, 2012, Lagomarsino et al., 2012, McIntyre et al., 2013). Their experiences represent a growing evidence of the application of mandatory (social), private and community-based health insurance in low and middle-income countries and their potential contribution to UHC. The evidence from some countries suggest that strong political support, effective programmes, supportive context, robust public accountability mechanisms, and strong technical capacity are vital to developing and implementing effective UHC-related proposals (Balabanova et al., 2013, Savedoff et al., 2012, WHO, 2014). Yet the World Health Organisation (WHO) has clearly stated that additional insights into policy processes in different policy contexts in low and middle-income settings are needed (WHO, 2013).

Nigeria has a long history of trying to achieve healthcare coverage for its population that is distributed in 36 states and the federal capital territory (Abuja). After gaining independence in 1960 and adopting a constitution based on federalism (Adamolekun, 1991), a series of military governments eroded state autonomy from federating to solely administrative units (Osaghae, 1992). Starting from 1984, successive military regimes attempted to expand national health insurance. In 1999, a military decree that legally established a National Health Insurance Scheme (NHIS) was enacted (NHIS, 2013). It was envisaged that public sector employees (at federal and state levels) would be mandatorily included, with private sector employees and other members of the society following subsequently. However, the status of state employees was ambiguous with respect to the decree because the position of states (as federating units)

within the federal system, allowed state governments to either adopt or not adopt some health policies established by the federal government, including the NHIS proposal (Onoka et al., 2013).

The NHIS commenced implementation of its main programme - the 'formal sector SHI programme' (FSSHIP) – in 2005, under a democratic federal government based on the NHIS law that was enacted during the military era (NHIS, 2013, Dogo-Mohammad, 2011). Employees were required to contribute 5% of their basic salaries, with a 10% equivalent contribution by the employer. The revenue complements the supply-side general budgetary allocations that the government makes to the health sector, which mostly covers personnel salaries and capital expenditure. Based on a full purchaser/provider split model, 76 privately-owned health maintenance organisations (HMOs) currently serve as operators of the scheme (NHIS, 2013), while over 4,000 facilities are registered as healthcare providers (HCPs) (NHIS, 2013). Nearly all federal government employees and their dependants have been covered by the programme (Dogo-Mohammad, 2011, Dogo-Mohammad, 2012), and largely account for the 5 million Nigerians (3% of the population) covered (JLN, 2013, Dutta and Hongoro, 2013). However, the NHIS has been unable to expand coverage beyond the federal government employees as planned.

At the time the FSSHIP (2005) was launched, the NHIS was given a presidential mandate to achieve universal health coverage (UHC) by 2015 through its programmes, requiring an expansion of the scheme. Consequently, the NHIS developed additional programmes for rural communities, informal sector employees, voluntary contributors, students of tertiary educational institutions and vulnerable groups (NHIS, 2012).

There has been no systematic analysis of the processes leading to the development of national health insurance in Nigeria. Available literature has focused on appraising the content of the NHIS policy (Anarado, 2002) and understanding impediments to adoption of the formal sector programme (FSSHIP) by states (Onoka et al., 2013, McIntyre et al., 2013). Hence, this

paper presents the first analysis of the Nigerian policy process relating to the national health insurance policy. Using a stakeholder analysis approach (Varvasovszky and Brugha, 2000, Brugha and Varvasovszky, 2000, Gilson et al., 2012), it examines why and how the policy developed by reflecting on the roles of actors, their context, and *how* they influenced the process and outcome to ensure that a critical intermediary role emerged for private health maintenance organisations. It provides evidence from Nigeria to enhance the understanding of the politics of such reform processes, which is vital to the success of policy reforms for UHC in low and middle-income settings.

## METHODS

This case study of the NHI policy development in Nigeria was based on the theoretical proposition that actor interests, power and position, influenced changes in the NHI policy-making process over time, the content (policy design) and the outcome (coverage). Case studies are preferred when a study involves finding answers to “how” and “why” questions (Yin, 2009) in order to support or dismiss a hypothesis or theory. This study draws on the insights from Baumgartner and Jones (1993) theory that suggests that processes of policy-making comprise phases of rapid changes and stasis. Change occurs when a policy problem and its solutions are conceptualised in a different way, or when new actors emerge. Actor influences on context, content and process of policy reforms were then explored based on the policy analysis framework of Walt and Gilson (1994). This analysis structured the development of NHI policy into several phases, examined policy content, and sought to understand how changes occurred, in view of actors’ interests, positions and influences.

The study used a stakeholder analysis approach because of its focus on the behaviours of individuals, groups or organisations concerned, affected by or involved in development of a policy of interest (stakeholders), and the motives, interrelationships and influences they exert in the policy development process. A broad range of stakeholders are often involved in UHC related reforms and prioritizing those for a stakeholder analysis is essential but challenging

(Gilson et al., 2012). For this study, the initial set of stakeholders included groups or individuals (not covered within groups) directly involved in the policy development. These were identified from a number of sources: the NHIS website (NHIS, 2013), operational guidelines (NHIS, 2005) and academic and grey literature (Awosika, 2005). This generated a list of 18 groups, which was narrowed based on key informant interviews which identified consistently named groups that played roles in the policy development process, and key individuals that were employers, employees, policy makers, and leaders or managers of various stakeholder categories. Table 4.1 shows the final set of stakeholders (10) used for the study while Table 4.2 summarises the methods used for data collection. Using a set of semi-structured interview guides, stakeholders were interviewed between October 2012 and July 2013, and provided consent to the interview and for it to be recorded.

**Table 4.1: Stakeholders involved in the NHIS policy reform**

<b>Stakeholders</b>	<b>Interests</b>
National Health Insurance Scheme (NHIS)	Public institution with regulatory and operational responsibility for the policy
Federal Ministry of Health (FMOH) and the Minister of Health	Key reform programme of the FMOH
Health Maintenance Organisations (HMO)	Intermediary operators of the scheme
Health care providers (HCP)	Health service delivery
Federal government employees (i.e. civil servants' unions or Labour unions)	Beneficiaries
Private employers/National Employers Consultative Association (NECA)	Payers for private employees
Banks	Source of mobilising credit and the need to retain funds meant for their own employees.
Development partners (DP)	Technical and financial support

**Table 4.2: Methods used for data collection**

<b>Data source</b>	<b>Approach</b>
Document review	Inductive analysis of relevant documents
Media review	Review of reports and comments of stakeholders in major Nigerian Newspapers available online, augmented by media reports from “UHC forward” website (UHC Forward, 2013)
In-depth interviews	35 IDIs held with individuals that were directly involved in the policy process  IDIs provided primary data on the development of NHI in Nigeria, roles of stakeholders in shaping the policy, formulating the laws and operational guidelines for the NHIS, and implementation  IDIs also helped explain documentary evidence
Publications	Review of relevant journal publications on the NHIS available in the literature
Review of preliminary reports	Review by a team of supervisors at the London School of Hygiene who were familiar with the context and the reform.  Feedback received from seven previously interviewed individuals chosen from all stakeholder categories to review the preliminary report after the analysis was completed
Researcher	Preliminary exposure to the focus of analysis, serving as a university researcher, and having conducted a previous study focusing on the impediments to adoption of the FSSHIP at the sub-regional (state) level (Onoka et al., 2013)

Transcripts of voice records, field notes from interviews, and the output of document reviews were imported into QRS NVivo 10 software. While theory guided the data collection, an inductive approach was used for data analysis to provide insight into the accumulated dataset and to enable a movement from specific data contents to broad theories and generalisations (Thomas, 2006, Miles and Huberman, 1994, Pope et al., 2000). The emerging themes were then compared against the set of themes and questions (based on the theoretical proposition) that guided data collection. Data codes generated were organised to focus on actors in order to analyse their interests, positions and influences on the policy process. Further analysis

focused on the influence of policy context over stakeholder interactions over time (Varvasovszky and Brugha, 2000) and the dynamics of the policy process (Gilson et al., 2012).

The study depended on interviewee recall of past events and availability of historical documents, which are challenges inherent in analysing policymaking (Walt et al., 2008). Hence, data emerging from the analysis were checked against documents reviewed and existing literature. Analyst's assumptions and judgements can also disrupt policy analysis (Walt et al., 2008). This was addressed through use of a research supervision team comprising individuals with previous experience with health financing reforms, and triangulation of preliminary results with key actors interviewed.

Policy making is a dynamic process, and is characterised by changing positions and influences of policy actors over time (Walt and Gilson, 1994). While some argue that stakeholder analysis techniques become problematic if used to study policy processes that span over long periods of time, stakeholder analysis of historical events provides the opportunity to analyse the changing positions and influences of actors within the policy process (Varvasovszky and Brugha, 2000). This made this approach particularly suitable for this study.

The Ethics Review Committee of the London School of Hygiene and Tropical Medicine and the National Health Research Ethics Committee of the Federal Ministry of Health, Nigeria, approved the study.

## RESULTS

This section first presents the historical antecedents to the reform. The following analysis then organises and presents the policy development process in four phases, a) an initial phase of "Consultation" to shape the policy, b) a subsequent phase of "Constitution" of the policies to guide the key programmes, c) the "Commencement" and early implementation of the FSSHIP and d) a further phase of "Consolidation" of the coordinating institution for the policy.

## Historical antecedent

Following Nigerian independence in 1960, efforts were made to develop a locally-led health service by the Minister of Health in 1962 through a parliamentary bill for a Health Service Scheme in Lagos (Awosika, 2005, NHIS, 2013, Nigeriafirst, 2003, FMOH, 2008). The plan included a pre-paid contributory element or a *“health financing arrangement”*, which led some analysts to reference it as the first recognition of the need for health insurance. The bill was defeated in parliament.

The global economic downturn during the 1980s, a fall in oil prices and dwindling public resources impacted negatively on health services in public health facilities in Nigeria (Kajang, 2004, Reid, 2008, Orubuloye and Oni, 1996, Metz, 1991). Since the federal government *“could no longer afford to provide free health,”* it opted to consider use of contributory mechanisms to complement other sources of healthcare funding for all Nigerians (OHCSF, 2013, Dogo-Mohammad, 2006). Two committees set up by two successive Ministers of Health, then recommended NHI as a desirable (1984) and feasible (1985) option for financing healthcare in Nigeria (Dogo-Mohammad, 2006, NHIS, 2013). This set the stage for the development of a NHI policy.

## Consultation

Critical deliberations over the actual content of the proposed NHIS occurred between 1985 and 1998 and led to development of a preliminary model for the scheme, introduction of the private sector, and modification of the model to incorporate HMOs.

### *A preliminary model*

A new Minister of Health convened a broad consultative meeting in 1985 to provide guidance on development of NHI. Stakeholders included labour union (representing civil servants), HCP associations, private employers, development partners, and relevant government agencies (NHIS, 2013). In 1988, another ministerial committee developed *“a realistic and acceptable model”* for implementing a social health insurance programme in Nigeria (NHIS, 2013, FMOH,

2008). The resulting model included “*detailed requirements and procedures*” for the scheme, and a health insurance board managed by states as the intermediary operator (Umez-Eronini, 2001, CareNet Nigeria, 2002b, Nigeriafirst, 2003, Dogo-Mohammad, 2006). Stakeholder consensus was built around the model with the National Council on Health (NCH), the highest health policy advisory body in Nigeria, recommending its adoption. Development partners, such as the International Labour Organisation (ILO), provided technical support for policy development. The Federal Executive Council approved the report the same year (1989) for immediate implementation. However, the political impetus for implementation was lacking, as crippling economic conditions impacted negatively on the government’s interest in launching the NHIS.

#### *Introduction of the private sector*

During the period of economic downturn of the 1980s, both the public and private sectors gradually became reliant on private providers. This resulted from the poor public health infrastructure and delivery systems, and encouragement from development agencies including the World Bank and the International Monetary Fund (IMF) that promoted the philosophy of public-private partnerships (Ruger, 2005). More specifically, the substantial use of private HCPs led private employers to look to the private sector for insurance solutions for employees’ health needs. They developed contracts with and retained preferred providers that were invoiced for primary care, based on fee-for-service schedules. This practice became known as ‘*retainership*’ (Alubo, 2001, Onwujekwe and Velenyi, 2010, CareNet Nigeria, 2004). Over time, the retainership system became bedevilled with moral hazard and rising costs, as company employees connived with and received unnecessary care from HCPs, leading to its abandonment by private firms (Arigbabuwo, 2013).

*“So when these people (employees of private firms) go to the hospital, the same providers that used to welcome them with open arms under retainership system, that*

*will encourage them to come back for more, are now telling them ‘No, no, you cannot do that (request services that you want) anymore.’ (HMO manager)*

*“After the collapse of the retainer system due to a lot of fraud and inadequacies of the system, it became obvious to doctors in private practice they needed to look at other sources of income. So some of them formed the foremost HMOs.” (Policy maker)*

A National Health Summit in 1995 built consensus around introduction of private options in public health systems, and specifically, the inclusion of private sector HMOs and providers in the proposed NHIS (CareNet Nigeria, 2002c). This was facilitated by the strong participation of HMO enthusiasts with previous exposure to the managed care system in the United States of America, and lobbyists from the insurance industry that had struggled with previous attempts at providing health insurance (CareNet Nigeria, 2002a). To them, the proposed scheme offered enormous opportunities, as long as they could secure reasonable membership. Within one year of the summit’s recommendation (1996), the first HMO commenced operations, the second in 1997, and two others soon after. These were owned by owners of large HCP facilities, health management firms and individuals with a background in commercial insurance.

#### *Modification of model*

Despite initial scepticism about their sustainability in Nigeria (CareNet Nigeria, 2008), the first set of HMOs attracted members from the formal private sector and competed with HCPs for wealthy multinational companies. They seemed capable of providing quality services, through a cheaper, more predictable, and administratively less intensive mechanism than retainer system. Due to their perceived potential for success, policy makers saw HMOs as a solution to the inability of public systems to implement a NHI policy, and convinced the NCH to include private sector actors in the developing NHIS. The NCH mandated civil servants at the FMOH to modify the proposal. These bureaucrats turned to individuals with interests in the HMO

industry for advice with the result that HMOs replaced state Health Insurance Boards as the intermediary operator of the scheme (Umez-Eronini, 2001).

*"I mean those people had an eye towards doing HMO business... they were the forefathers sort of and put those thoughts (new operational modalities) together; there was not better wisdom at that time; so it was accepted, and was crafted into the Act" (Former FMOH official).*

## Constitution

Despite progress in policy development, there was still no legal authority for implementation of the NHIS (CareNet Nigeria, 2002b). Following a change to a new military government in 1998, the Head of State undertook reforms to restore politically and socially relevant institutions and legislation, pressured by global interest groups and a resurgent population. Though the draft NHIS policy had not been reviewed by the NCH, bureaucrats took advantage of the opportunity to submit it, and it was signed into law. From the outset, it was evident that the military decree had been signed without stakeholder consensus.

In the new atmosphere of engagement and public expression in the country that followed a transition to democratic government in 1999 (Dagne, 2005), contentious issues regarding the NHIS policy surfaced. These included the use of HMOs as operators, appointment of a non-medical doctor as Executive Secretary, exclusion of state governments as key stakeholders, and the proposed 5% salary deduction for employee contribution (Moghalu, 2004, Asoka, 2011). A public hearing on the Act was organized by parliament in 2000 (CareNet Nigeria, 2002c). Although these issues were unresolved, the NHIS governing council was inaugurated in 2001, but lacked the capacity to implement the programme as mandated by the president.

*"Neither the NHIS nor the governing council appeared to have capacity to develop or implement the programme. The council chairman had no knowledge of insurance; the rest of the members were politicians (Policy maker).*

Initial attempts to commence the programme were constrained by changes in the policy environment and stakeholder positions because of several contentious issues (Table 2). For example, states withdrew their support for the policy, insisting they had not been consulted in development of the programme and were left without a governance role in the scheme. National leaders of the civil servants' union urged members to resist attempts at making deductions from their salaries for the FSSHIP, citing failures in previously established federally-driven contributory schemes (Asoka, 2011). Equally, private employers became less interested as the law now stipulated health insurance as "optional" rather than "mandatory" for them. In contrast, HMOs backed by favourable legislation, sustained their interests and increasingly gained experience in managing beneficiaries, private employers, companies, and HCPs. One HMO attracted funding from the International Finance Corporation (IFC) to enable expansion of its capacity to handle larger enrollee numbers. This was interpreted as a display of confidence in HMOs by a major international organisation. HMOs also retained their role as a reliable source of advice to policy makers, and consequently grew in influence.

#### Commencement of the FSSHIP

*"We will break the circle of planning and motion without movement. We must start this scheme even with some imperfections, and fine-tune these as we go along" (A former Executive Secretary of the NHIS as quoted in CareNet Nigeria (2005), reflecting the mood at the time implementation commenced).*

By mid-2003 when the civilian government commenced its second 4-year term, they faced a number of obstacles to policy implementation. These included provider resistance, a restive labour union, uncertainties about employer contribution from the federal government and states (referred to as "political will"), a withdrawn private sector, and uncertainties about the coordination and direction of the policy process. By 2003, a new Minister of Health, a health economist with a background in international health, was appointed by the President (Asoka, 2011). He also dissolved the existing NHIS council and did not appoint a new one during the

Minister's four-year tenure. The Minister declared his intention to commence implementation of the NHIS programme by 2005 and with immense support from the President, proceeded to address the contentious issues in various ways summarised in Table 3. The FSSHIP commenced on 6<sup>th</sup> June 2005 (NHIS, 2013, OHCSF, 2013, Dogo-Mohammad, 2006) and the president was registered as its first enrollee (Ukwuoma and Okumephuna, 2005).

To enable the take-off of the FSSHIP, the NHIS in 2004 accredited and registered HMOs, and allocated departments and agencies of the federal government to selected HMOs. It accredited and registered providers, and registered and printed identity cards for beneficiaries (NHIS, 2007). For a full account of coordinating roles played by the Minister of Health that facilitated the actual launch of the FSSHIP, see Table 4. Employer contributions for unregistered beneficiaries built up within the NHIS as HMOs were only allocated funds for registered beneficiaries. The enormous and growing pool of funds for unregistered beneficiaries was under the control of the NHIS managers who, contrary to agreements made with stakeholders, opened an account on behalf of the NHIS in a commercial bank rather than the Central Bank of Nigeria. Consequently, the NHIS became a more attractive and influential organisation.

The HMO industry also grew into an influential interest group backed by powerful individuals in the country, and increased in number (see Table 4). Many politicians (including senators), banks, and wealthy individuals also appeared to *"set up HMOs because they saw it as gold mine"* (Policy Maker). Banks were believed to have set up HMOs because *"insurance premiums constitute a major source of deposit mobilization"* (CareNet Nigeria, 2007). One bank seemed quite creative. After the NHIS managers chose a commercial bank for the large amount of funds released by the government, the same bank appointed a former senior NHIS staff member as head of its own new HMO. Existing HMOs and some policy makers, believing that managers in the NHIS benefited financially from the arrangement, labelled the behaviour *"antitrust"* (HMO owner).

**Table 4.3: Key coordinating roles played by the Minister of Health and the President to address contentious issues constraining implementation**

<b>Stakeholder</b>	<b>Issues</b>	<b>Intervention</b>
<b>FMOH/NHIS</b>	Uncertainties about coordination for the agenda Crisis of confidence because of roles, and responsibilities arising from the NHIS Act which were obstacles to commencement of implementation	Used FMOH as a platform for mobilising and coordinating stakeholders, including technical experts and for oversight on the NHIS Set up a ministerial expert committee led by technical analysts to review the activities of the NHIS, make recommendations for its repositioning and to develop <i>“a blueprint for the accelerated implementation of the scheme so that Nigeria will achieve an almost universal coverage by 2010”</i> (FMOH, 2003)
<b>States</b>	Absence of role in the NHIS Act apart from being mentioned as <i>“employers of labour”</i>	Developed a health financing policy that allowed states to form their own health insurance schemes At the minister’s first NCH meeting, states that had a desire to develop their health insurance scheme were encouraged to do so Drafted a new NHIS law to create a role for states
<b>Private employers</b>	Resistant to inclusion in the pool for public sector	The ministerial expert report included the setting up of a private sector fund to serve as a pool for private firms, with HMOs fully handling the financing responsibilities, and a National health insurance commission serving as the regulator
<b>Labour union</b>	Opposed to deduction of employee contribution from salaries	On the Minister’s request, the president also agreed that employee contributions should be delayed to allow the labour union time, and while enjoying the benefits, to reconsider their stand
<b>Private providers</b>	Resistance to use of HMOs	Allowed the NHIS to include public secondary and tertiary hospitals for both primary and referral care with the hope that private providers would become interested over time
<b>HMO</b>	Faced opposition mainly from HCPs	The Minister was accommodating and sympathetic towards HMOs because of their antecedent operating experience
<b>Development Partners</b>	Not mobilised	Through the Ministry of Health, support for the HSR, including advice for the NHIS development was readily galvanized from development partners including the WHO, UNFPA, USAID, and UK DfID, and also from a team of technical analysts drawn from universities and private consultancies They subsequently played roles in development of a <i>“10-year development plan for the health sector (2007-2016)”</i> , which for the NHIS component included <i>“a plan of action in line with health sector reform agenda”</i>

**Table 4.4: Key coordinating roles played by the Minister of Health that facilitated the actual take-off of the FSSHIP**

<b>Activity</b>	<b>Issues</b>	<b>Intervention</b>
Accreditation and registration of HMOs by the NHIS	Resistance of the initial attempt by NHIS managers to use only one HMO that they considered capable of operating the FSSHIP	Directed the NHIS to accredit existing HMOs and develop selection criteria NHIS accredited and rated existing HMOs (using a private audit firm) based on technical and financial capacity Out of 40 applicants, 25 had sufficient data to be rated, 13 were selected to operate the FSSHIP. Over time, the number of accredited HMOs rapidly grew to 35 by 2007, 62 by 2010, and 76 by 2013 (but only 41 were allocated FSSHIP enrollees)
Attraction of and collection of contributions from departments and agencies of the federal government	A new inexperienced HMO suddenly signalled it had signed up with nearly half of all government agencies, raising fears that it may have connived with public officials for financial gains	Directed that Ministries, and agencies of government should be allocated based on the criteria used for HMO selection. Agreed that employer contribution should be withdrawn directly from the central government account and lodged in a Central Bank account from which the NHIS would allocate them to HMOs
Accreditation and registration of providers	Initial unwillingness of providers to join	Directed the inclusion of all the federal government health-run tertiary facilities (teaching hospitals and medical centres) as providers with the hope that private HCPs would become interested in the long-run Many private HCPs later joined the scheme and were accredited and registered for operation by the NHIS
Registration of beneficiaries	Slow registration of beneficiaries by the NHIS after full release of employee contributions by the federal government for all employees, and complaints about irregularities in registration process	NHIS Executive Secretary was replaced and a new one continued the process of beneficiary registration, this time involving HMOs based on the Minister's directive
Production of identity cards for beneficiaries	Crisis of confidence because of alleged inappropriate financial transactions by the Executive secretary for card production Slow production of identity cards after NHIS acquired production equipment	Executive Secretary replaced with trusted candidate from FMOH to restore the confidence of technical experts, HMOs and other key actors, and to remobilise and refocus stakeholders and the NHIS on the reform The role of card production was retained within the NHIS to prevent fraudulent production despite the demand by HMOs and other analysts that such roles ought to have been reserved to HMOs

The Minister of Health sought to sustain an effective working relationship with the primary operators (HMOs). To maintain harmony between NHIS and HMOs, he enforced changes in key staff within the NHIS Secretariat between 2003 and 2007. His support for HMOs threatened the influence of the NHIS managers, and aroused the suspicion that he had financial interest in the HMO industry. Nonetheless, as the quote by an HMO owner below demonstrates, his intentional engagement of HMOs helped sustain their willingness to implement the FSSHIP and their confidence in the government programme.

*“Because that kind of money (retained by the NHIS) was so much, it gave him (Executive Secretary) so much power and arrogance and fearlessness. Thanks to (the President) who was in charge and (the Minister of Health) who anytime we raised issues, would call him (Executive Secretary) to order” (HMO Owner).*

### Consolidation

Early in 2007, the President appointed a new NHIS Executive Secretary. The NHIS leadership earned the confidence of HMOs early because of the influence of the Minister of Health, and continued to look to them for technical advice. Following a change of government in 2007, a new Minister of Health (a clinician) was appointed and was expected to continue exercising oversight on the NHIS, but his interests (and that of the FMOH under his leadership) differed from his predecessor's. This period was characterised by little attention from the FMOH, and the absence of a governing council. At the same time the NHIS received funds from the Millennium Development Goals (MDG) office of the President in 2008 to commence a wholly subsidized maternal and child health programme in public health facilities using HMOs as financial intermediaries (International Social Security Association, 2011b, Briscoombe and McGreevey, 2010, CareNet Nigeria, 2008, Dogo-Mohammad, 2012, International Social Security Association, 2011a). It also accredited and registered additional HMOs even though the criteria for accreditation were not defined.

Towards the end of the decade, the NHIS leadership gradually disengaged from dependence on FMOH for leadership and on HMOs for technical advice. The Executive Secretary was involved in a legal tussle with the federal government over an attempt to interrupt his tenure, which made the Minister of Health and FMOH officials even more reluctant to engage with the NHIS. In 2011, the NHIS signalled a break from the past by independently developing stricter guidelines for HMO accreditation. Having lost the influence they had through the Minister of Health during the “Constitution” phase, HMO leaders noted the changes in the balance of power but admitted that divisions existing amongst HMOs constrained their ability to oppose new regulations, leaving the NHIS to now *“do what they want to do”* (HMO manager). The NHIS also engaged directly with HCPs. Under the scheme, it accredited and monitored HCPs at federal and state levels, independent of federal and state Ministries of Health that statutorily regulate them.

Through advocacy visits to states, the NHIS encouraged adoption of the NHIS programme by states, and discouraged attempts by some states to commence state-level health insurance schemes. This position was however contrary to that of the National Health Financing Policy (FMOH, 2006), and HMOs saw such schemes as opportunities to expand their business interests. States that piloted such schemes (mainly with the technical support of HMOs) responded by giving them various names - *“Managed care scheme, social health protection and health services scheme... but they all had features of the NHIS except in name”* (Policy maker).

Despite conflicts of interests that characterised the consolidation phase, the NHIS, having established itself as the prime driver of the agenda for health insurance, forged on with its implementation. Nearly 5 million beneficiaries (already covered during the commencement period) were registered, but the actual figure is believed to be less than 3 million because *“many civil servants that were given cards have retired and dropped out of the system and new ones are still being registered”* (Policy maker). Given the paltry public interest in its

programmes, and the inability to extend coverage to state government employees (Onoka et al., 2013), the NHIS began to develop more programmes (11 in total) with separate pools, for “different segments of the society” (NHIS, 2012). It also led the effort to galvanise stakeholders’ support to revise the NHIS Act, to make uptake of health insurance by all Nigerians mandatory. However, public sector bureaucracies involved in the legislative process and delays in reaching stakeholder consensus have frustrated this effort.

#### ANALYSING STAKEHOLDER POSITIONS AND INFLUENCE ON THE POLICY PROCESS BASED ON THE FOUR PHASES OF POLICY DEVELOPMENT

The need for strategies to improve healthcare funding during the economic recession of the 1980s stimulated the development of the NHIS. However, the policy development stalled in the ‘consultation phase’ owing to a number of factors (See Figure 4.1). The military government was absorbed in a failed political transition programme, and also superintended over the substitution of public welfare systems as part of a structural adjustment programme demanded by international creditors (Orubuloye and Oni, 1996, Barnes et al., 2008). Thus, the NHIS policy was not a priority of the financially constrained military government, nor of the Minister of Health who was more concerned with using available resources to develop primary healthcare systems.



During the 'consultation phase', HMOs emerged as a policy solution to overcome the perceived incapacity of public systems to implement the proposed NHI. The reliance on individuals that had interests in the HMO industry for policy development and technical advice allowed HMOs to influence the reform process, based on their knowledge of international managed care operations and experiences in the field. Even though Ministry of Health officials still modified HMOs' inputs, key responsibilities such as revenue collection from all public and private employers and employees under the scheme was statutorily provided to HMOs in the legislation, even though this was never implemented. However, their entry led to modification of NHIS Act in a way that favoured their interests at the time, and to significant changes in the position and influence of critical stakeholders (state governments) on the NHI policy.

*"At that time many other key stakeholders were not really interested in what was happening. So they (HMOs) moved in and they were able to influence the operational guidelines and policy" (NHIS official).*

*"We were the ones that wrote many of these things for them. You know we wrote the guidelines... we wrote many of the operating standards and manuals of the NHIS" (HMO owner).*

During the 'commencement phase', the primary factor leading to the launch of the FSSHIP was the leadership role played by the new Minister of Health in 2003 (Tables 4.3 and 4.4). Those roles were facilitated by some factors, foremost the strong political support of the President. Like the Minister, the President saw establishment of NHI as a major political objective. The key financial challenge of making employer contributions was overcome by the government's release of 24 billion naira (US\$ 160 million) for all federal employees (whether registered or not) to the NHIS, as employer's contribution. This was in line with the Minister's advice to the President that funds designated for the 'medical-benefits' component of the federal government's new monetization policy for civil servants should be used for the FSSHIP.

Additionally, the absence of a governing board, sanctioned by the President, enabled the Minister to lead the reform directly, using the FMOH, trusted lieutenants and technical consultants.

The 'health sector reform' programme led by the Minister through the FMOH, which included the development of a National Health Financing Policy, attracted development partners who then made inputs into the NHIS policy. The health financing policy was structured to discourage retainership systems, promote purchaser/provider split for the NHI, allow private health insurance, encourage formation of state health insurance schemes, and expand the NHIS to include informal sector groups (FMOH, 2006). These changes led to shifts in stakeholder positions (Figure 4.1). HMOs became more powerful, at the expense of the NHIS managers, while civil servants remained opposed to making employee contributions. Nonetheless, the overall outcome was that all federal government employees were covered by the FSSHIP.

During the 'consolidation phase', the seeming disinterest of subsequent Ministers of Health and the FMOH, the decline in supervisory oversight, and the absence of a governing council, allowed the NHIS to position itself as the primary reform driver. Even though the NHIS sought to provide leadership, it seemed unable to galvanise support from other stakeholders effectively, as had been the case when the Minister of Health provided leadership through the FMOH. Having kept both the federal and state Ministries of Health at bay, the NHIS independently carried out statutory responsibilities of these institutions such as registration, accreditation and monitoring of providers for its programmes without their input or involvement. Additionally, there was apparently an intention by the NHIS managers to develop a NHIS that would centrally manage the health insurance pool for the entire country, or at least for employees of the federal government and their families, and those states that were willing to send both employer and employee contributions to its central pool. These behaviours further distanced stakeholders from the NHIS and contributed to limited interest

in its plethora of programmes. The overall outcome of these changes was that coverage expansion stalled.

#### ANALYSING THE INFLUENCE OF CONTEXT ON THE POLICY DEVELOPMENT PROCESS

The context of policy development influenced the process in two critical ways. Firstly, the lack of technical capacity amongst government bureaucrats at a moment when development assistance was also lacking facilitated the reliance on private sector actors for input into public policies meant to regulate their own operations. These actors with explicit private interest in the outcome of the reform altered the policy content, making uptake voluntary and using HMOs as intermediaries, while a further capture by elites that owned new HMOs ensured that HMOs remained a powerful group. This development was contrary to the earlier recommendations about inclusion of states as key stakeholders in implementation, which was later endorsed by local experts set up to review the NHIS programmes in 2004 (FMOH, 2003).

Secondly, the NHIS policy documents were developed under the centralized “command system” of governance of the military era, but implementation could not commence until the democratic era. The change to a voluntary system failed to consider the feasibility of implementing such a system in a country where states, representing federating units, have power over choice of reforms (Onoka et al., 2013). Under military governments, state military governors would naturally obey the command of the head of state (Osaghae, 1992), and would enrol state government employees. In contrast, the democratic environment allowed the re-emergence of contentious issues, negotiations with stakeholders on matters for which they previously only played advisory roles, and the possibility of stakeholders assuming positions that in some cases opposed those of the federal government. Consequently, not only did the private sector that promoted the idea of voluntary enrolment take advantage of the design to overlook the FSSHIP, the NHIS has also been unable to compel state governments to enrol (Onoka et al., 2013).

## LESSONS FOR UNIVERSAL HEALTH COVERAGE REFORMS

The analysis here reveals the dynamism inherent in policy change, and the complexity of the policy process due to stakeholder interests and exertion of power over a UHC-related proposal. Overall, the analysis supports the theoretical proposition guiding the study, and shows that actor (HMOs') interests shaped the policy content, actor positions and power (especially those of the Minister of Health and the President) determined the pace of the reform, and changes in actor positions (states and private employers) affected the coverage achieved by the NHIS reform. A number of useful lessons are apparent for UHC reforms.

Health financing policy processes can progress quickly when high profile political actors drive the process. The political interests of the Minister of Health and the President in the agenda, and the power they brought to bear in the process, were critical facilitators of the policy process. Similar observations have been made by other studies (HISRO, 2012, McIntyre et al., 2013). In contrast, reforms can stall without political support, as observed in South Africa, where health financing reforms of interest to the Minister of Health and the President progressed at the expense of a NHI proposal (Thomas and Gilson, 2004, Gilson et al., 2003). Those managing UHC reforms should have the power to galvanise stakeholder support, manage conflicts, and provide effective leadership for the agenda in order to achieve policy intentions.

Private sector actors with interest in a policy reform that play policy-making roles through public-private partnerships may significantly influence the policy content and outcome of UHC reforms in their favour. Private sector actors may have varied interests in the policy outcome (Pillay and Skordis-Worrall, 2013), and may gain insider roles in the process as its supporters (Thomas and Gilson, 2004, Pillay and Skordis-Worrall, 2013). In this study, the insider role that HMOs gained allowed them to substantively influence the nature of the regulatory system that was meant to guide their operations. The finding confirms similar observations in the literature (Iriart et al., 2001). The additional finding that elites, including those in the

government that had private interests in the HMO industry, were amongst the private sector further portends the likelihood that regulation will be impeded by vested interests. Such situations contribute to failure of regulation (Sheikh et al., 2013), and justify deliberate stakeholder management (Thomas and Gilson, 2004).

The dependence of policy makers on potential or established HMO owners for technical aspects of the reform enabled the advancement and integration of HMO interests into policy. Public officials in many low and middle income countries often depend on private sector actors whom they are meant to regulate either to overcome deficiencies in capacity (Walt et al., 2008), or to gain support for the policy. The evidence here suggests that such dependence can be harmful to the goals of universal coverage. For instance, the loss of the opportunity to mobilise revenue from states and achieve a larger pool compromised the potential for greater redistribution and equity in the national health insurance scheme. This compares to South Africa (Thomas and Gilson, 2004) and Thailand (HISRO, 2012) where technical analysts rather than private sector actors were key reform actors were available, and participated significantly in the policy process. Their inputs substantially enhanced the content of health insurance proposals to make them sensitive to issues of re-distribution and equity, which are cardinal UHC principles. Policy makers can take advantage of the growing technical capacity within local and international research institutions, in addition to the guidance that abounds in the literature about effective financing strategies (WHO, 2014, WHO, 2013, WHO, 2010), to confirm that strategies included in financing proposals do not undermine UHC goals.

However, collaborating with private sector actors also can have considerable advantages. The interest of HMO owners in the NHIS during periods of pessimism about its sustainability, contributed to the advancement of the NHIS policy. Additionally, the government benefited from private investments in capacity development. HMOs served as platforms to generate and spread experience in health insurance implementation in Nigeria, and this is useful in developing countries where public sector capacity is often limited. Given such positive

contributions, the responsibility rests with public officials guiding UHC reforms to effectively harness the positive contribution of the private sector. They need to be clear about policy intentions and the expectations of interest groups (possibly through stakeholder analysis), and carefully guide policy processes involving public-private partnerships in order to avoid policy derailment.

Nigeria's experience provides evidence from a context where federalism is practiced and authority shared between federal and state governments. It shows that securing federal level commitment does not guarantee that a national health insurance proposal will become a "national" proposal. The technical proposal failed to recognise this critical contextual factor and thus the importance of states in a federal system in governing a national health insurance system, which then impacted negatively on efforts to extend coverage. The federal context of health financing reform in Nigeria demonstrates the importance of context, and the need to align health financing proposals for UHC to the context within which they are developed, in order to enhance their chances of success (WHO, 2014, Savedoff et al., 2012, McIntyre et al., 2013). Re-examining the model, which drew a consensus and had a clear role for states in 1989, will be worthwhile. As suggested elsewhere, states should play a role in fund management and participate in provider and HMO registration, accreditation and monitoring (Onoka et al., 2013). On behalf of the federal government, the NHIS could then provide conditional financial support to cover gaps in poorer states, or deploy funds for uncovered people through state level pools while establishing an explicit mechanism for efficiency and accountability.

For UHC reforms to be successful, effective sector-wide leadership is required to achieve stakeholder interest and support. Experiences elsewhere have highlighted the importance of coordinating UHC reform as a holistic health sector agenda that also addresses critical challenges with access to health services (HISRO, 2012). In Nigeria, the health care delivery systems are controlled by the federal ministry of health (for federal institutions), and the state

governments (through the state Ministry of Health). However, the assumption of leadership for the UHC agenda by the NHIS that operated a parallel financing system challenged the authority and relevance of both the federal and state Ministries of Health in financing healthcare delivery systems that were under their purview. Effective leadership for UHC in Nigeria will imply having a UHC agenda primarily driven by the federal Ministry of Health, since relevant stakeholders in the health sector including state Ministries of Health, HCPs, and development partners have direct link with and are guided by the FMOH rather than the NHIS. Such an approach will allow health financing reforms to be accompanied by reforms in health delivery systems and health sector governance, to ensure effective functioning of the health system. The framework will also allow federal government and local and international donors to provide targeted financial support to extend coverage to those outside the formal sector, and to vulnerable groups (including pregnant women, children and the poor), rather than implementing separate programmes or pools through ministries of health. Such a model that could serve to ensure primary care provision at the state level in Nigeria has been suggested elsewhere (Onoka, 2011). Perhaps the inability of the NHIS to mobilise the broader health sector explains the stagnation in expanding coverage beyond federal employees.

This paper emphasises the point that the policy making process is a highly dynamic and pliable process that involves considerable engagement and negotiations that take time, rather than a quick rational process. However, it also shows that over the time that policy proposals develop, the opportunities that arise due to changes in the policy environment can be strategically harnessed to advance UHC policies by policy entrepreneurs. Political transition can influence the policy process through the emergence of new actors, changes in the position and opinion of existing ones, and the opportunities that emerge for invigorating the policy process. A supportive political milieu facilitated the commencement of the NHIS programme in this study even when some technical issues were still unresolved. Political changes in both Zambia and South Africa similarly created the opportunity for radical and rapid changes in health policy reforms (Gilson et al., 2003) and were strategically harnessed by

policy entrepreneurs to advance Thailand UHC reform (HISRO, 2012). To enable such opportunities to be maximized, those interested in UHC reforms need to maintain their engagement with the policy environment and be ready with well-articulated proposals either to introduce or improve on UHC reforms when opportunities emerge.

Finally, the study underscores the usefulness of policy analysis, and particularly stakeholder analysis techniques in understanding actor interests, roles, and influences over a UHC policy process, and to gain insights into factors that contribute to policy success or failure. The application of stakeholder analysis enriched this study by enabling the assessment of policy development over four periods during which the health sector was led by two ministers with disparate interests, and over periods of military and democratic governments, revealing the importance of actors and context, respectively, in shaping policy processes. The analysis also showed how actor positions changed for reasons including political situations that propelled HMOs to a powerful position in the policy proposal and states into opposing actors, adoption of less resistant positions by states following the entry of a new leader for the policy process, and later, their reversal to a more resistant position with the emergence of a leader (NHIS) for the reform. The analysis shows that retrospective stakeholder techniques can help in characterising stakeholder interests, positions and influences, understanding the reasons for changes in stakeholder positions over time. The reasons identified can help to guide future policy processes, including the development of actor management strategies (Thomas and Gilson, 2004).

## CONCLUSIONS

The experience of developing a national health insurance scheme in Nigeria presents useful insight into the politics of processes that underlie UHC reforms in low and middle income countries and the importance of context in determining the pace and content of such reforms. The opportunity created in the policy space for health maintenance organisations to participate in policy-making allowed them to integrate their interests in the policy in a way

that provided them with the important role of intermediary operator of the national health insurance policy, and compromised the potential for effective regulation and mobilisation of funds from states to extend coverage. Hence, the failure of the technical proposal to recognize the importance of sub-national governments in developing the national health insurance policy presented a contextual constraint to reaching policy objectives. The political transition to democracy created the opportunity for actors with political influence to emerge. These actors subsequently provided the support needed to hasten the policy process. Nonetheless, the outcome of the policy process was a policy design that poorly reflected the context within which implementation was to happen, and which has contributed to the difficulty in expanding the breadth of coverage. The evidence emphasizes the need for public officials in low and middle income countries undertaking health financing reforms for UHC to be clear about policy expectations, identify and analyse the prevailing contextual factors, and to guide the process, especially where private actors are also involved. Finally, the paper highlights the utility of policy analysis using relevant theories and frameworks in understanding the changes in actor positions and influences over time and the impact of those changes on health policy process and outcomes. It also highlights the usefulness of retrospective stakeholder analysis as a descriptive tool that allows such policy analysis to be undertaken.

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## Chapter 5: Competition in the market for health insurance operated by health maintenance organisations in Nigeria

### 5.1 Preface to research paper 2

The analysis in the previous chapter showed how the national health insurance scheme (NHIS) in Nigeria was developed in a way that allowed health maintenance organisations (HMO) to operate the social health insurance programmes of the NHIS in parallel to their private health insurance plans. The conceptual framework for this thesis suggests that understanding the effectiveness of using HMOs as private financing organisations in the national health financing system would require a characterisation of the structure, conduct and performance of the market for health insurance. Hence, chapter 5 focuses on nature of the health insurance market, and the business strategies of HMOs that supply health insurance. The analysis represents the first attempt to present some empirical information about the HMO industry in Nigeria and the products they supply.

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As the first author, I designed the study, including the instruments used, undertook the data collection, analysed the data and prepared the manuscript.

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## 5.2 Research Paper 2

### ABSTRACT

Little is known about the health maintenance organisations (HMOs) that play significant roles in Nigeria's health financing system. This paper analyses their supply of health insurance in Nigeria by examining the products they offer and the nature and outcomes of competition in the market. This exploratory study used an embedded case study design involving mixed (qualitative and quantitative) methods, and was guided by the theoretical proposition that behaviours of HMOs influence and are influenced by the structure and performance of the health insurance market. Overall, the structural characteristics of the market, including the low concentration, the limited barriers to entry, and the existence of differentiated products, distinguish it as monopolistically competitive. The study also revealed a failure of competition in the private health insurance sub-market, due to product differentiation and incomplete coverage arising from risk-segmentation and risk-selection strategies of HMOs. The outcomes included situations observed in other developing country settings: private health insurance coverage is low and focuses on private formal sector workers, poorer groups are excluded, multiple private pools exist, premiums are relatively high for benefits compared to the social health insurance (SHI) programme, and insurer health care and administrative expenditures are high. These findings have negative implications for productive efficiency and coverage expansion. The SHI they supply (which is prescribed and priced by the government) offers more comprehensive care, has better potential to provide coverage for those excluded by the private health insurance plans, and also provides HMOs with some profit. The main opportunity for significantly extending coverage using HMOs lies with deploying their growing infrastructural and financial capacity to expand SHI, if SHI remains the preferred financing strategy in Nigeria. Better regulation of HMOs will also help identify and correct those with predatory behaviours, ensure that the presence of HMOs' private health insurance plans does not undermine government's efforts towards universal health coverage.

## INTRODUCTION

Pooling and purchasing are two of the core health financing functions (WHO, 2000, Gottret and Schieber, 2006). These functions can be undertaken by public or private organisations; and together, they constitute the supply of health insurance (Kutzin, 2001). For private organisations that supply health insurance, the nature of competition in the market for their product, including the structure of the market, the market strategies employed by individual organisations or collectively, and the market performance have implications for their effectiveness in supplying health insurance (Ferguson and Ferguson, 1994, Morris et al., 2007), and in contributing effectively to universal health coverage (UHC).

In Nigeria, the private sector, in the form of health maintenance organisations (HMOs) (Schieber, 1997, Tollman et al., 1990, Chernew, 2001), plays an important role in the supply of health insurance. The factors that led to the development of this arrangement are described elsewhere (Chapter 4). A particular feature of the supply of health insurance in Nigeria is that HMOs both provide private health insurance (PHI) and play the role of purchaser for the social health insurance (SHI) programmes of the National Health Insurance Scheme (NHIS). Coverage of PHI is still quite limited (0.48 million people) (Awosika, 2012). SHI also plays a limited role: about 5 million Nigerians (3% of the population who are mainly federal government employees and their dependants) were reportedly covered under the Formal Sector SHI Program (FSSHIP) of the NHIS (JLN, 2013, Dutta and Hongoro, 2013), but this figure is argued to be as low as 2.35 million (Chapter 4). An unknown number of students in higher education institutions were also included under the Tertiary Institutions' SHI Program (TISHIP) of the NHIS. The SHI programmes of the NHIS represent the main vehicle for expanding coverage in Nigeria to achieve UHC. HMOs therefore have a central role in the plans for UHC in the country.

In order to understand the potential for the approach of providing a role for HMOs in the national health financing system to contribute to universal health coverage, it is important to

describe and critically analyse how the market for health insurance in Nigeria operates – considering both the business practices of individual HMOs, and how these practices influence outcomes at the market level. This also requires unpacking how HMOs manage the two different business streams (PHI and SHI) within a single organisation. The structure-conduct-performance (SCP) paradigm provides a useful framework for undertaking this critical analysis because it allows analysis of the nature and outcomes of competition in the market (Ferguson and Ferguson, 1994, Morris et al., 2007).

This study addresses a gap in the literature about the role of private health insurance in developing countries and the implications of using private organisations to implement national health financing strategies. As such, it can serve to inform policy debates in developing countries which are considering use of private financing organisations in their strategies for universal health coverage.

#### CONCEPTUAL FRAMEWORK

The analysis in this exploratory case study is based on the structure-conduct-performance (SCP) paradigm, which has its roots in neoclassical theory of the firm (Bain, 1951, 1956, Mason, 1939), and identifies the market models of perfect competition, monopoly, oligopoly and monopolistic competition (Ferguson and Ferguson, 1994). The relationships between the SCP elements are viewed in a bidirectional manner, which is premised on more recent literature that indicates that though market structure affects conduct, changes in conduct can also affect the market structure, and changes in performance can influence conduct and market structure (Waterson, 1984, Scherer and Ross, 1990, Shepherd, 2004). Market structure is mainly determined by the number of firms and their shares of the total products sold in the market (summarised as market concentration), how homogenous their products are, and the entry barriers to the market (Ferguson and Ferguson, 1994, Morris et al., 2007). Together, these features determine both the extent and form of competition in the market. The extremes of monopoly and perfect competition are uncommon, while imperfect

competition occurs in the intermediate market structures of oligopoly and monopolistic competition.

The product in this analysis is a *“healthcare plan”*, defined as a set of healthcare entitlements or *“benefit package”* delivered to potential members based on agreed contract terms in exchange for payment of a premium. Healthcare plans offered in the market may be developed by a private or public organisation, and would be homogeneous if they are perfect substitutes. Where they are not, the products are said to be differentiated. The analysis takes the view that HMOs provide PHI in order to maximise their profits, and also supply NHS products to further enhance their profits.

Market conduct refers to the product strategies, pricing behaviours, competition or collusion, and the associated approaches towards marketing (client assessment) and advertising (product promotion), which are deployed by firms in the market to achieve profit maximisation. Such strategies could include product differentiation, which may be vertical (if the benefit package varies), or horizontal (if differences relate to consumers’ tastes and preferences). By differentiating products a firm is able to create a niche for its unique product(s) and competition is restricted. The contract terms and the benefits package represent levers for product differentiation.

Market performance is a measure of the consequence of the participation of firms in a market, and is mirrored by the productive and allocative efficiency, and profits of firms in the market (Ferguson and Ferguson, 1994). In line with the study’s aim, performance was assessed in terms of profitability, and also functionality and efficiency (ILO, 2007a, ILO, 2007b). Functionality reflects the firm’s ability to carry out the health insurance function and is assessed by the member growth rates, premium collection rates and renewal rates. Administrative cost is usually computed as a percentage of total expenditure but can also be computed as a share of total revenue (Mathauer and Nicolle, 2011). It serve as a proxy for measuring efficiency, since it depicts how well insurance systems are managed. Additionally,

the claims ratio (relative to the total premium) also reflects efficiency, as it indicates the ability to provide insurance with the funds generated (ILO, 2007a). Overall, the theoretical proposition that guided the study was that behaviours of HMOs influence and are influenced by the structure and performance of the health insurance market.

## METHODS

### Study design

This exploratory study of the HMO industry in Nigeria employed an embedded case study design (Yin, 2009, Lincoln, 1992) involving mixed (qualitative and quantitative) methods. Case study designs have been used in a number of studies to examine various aspects of markets for health care and health insurance (McCue et al., 1999, Lee et al., 2001, Harkreader and Imershein, 1999, Ginsberg and Buchholtz, 1990, Doonan and Tull, 2010, Denton et al., 2007). Embedded case study designs (applied here) enable the use of multiple subunits of analysis within the case being examined (Yin, 2009), and permit the use of mixed methods to achieve a more comprehensive understanding of a research problem (Creswell, 2009, Johnson et al., 2007).

At the primary level of analysis (industry), market structure elements including market concentration and coverage were characterised using quantitative data about HMO membership. Qualitative information formed the basis for assessing market regulation, and HMOs' relationships and behaviours, and also contributed to understanding the insurance market at the primary level of analysis. The second level of analysis focussed on three HMOs (embedded sub-units of analysis) in order to generate detailed evidence to test the theoretical proposition.

The three HMOs were purposively selected following initial interactions with officials of the industry association, the Health and Managed Care Association of Nigeria (HMCAN), and policy makers (who were also interviewed), who identified them as having large membership. It was assumed that since the HMOs with large membership also had small numbers at some

point, their perspectives would provide a more comprehensive account of the market behaviours of HMOs. The list was finalised to three after approaching HMOs. Three healthcare providers were selected from a list of 10 that each HMO mentioned as serving a relatively large number of its enrollees (above 100). The lists from the three HMOs were then cross-checked to identify three providers that were used by all three HMOs, and had the highest, medium and lowest overall numbers of HMO members. Directors and employees of these healthcare providers contributed further insight into HMO behaviours in relation to beneficiaries. All the participating individuals and firms gave informed consent, while the study received ethics approval from the research ethics committees of the London School of Hygiene and Tropical Medicine, and the Federal Ministry of Health, Nigeria.

#### Data collection

Data collection took place between October 2012 and July 2013 and involved document reviews, in-depth interviews and quantitative measurements. In the first step, legal documents guiding the establishment of HMOs in Nigeria, implementation guidelines for their operations and NHIS publications that provided information related to HMOs, were identified and examined to obtain information about the market. Since many HMOs display their healthcare plans on their websites, existing webpages of HMOs were then examined to retrieve information about the nature of their healthcare plans and electronic product promotion strategies (Annex 5.1). The subunits of analysis then provided in-depth information on existing healthcare plans, beneficiaries, healthcare providers, and HMOs' market strategies, during in-depth interviews. Data were obtained from available operational documents and reports and through 35 in-depth interviews with officials of the NHIS, HMO association, and the heads, owners, managers and unit heads of the three large HMOs and providers.

## Data analysis

Overall, data analysis was interactive and reflexive so that observations arising from document reviews, interviews, and quantitative and qualitative analysis, were used for descriptive and interpretive analysis. Where further clarifications were needed, follow-up interviews and additional data were requested. Finally, the evidence from quantitative and qualitative analysis were connected to generate the study results, and triangulation across the multiple sources of information enabled testing of the validity of evidence.

For the quantitative data, summary statistics including proportions and ratios were computed to calculate performance indicators. Market concentration was estimated based on information on the number of firms in the market and their respective market shares, and was calculated as a concentration ratio (CR), and the Hirschman-Herfindahl Index (HHI). While the concentration ratio is the sum of the market shares of the largest firms in the market, the HHI takes all firms into consideration (Morris et al., 2007). Values obtained from both measures could range from 0 to 1, and HHI was compared against the thresholds recommended by the US Department of Justice (USDOJ, 2010).

Qualitative data were organized using QSR NVivo 9 software. Analysis initially involved inductive reasoning, meant to provide insight into the accumulated data, and then a deductive approach that enabled examination of the data against the theoretical proposition guiding the study. Such a complementary mixed methodological approach that combines inductive and deductive reasoning enhances interpretive understanding of research data (Fereday and Muir-Cochrane, 2006, Johnstone, 2004).

## RESULTS

### Market structure

The structural characteristics of the health insurance market analysed here focus on the number of firms, market concentration, the characteristics of the health plans, and the market entry barriers.

### *Number of firms*

From having a monopoly supplier in 1996, the HMO industry grew to include 12 HMOs in 2004 (prior to the commencement of the FSSHIP), and 76 in 2013 (NHIS, 2013), with a corresponding change in the market concentration. As shown in Figure 1, the four-firm concentration ratio (CR4) in 2004 calculated based on existing literature (Awosika, 2005), was in excess of 40%, interpreted by Scherer and Ross (1990) as suggestive of oligopoly. A decrease in the HHI by 2011 relative to the 2004 figures, was attributed to the entry of more firms due to the FSSHIP, which made the market more competitive. Nonetheless, based on the concentration ratios shown in Figure 1, the market is still dominated by a few firms.

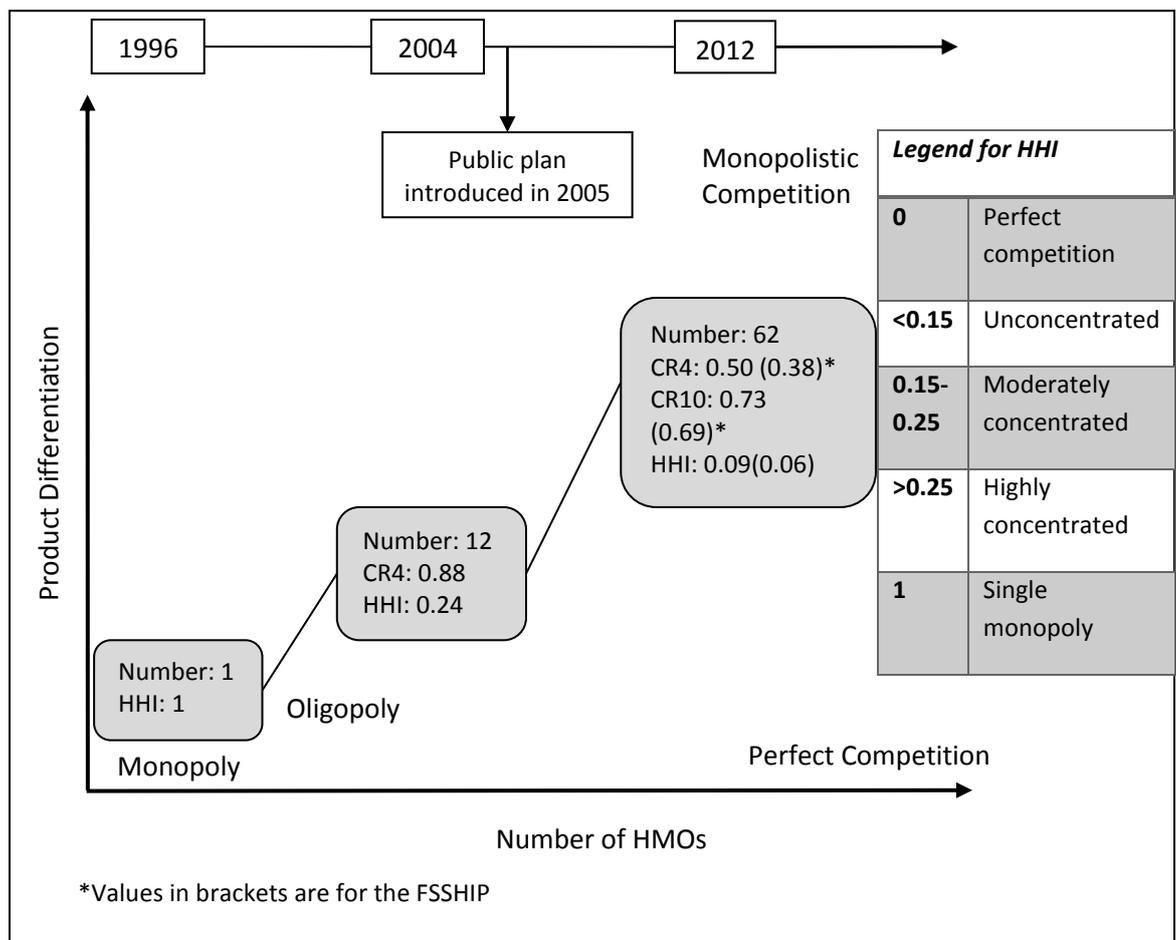


Figure 5.1: Change in the market structure 1996 - 2011

#### *Freedom of entry and exit*

The main barriers to market entry include capital and infrastructural requirements for accreditation. The first notable attempt at regulation of HMOs occurred in 2004 when the NHIS accredited and rated pre-existing HMOs for its proposed FSSHIP (Chapter 4). The regulatory requirements were primarily structured for the NHIS programmes and made no provision for other activities of HMOs. The primary barrier to entry established by the regulator was a capital requirement of 100 million naira (US\$ 0.67million), which was not binding in practice as the government waived the required share capital to encourage HMOs to participate in the public programme (Chapter 4). The relaxed barrier to entry meant that HMOs, many of which “*had no (private) products to sell but were developed because the NHIS had some lives to distribute*” (Policy maker), were able to enter the market. The potential to “*acquire public lives*” (Policy maker) offered by the FSSHIP made HMOs willing to abide by the

NHIS regulations. As more HMOs became, or requested to be licensed, the NHIS suspended the registration of new ones in 2009, because it considered many of the existing HMOs “*weak*” (NHIS official).

To strengthen existing HMOs and to deter new entrants, the NHIS introduced more stringent accreditation and licensing requirements in 2011. The main change was for a HMO (both existing and intending ones) to demonstrate a share capital of 400 million (US\$ 2.7million) to be categorised as a national HMO in order to operate in all states. The figure was arrived at after intense resistance from HMOs helped secure a reduction from an earlier proposed 1billion naira (US\$ 6.7million). HMOs were expected to assume the status of zonal or state HMOs if they could only provide evidence of share capital of 250 million (US\$ 1.7million) and 100 million naira (US\$ 0.67million), respectively. HMOs also had to establish offices, staffed with individuals with a prescribed set of competencies, in various parts of the country.

While HMOs increased shareholders’ funds to meet the new requirements, the focus on capital requirements signalled to HMOs that the NHIS lacked the technical capacity required to effectively regulate private firms. This lack of capacity was also observed within the NHIS.

*A more appropriate requirement should have been to ask for reserves amounting to the level of incurred but not yet reported claims, "that are in tandem with the size of the business, to take care of catastrophes if they occur within your enrolment population based on the size of their enrollee base, and not just saying 400 million."*

(HMO manager)

*"We have a very poor capacity to regulate private health insurance because virtually everyone here came from the background of social health financing, not from private health financing."* (NHIS official)

The outcome was that the revised regulation seemingly “*made way for people (such as politicians) who have money and not necessarily the technical expertise,*” (HMO manager) to

enter or remain in the market even if their operational behaviours qualified them for delisting. Hence, in practice, the entry barriers appear not to be significant enough to deter HMO entry. Rather, by 2013, additional HMOs were registered after the institution of the new regulations (bringing the number to 76), mergers or acquisitions among existing HMOs were not reported, five HMOs were licensed as sub-national HMOs, and all others met the requirements for national HMO status (NHIS, 2013).

#### *The nature of the product*

A description of the historical antecedents of the healthcare plans offered by HMOs is first provided here as a background for an in-depth analysis of the benefit package of the three focal HMOs.

**Historical antecedents:** The foremost HMOs in the industry commenced business by each developing three well-defined private healthcare plans that individuals, families and private firms could choose from, depending on their paying capabilities. These plans were distinguished based on the progressive set of health benefits included. From 2005, the coverage provided by the FSSHIP gave HMOs additional products to supply, appeared to enhance their profits, and also attracted more HMOs into the industry. As HMOs increased in number, trained employees of HMOs were easily attracted by new or existing ones that offered higher salaries or greater responsibility. Owing to limited technical capacity in the industry, and the absence of intellectual property standards, emerging HMOs developed new private plans mainly by adapting the benefits, labels, and strategies of existing plans to give them new names. Their ideas were obtained from documents available to migrating personnel that became initiators or managers in new ones. The result was that many HMOs ended up with *“three to seven different (private healthcare) plans”* (HMO manager), but the similarity in labels of many healthcare plans such as *“Gold”, “Standard”, “Platinum”, “Classic”* and *“Titanium”*, identify them as having a common ancestry (See Annex 5.1).

*“When we go for bids with other HMOs, we have seen in the past, which is very common, a new HMO and even existing HMOs will just doctor (copy) your own proposal and only change names of our plans.”* (HMO marketing manager)

The commencement of the FSSHIP positioned HMOs to be used in 2009 for the tertiary institutions social health insurance programme (TISHIP). Over time, some HMOs also developed private products for the informal sector and rural population groups, which were partly subsidized either by international donors or private firms (Humphreys, 2010).

**Characteristics of healthcare care plans:** As shown in Table 5.1, two categories of health plan existed among HMOs as at 2013, namely, the public (NHIS) healthcare plans (FSSHIP and TISHIP), and the private plans (for the formal and informal private sector). The choice of HMO is restricted for the public plans unlike the case for the private plans. The choice of providers is open in both cases, even though HMOs restrict choice to their preferred providers. Apart from the FSSHIP that offers a uniform benefit package to all its members, other plans vary in their benefit entitlements and the contract terms. Premiums are based on an equal proportion of employees’ salaries for the FSSHIP, flat rates for informal sector groups and variable for private plans. Access to “quantity” discount varies and a 10% co-payment for drugs applied to the FSSHIP is not included in private plans of any HMO because additional charges decrease a client’s interest in a HMO.

Based on similarities and differences identified in private healthcare plans advertised on HMOs’ documents and websites, Table 5.2 distinguishes the benefit entitlements of private health plans and the TISHIP relative to the FSSHIP. These private plans are labelled here as standard (A), intermediate (B) and superior plan (C and C+ or deluxe), having incremental benefits corresponding to their advertised premiums. These premiums generally exceed those for voluntary enrollees of the FSSHIP, even though the benefit package is less generous. Expenditure limits may also apply. For instance, dental care may be included in various plans, but the actual benefit may be limited to one or more dental procedures, namely, extraction,

scaling and polishing, amalgam filling, dentures, and whitening. Similarly, though surgery is included in all plans, the benefit limit for plans available may be N100,000 (US\$670), but up to N300,000 (US\$2,000) for a related higher plan. Providers are also restricted, based on the premiums.

*“There are hospitals set up for the elites and they are not cheap; we always have the one you want based on your pocket”* (HMO marketing manager).

For the TISHIP, differences in benefit entitlements arise because the NHIS allows HMOs to improve on a minimum prescribed benefit package and premium (NHIS guideline, 2012). Tertiary institutions may also engage a *“HMO to prepare a customized benefit package if they so wish”* (NHIS guideline, 2012). Consequently, product differentiation strategies for the TISHIP mirror those observed in the private healthcare plans.

**Table 5.1: Characteristics of the health plans supplied by HMOs**

	PUBLIC		PRIVATE	
	FSSHIP	TISHIP	FORMAL SECTOR	INFORMAL SECTOR
<b>Initiator of health plan</b>	NHIS	NHIS	HMOs	HMOs
<b>Target beneficiaries</b>	Public and private (formal) sector employees	Students of tertiary institutions	Private sector employers and employees Individuals and families	Informal sector employee groups; Urban and rural based “community” groups
<b>Choice of HMO</b>	NHIS allocates government agencies to HMO	Tertiary institution administrators collaborate with their students’ union to select one or more HMOs from NHIS-accredited HMOs	Determined by firms, and individuals	Determined by informal sector groups
<b>Benefit entitlements within HMO and cross HMO</b>	Homogenous	Differentiated	Differentiated	Differentiated across HMOs; Homogenous within groups; and may be heterogeneous across groups
<b>Additional benefits</b>	None	Determined by HMOs	Determined by HMOs and firms	Determined by HMOs
<b>Nature of premiums</b>	Employees should pay a fixed share of their salary and the employer pays twice the amount. However, employees have never paid their contributions.	Variable depending on the extra entitlements added at the discretion of HMOs. However, minimum yearly premium of 1600 naira (US\$10.7) recommended by the NHIS	Flat rates within groups but variable across groups and HMOs	Flat rates within groups but variable across groups and HMOs
<b>Discounts</b>	None	None	Discounts available if group members exceed 20 Average premiums for staff strength ≥ 20 versus <20: - Individual plan - 62.7% (Plan A), 53.2% (Plan B), 71.3% (Plan C);	None

			- Family plan - 65.1% (Plan A), Plan B (61.0%), Plan C (69.8%) - Higher discounts may also be given for more expensive plans	
<b>Co-payment</b>	10% of prescription charge	None	None	Variable
<b>Mechanisms for revenue collection</b>	Government direct allocation to NHIS for public-sector employees; NHIS then allocates funds meant for members to HMOs	Students compulsorily pay premiums along with annual sessional school fees; Institution then remits to HMOs	Firms transfer staff premiums to HMO Individuals and families pay directly to HMO	Visits to leaders of groups, and in some cases, individual members using free-lance marketing staff
<b>Frequency of premium payment to HMO</b>	Four times a year	Annually	Four times a year to annually; but in practice, many HMOs may accept more frequent payments depending on the client	Monthly and in some cases, weekly and even more frequently
<b>Risk Pool</b>	NHIS (overall) HMOs (sub-pool for care beyond primary level)	HMO	HMO	HMO
<b>Choice of primary provider</b>	Beneficiary chooses from a generous range of NHIS accredited providers, including primary, secondary and tertiary facilities	Restricted to the medical centre of the institution	Beneficiaries choose from a list of HMOs' preferred providers	Determined by HMO
<b>Waiting times</b>				
- <i>Access to services</i>	90 days	To be confirmed	14 – 30 days	30 days
- <i>Change of provider</i>	60 days	Not applicable	30 days	30 days
- <i>Authorisation of secondary care (maximum)</i>	24 hours, but variable in practice across HMOs	24 hours, but variable in practice across HMOs	24 hours, but in practice, shorter for plans for the "cream" and often longer for others	24 hours, but longer in practice
<b>Suspension of benefit following failure to pay</b>	Not applicable because NHIS always pays though short delays may occur	No experience	Immediate, but in practice, variable depending on nature of, and previous experience with client	Immediate

**Table 5.2: Similarities and differences in the benefits packages and associated premiums of healthcare plans during 2012-2013 period**

	<b>FSSHIP</b>	<b>TISHIP BASIC<sup>†</sup></b>	<b>Standard<sup>†</sup></b>	<b>Intermediate<sup>†</sup></b>	<b>High<sup>†</sup></b>
Preventive care	Immunization, as it applies in the National Programme on Immunization; health and family planning education (BCG, Oral Polio, DPT, Measles, Hepatitis B, HPV and Vitamin A supplementation)	Yes	Yes	Yes	Yes
	Annual medical check-up unrelated to illness	No	No	No	Yes**
Primary care	Out-patient care, including necessary consumables as in NHIS Standard Treatment Guidelines and Referral Protocol	Yes	Yes	Yes	Yes
	Prescribed drugs, pharmaceutical care and diagnostic tests as contained in the NHIS Drugs List and NHIS Diagnostic Test Lists	Yes (generic prescriptions)	Yes	Yes (branded drugs allowed)	Yes (branded drugs allowed)
	Basic laboratory investigations (Haemoglobin estimation, urine and stool analysis, blood grouping, Fasting/random blood sugar)	Yes	Yes	Yes	Yes
	Accident and emergency care	Yes	Yes	Yes	Yes
Maternal & child health	Maternity (ante-natal, delivery and post-natal) care for four pregnancies ending in live births under the NHIS for every insured enrolees in the Formal Sector Programme. Additional care if any still birth	No <sup>††</sup>	No	Variable	Yes
	All live births eligible to cover will be covered during the post-natal period of twelve (12) weeks from the date of delivery	No	No	Variable	Variable
	All preterm/premature babies eligible to cover shall be covered for twelve (12) weeks from the date of delivery	No	No	Variable	Variable
	Treatment of basic gynaecological problems	Yes	Yes	Yes	Yes
	Caesarean sections	No	No	Yes*	Yes

Secondary & tertiary care	Consultation with specialists, such as physicians, paediatricians, obstetricians, gynaecologists, general surgeons, orthopaedic surgeons, ENT surgeons, dental surgeons, radiologists, psychiatrists, ophthalmologists, physiotherapists, etc.	Yes (diagnosis and treatment)	Yes (diagnosis only)	Yes (diagnosis and treatment)*	Yes (diagnosis and treatment)*
	Hospital care in a standard ward for a stay limited to cumulative 21 days per year following referral	Yes	Standard ward*	Semi-private to private rooms*	Private rooms
	A range of prostheses (limited to prosthesis produced in Nigeria)	No	No	No	Variable
	Eye examination and care, the provision of low priced spectacles but excluding contact lenses.	Examination and care only	No	Variable	Yes
	Dental care (dental check, scaling and polishing, minor surgeries, replacement of up ≤4 dentures)	Yes	No	Variable	Yes**
	Advanced laboratory investigations including HIV screening, Hepatitis, ≥2 Ultrasound scans	No	No	No	Yes
	Hospital stay for patients that had cerebrovascular accidents (up to 12 cumulative weeks), orthopaedic cases (up to 6 cumulative weeks)	No	No	No	Variable
Total exclusion	Occupational injuries, and injuries from disasters, epidemics, extreme sports, cosmetic surgery, IVF, treatment of congenital abnormalities, family planning commodities, special dental procedures e.g. crowns, bleaching, Treatment of HIV/AIDS, cancer, transplants	Yes	Yes	Yes	Yes
	High technology investigations e.g. CT scan, MRI: the HMO would pay 50% of cost. Dialysis (maximum of 6 sessions)	Total exclusion	Total exclusion	Total exclusion	Variable
Expenditure limits	No	No	US\$0-3000	US\$0-6000	US\$0-12000
Premium per person†	N15,000 for voluntary contributors	N1,600 – N15,500	N13,500 – <N30,000	N30,000 – N50,000	>N50,000

\*Expenditure limits apply

\*\*Additional benefits for deluxe plans but expenditure limits may apply

Yes (Included); No (Not included)

†Premiums are as advertised on the websites and product leaflets and documents. See text for description of pricing behaviours in practice.

††This element changed in 2014

## Market Conduct

The business strategies of HMOs are examined here under the categories of cooperation among HMOs, product differentiation, pricing strategies and non-price competition.

### *Cooperation among HMOs*

Managers of the few early HMOs formed the HMCAN in 1998 to serve as an industry trade group to *"protect the integrity and the reputation of the industry"* (HMCAN leader). HMCAN aligned itself to serve as a platform to share information and experiences, promote public awareness of health insurance, negotiate favourable policies for the industry, settle disputes, and discourage inappropriate member behaviour.

*"When the market was manageable, when there were few of us, the opportunities were many, and we could to an extent tell one another that certain plans could not be sold at advertised low amounts without compromising quality or defaulting with provider payments."* (HMCAN official)

As new HMOs entered the market, enabled by the launching of the FSSHIP, the early sense of solidarity gave way to distrust and divisions. A major market leader opted out of the association to shield itself from apparently predatory behaviours of competitors who also targeted the same wealthy clients. New entrants neither had a guarantee of FSSHIP members, nor waivers that older HMOs benefited from, to help them grow. Some newer ones formed a parallel pressure group, which later demanded a change in the process and pattern of beneficiary distribution by the NHIS. An attempt by HMCAN to undertake a general actuarial analysis of industry healthcare plans in 2007 did not sufficiently achieve its purpose because some members declined to submit their data, while some submitted compromised data to avoid sharing business secrets. The aftermath of these events was HMCAN's inability to act as an organ to influence the prices and quality of the industry's products, while individual HMOs further differentiated their products, and adopted competitive (price and non-price based) strategies to enhance their income.

### *Product differentiation*

Product differentiation observed in this study mainly takes the form of vertical differentiation of the private plans and the TISHIP, and is undertaken by HMOs to increase membership. The earliest private health plans were structured to serve individuals and firms with differing payment abilities. To gain or retain desirable membership, health plans were further modified so as to *“cater for every strata of the economy” (HMO unit head)*, based on observations about their varying needs and expectations. This resulted in development of multiple plans for those in the formal private sector, and also informal sector products, which were differentiated versions of the former.

Within the formal private sub-market, vertical differentiation results from a need to gain new members generally and elites in particular, and also the need to retain existing members, especially the elites. To attract new members, HMOs gain advantage over competitors if they are able to respond with a mix of plans that appeals to firms. This is premised on the realisation that *“companies usually have different cadres of staff” (HMO head)* that could be categorised into groups with varied expectations. Employers request more basic health plans for employees in order to offer them some *“opportunity to access quality medical services” (HMO marketing head)*, but often want a mix of plans, which offers more comprehensive benefits to senior staff, owners and directors (see Table 5.2). The inclusion of deluxe plans incentivises employers to buy plans for all their employees.

*“A company is ready to spend millions (of Naira) on certain persons and may not be willing to spend more than two hundred thousand on others”.* (HMO marketing unit head)

To retain existing members, some HMOs reduce the benefit package or benefit limit for some services or for some subgroups within a firm in response to demands for premium reduction, rather than lose a firm because of price. When HMOs encounter client resistance in a bid to

increase premiums to help absorb rising costs of production, the benefits package could be re-adjusted to allow cheaper premiums.

*“Many HMOs are willing to adjust the benefit package and give you something that you want; what your money can afford.”* (HMO marketing unit head)

To retain elites, the requirement for pre-treatment authorisation for secondary care that healthcare providers should seek from the HMO, is waived in practice when the elites access care, in order to provide them faster access to care.

*“In some cases, they (HMO) will tell you, ‘treat before calling!’ both for specialist and higher investigation, if the person is on a higher plan.”* (Health care provider)

Overall, although information about various plans is packaged and advertised to firms and their employees, the different health plans that HMOs develop differ to the extent that an enrollee *“will not know the real difference unless he has actually experienced it (benefits and services covered in the plan)”* (Healthcare provider).

#### *Price setting strategies*

How well premiums correctly reflect the costs associated with the different health plans depends on the existing capacity for actuarial analysis, and the availability and accuracy of utilisation and cost data (apart from profit considerations). Where any of these is lacking, firms may resort to imperfect measures to determine premiums. This section analyses these price-setting considerations.

Flat premiums paid by the government for the FSSHIP and the minimum recommended premiums for the TISHIP were set by actuaries contracted by the NHIS using public data on utilisation and costs. However, the actual prices for TISHIP are at the discretion of HMOs, who adjust premiums using the same approach they take for private plans presented below.

For private plans, one of three different approaches is taken. The first involves the use of actuaries to set prices in an objective manner as that of the NHIS plan. Such analysis uses actual fee-for-service expenditure and administrative cost data. However, assumptions are made for primary care utilisation, because healthcare providers fail to return such data. Consequently, primary care cost data and capitation rates are imperfectly estimated.

The above premium setting strategy is limited to a few market leaders who, in addition to estimating their expenditures, are able to afford the few highly expensive actuaries and the data collection and management infrastructure required to analyse utilisation. Other HMOs that lack actuaries and relevant infrastructure adopt more subjective price setting mechanisms. These include copying premiums charged by the few HMOs that undertake actuarial analysis, using such premiums as a gauge for “in-house actuarial analysis” (HMO manager), or depending on rates obtained from HMCAN’s actuarial analysis. In other words, their premiums are based on market prices rather than actual costs. Premiums are then adjusted over time based on actual business experiences and expenditures.

*“Few HMOs ever have brush with actuaries; some don’t even know where actuaries exist but they are selling products.” (HMO unit manager)*

#### *Price competition*

While the prices of the FSSHIP plans are fixed and determined by the NHIS, analysing the actual prices HMOs charge for private health plans and the TISHIP is difficult. HMOs advertise premiums on leaflets, proposals and webpages, but in practice, the market prices of health plans vary across clients as private negotiations lead to downward review of prices or benefits. Using mainly qualitative data, price competition is examined here for homogenous products as such behaviours are more difficult to observe with differentiated products.

The first and most common form of price competition in the market, which exemplifies HMOs as price-takers, is displayed by HMOs that simply offer similar plans at cheaper premiums based on premiums copied from competitors.

*“Some HMOs take 3 or 4 rates and put them together, this one is 20,000 (Naira) and this one is 17,000 (Naira). Okay, let us put ours at 15,000 (Naira).” (HMO manager)*

The earlier noted strategy of gaining access to competitor information creates the situation that both “undercutting” (intentionally presenting lower premiums to firms for defined health plans already proposed by other HMOs in order to outwit them) and “low-balling” (irrational adoption of prices generally assumed to be less than the actual cost of defined health plans) exist in the market. HMOs that behave this way assume that the premiums of market leaders should have sufficiently accounted for anticipated medical losses and profits. Given the absence of regulatory control for such opportunism, some leading HMOs neither include their premiums in business proposals, nor agree to share this information with the NHIS and academic researchers.

*“There is a lot of low-balling and under-cutting... In fact, there are some businesses that we lost like that even though you know that due to current realities, no one can provide that package at that price.” (HMO owner/manager)*

*“Sometimes, you have to find where to get the information (about proposals of others) so as not to out-price yourself.” (HMO marketing unit manager)*

Secondly, HMOs offer trade discounts to new firms (including clients of competitors) in a way that reflects second degree price discrimination (i.e. discounts for homogenous products based on quantity demanded). Such discounts are available to firms with 20 or more members, and firm employees with dependents (Table 1). Conversely, none of the HMOs studied offered group-based discounts for informal sector plans.

Thirdly, third degree price discrimination (based on a beneficiary's characteristics) also occurs for private plans. Community-rated group-based premiums are offered to firms with 20 or more enrolling staff. To reduce financial risks, elderly persons are excluded from being dependents if the HMO allows unmarried employees to include relatives as dependents (in order to maintain harmony among employees). Conversely, premiums for individual and family-based private plans are risk-rated following a pre-policy risk assessment. Those with health risks such as hypertension, diabetes, sickle cell disease or kidney disease are either excluded or offered higher premiums. Higher premiums or a waiting period of nine months to one year are also applied for immediate coverage for pregnancy-related and surgical care.

Price competition due to adoption of more productively efficient strategies was observed in one HMO that made use of focal health providers for informal sector groups. These providers agreed to receive lower capitation rates, while large clusters of beneficiaries were allocated to them by the HMO. This mechanism reportedly helped the HMO offer healthcare plans that compared with those of competitors at lower prices than those of competitors, whose prices were similar to those of standard plans, because of assumptions of high utilisation rates amongst such groups. To further control expenditure, and so achieve lower premiums, it used freelance staff, remunerated on a pay-for-performance basis (fixed fee for service), to promote its products, recruit members and collect premiums.

Overall, the characterisation of most HMOs as price-takers is best highlighted by their responses to rising operational expenditures within the HMO, or to demands from providers because of similar conditions. In such situations, HMOs expose themselves to risk of losing members (firms, groups and individuals that pay promptly) to other HMOs when they attempt to review premiums. Consequently, HMOs revise their prices upward only when they have opportunities or are overwhelmingly pressured to do so. Between price revisions, they absorb rising expenditures rather than lose clients to competitors, since the cost of replacing clients lost because of premium revision is considered high.

*“We are faced with much heat of increasing providers’ payments, but cannot readily translate that to the clients. That is one of the reasons our (medical) loss ratio is rising.”* (HMO head)

#### *Non price competition amongst HMOs*

Since the only scope HMOs have for raising prices is where they don’t face competition, the industry is replete with non-price competitive behaviours aimed at gaining brand loyalty, and increasing market share. HMOs expend considerable effort on product promotion, which is mainly aimed at attracting wealthier and more profitable firms to private plans. The most prevalent strategies identified focus on quality of medical care and beneficiary support services, financial stability, and business scope.

The capacity to attract highly qualified, experienced and efficient managers and staff, which HMOs believe that firms consider fundamental to efficient and quality service delivery, is applied as a market strategy by bigger HMOs. A predominant focus is the display of the medical inclination of the HMO managers to indicate the HMO’s ability to deliver quality medical care. With the assumption that most Nigerians specifically associate quality with availability of medical doctors in any healthcare system, some HMOs are intentionally advertised as “medically-run”, “medically-managed”, “medically-driven” or “medically-focused” HMOs. To attract firms that previously opted for HMOs with cheaper plans but may be dissatisfied with the quality of services offered, some HMOs adopt a “territorial marketing” approach to advertisement (HMO marketing unit head), which involves observing, revisiting and courting such firms with testimonies of better service quality.

*“The major determinant of success (retention) is the ability to render quality service specified in the benefit package... it is not just because premiums are higher that companies move (to other HMOs).”* (HMO medical unit manager)

A second quality-related product promotion strategy focuses on the effectiveness of the HMO's service delivery process. Advertisements about investments in 24-hour telephone and electronic member support systems abound especially on HMO webpages and product documents. HMOs also draw attention to their investments in data processing infrastructure, data management staff, and actuaries, as justifications for prices set for desired service quality. Such HMOs argue against competitors who, "*because they don't know what your utilization is, they can offer you anything*" (HMO unit head), but would later compromise on service quality.

Capacity as a financially stable institution is also used to appeal to the interests of potential clients whose risk-taking behaviours are also influenced by their sentiments about the safety of their contributions. This approach is explicitly adopted by HMOs formed by banks and insurance companies, who advertise their link with a recognised bank "group" with a huge capital deposit. To counter such adverts, some big HMOs not affiliated to banks, display their membership of a group or consortium which may include insurance, oil and gas firms, and international managed care companies.

The floating of informal sector plans, though unprofitable, is undertaken "*for prestige*" (HMO owner/manager) by many HMOs, to display their interests in corporate social responsibility, rather than just profits. Though many HMOs advertise such plans, in practice only four reportedly make some investment to develop them. However, advertising such plans when making proposals to private firms also creates the impression that "*the HMO is a major player in the industry*" (HMO head), and that it has a wide business scale. It also gives the HMO the opportunity of being seen by potential investors or organisations interested in funding informal sector plans or "community based insurance" as a HMO with experience in such areas, and so one that can be engaged.

To gain members under the FSSHIP of the NHIS, non-price competition was also observed. The earlier noted distrust within the industry partly arose because a leading HMO was reported to

have promoted to policy makers a model in which they would be the monopoly operator of the proposed FSSHIP (Chapter 4). Prior to the launch of the FSSHIP, the initial idea was to provide HMOs with the mandate to compete for government agencies and formal private sector employees, to collect their contributions, and to reimburse health care providers. The policy proposal for HMOs to compete for government employees was abandoned for a mechanism in which the NHIS (based on financial and infrastructural endowments) because a new HMO reportedly garnered the endorsement of half of the targeted government agencies with promises of financial favours. No defined mechanism was used to allocate members to the HMOs which were registered afterward. Rather, HMO owners developed strategies to court the favour of the NHIS managers that allocated members.

*"None of these HMOs is perfect; so why would all these people (public agencies)...just like that, overnight decide that they were going along with one?" (Policy maker)*

*"You know any 'allocation mechanism' (emphasis) has things that are behind it, you know. So what one can argue about is the fairness and equity in the allocation. What are the guidelines for allocation between A, B, C, D? There is none! I like you, I give you some." (Former NHIS official)*

### Market performance

The analysis here examines market performance in terms of functionality, efficiency and profitability (see Table 5.3).

In terms of functionality, the FSSHIP accounts for a larger population of HMO members than private plans. The latter are less likely to cover dependents of members compared with the FSSHIP as shown by the lower dependent/principal member ratios. Member renewal rates also show that each year about 20% of clients fail to renew their contracts. Companies may be unable to pay premiums or may intentionally terminate their contracts, which helps explain the premium collection rates ranging from 79% - 90% reported in Table 5.3. Those that fail to

pay may also *“go and buy into another HMO”* (HMO unit head) because of poor regulatory control of the market. The predominant belief is that firms that drop out, actually move to other HMOs rather than discontinuing health insurance for employees.

With regards to efficiency, the administrative costs found in this study (Table 5.3) are accounted for by costs of marketing, advertising, setting premiums, negotiating and renegotiating reimbursement levels, maintaining beneficiary support system, litigation to recover debts owed by firms for private plans, and manual claims verification and processing systems. Payment to providers (who could number up to 300 per HMO) is done on a monthly basis and separately for private and public plans, and involves issuing bank drafts, which incur processing and courier costs. Even though a few HMOs are investing in new technologies to reduce their costs over time, they are still limited by the fact that healthcare providers make little use of electronic systems to submit their data. Rising claims ratio for HMO B (see Table 5.3), which also depicts productive inefficiency, was attributed to its inability to raise its premiums over a 5-year period despite increasing demands for price revisions by providers. HMO C was able to change its premiums to accommodate such changes in its expenditures and as reported by its manager this was possible because it had a reputation for quality among the majority of its members.

Experiences of the older HMOs suggest that making profits through the private plans in the short run is difficult. Early HMOs struggled with low profits and sometimes losses, selling their private healthcare plans. As noted by a HMO owner, *“It took us 7 years to break even, during which we survived on bank interest from other savings”* (HMO owner). Hence, though some enterprises had interest in the market, many refrained from entering until they were certain of being allocated FSSHIP members. HMOs’ participation in the FSSHIP was reportedly *“life-saving”* (HMO manager/owner) at the time. Product differentiation and promotion provide the avenues through which profits can be obtained from the formal private sector plans.

The private informal sector plans are also not considered profitable by HMOs and resulted in such plans being abandoned. For instance, one HMO reported a medical loss ratio (total losses in claims as a percentage of premium earned) of 111% for its informal sector plan in 2011, which was driven by a high rate of caesarean sections.

For the FSSHIP, HMOs intentionally engage in the sub-market to generate as much revenue and profit as possible. A major reason is that utilisation rates for secondary and tertiary care are reportedly very low because of low awareness amongst beneficiaries, which leaves HMOs with significant profits from such plans. Thus, HMOs appear to make relatively more profits from the FSSHIP than their private plans.

*"If you look at the books of all HMOs today, you will note that they make their money from social health insurance. But if you ask them, they will give the impression that they make more money from private health plans, but it's a big lie. If the government wipes out any role for HMO in social health insurance today, HMOs will go begging."*

(Policy maker)

Additionally, HMOs leverage on the access to predictable funds to promote the market for private plans, as they are able to compensate for vagaries in financial flows in the private market using deposits from the public plans. The revenue from the FSSHIP is seen as *"guaranteed income"* (HMO manager) because the amount and frequency of payment are predictable. Interest earned from such funds deposited with banks also generates considerable profits for the HMOs. The significant growth of one of those HMO was reportedly *"powered by the establishment of Nigeria's National Insurance Fund (NHIS)"* (IFC, 2007).

For the TISHIP, HMOs exhibit immense interest in the plan despite its low premium offering because of its potential to yield significant profits. The first reason is that the target group includes largely healthy members whose frequency and intensity of utilisation are assumed to

be low. Secondly, large number of members are gained from single contracts with a university, which provides opportunities for scale efficiency. Thirdly, as summarised by a HMO manager, “many of those services people add which make them inflate their premiums are really not necessary.”

**Table 5.3: Basic market performance indices of selected HMOs**

	HMO A	HMO B	HMO C
Total number of members covered by FSSHIP (Dependents/Principal ratio)			
<b>2009</b>	169704 (2.1)	101509 (2.3)	164906 (1.9)
<b>2010</b>	170000 (2.2)	102751 (2.3)	158569 (1.9)
<b>2011</b>	163400 (1.9)	95131 (1.9)	165124 (1.8)
<b>2012</b>	177894 (1.9)	98511 (1.9)	167529 (1.8)
Total number of members covered by formal private plans (Dependents/Principal ratio)			
<b>2009</b>	36982 (0.87)	9086 (0.93)	36446 (0.86)
<b>2010</b>	53664 (0.89)	15546 (0.98)	55894 (0.86)
<b>2011</b>	61498 (0.83)	13875 (0.93)	63297 (0.93)
<b>2012</b>	72160 (0.93)	22678 (0.93)	62085 (0.94)
Renewal rates for private plans			
<b>2011</b>	81.3%	79.8%	81.6%
<b>2012</b>	78.3%	74.6%	80.2%
Premium collection rate (premiums collected as % of premium due)			
<b>2009</b>	81.5%	84.7%	79.6%
<b>2010</b>	87.8%	86.7%	82.1%
<b>2011</b>	83.2%	89.9%	80.1%
Administrative expenditure as % of total expenditure			
<b>2009</b>	25.2%	26.8%	29.1%
<b>2010</b>	27.7%	22.5%	34.2%
<b>2011</b>	29.4%	30.3%	28.8%
Administrative expenditure as % of premiums earned			
<b>2009</b>	20.7%	25.2%	20.0%
<b>2010</b>	24.1%	22.0%	21.5%
<b>2011</b>	30.8%	23.7%	25.4%
Claims ratio (total claims as a % of total premiums)			
<b>2009</b>	74.5%	68.7%	79.1%
<b>2010</b>	72.3%	75.7%	77.3%
<b>2011</b>	67.2%	75.3%	72.4%

## DISCUSSION

The analysis here represents the first attempt to present an empirical analysis of the HMO industry in Nigeria, considering both the practices of individual firms, and the operation of the market as a whole. The evidence reported provides insight into the market structure, conduct and performance of the health insurance market, and their interrelationships in determining the industry's ability to supply health insurance and thereby contribute to universal health coverage.

The structural characteristics of the market, including the low concentration, the limited barriers to entry, and the existence of differentiated products, distinguish it as monopolistic competition (Varian, 2010, Parkin et al., 2008). The industry is characterised by a cycle of poor information about costs, product differentiation, non-price competition, and further market segmentation which are mainly focused on the private plans. There is significant price competition, which could lead to reduction in premiums at least in the short term (Wholey et al., 1995), but unfortunately, the price competition is not premised on improved productive efficiency, but is rather influenced by predatory pricing which is not based on actual cost information. Such behaviours which occur because of poor regulation, coupled with market segmentation strategies aimed at increasing market share, create incentives for product differentiation and risk selection. The outcome is the lack of interest in providing coverage for informal sector groups, and discrimination against the poorer groups, the elderly, and pregnant women.

The HMO industry supplies two categories of health plans – public (FSSHIP and TISHIP) and a set of private (PHI) plans (for the formal and informal sector). These plans constitute multiple health insurance pools and sub-pools. While the FSSHIP is designed and controlled by the NHIS, the private plans are the prerogative of HMOs. Compared to the latter, the public plan (FSSHIP) includes a more comprehensive and equally available benefit package for relatively cheaper premiums, and allows more room for provider choice by beneficiaries. The TISHIP

represents a private product in practice, except that its minimum price and benefit entitlement are fixed by the regulator. The above four plans define HMOs in Nigeria as multiproduct private firms. Since these products are supplied in a way to meet the expectations of different sub-groups that need insurance, the health insurance market operated by HMOs can be said to consist of four main market segments, which creates the potential for HMOs to behave differently in relation to each segment, in order to increase their market shares and maximise profits.

Together, the firms' conduct and the structure of the market influence the industry's performance. As a result of product differentiation and promotion, HMOs incur additional administrative and transaction costs, which could mean low profits, the need for premium increase, and the risk of loss of market share. Compared with their counterparts in the USA, the administrative costs are higher (Sherlock, 2009). The extent to which premiums are raised is constrained by strong price competition in the market, and the risk of incurring further marketing costs in order to maintain market share. The threat of reduction in market share then creates the incentive for further product differentiation and flexible pricing to retain firms. However, the actual or perceived performance of HMOs in the market influences the interest of new enterprises in the market and as such, the number of HMOs in the industry, and by implication the market structure. Leaning on social security funds like their counterparts elsewhere (Iriart et al., 2001), HMOs leverage revenue from public programmes to make as much profit as possible and also to sustain their market share. Such situations provide HMOs that benefit from them with an opportunity for economies of scope, which has implications for a HMO's market share and behaviour.

There are two main reasons for productive inefficiencies in the HMO industry. The scarcity of actuarial analysts implies that actual costs are difficult to determine, resulting in a reliance on information about competitors' selling prices for premium estimation, and creating the room for inflation of profit margins to avoid making losses. The fact that HMOs are able to offer

discounts and also show flexibility with premiums during negotiations, strengthens the view that sufficiently large profit margins are accounted for in premium determination. Secondly, adopting product differentiation strategies is only worth it when it affords a producer greater profit making potential than would be the case in single markets. However, significant costs are expended in promoting various health insurance plans, which thus encourages wastage. Apparently, the uniform nature of the FSSHIP does not support wastage on product promotion, which makes SHI more efficient, while the TISHIP, also called a SHI programme, has been structured to flourish like private plans.

The fact that competition promotes risk selection, which was observed in HMOs, limits the scope for coverage that HMOs can provide through their private plans. Like their counterparts in the USA (Baker and Corts, 1996, Hellinger, 1995, Hellinger and Wong, 2000), HMOs had an incentive to overproduce plans for wealthier, more profitable groups compared with lower-priced actuarially-fair products that could also be welfare enhancing. Relatively poorer groups, such as informal sector groups delineated through market segmentation, or more-junior firm employees, are also provided plans that exclude or restrict important benefits such as maternal health care and quick access to care which has implications for service quality, while their interest in the healthier groups in the TISHIP was considerable. Potentially less healthy groups (including those with chronic conditions and the elderly) are either excluded or charged high premiums. Such demand-side measures which are common in private insurance markets aim to avoid adverse selection (Pauly et al., 2006), but promote inequities.

Overall, the findings of bidirectional relationships between structure, conduct and performance of the market for health insurance are consistent with the theoretical hypothesis that guided the study. The analysis here shows that health insurance market failures are evident in the private sub-market, and such failures can be linked primarily to the business conduct of HMOs. First, there is imperfect competition, due to product differentiation, which does not guarantee that consumers pay actuarially fair premiums. Secondly, there are

inefficiencies mainly arising from high administrative and transaction costs. Thirdly, there is incomplete coverage which arises from risk-segmentation and selection strategies of HMOs, and results to considerable inequities. The outcome of competition in the market includes situations observed in other developing settings (Zigora, 1996, Campbell et al., 2000, Sekhri and Savedoff, 2005, Awosika, 2007, Drechsler and Jutting, 2007a, Drechsler and Jutting, 2007b, Bitran et al., 2008, McIntyre, 2010): private health insurance coverage is low, and focuses on private formal sector workers, poorer groups are excluded, multiple pools exist, premiums are relatively high for benefits compared to the social health insurance programme, and insurer health care and administrative expenditures are high due to behaviours that promote inefficiencies. These findings confirm earlier suggestions by Onwujekwe and Velenyi (2010) that even though implementation of private health insurance in Nigeria was feasible, it would end up being concentrated among the larger private firms, wealthier households, and urban dwellers that expressed a greater willingness to pay than smaller firms, poorer households and rural dwellers.

In Nigeria, population coverage figures available have only reflected the membership of the FSSHIP because of poor information about private sector plans. This study has provided some information about the number of health plans sold by HMOs in their attempt to provide PHI in Nigeria. This number has been drawn from HMOs that are amongst those with the largest memberships. The evidence here suggests that there is little scope for expansion of coverage with PHI plans, since the majority of Nigerians are not among the preferred clients of HMOs. The approach of allowing HMOs to reach out to tertiary institutions of learning to cover that segment has potential to expand coverage to the young population, more so because such groups appear profitable because of assumptions about their low health risks. Public interventions to encourage social health insurance mechanism seem to offer greater chance of providing coverage to excluded groups.

While consideration could be given to use of HMOs as private organisations to extend SHI mechanisms, policy makers do not need to dismantle the PHI market, but rather, to define its role in the health financing system, and to set up effective regulation over it to ensure that its presence does not undermine government's efforts towards universal health coverage. The requirements for capital, labour and infrastructural investments as strategies for regulatory control appeared impotent in controlling negative behaviours among HMOs and highlight the regulatory weaknesses in the healthcare financing system, and the need for their improvement. Addressing inefficiencies in the market will require the use of more objective strategies for cost estimation, and regulatory interventions that enhance transparent behaviours amongst HMOs. HMOs that engage in negative behaviours also need to be identified, and incentives and sanctions implemented to ensure that only HMOs that are willing to conduct business properly remain in the market.

#### Limitations and strengths of the study

In-depth analysis was limited to a few HMOs in the industry, which restricted the evidence that could have enhanced the inferences from the analysis. It would have been useful for information to be obtained from HMOs that have a small number of members, in order to understand their perspectives. However, there was a general aversion to sharing information in the industry. For example, one of the HMOs that was approached to participate in the study declined to share its information, citing an unwillingness to share its business secrets, within a market environment that was poorly regulated. Since the NHIS does not systematically collect administrative cost and health plans' benefit packages and price data from the industry, the case studies were the only source of quantitative data. Consequently, analysis of price competition using quantitative methods is impossible at the moment. Despite the above limitations, the information available provides practical insights into the supply of private and public health insurance plans in Nigeria. The case study approach used provided information on actual market behaviours that helps overcome the challenge posed by the cross-sectional

nature of neo-classical economic methods, which aggregate groups, and in so doing, lose relevant information that characterises individual firms (Ferguson and Ferguson, 1994).

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Annex 5.1: Information from websites of HMOs

**Premium Health**  
Health Maintenance Organization

Product differentiation among HMOs:  
*some reasons for differentiation*

**Premium Basic**

Following market segmentation approach and in our desire to sell an all inclusive health plan that can be affordable to all, we came up with the Basic plan which is our lowest plan for individuals, group and companies. The plan though covers basic health needs of Client e.g. Malaria treatment etc has in it a lesser bouquet of Benefits. The services/benefits covered are:

1. General Out patient care
2. Prescriptions and Drugs
3. Basic Laboratory Services
4. Routine Immunization
5. Surgical Procedure (Minor)
6. Admission (General ward) 10 days/year
7. Pre-registration medical examination
8. ECG

**Premium Select**

With this, clients are offered additional Benefits which clearly differentiate it from the first. it is design with specific segment of the economy in mind and helps in providing the clients with choice. Though this also has benefits that are not covered, it is believed to offer better choice for Clients. Below are some of the benefits that are not covered. The plan has the following benefits in its bouquet:

**Premium Platinum**

This is the flag ship of our plans and also the latest addition to Premium Plan Family. Its introduction was as a result of demand from our client and our desire to meet the needs every strata of the economy. With Client needs improving and demands increasing, there became a need for us to be creative, by so doing reorder our plan to accommodate this category of cliental. This plan is targeted at the executive class who can pay for the plan

**Premium Comprehensive**

This plan forms the core of our most priced plan which comes with a rich bouquet of benefits designed for a segment of the economy that can afford it. It is an all inclusive plan covering the major aspect of health care and also comes with an assurance for the clients, knowing fully well that their comprehensive health cover is fully assured. Like all our plans this also comes with benefits that are not covered. Below are some of them. The plan has the following benefits in its bouquet:

**Clearline International**

New concepts in Healthcare financing  
Various Health plans to choose from

**A New Concept in Healthcare Financing**

Clearline HMO in partnership with 4 major Banks (First Bank, Wema Bank, Skye Bank, Union Bank & Pics) after several months of brain-storming is introducing a product "RETAIL HEALTH INSURANCE SCHEME (RHIS)" specifically targeted at the informal sector of Nigeria; artisans, market men & women

1. General Out patient care
2. Prescriptions and Drugs
3. Basic Laboratory Services
4. Routine Immunization
5. Surgical Procedure (Minor)
6. Admission (General ward) 15 days/year
7. Pre-registration medical examination
8. Admissions
9. Ante-natal care / Delivery
10. Ultrasound scan
11. ECG
12. Plain X-ray services
13. Primary Dental Services
14. Ophthalmological Consultation Specialist

Product differentiation among HMOs: *multiple health plans*

Precious Healthcare Health Plans



Precious Plan



Diamond Plan



Star Plan



Olive Exec. Plan

**Choose A Plan**

Introducing Zenith Medicare Health Plans

**1. InstantHealth**

In life threatening situations, seconds count! This coverage for as little as N831.00 per month.

**2. SmartHealth**

Health insurance is mainly about low cost and high affordable yet covers the essentials. Benefits include provision of prescribed drugs, preventive care & laboratory tests, non-operative delivery, minor surgery, etc.

**3. ClassicHealth**

ClassicHealth offers a comprehensive health plan. Major surgeries, operative delivery, short-term psychiatry care, etc.

**4. SuperHealth**

Living well means doing everything you can to stay healthy; it is an investment. It covers surgical treatment of cancers, heart disease, cost of MRI & CT Scans.

**5. ZenithHealth**

The gift of luxurious health insurance. All subscribers enjoy many extras like comprehensive medical examinations, etc.

Wise individuals exercise their right to

Compare Health Plans benefits	Basic	Standard	Standard-Plus	Comprehensive	Mega	TSHIP	CBSHIP
IHMS ProLife							
IHMS TPA PLAN							
IHMS RETAIL HEALTH PLAN (INDIVIDUAL AND FAMILY)	✓	✓	✓	✓			
IHMS GROUP & ASSOCIATION HEALTH PLAN	✓	✓	✓	✓			
IHMS CORPORATE HEALTH PLAN	✓	✓	✓	✓			
IHMS MEGA HEALTH PLAN					✓		
IHMS TERTIARY INSTITUTION SOCIAL HEALTH INSURANCE PLAN						✓	
IHMS COMMUNITY BASED SOCIAL HEALTH INSURANCE PLAN							



INTERNATIONAL HEALTH MANAGEMENT SERVICES LIMITED

... the symbol of good health

**Plans**

We offer various health plans which are suitable for corporate clients and staff and family members of SME's. Choosing for you and your family doesn't have to be complicated, at Hygeia you will always find a perfect plan tailored to your needs with the help of proven professionals.

See our list of Health plans below

- HyPrestige
- HyAdvantage
- HyClassic
- HyPriority



# Services

Product differentiation among HMOs: *multiple health plans*

THT provides health care to individuals and corporate organizations. The Company, leveraging on its provider network the full spectrum of health care coverage to members during their subscription period. In keeping with its focus on promotion of member health, the Company has introduced a range of innovative cost-effective health plans and the list of plans provided by us:

- Standard Plan - Outpatient services + Inpatient services only
- Silver Plus Plan – Outpatient + Inpatient + Dental Care
- Gold Plan – Full Outpatient & Enhanced Inpatient services
- Platinum Plan – Comprehensive
- Diamond Plans
- Liberty Blue
- Onimal (Ginhal)

### Individual Plans

<a href="#">Titanium Compact</a>	20,000	<a href="#">Buy Now</a>
<a href="#">Titanium Classic</a>	25,000	<a href="#">Buy Now</a>
<a href="#">Titanium Ultra</a>	40,000	<a href="#">Buy Now</a>
<a href="#">Titanium Deluxe</a>	115,000	<a href="#">Buy Now</a>
<a href="#">Titanium Royal</a>	150,000	<a href="#">Buy Now</a>

### Family Plans

<a href="#">Family Titanium Compact</a>	100,000	<a href="#">Buy Now</a>
<a href="#">Family Titanium Classic</a>	130,000	<a href="#">Buy Now</a>
<a href="#">Family Titanium Ultra</a>	175,000	<a href="#">Buy Now</a>
<a href="#">Family Titanium Deluxe</a>	450,000	<a href="#">Buy Now</a>
<a href="#">Family Titanium Royal</a>	650,000	<a href="#">Buy Now</a>

 We can also help to customize your plan.

## Individual/Family Plans



### [The Student Health Plan](#)

[Read more](#)

**Individual Policies and Small Groups:** such as associations, trade groups, old boys/girls associations, small faith based organisations



This policy allows for participationn but with an annual financial limit per band. Allows for up to 50 heads per association or group ([See Benefit of Package](#)).

[Read more](#)

## Corporate Plans



**Corporate Health Plan(Gold Plan)**which was designed for companies, big faith based organisations e.t.c.

This allows for participation of up to 100 lives upwards at a discounted rate It has no financial limit in the financial policy year. It is a one-stop comprehensive plan for most routine illnesses. ([See Benefit of Package](#)).

[Read more](#)

**Ultimate Health Plan** As the name suggests allows for all benefits in the previous plans plus the unusual illnesses like cancers, complex surgeries, i.e (Kidney, Heart, Brain Surgery etc.).



This plan is in association with our partners in Pune India (Grants Medical Foundation) [Click for details](#).

[Read more](#)

## General Plans



**Diaspora Health Plan(UK & USA):**

This plan was borne out of the urgent necessity to assist Nigerians in Diaspora to show the folks at home that they still care. The plan helps to remove the risk associated with sending physical cash home for treatment of loved ones.

They get a comprehensive Gold Plan for each relation at home. Payment is in foreign currency in the country of residence of sponsor whilst we do

**Retail Health Insurance Scheme**

As the name suggests allows for all benefits in the previous plans plus the unusual illnesses like cancers, complex surgeries, i.e (Kidney, Heart, Brain Surgery etc.).



This plan is in association with our partners in Pune India (Grants Medical Foundation) [Click for details](#).



# ZENITH MEDICARE LIMITED

Home About Us [Guests](#) [Employers & Brokers](#)

Zenith Medicare operates a flexible managed care scheme which can cover staff of your organization families. The scheme consists of 4 Health Plans as follows:

- SmartHealth Plan
- ClassicHealth Plan
- SuperHealth Plan
- ZenithHealth Plan

Different Plans can be purchased for different cadre of staff, example, SmartHealth for junior staff and ZenithHealth for top management. Otherwise, one Plan can be customized for all staff regardless of cadre.

[Click to see Table of Benefit](#)

SPECIALIST SERVICES		THT TOTAL HEALTH TRUST Ltd				
<b>DENTAL CARE</b>						
Consultation		+	+	+	+	+
Simple Extractions		N/A	+	+	+	+
Impacted Extractions		N/A	N/A	++	+	+
Root Canal Therapy		N/A	N/A	N/A	N/A	++
Crown (amalgam)		N/A	N/A	N/A	N/A	+
Amalgam Fillings		N/A	+	+	+	+
Scaling and polishing (once every six months)		N/A	+	+	+	+
Dental treatment as result of accidental damage		N/A	N/A	N/A	N/A	+
Partial Denture		N/A	N/A	N/A	N/A	+
Full Denture		N/A	N/A	N/A	N/A	N/A
Pain therapy		+	+	+	+	+
<b>MATERNITY CARE</b>						
Normal Pregnancy		N/A	N/A	+	+	+
Prenatal Care		N/A	N/A	+	+	+
Normal Delivery		N/A	N/A	+	+	+
Assisted Delivery		N/A	N/A	+	+	+
Caesarean section delivery		N/A	N/A	+	+	+
Postnatal Care		N/A	N/A	+	+	+
Puerperal infection		N/A	N/A	+	+	+
Physician prescribed bed rest during pregnancy		N/A	N/A	+	+	+
Hyper emesis gravid arum		N/A	N/A	+	+	+
Pre-eclampsia		N/A	N/A	+	+	+
Termination of pregnancy for life-endangering conditions		N/A	N/A	+	+	+

Product differentiation among HMOs: *multiple health plans*

## Group Health Plans

Enrolling as a group has great benefits which include:

- Significant premium discounts
- Waiver of pre-enrollment medical examination
- Coverage of chronic medication (e.g. anti-hypertensive treatment)
- Management of HIV positive cases at no extra cost.

## Precious Healthcare Health Plans



### ANNUAL PREMIUM PER STUDENT

You may chose from any of our four customized Students packages

1. Precious Students Plan: N1,600 per Student per annum
2. Diamond Students Plan: N3,000 per Student per annum
3. Star Students Plan: N7,500 per Student per annum
4. Olive Students Plan: N15,500 per Student per annum

Total Health Trust Limited ("THT") was founded in 1997 and commenced operations in the year to June 1998. It is a leading health maintenance organisation ("HMO") in the emerging managed care sector of the Federal Republic of Nigeria. With about 250,000 members or subscribers (or about 8% of the estimated population of the organised private sector with medical insurance coverage) at December, 2008, it is one of the largest HMO in the Country. THT is a "Medical Doctor- driven "HMO.

**CIL Partners.**

- Grant Medical Foundation, (Pune) INDIA: [www.rubvhall.com](http://www.rubvhall.com)

For Management of complex surgeries, Cancers, organ transplants, Angioplasties, Infertility, H.I.V, TB, Neurosingay etc., that are on our [exclusion list](#).

- BUPA International, Russel United Kingdom: [www.bupa.co.uk](http://www.bupa.co.uk)

Management of expatriate enrollees on and off-shore. Worldwide cover including Evacuation.

- University Teaching Hospital, Aachen, Germany.

Overseas Medical Treatment Arrangements have been made for the transfer of specific cases that cannot be adequately treated in Nigeria, to Germany purely on fee-for-service.

- OracleMed Health (Pty.) Ltd. [www.oraclemed.com](http://www.oraclemed.com)

P.O Box 786761  
Santon 2146  
South Africa:

Worldwide cover partners including Evacuation.



Nonsuch HMO is a member of Lafia Group of Hospitals (Lafia Health Practitioners limited). The Company was set up in line with Lafia Hospital's established well known tradition and reputation of superior health care management services for almost 20 years.



- International Health Services Organisation, California USA: [www.ihso-health.com](http://www.ihso-health.com)

Management of relations and families of Nigerians in diaspora back home in NIGERIA, and EVACUATION OF CRITICALLY ILL CASES FROM NIGERIA TO THE USA.



**Welcome to IHMS**

IHMS is a national Health Maintenance Organization (HMO) established in 2001 to provide Social Health Insurance cover to individuals and groups under the National Health Insurance scheme and private health insurance services to interested individuals and groups. It is owned by medical practitioners and Institutional investors.

**Hygeia Group of Companies**

**Hygeia Group**

Hygeia Nigeria Limited was incorporated in 1984 as a limited liability company. In essence, the healthcare network throughout Nigeria incorporating both private and public sector initiatives

**Hygeia HMO**

Hygeia HMO is a health maintenance organization that has delivered first-class health insurance choice in its managed care schemes and providing plans to suit a range of needs and budget clinics and hospitals nationwide and has 9 regional offices to ensure that enrollees receive care in their country

**Lagoon Hospitals**

The Lagoon Hospitals is the pioneer of advanced medical care in Nigeria and is committed to professionalism and service. The first lagoon Hospital was established in 1986 in Apapa and has since been opened in Ikeja and Victoria Island.

**Hygeia Foundation**

Hygeia Foundation is a member of the Hygeia Group of Businesses which has over 20 years experience in Nigeria. It is a non-profit, non-governmental organization, started to improve skills and standards of care. Foundation is the only Nigerian NGO implementing a free, comprehensive Anti-Retroviral Treatment

**Hygeia HCHC**

The Hygeia Community Health Care (HCHC) offers access to affordable, good quality health care in communities in Lagos & Kwara states. In the future it will be made available to other communities. This subvention per year allows the enrollee medical treatment whenever they need it. This subvention developed by Hygeia Nigeria Limited in conjunction with PharmAccess Foundation, a Dutch



Healthcare International is a Health Maintenance Organization (HMO) established in 1997 by a consortium of Insurance Companies namely;

- AIICO INSURANCE, COSMIC INSURANCE BROKERS, CRUSADER INSURANCE, JOHNSON INVESTMENT LTD, NICON INSURANCE CORPORATION, NIGER INSURANCE PLC, OMIS INVESTMENTS LTD AND LASACO ASSURANCE . ...[Read](#)

**OUR BACKGROUND**

We are a member of the Zenith Group which ranks amongst the foremost and most formidable financial institutions in the continent with a total asset base of over N1trn. We have leveraged on the extensive branch network and superior IT framework of the Zenith Bank PLC. We also pursue a family tradition of service excellence and commitment to our clients.

# NONSOCH

Health Maintenance Organization



## CORPORATE SERVICES

- [Essential Plan](#)
- [Standard Plan](#)
- [Silver Plan](#)
- [Gold Plan](#)
- [Platinum Plan](#)

Product differentiation among HMOs: *similarities in names of health plans*



At Oceanic Health, we are equipped with seas knowledge of the Nigerian Health care System. segments of the society.



Songhai Health Trust  
improving the health of the nation

**MetroHealth**  
HMO Limited

Standard Health Care Plan | Essential Health Care Plan | Classic Health Care Plan

**STERLING HEALTH MANAGED CARE SERVICES LTD.**  
Health Maintenance Organization  
....Passion for Service

STERLING PLAN	SILVER PLAN	GOLD PLAN	PLATINUM PLAN
---------------	-------------	-----------	---------------



**Lifecare Partners**  
(Health Maintenance Organisation)

SERVICE DESCRIPTION	STANDARD	CLASSIC	COMPREHENSIVE	EMERALD
Annual wellness program	✓	-	✓	✓
Hospital rating	2 star	3 star	4 star	"4" star
Out Patient treatment	✓	✓	✓	✓
Admissions/Inpatient Care	✓	✓	✓	✓
Accommodation	General Ward	Double room	Single room	Single room

## Standard Health Care Plan



### The Standard Health Care Plan

This Health Care Plan Covers an individual or A Family of Six. The services under this plan include Out Patient care/Specialist Care, including electrocardiography, Obstetric and Gynaecological care including ante-natal and post-natal care.

[Features](#) [Pricing](#)

## Essential Health Care Plan



### Essential Health Care Plan

The Essential Health Care Plan Covers all in the Standard Health Care Plan and also includes Intermediate Dental Care - Scaling and Polishing, Amalgam/Composite Fillings, One Surgical Delivery per year, Hospitalization in a Semi-Private Ward plus more.

[Features](#) [Pricing](#)

## Classic Health Care Plan



### Classic Health Care Plan

The Classic Health Care Plan includes an additional Optical Care to include one pair of frames, Obstetric and Gynaecological Care to include two surgical deliveries with hospitalization in a private ward.

[Features](#) [Pricing](#)

## Silver Health Care Plan



### Silver Health Care Plan

The Silver Health Care Plan Covers all in the Classic Plan and includes up to three periodontal surgeries, plastic partial prosthesis, annual medical screening and covering three root canal treatments. For more details of the features this plan covers, click below.

[Features](#) [Pricing](#)

## Gold Health Care Plan

Non-price competitive strategies among HMOs: *call centres*

**24/7  
CALL CENTER**

CLICK TO VISIT



### Precious Healthcare Health Plans

24/7 CALL CENTER

Our 24/7 Help Lines

**24/7  
CALLCENTER**



**24 HOUR CALL CENTRE:**

Our 24 hour Call Centre resolve client's complaints.

Authorizations for referrals are granted anytime as need arise.



Our newly commissioned state-of-the-art call centre is combined with a world class IT -infrastructure enables us to effortlessly gain uninterrupted access to our clients at all times. This has clearly given us a robust advantage over other HMOs in the industry.

**IHMS** INTERNATIONAL  
HEALTH MANAGEMENT  
SERVICES LIMITED  
*... the symbol of good health*



**Healthcare International**  
*First in Quality Healthcare Management*



Pay Online Here



Register Online Here



24 hours Client  
Care Lines



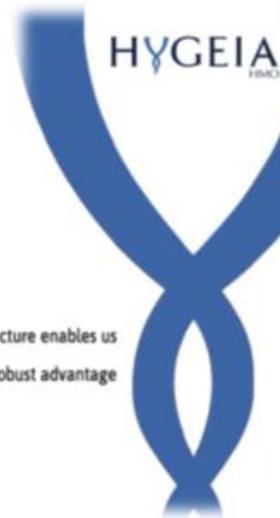
### Latest News From Hygeia HMO

Hygeia HMO Unveils New Innovative  
Website LAGOS, NIGERIA

11/21/2013

Hygeia HMO introduces 0700 HYGEIA HMO  
Customer Care Line

9/8/2013



**24hrs Call Centre**  
01-7301332, 07041446622, 08121010100

**E-Mail**  
[callcentre@ihmsnigeria.com](mailto:callcentre@ihmsnigeria.com)

## Chapter 6: Agency in purchaser and provider split arrangement in a national health insurance scheme: the case of HMOs and healthcare providers in Nigeria

### 6.1 Preface to research paper 3

Chapter 5 focused on the interactions amongst HMOs in supplying health insurance products to consumers, and provided insight into the nature of price and non-price competition in the HMO industry. Understanding the effectiveness of using HMOs in the national health financing system also requires a consideration of the business strategies they adopt in purchasing services with pooled revenue from healthcare providers. Hence, the conceptual framework that guided the analysis in this thesis provided scope for examination of the nature of the interaction between HMOs and providers in the context of a health insurance market, which is the focus of this chapter. When published, the paper from this work will represent one of the few publications in the literature on the purchasing relationships in health insurance systems in developing countries. It will also represent the first systematic analysis of purchasing relationship between private health maintenance organisations and healthcare providers that play roles in Nigeria's healthcare financing system. Together with the evidence from the earlier results chapters (4-6), the information provided is subsequently used to consider the implications of private sector roles and strategies in the national health financing system in Chapter 7.

**Registry**

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6.2. Please list the paper's authors in the intended authorship order

*Chima Onoka, Kara Hanson*

6.3. Stage of publication – *Not yet submitted*

**7. For multi-authored work, give full details of your role in the research included in the paper and in the preparation of the paper. (Attach a further sheet if necessary)**

As the first author, I designed the study, including the instruments used, undertook the data collection, analysed the data and prepared the manuscript.

---

**NAME IN FULL** (Block Capitals) CHIMA ARIEL ONOKA

**STUDENT ID NO:** 213529

**CANDIDATE'S SIGNATURE**

Date 21/07/2014

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**SUPERVISOR/SENIOR AUTHOR'S SIGNATURE (3 above)**

### 6.3 Research Paper 3

#### ABSTRACT

In Nigeria, the National Health Insurance Scheme (NHIS) established by the federal government, mandates health maintenance organisations (HMOs) to purchase healthcare from autonomous healthcare providers (HCPs) for beneficiaries of the social health insurance programme of the government. This system exists alongside a private health insurance (PHI) system, in which the same HMOs serve as insurers and purchasers for private clients. This case study used the principal-agent model to analyse the nature of the HMO-HCP relationship by providing insight into their behaviours and the effectiveness of their purchasing roles. It reveals the existence of information asymmetry in the relationship that created scope for an agency problem, and motivated preferences for favourable reimbursement options by HMOs and providers. The efforts to make profits within a context of poor regulation resulted in behaviours that promoted inefficiencies and had negative implications for patient care, and also revealed the differential power available to HMOs and providers. To inform policy consideration of purchaser-provider split arrangements in low and middle income country settings, the study highlights the need for practical ways to improve information throughout the system, the need to improve the implementation of regulation (in order to enhance the efficiency and service quality outcomes of the purchasing relationship), and the challenges to achieving such improvements.

## INTRODUCTION

Purchasing arrangements for healthcare services in the healthcare financing systems of low and middle income countries may include different responsibilities for various public and private organisations that may be integrated or autonomous. Within the national health insurance systems in Kenya, Thailand and Philippines, a government corporation purchases services from public and private providers (JLN, 2013b, JLN, 2013c, JLN, 2013d). In Ghana, district-wide Mutual Health Insurance Schemes that have regulated autonomy to set premiums and reimbursements purchase services from public and private providers (JLN, 2013a). India's *Rashtriya Swasthya Bima Yojna* (national health insurance) that targets the poor uses public and private health insurers as purchasers of hospital services from public and private providers (Devadasan et al., 2013). Unlike in Ghana and Thailand, majority of the healthcare providers used within the national health insurance systems in Philippines, Kenya, and India are from the private sector.

The degree of integration in the purchasing arrangement and the nature of the components (private or public) create incentives that affect the strategies they employ in carrying out their responsibilities, and also the health system's ability to effectively supply defined health services. Models which separate the purchaser and provider aim to improve efficiency and service quality through the purchasing function of health systems by encouraging decentralization of decision making, adoption of more cost-effective approaches, better responses to consumer expectations, competition and contestability among providers, and improvements in provider efficiency and performance (WHO, 2000, Robinson et al., 2005, WHO, 2010).

In Nigeria, the design of the National Health Insurance Scheme (NHIS) established by the federal government includes a purchaser and provider split arrangement between private health maintenance organisations (HMOs), and public and private healthcare providers (HCPs) (NHIS, 2012, FMOH, 2006). These HMOs that follow the group HMO model (Tollman et al.,

1990, Wagner, 2001), purchase services for the social health insurance (SHI) programme of the NHIS from autonomous HCPs on behalf of the NHIS. This system exists alongside a private health insurance (PHI) market, in which the same HMOs serve as insurers and purchasers for private clients. For a description of the basic characteristics of HMOs, the benefit package of the SHI plans and PHI plans, and the process by which HMO members choose providers for SHI and PHI, see Chapter 5.

In the process of carrying out their purchasing responsibilities, HMOs typically bear financial risk for the health plans they supply which creates incentives for them to adopt business strategies that enable them to promote cost efficiency (Schieber, 1997, Tollman et al., 1990, Chernew, 2001). HMOs may influence the decisions of providers by developing provider networks, managing service utilisation by beneficiaries of health insurance plans, and establishing financial incentives including provider payment mechanisms, which influence providers' behaviours (Grembowski et al., 1998, Gosden et al., 2001). Healthcare providers (HCPs) involved in health insurance systems also bear financial risks. This may arise from managing a capitation-based micro insurance pool for insured individuals, or other reimbursement revenue. Their behaviours depend on the nature of the operating environment including the reimbursement systems and their ability to leverage across their financial and clinical responsibilities (Robinson et al., 2005).

The extent to which HMOs are able to achieve cost efficiency still remains a subject of debate (Shin and Moon, 2007, Markovich, 2003, Scanlon et al., 2008, Scanlon et al., 2005, Miller and Luft, 2002). For HMOs that operate in developing countries, little is known about the business strategies they develop within the purchasing relationship. Similarly, although a number of studies have analysed provider behaviours using economic models (McPake et al., 1993, Amin et al., 2004, MCPake et al., 2007, Mackintosh and Tibandebage, 2007), the literature from developing countries is deficient of evidence about their behaviours within the framework of a health insurance system, including the purchaser-provider interactions.

The analysis here, which considers the purchasing relationship and business strategies of HMOs and healthcare providers in Nigeria, is based on the principal-agent theory (Arrow, 2004) that is useful for examining vertical relationships in healthcare markets (Dranove and Satterthwaite, 2000), and contracts and financial incentives within provider payment systems (Robinson, 2001). Principal agent theory is premised on the neoclassical view that overall, firms require full information to achieve their aim of profit maximization, but since information asymmetries exist, firm owners (the principal) rely on an informed party (agent) to achieve their aims (Ferguson and Ferguson, 1994, Folland et al., 2007). Such relationships may be characterised by information asymmetry, difficulty in observing effort and measuring output (incomplete information), potential for self-interested behaviour to increase or reduce healthcare demand, and differences in exertion of power (Jan et al., 2005). This paper analyses the nature of the HMO-provider relationship, and characterises the agency problem and its influence on the effectiveness of the purchasing function.

#### CONCEPTUAL FRAMEWORK

An agency relationship occurs when an individual, a unit, or an organisation (the principal) depends on the action of another unit (the agent) that is expected to act in a manner that is in line with the former's preferences (Folland, 2007). In such a situation, the principal may have better knowledge of what needs to be done to achieve defined objectives, while the agent has an informational advantage about how such activities should be carried out (Pratt and Zeckhauser, 1985). Through a formal or informal agreement, the principal provides the agent with authority to carry out specified responsibilities on its behalf, and the agent is expected to act in the interest of the principal. The agent's actions affect the welfare of the principal (Arrow, 1985). The agency problem arises because the principal does not have enough information to know how much effort the agent provides on its behalf. In order to reduce the information problem, the principal applies incentives and monitoring mechanisms to enhance the chance that the agent's behaviours coincide with the principal's interests. The agency

theory has been used in the literature to study healthcare purchasing relationships (Eisenhardt, 1988, Bergen, Dutta and Walker, 1992).

In this thesis, agency theory has been applied in order to help understand how incentives within the purchasing relationship were appraised and managed by the purchasers and providers (Shapiro, 2005), and thus, the gaps between goals of the purchasing function and their outcomes. In considering the purchasing function, two principal-agent relationships can be observed: the NHIS – HMO relationship, and the HMO – Provider relationship. The NHIS, acting as the principal, relies on private HMOs (agents) to effectively purchase health care services for insured beneficiaries of its social health insurance programmes. Additionally, the HMO (principal) takes the responsibility to ensure that healthcare is provided to beneficiaries of private health insurance. However, based on the national health insurance policy, HMOs are not allowed to own or operate healthcare providers. Since they do not have the technology to provide health services, they act as principals that rely on autonomous healthcare providers (agents) to provide such services. Thus, HMOs occupy a dual positions – as agents to the NHIS, and as principals to healthcare providers in the second.

This analysis focuses on the second relationship involving autonomous private organisations (HMOs and healthcare providers) that are individually maximising profits. The hypothesis is that informational asymmetry exists in the HMO-provider relationship in that even though the HMO has better knowledge of the benefit package to be delivered (that is, the task to be accomplished), the provider has an informational advantage about how the benefits should be delivered in terms of the provision of healthcare. There is also the difficulty in observing and measuring the effort of the healthcare provider, which affects the behaviours of the parties within the relationship, including the way incentives (in the form of a payment system) are appraised and applied, and the monitoring measures applied by the HMOs. In contrast to the way principal-agent problems are often modelled in healthcare arrangements, in this

institutional setting both HMOs and HCPs are assumed to be self-interested actors, aiming to maximise profit.

## METHODS

This case study aimed to understand the nature of purchasing relationships between HMOs and HCPs. The case study approach enables in-depth and holistic inquiry into complex issues or purposively selected cases of interest (Patton, 2002), and allows examination of a contemporary issue within its context (Yin, 2009, Lincoln, 1992).

Three HMOs and three private healthcare providers were purposively selected as case units for the study. The HMOs were chosen because of their large membership. Each of the HMOs was asked to present a list of 10 HCPs that served at least 100 members of the HMO. To provide a mix of HCPs with different characteristics, the lists from the three HMO were examined to identify the HCPs that were used by all three HMOs. Three HCPs that had the most, middle and fewest members were then selected and served as case units. All the HCPs also received many uninsured patients that made payments on an out-of-pocket basis. All the HMOs and HCPs used gave their consent to participate in the study, while a fourth HMO that would have been included was dropped because the owners were unwilling to share the required information with an 'outsider', even for research, because they felt that the information given could make them vulnerable to competitors. The research ethics committee of the London School of Hygiene and Tropical Medicine, and the Federal Ministry of Health, Nigeria, granted ethical clearance for the research.

Table 6.1 summarizes the methods for data collection which occurred between October 2012 and July 2013. Overall, 33 in-depth interviews were carried out. All interviews were conducted in English and lasted about one hour. Follow-up interviews were undertaken where necessary. Interviews were recorded using an electronic voice recorder and the records were transcribed and organized using QSR NVivo 9 software. An inductive reasoning approach was initially applied to data analysis to first identify the behaviours of both HMOs and HCPs. Information

obtained from HMOs and HCPs was compared between and within them to assess their consistency, and to enable identification of corroborating, contradicting and complementary evidence from various sources. Data generated from all sources were examined against the theoretical hypothesis guiding the study to identify key findings.

**Table 6.1: Methods used for data collection**

<b>Data source</b>	<b>Issues examined</b>
12 in-depth interviews with HCP owners/medical director, medical officers, and health insurance officers	Preferences for HMOs and underlying reasons, and mechanisms for attracting preferred ones Behaviours towards different beneficiaries and similarities and differences in care provision for primary and specialist care needs
Document reviews: Reports from Healthcare Providers' Association of Nigeria (HCPAN) and HCP records	Nature and regularity of reimbursements, mechanisms for payment, and influence on HMO and provider behaviour toward each other and to beneficiaries Measures to manage revenue and expenditures
14 in-depth interviews with HMO staff (chief executive officer, owner, and business development, accounts, medical/provider managers and beneficiary managers)	Preferences for HCPs, underlying reasons, and mechanisms for engaging preferred HCPs Behaviours to promote delivery of quality healthcare HMO insurance administration functions Strategies employed to control health service use by beneficiaries and supply by HCPs Nature and regularity of reimbursements, mechanisms for payment, and influence on HMO and HCP behaviour to each other and to beneficiaries Measures to manage revenue and expenditures
7 In-depth interviews with leaders of HMOs' and HCPs' industries' associations, NHIS officials, and policy makers	Perceptions and experiences about purchasing arrangements Existence and effectiveness of regulatory systems, and impact on HMO and HCP behaviour
Document reviews: NHIS operational guidelines for SHI programme	

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Review of preliminary report	Feedback received from four study participants and four other potential interviewees that did not participate in the study.
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## RESULTS

This section presents an overview of the activities that HMOs and HCPs undertake within the purchasing arrangement. This is followed by an analysis of the nature of the agency problem, including the availability of information needed for effective contracting and observation of provider effort, and the consequent business strategies that HMOs and HCPs adopt, which characterise the agency problem.

### Overview

Table 6.2 summarises the basic characteristics of the HCPs that served as case units including the total number of salaried doctors and health insurance officers, outpatients seen in a year, beneficiaries of health insurance under the care of HCPs, and the range of capitation rates paid by HMOs. HCP1 and 2 represent the majority of HCPs that the study HMOs purchase services from, which are small to average-sized private (for-profit) hospitals that either apply to, or are identified by HMOs and accept HMOs' reimbursement rates. A second HCP group (represented by HCP 3) includes large, expensive hospitals that have a reputation for quality and luxury. HMOs do not include such HCPs as preferred providers but reserve them mainly for their superior health plans which are targeted at top executives of firms and wealthy individuals who request and are willing to pay for them.

Table 6.2 shows that the bigger HCP (HCP 3) served many more PHI clients. It also had more SHI members. However, PHI clients made up a larger share of their total insurance business compared with the other HCPs. Additionally, private providers generally had smaller numbers of SHI beneficiaries because the NHIS used public tertiary institutions (teaching hospitals and federal medical centres) as primary providers at the start of the SHI programme, *“to the detriment of (private) primary care providers”* (HCPAN leader). Many beneficiaries opted for these institutions because they assumed (incorrectly) that specialist care could be obtained

without pre-treatment authorisation in such places. Consequently, these large public facilities receive the bulk of the resources meant for beneficiaries of the SHI programme when compared with private primary providers.

*“They have not taken any step to reverse the bad trend. Instead they pay them up to 10million (US\$ 66.7 thousand) each, monthly, and give us peanuts.”* (HCP - Medical director)

**Table 6.2: Healthcare provider characteristics**

Characteristic	HCP 1	HCP 2	HCP 3
<b>Staffing</b>			
Total number of salaried doctors	13	6	31
Number of staff in health insurance unit	3	2	7
<b>Clients served by provider</b>			
Total outpatient visits in 2012	39,103	8,381	45,332
Number of HMOs served that have PHI plans	12	14	27
Number of HMOs served that have SHI plans	31	27	28
Total PHI members served by capitation	1,247	1,719	15,844
Total SHI plan members covered	5,552	2,643	9,778
Monthly capitation rates (range for different HMOs)	US\$ 3.3 – 5.3	US\$ 3.3 – 5.3	US\$ 3.3 – 13.3

1 US\$ = 150 Nigerian naira

The process of providing services requires that beneficiaries present identity cards issued to them by the NHIS (for the SHI programme), or their employees (for PHI plans). To better manage beneficiaries of PHI plans, HMOs provide the HCP with the list of beneficiaries covered under such plans and periodically update the list to reflect new enrollees. HMOs monitor providers to ensure that primary services are delivered promptly, and issue authorisation codes (within 24 hours) to HCPs for services that require pre-treatment authorisation. The importance HMOs attach to the efficient implementation of the above roles arises from their understanding that beneficiaries of both SHI and PHI plans have a

propensity to attribute poor service experiences to HMOs, and to opt out of PHI plans if they are dissatisfied.

*“All they (beneficiaries) know is that we (the HMO) treated them shabbily.”* (HMO medical unit head)

*“What providers do seriously affects the business. When they treat them very well, they (members) talk very good about us.”* (HMO unit manager)

On their part, HCPs aim to provide more responsive and relatively quicker access to care to insured clients relative to their normal clients. They achieve this by setting up a health insurance unit that may facilitate patients' records management, and handles beneficiary complaints, informs them of their entitlements, and helps ensure that their HMOs are reminded to issue pre-treatment authorisation where this is delayed. The health insurance unit manages both the SHI and PHI beneficiaries.

For both SHI and PHI beneficiaries, providers are reimbursed using capitation (for primary care) and fixed-fee-for-service payments (for secondary and tertiary care). For the PHI plans, HMOs are responsible for agreeing on all reimbursement rates with providers, and bear associated financial risks. The NHIS determines the reimbursement rates for the SHI programme, and makes a single payment every three months to HMOs to allow them to prospectively pay HCPs for primary care and to reimburse secondary and tertiary care claims. The reimbursement model is such that HMOs distribute the capitation for primary care to providers based on their registered membership, but administer the capitation they receive for secondary and tertiary care as fee-for-service reimbursements to the HCPs and retain any surplus. Thus, they bear financial risk for secondary and tertiary care but not for primary care. The HCP has a responsibility to prepare and send out separate claims for all attending beneficiaries, and to all the HMOs they contract with.

Despite the measures employed by both HMOs and HCPs, HCPs often have to manage beneficiary complaints. These may result from delays in the response of HMOs to requests for treatment authorisation, and denial of treatment which the beneficiary knows he is entitled to, or only realises he is not while accessing care. Less frequently, there are complaints related to dissatisfaction with drugs received, refusal of treatment for enrolees' dependents, or of new employees of firms whose names are yet to be provided to the HCP by a HMO. The HMOs used for the study reported experiences of having to sanction some HCPs when doctors attempt to inflate prices, beneficiaries are allowed to collect drugs for someone else, or beneficiaries collude with the doctor to defraud the HMO by making claims for services that were never provided, either intentionally or because the beneficiary did not turn up. On their part, HCPs complain about HMO indebtedness, denial of payment, and high-handedness in their relationship with providers (HCPAN, 2014b, Olaniba, 2013).

To ensure that parties in the agency relationship promote the objectives of the relationship, the NHIS guidelines mandates HMOs to *"ensure the continuous monitoring of the facilities for quality assurance"* (NHIS, 2012). However, there is no guideline to implement provider monitoring, and none to assess and take action on evidence. HMOs are also expected to *"develop a health care organisational structure which shall ensure that there is a well-developed and utilised primary health care facility (PHCF) system,"* even though the NHIS law requires them to be independent of providers in the first place (Federal Government of Nigeria, 1999). Additionally, each HMO is expected to organise seminars for its providers on quarterly basis in each of the 6 geopolitical zones of the country, but this seemed unfeasible to providers who would need to attend multiple fora organised by each of the HMOs they contracted with. HMOs are also mandated to organise seminars quarterly for *"enrolees in each of the six geopolitical zones"* (NHIS, 2012) but enrolees are not defined, and the procedures for enrolee identification and selection for such seminars do not exist. Avenues for dispute settlement were also set up by HMOs and HCPs, private sector employers and the NHIS (Olaniba, 2013).

Overall, HCPs have varying characteristics, and are differentially used by HMOs. They interact within the regulatory environment managed by the NHIS in their effort to serve beneficiaries and their actions can affect beneficiary care. The reimbursement mechanisms available to HMOs and HCPs present them with financial risks that can potentially affect their behaviours within the relationship. These characteristics serve as a basis to further analyse the agency problem in the purchasing relationship.

#### [Informational problems in the HMO-Provider split arrangement](#)

The agency relationship is characterised by differential availability of information to the HMO and HCPs about the benefits included in health plans and the capacity of the HCP to deliver medical care. After contracts are established, HMOs face informational challenges with observing HCPs' effort to provide the precise quantity and quality of health services required for beneficiaries, and to control costs. HCP owners also have a problem with observing the effort of their employees such as salaried doctors.

#### [Information about benefit entitlements](#)

All HCPs reported being faced with a diverse and confusing range of plan benefits, and associated reimbursement systems. Contract terms were described as "*complicated contractual agreements*" (HCPAN, 2014b). The multiple contracts HCPs sign leave them with several plans from each of several HMOs to understand and administer. For instance, one of the HCPs studied had beneficiaries covered by at least two PHI plans from each of 22 HMOs, and these plans varied in benefit entitlements and associated fee-for-service reimbursement schedules. The situation motivates the HCPAN to encourage the NHIS and private sector employees to require the adoption of similar reimbursement rates and contracts by HMOs which will leave them to compete on the basis of service quality, but this effort has met with significant opposition by HMOs and lack of interest on the part of the NHIS.

HCPs also experience difficulties relating the benefits specified in contracts to the reimbursement rates offered them. They often consider the SHI plan more profitable than

most PHI plans, simply because the capitation rate is slightly higher, even though it also has a more comprehensive benefit package.

*“Providers look at the figures (reimbursement rates) only (when signing contracts). For example, the NHIS (SHI) covers 21 (in-patient) days. Our does not even have one day. Somebody who is technically sound in the business will choose ours (a PHI plan that had lower capitation than the SHI plan) because it is more profitable, as the scope is very narrow.”* (HMO medical unit head)

The confusion about the benefit entitlements precipitates conflicts between HCPs and beneficiaries. HCPs observe that beneficiaries are also confused and seem to know little about their entitlements, because their HMOs intentionally provide them with little information about benefit entitlements, in order to limit their demand for services. For instance, a beneficiary, erroneously assuming that most services are included in his plan, may show up to demand highly restricted services included only in superior health plans such as *“a general medical check”*(HCP-Medical Officer), and may react violently towards health facility staff because he misunderstands or feels outsmarted by the HCP.

*“The man (firm employee) said, ‘If you say that thing again, with all my money they are cutting, I will slap you.’ Before I knew it, he gave a slap... and I gave him back too, since he could not respect himself.”* (HCP-Health Insurance Officer)

#### *Information about capacity of providers to offer quality medical care*

For HMOs, there is a major challenge with assessing the capabilities of providers with whom they seek to establish contracts. As noted by a policy maker, the performance of HCPs in Nigeria is neither assessed nor published in any systematic way, nor is the performance of individual professionals measured. The HCPs used for the SHI were accredited prior to their use from 2005 when the programme commenced, but by 2013, the NHIS had not undertaken a reaccreditation to reassess their capabilities. In contrast, HMOs independently accredit the

HCPs (including the NHIS-accredited HCPs) that they use for their PHI plans, and do so two to four times in a year to ensure that HCPs sustain their capacity to deliver quality care.

Recognising HCPs' poor knowledge of healthcare delivery within the context of health insurance in the earlier years of managed care practice (Arigbabuwo, 2013), HMOs undertake training and re-training of HCP staff to enhance the quality of treatment provided to beneficiaries and the actual administration of the insurance plan. The focus on training and re-accreditation was also premised on their observation that the turnover of HCP staff (especially doctors) is high. Hence, while such training was initially aimed at doctors because they "*were under-servicing members thinking that doing so will make them keep the money (capitation)*" (HMO medical unit head), it has increasingly focused on designated staff of HCPs serving as "health insurance officers" who have a longer retention time in health facilities.

*"If you train a doctor today, 3-6 months later, if that provider pays poorly, the person (provider employee) leaves for greener pastures. Doctors and nurses in private hospitals are always moving."* (HMO Medical Unit Manager)

These health insurance officers sit in "health insurance units" which were established by HCPs in order to overcome the problem of confusion over the range of benefits included in plans of various HMOs and for various beneficiaries. HCP owners place enormous value on their health insurance officers as they serve as the hub of their engagement with the NHIS, HMOs, and beneficiaries. The health insurance officers screen all attending beneficiaries, provide advice to HCP owners about HMO rates, manage referrals and pre-treatment authorisation requests, follow up defaulting HMOs, undertake utilisation review measures, including review of prescriptions, attend to visiting HMO and NHIS staff, and educate HCP staff on the procedures for serving beneficiaries. In addition, they process claims, which is done manually and can be very laborious.

*“She (health insurance officer) knows more about it (managing HMOs, NHIS and beneficiaries) than every other person, even though we all started it. We also depend on her to clarify things.” (HCP owner and medical director)*

#### *Information on healthcare providers’ efforts*

HMOs’ observation of HCP effort in providing appropriate services and controlling costs depends on the availability of utilisation data that is compared with the agreed reimbursements. However, until 2012, HCPs did not systematically summarise, analyse or report service utilisation data for the SHI programme or PHI plans to either the NHIS or HMOs, contrary to the guidelines that premised the release of capitation to HCPs on the submission of previous utilisation data (NHIS, 2012). This made it impossible to assess provider effort in terms of delivery of appropriate and quality primary care, and the adequacy of capitation, with which providers have been unsatisfied (Onoka et al., 2013, HCPAN, 2014b). HMOs took advantage of providers’ unwillingness to submit utilisation data to resist the pressure to increase capitation rates which would trigger increases in their premiums and could lead to member attrition. Under further pressure from the NHIS when it proposed a higher capitation rate in 2012, HCPs agreed to submit an “encounter form” to the NHIS that indicates SHI beneficiaries’ attendance.

In contrast, HMOs obtain and summarise data on utilisation of services covered by the fee-for-service schedules from claims data prepared by HCPs for every attending beneficiary of SHI and PHI. Nonetheless, in-depth analyses to determine the extent and appropriateness of health services offered and the outcome of treatment still does not occur for either the SHI programme or PHI plans because the technology is new and limited to a few HMOs that have invested in the necessary software and human capacity.

To help overcome the information gap due to the limited utilisation data, many HMOs train and equip medical personnel (called provider monitors) that undertake frequent physical provider visits and investigations to verify claims, for instance, to confirm if a beneficiary

reported to have undergone surgery is actually recuperating in the facility. Such investigations have revealed negative provider behaviours: doctors may inflate prices, beneficiaries may collect drugs for others, and HCPs and beneficiaries may collude to claim for services that were not utilised.

*“If we begin to see too much of procedures... or a trend, such that every month, we see the same kind of bill, we identify such providers; and we go and do our investigation.”* (HMO accounts unit head)

*“If visits are not done regularly to find out what is going on, you will lose a lot”* (HMO quality assurance manager).

#### *Information on effort of HCPs’ employees*

HCP owners are faced with the difficulty of measuring the effort and controlling behaviour of sub-agents, i.e. employed, salaried physicians. Such doctors are seemingly more bothered about client satisfaction, which is aimed at sustaining their own reputation amongst beneficiaries, than the need to control costs which HCP owners are sensitive to. Doctors *“like giving branded drugs and then they tell patients that they have given those ones”* (HCP-Pharmacy unit head). Beneficiaries then complain when the pharmacy issues generic drugs as stipulated in the NHIS guidelines. Doctors may oversupply services because of the *“mentality that since enrolees are insured, we should give them everything; and most of them listen to the patients more than to us”* (HCP-Health insurance officer). Doctors may also prescribe drugs or recommend admissions based on patients’ requests, because *“our doctors don’t pay attention to the capitation... and that causes problems for us”* (HCP-Health insurance officer).

To control these behaviours of the physicians they employ, staff of HCPs’ health insurance units monitor their actions in order to identify and control oversupply of services, but such physicians are often offended at being corrected about a diagnosis or prescription in line with a healthcare plan’s contract, which the doctors often interpret as being told *“how to do his*

*job*” (HCP-Health insurance officer). Such conflicts were less of a problem in the big facility that had a medical doctor with training in managing health insurance as the head of its health insurance unit, in contrast to non-doctors in the smaller HCPs.

*“I opened the (electronic records) system and saw all the tests there; MP (malaria parasite test), Widal (test for typhoid fever), Urinalysis, FBC (full blood count), serum electrolyte and urea were all there, but the diagnosis was uncomplicated malaria; I had to confront the doctor.”* (HCP-Health insurance officer)

### Behavioural responses to the challenges inherent in the HMO-Provider split arrangement

The purchasing behaviours of HMOs and HCPs are reflected in the way both parties appraise, adopt and implement provider reimbursement mechanisms. This sub-section presents the responses of HCPs to the confusion over benefits covered in contracts, HMOs’ and HCPs’ differential preferences for the mechanism for reimbursement, the claims settlement strategies they adopt, and the delays in treatment authorisation and provision that occur while managing beneficiaries.

#### *Preferences for reimbursement options*

For SHI, the services provided to beneficiaries are covered by capitation and fee-for-service payments that are centrally determined by the NHIS, while HMOs have discretion over the payment mechanisms for PHI. Although both payment mechanisms apply in both SHI and PHI, HMOs and HCPs have preferences for them that are observable in the way they implement reimbursements, and in their attempts to maximise their profits.

While there was a general agreement among HMOs and HCPs that capitation allows HCPs to better plan their businesses, the incentive for cost control created by capitation payment led to a differential application of the option by HMOs and HCPs. For the SHI, HMOs seem comfortable with the use of capitation since they receive fixed administrative fees when they allocate such funds to providers. They are also less concerned with its adequacy since they do

not bear financial risks for its allocation. However, HMOs are generally reluctant to use capitation for PHI plans because the unwillingness of providers to report the frequency and intensity of primary care service utilisation makes it difficult for HMOs to gauge the appropriateness of capitation rates, and the basis for providers' consistent demand for increase in capitation rates, both of which affect their premiums and profits.

On their part, HCPs are inclined towards use of capitation because it provides them with guaranteed income for planning their practices, but they reject capitation when they have fewer than 50 members of a particular HMO enrolled, which they consider too small to manage financial risks. Compared to fee-for-service reimbursements, capitation payments are less likely to be delayed both for PHI plans and SHI programme, and thus represent the certain income of HCPs. The common experience is that capitation for private plans *"comes before the time... and if not, they will call to say that your capitation is on the way, you should continue to treat"* (HCP – Medical Director). Although HMOs should make timely transfers of the SHI capitation that is regularly allocated to them by the NHIS, some HMOs delay the process for periods longer than is the case for their private plans. Providers, knowing that the NHIS makes regular payments to the HMOs, do not interrupt services to beneficiaries, but report such HMOs to the NHIS.

The reimbursement model for secondary and tertiary care that provides for fee-for-service payments to providers under the SHI programme appeals to HMOs. This is because HMOs receive their revenue in the form of a capitation payment from the NHIS, but low secondary and tertiary service utilisation means that they expend relatively little (Chapter 4). For their private plans, HMOs also have a preference for fee-for-service payment to providers rather than capitation payment, because it provides them with fee-for-service claims that serve as an avenue to monitor and directly control beneficiary utilisation, provider behaviour and healthcare expenditure. One HMO has a basic package for capitation for all its plans, and then differentially includes many primary and specialist services under its fee-for-service regime.

Comparatively, many of the primary health care services that are provided for by capitation in the SHI programme are reimbursed by fee-for-service systems in private plans of HMOs. Such services include antenatal care, normal delivery, and 21 in-patient days of care. The result is that when claims are made by providers, there are often delays in payment due to the multiple bills from multiple HCPs that HMOs need to review.

HCPs consider the fee-for-service rates for the SHI programme too low to compensate for the actual costs of providing secondary and tertiary services. For instance, the NHIS reimbursement for Caesarean section is N40,000 (US\$ 267) which covers theatre, anaesthetist's and surgeon's charges compared to a minimum charge of N90,000 (US\$ 600) for non-insured clients of the HCPs studied. The costs are incurred mainly because the anaesthetist's and surgeons fees are fixed by the professionals involved who are often contracted consultants. Even for the large HCP that employs specialists, the costs are high because of the high salaries their employee specialists are paid. Hence, HCPs offer primary care to their NHIS enrollees, but generally *"refer those that need secondary and tertiary healthcare to government hospitals"* (HCPAN leader) since the government subsidizes them by paying their staff salaries outside the capitation funds allocated to them. The NHIS-accredited private *"highbrow or sea hospitals"* (HMO Quality Assurance Manager) that have a reputation for quality and luxury amongst the very wealthy individuals and firms, also avoid patients of the SHI programme even though they should not (NHIS, 2012), but *"when you report them (HCPs) to the NHIS, they do nothing"* (HMO medical unit head). In contrast, HCPs are able to negotiate higher and more profitable fee-for-service rates with HMOs for private health plans, but also argue that HMOs should pay even higher rates rather than *"peanuts"* (HCP-Health insurance officer), since they are private companies and make huge profits from corporate customers.

### *Strategies adopted to negotiate favourable reimbursements*

While HMOs have both objective and subjective avenues to help them determine the reimbursement levels they offer HCPs, including undertaking collective actuarial analysis (Chapter 4), HCPs have the tendency to rely on the NHIS rates as their benchmark in contract negotiations for HMO's PHI plans. For instance, a revision of capitation rates for the NHIS FSSHIP from 550 naira (US\$) to 750 naira (US\$) in 2012 stirred a demand by HCP for upward revision of capitation rates for PHI plans. A consequent attempt by HMOs to raise premiums resulted in member attrition. For one HMO, the agitation by providers *"necessitated the increase for us"* (HMO Manager/Owner) because the HMO wanted to maintain its reputation for quality by contracting with this particular provider.

*"Providers insist that we must not change (increase) the package (covered under capitation) but must change the price". This is causing serious issue in the industry right now because you (a HMO) won't be able to meet provider needs and sustain a quality scheme or services without necessarily reviewing premium."* (HMO-Medical unit head)

In establishing reimbursement rates, HMOs largely determined the contract terms. HCPs felt that HMOs superior knowledge about the health insurance business made them the *"superior master"* relative to *"ignorant"* HCPs that were the *"inferior business partner"* (Arigbabuwo, 2013). HCPs also acted as small disunited entities that left HMOs with many HCPs to choose from. HCPs observed that the loss to HMOs of their *retainership* clients that assured them of guaranteed income in the past (Chapter 4), which followed the increased interest in health insurance and managed care in Nigeria, made them vulnerable to HMOs' domination of the negotiation process for contracts. Since HCPs look to HMO contracts for income, HMOs exploit their position to select and retain mainly the providers that are willing to accept HMOs' *"peanuts"*.

*“We are marginalized. Decisions (about reimbursement rates for the SHI and PHI) are taken behind our back and forced on us. They know that we are not united. That is why it’s going on like that; we are not united”* (HCP-Medical director).

When a HCP enjoys a particularly good reputation for quality (indicated by the availability of specialists and luxury), this can be used to increase their bargaining power and extract more favourable terms from HMOs that wish to contract with it. Such HCPs set their reimbursement rates, allow minimal negotiations with HMOs, and determine the timelines for reimbursement.

*“HMOs look for us... We give you (HMO) our tariff. If you accept and you are ready to do business with us, fine. If you don’t accept our tariff, you go somewhere else... you find your level; because most will come with very ridiculous tariffs and expect us to accept such, and we don’t do that.”* (HCP– Health insurance officer)

The low reimbursement rates also motivated the bigger HCP to leverage its reputation for quality to operate its own *“health plan”* alongside the SHI and PHI. The plan offers more direct access to healthcare to wealthy private firms, individuals and families. This behaviour, which has been observed among HCPs with similar characteristics not included in this study (CareNet Nigeria, 2007) and is not prohibited by law, is considered by HMOs to be a threat to their privileged position as operators of private health plans.

#### *Tendency to decline claims*

*“More often than not, when a provider and HMO are having issues, it’s because of under-payment or delayed payment”* (HMO manager).

The confusion about the benefit entitlement of PHI plans provides opportunities for some HMOs to attempt to limit their expenditures by declining claims. Recognising this challenge, HCPs simply provide a common set of primary care services to every beneficiary of a PHI plan, regardless of the exact content of the package, as long as primary care is reimbursed by

capitation. In so doing, they lose some income since they provide some beneficiaries with services under primary care that should be reimbursed by fee-for-service payments. The main exception occurs with special members of HMOs (like company owners) because of their bespoke health plans. Nonetheless, some HMOs decline claims for already authorised services, insisting that these services are covered by the capitation in order to avoid expenditure. HCPs recognise the tendency of some HMOs to avoid contractual obligations by cutting bills, delaying or avoiding payments. HCPs reported this behaviour as the most important threat to purchasing agreements with HMOs. They reported being owed huge debts by HMOs (HCPAN, 2014a), and being defrauded by a few HMOs who, claiming financial difficulties, do not make payments, but *“jump from one provider to the other”* (HCP-Medical director), secretly moving their private members to new HCPs when an unreimbursed HCP is compelled to withhold treatment.

Although payment delays or denials may arise when fraudulent practices among HCPs are identified, the dominant reason reported by both HMOs and HCPs for their occurrence is that some HMOs take advantage of the advance quarterly allocation of funds for the SHI beneficiaries to save the funds in an interest yielding fixed-term savings account, in order to enhance their income. However, some HMOs retain such funds for very long maturation times, and end up being unable to meet their reimbursement obligations to HCPs. The latter are left to wait longer, negotiate more, and frequently end up receiving lower payments. They may also revert to use of threats (to report the HMO to the NHIS) to elicit payments from HMOs. Such behaviours occur because of poor regulation by the NHIS, and manifest in their inability to effectively control errant HMOs, some of which are owned by influential members of the society.

*“Most of these HMOs are owned by significant players in the national life. So regulating them is not as easy as it seems.” (Policy maker)*

*"We had to close one HMO down and to suspend one, and you know it takes a lot of courage to do that in a country like this. You will get pressure; and we got pressured."  
(Policy maker)*

Given the "lack of regulation of the health insurance industry by the NHIS", the absence of arbitration systems, and the need to recover huge debts owed to HCPs by some HMOs and ensure the upward revision of reimbursement rates, HCPs established the Health Care Providers Association of Nigeria in 2004, to enable them undertake collective action to stimulate and enforce favourable HMO behaviours (HCPAN, 2014a). The bigger HCPs are able to independently specify and enforce a timeline (2-3 months) for HMOs to reimburse claims for PHI plans.

#### *Delays in service authorisation and provision*

Another consequence of the poor information about provider effort is the delay in pre-treatment authorisation, which also affects the provision of healthcare to some groups by HCPs. While it is the case with some HMOs that "once you send a text message [short message service for treatment authorisation], they respond immediately" (HCP-Health insurance officer) unless they are delayed by real operational challenges, some others habitually and intentionally delay treatment authorisation for both their private plans and SHI programme.

*"The HMO will keep on dribbling you, and for two weeks, you would not have received PA (pre-treatment authorisation)... and the patient will be dying. Even when you call them on phone, sometimes the person that will pick will give another person's number to call; and when you call the person, he will give you another number. Moreover, when you call that person, he will tell you that he is on leave... and the patient will be there waiting." (HCP-Health insurance officer).*

Among HMOs that habitually delay treatment authorisation, there are differences in speed of pre-treatment authorisation that favour beneficiaries they consider more important. Delays are more frequent for SHI patients (for whom HMOs attempt to more rigorously restrict utilisation to expand their profits) than for PHI plan members. HCPs attribute this to their observation that SHI members, believing they are receiving government favours, tend to complain less, in contrast to members of the PHI plans, who are often reactive and easily provide feedback to their employers when they experience delays. For the PHI plans, delays are also less common for more influential HMO members, including top executives and owners of firms compared to their employees. To ensure that such clients are satisfied with services they receive, HMOs either overlook pre-treatment authorisation or provide the HCP with a code before such clients visit the HCP. The HCP owners also accord them priorities to retain their interest in the health facility.

*“Even before the person comes, they (HMOs) would have already given you authorization. They will send a mail or message with the code and we will just print it out and keep. They don’t play with those calibre of people.”* (HCP-Health insurance officer)

*The MD (medical director) may even call you to say, ‘this person is coming, please don’t delay him.’ Maybe the person is a top shot in the company; if the MD of a company comes and you delay the person, he might decide to pull his enrolees from your hospital. So, you don’t play with those people.”* (HCP-Medical officer)

The pre-treatment authorisation and payment behaviours of HMOs also influence the behaviours of HCPs towards HMO members, especially for the PHI plans. The three HCPs willingly take the risk to offer services to members of HMOs that usually respond quickly to requests for pre-treatment authorisation even while awaiting authorisation, because such HMOs faithfully reimburse claims. HCPs believe that some HMOs intentionally delay authorization, and consistently reduce or refuse to reimburse claims. Hence, HCPs often opt

to wait until such HMOs respond, at times to the detriment of a beneficiary's health outcome. HCPs also generally restrict access to services for beneficiaries of HMOs with a poor payment history, in contrast to the quicker access granted to beneficiaries of HMOs that reimburse claims appropriately.

*"Even if it takes one month to get approval (pre-treatment authorisation), they (patients) will wait. The only thing we do is that we give them our number to be calling so that anytime we get it (code), we tell them"* (HCP-Health Insurance Officer).

*"Since 9am, we have been trying to get (pre-treatment authorisation) code for this woman who has a ruptured membrane. We have sent SMS, we have called several times and up till now (1pm), they have not replied. If we carry out CS (caesarean section) on her, the HMO will say it was not authorised and will not pay."* (HCP-Medical officer)

## DISCUSSION AND IMPLICATIONS

This analysis of the purchasing behaviours in an agency relationship between HMOs and healthcare providers is novel for Nigeria where a health financing reform targeted at universal health coverage is being implemented by private sector actors alongside a private health insurance market. It reveals the existence of information asymmetry in the purchaser-provider split arrangement that created scope for an agency problem (Jan et al., 2005). The informational challenges motivated preferences for favourable reimbursement options by HMOs and providers. In a bid to make profits within a context of poor regulation, self-interested behaviours were observed among the majority of both HMOs and HCPs in implementing provider reimbursements. These behaviours revealed the differential power available to the parties in the purchasing relationship, providing scope for inefficiencies and potentially negative implications for patient care. The evidence generated from this case study provides policy-relevant insights for improving purchasing relationships in health financing reforms.

The existence of informational asymmetry in the relationship between HMOs and HCPs was evidenced by the greater awareness among HMOs of the benefit entitlements under the different plans. Both HMOs and HCPs recognised the importance of such information for effective negotiation of the purchasing contracts. Poor information about providers' capabilities motivated HMOs to pay more attention to repeated accreditation, training and monitoring of the providers. The challenge HMOs faced with measuring providers' efforts to deliver appropriate services and control costs meant that it was difficult to ensure that claims were valid. Although providers' assessments of the adequacy of capitation rates offered in managed care contracts rely heavily on availability of accurate information on service use (AMA, 2012), the poor availability of such data implies that costs for both providers and HMOs cannot be correctly computed to enable objective estimation of reimbursements. This finding contributes to the dependence of HMOs on imperfect strategies for premium determination including adoption and modification of competitors' premiums observed in the Nigerian HMO industry (Chapter 5).

The informational asymmetry in the HMO-HCP relationship created opportunities for the specific strategies both parties adopted to maximize profits. For PHI plans, both HMOs and providers preferred fee-for-service payments to capitation as a reimbursement strategy, but this was for different reasons. For HMOs, the mechanism allowed them to take deeper control of the supply of healthcare and as such was preferred even when providers that had larger pools were open to the use of capitation. Since services covered by fee-for-service payment had to be authorised by HMOs, the use of the mechanism created the opportunity for HMOs to observe their expenditure levels in a better way, and as such to be alerted about the need to control expenditures or to increase their premiums. The competitive nature of the HMO industry that made it difficult for HMOs to increase premiums, made the use of the fee-for-service approach even more attractive. For the SHI, the reimbursement model for secondary and tertiary care allowed HMOs to earn more profits since they received fixed amounts from

the NHIS and expended little because of low utilisation of secondary and tertiary care (Chapter 5).

Providers' preferences for reimbursement mechanisms were also linked to their profit interests. Even though capitation payments incentivise the provider to ensure efficiency in care provision throughout the course of care (Aas, 1995, Chaix-Couturier et al., 2000), small PHI pools made capitation less desirable as it presented providers with potentials for greater financial risk. Larger pools created more opportunities for them to predict their income but this was only if HMOs were willing to pay high capitation rates. Overall capitation in the PHI system was unpopular and proved more challenging to providers as was the case in the managed care systems in the USA in the 1990s (AMA, 2012). Conversely, providers' preference for capitation payments for the SHI arose because it was more profitable than fee-for-service payments and also helped them to plan their practices which is an important objective of use of capitation.

Fee-for service payment was preferred to capitation systems despite its tendency to promote inefficiencies by encouraging the supply of a higher quantity of services (Gosden et al., 2001, Chaix-Couturier et al., 2000). Basically, the fee-for-service payments were managed: the fees were fixed for defined services which limited the chance for providers to increase the intensity of a service. Even though the potential for providers to increase the quantity of services existed, HMOs robustly applied utilisation control strategies to check the behaviour. Both HMOs and HCP owners also had the same incentive to control profligate supply of services by employed physicians that appeared to have the dominant interest of making personal utility gains in the process as observed in the literature concerning subagents in agency relationships in healthcare (Morris et al., 2007). Hence, the propensity for inefficiencies to arise due to oversupply of services was minimal. However, the strategies adopted to achieve control over providers' behaviours generated significant monitoring costs in the purchasing relationship especially with regard to PHI. The use of fee-for-service payments implied establishment of

hard fee-for-service contracts that entailed pre-treatment authorisation for most healthcare services, frequent provider monitoring, vetting and approving multiple fee-for-service bills for multiple beneficiaries, which also depended on rudimentary claims management systems. Additional utilisation management strategies which help control providers' behaviours (Grembowski et al., 1998) were adopted, but these also required frequent provider visits. These activities contribute to the observed high administrative costs and inefficiencies in the HMO industry in Nigeria (Chapter 5).

The regulation that requires HMOs to ensure that providers deliver quality services (NHIS, 2012) failed as predicted by Anarado (2002) because the purchasers and providers, as private entities with profit intentions, appeared to be pursuing an overriding interest of achieving cost control. The self-interested behaviours adopted by both HMOs and HCPs affected service provision to patients. Intentional delays in pre-treatment authorisation and the delay, refusal or reduction of reimbursement by some HMOs meant that HCPs did not always provide quick access to care. Consequently, members' waiting time for services varied within HMOs such that the more influential HMO members were provided with quicker access to care. It also varied across HMOs such that the members of HMOs that had a tendency to delay reimbursements or decline claims were left to wait for authorisation, and in some cases, had treatment withheld or significantly delayed. These behaviours of HMOs that helped limit expenditures but affected beneficiary waiting time are recognised to erode the trust between the provider and beneficiaries (Mechanic and Schlesinger, 1996). Additionally, the extended waiting time has negative implications for client satisfaction and perception of service quality (Mendoza Aldana et al., 2001, Saucedo-Valenzuela et al., 2010, Michael et al., 2013) and health outcomes (Institute of Medicine, 2004).

In their effort to make profits, the actual implementation of reimbursement terms that was characterised by the adoption of self-interested behaviours by both HMOs and providers, revealed the existence and differential exertion of power by the parties. Overall, HMOs

seemed to have a power advantage over the HCPs. This advantage was primarily founded on their more informed position that enabled them to determine the contract terms for engaging most providers who, on their part, had to rely on SHI capitation rates to gauge the fees they demanded in the contracts for HMOs' private plans. HMOs' power advantage was enhanced by the limited cooperation among the smaller healthcare providers. The HMOs established provider reimbursement rates, and as observed in the USA (Grembowski et al., 2002), may take advantage of industry coalitions to establish such rates (Chapter 4). Latterly, providers responded by forming their own coalition in order to gain some power over setting of reimbursement terms, and to more effectively demand positive HMO behaviours. Nonetheless, the larger provider included in this study appeared to have a power advantage over HMOs, which they derived from the high consumer interest and demand for its services, due to its reputation, even though their strategies also meant they were only available to wealthy and willing individuals and clients.

This study had some limitations. The three HCPs used for this study were only a handful of private providers contracted by HMOs. However, the depth of analysis provided by using a small number of case studies provided insights into the nature of the agency problem, which could then be used in future large-scale studies to understand the prevalence of the agency problems that were identified. Secondly, the analysis suggests the existence of considerable scope for self-interested behaviour among HMOs and providers which may have had consequences for beneficiaries. However, lack of demand side information in this study prevented the assessment of HCPs' behaviours towards beneficiaries to directly analyse supplier moral hazard and quality of care received by beneficiaries.

Overall, this study provides insights into the agency problems that occur in purchasing relationships in health insurance systems in a developing country setting, and raises issues that healthcare financing reforms need to consider. The study highlights the profound impact of information gaps that give rise to an agency problem in a purchaser-provider split

arrangement. Minimising the informational disadvantage of providers requires that they make intentional effort to improve their understanding of health financing processes. However, policy interventions are also required to improve the availability, accessibility and use of information about provider capabilities and service utilisation data, and HMO performance. Existing regulatory requirements that stipulate the data submission responsibilities of providers and HMOs, and the penalties for defaults (NHIS, 2012), need to be implemented. The use of health-financing officers as the primary gate keepers or internal controls to prevent imprudent expenditures also appeared to be a useful development that has potential to improve efficiency in the health insurance system in Nigeria if the regulation requires providers to adopt it. Such measures will help reduce the opportunities informational gaps create for HMOs to adopt behaviours that have negative impacts on efficiency and service quality.

Despite the above considerations, there is a potential that application of stronger regulation may be difficult to achieve. In such settings the health management information systems that are needed to support regulatory efforts are weak. Additionally, the regulatory system itself is often weak and the regulatory mandates are often vague. In the Nigerian situation, the regulatory agency additionally has poor technical capacity to manage private health insurance (Chapter 5), and is considerably influenced by one of the parties in the relationship – the HMOs that achieved regulatory capture as theorized about such private organisations (Stigler, 1971). Hence, even though stronger regulation is imperative in guiding the purchasing relationship, its feasibility in achieving behavioural control is limited unless wide-ranging reforms that improve information systems and also detach HMOs from their considerable influence on regulation are undertaken.

One way to reduce the impact of the dominant position of HMOs is to encourage provider mergers and the development of provider networks or coalitions that could result in better scale and scope for delivery of healthcare, and create more powerful provider institutions that

can motivate improved HMO behaviours. In the USA, such provider networks are known to take intentional steps to guide providers to establish informed and favourable contracts (AMA, 2012), enhancing the balance of power between physicians and managed care organisations (Leib, 2000, Greenhouse, 1999). However, providers also need to be monitored as their actions in demanding higher fees could impact negatively on the health insurance market, and beneficiary access to healthcare. The effect of strong HMOs and providers is likely to be higher reimbursement rates, which will translate to higher premiums for health insurance plans and make health insurance unaffordable, with negative implications for societal welfare.

## CONCLUSION

The evidence from this study supports the theoretical hypothesis that scope exists for an agency problem in the purchaser-provider split arrangement involving HMOs and providers in Nigeria. The study demonstrates that the agency problem is characterised by information asymmetry and incompleteness, with the consequence that HMOs and HCPs are able to adopt and implement reimbursement strategies that enable them enhance their profits, potentially at the expense of patient interests. An agency problem that emanated from the profit maximising objectives of both the HMOs (acting as purchasers) and providers, and the informational problems within their purchasing relationship, were impediments to the efficient supply of quality services to health insurance beneficiaries. Reimbursement systems that encouraged inefficiencies were established and implemented with HMOs having a power advantage in the relationship, and in the process, quality of care in the form of delays in service authorisation and provision to patients, was compromised. The weak public regulatory system did little to control negative purchasing behaviours within the relationship. This chapter provides evidence from a developing country setting that healthcare providers in a health insurance system respond to incentives created by the business strategies of purchasers, in a way to maximise or protect their own income, with the extent to which they

are able to do so depending on the distribution of power within their relationship with HMOs. These findings are consistent with observations in agency relationships in healthcare systems. For purchaser-provider split arrangements to contribute to health financing reforms in low and middle income country settings, the study highlights the imperatives for a minimisation of the controllable informational problems and improved implementation of regulation in enhancing the efficiency and service quality outcomes of the purchasing relationship, and the challenges to achieving such improvements.

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## Chapter 7: Discussion

### 7.1 Background

In many low and middle income countries, private health financing organisations provide private health insurance, especially to individuals and groups employed in the formal private sector (Drechsler and Jutting, 2007a, Drechsler and Jutting, 2007b, Campbell et al., 2000, Zigora, 1996, Sekhri and Savedoff, 2005, Bitran et al., 2008). In some countries, these private organisations have assumed a broader role in supporting policy development, and implementing publicly-funded health financing programmes (IFC, 2007, Devadasan et al., 2013). Nigeria's national health financing policy recognises the need to take advantage of various health financing tools including tax revenue, social health insurance, private health insurance and community-based health insurance to mobilise revenue for healthcare through prepayment strategies and to pool financial risks (FMOH, 2006). Within this framework, private organisations carry out both purchasing and provision functions with and on behalf of the government, in line with the national health policy (FMOH, 2005). In so doing, the health financing strategy includes a substantial role for the private sector: it allows private health insurance to operate in parallel to the government's national health insurance scheme (NHIS), private health maintenance organisations (HMOs) to serve as financial intermediary and purchasing organisations for the National Health Insurance Scheme (NHIS), and private providers to serve as care givers for beneficiaries of health insurance. The thesis has shown that in Nigeria, private health maintenance organisations contributed considerably to policymaking for national health insurance, promoted private health insurance, served as insurer in the public formal sector social health insurance programme of the NHIS, and used private healthcare care providers to deliver health services under both private and social health insurance. These roles have implications for the effectiveness of the financing strategy to promote the government's interests in extending healthcare coverage to all Nigerians.

The aim of the study reported in this thesis was to generate understanding of the role of private sector actors (health maintenance organisations and healthcare providers) in the national health financing system in Nigeria, and the implications for universal health coverage.

The objectives of the study were:

1. To examine how a role emerged for HMOs within the context of the national health insurance strategy in Nigeria
2. To analyse the structure, conduct and performance of the health insurance market operated by HMOs in Nigeria
3. To analyse the relationship between HMOs as purchasers of services for the insured population, and private health care providers.
4. To draw lessons about the effectiveness of providing a role for the private sector in the national health financing system in contributing to universal health coverage in Nigeria

The conceptual framework that guided the analysis in this thesis focused on three main dimensions, namely, the policy environment within which HMOs developed and play their roles; the nature of the market operated by HMOs, which is reflected in the interrelationship between the market structure, conduct and performance; and the nature of the interaction between HMOs and providers in the context of the health insurance market. This chapter first summarizes the overall findings of the thesis and the study's limitations. Subsequently it summarises the main contributions of the thesis to theory and methods and the policy implications of the study findings, and concludes by identifying further research areas that need consideration.

## 7.2 Overall findings of the thesis

Better recognition of the importance of contextual factors is necessary for developing health financing strategies that can effectively contribute to universal health coverage (McIntyre et

al., 2013, Onoka et al., 2013, Savedoff et al., 2012, WHO, 2014). Additionally, understanding the interests, position and influence of stakeholders that are involved in the policymaking processes for such reforms is essential for increasing the acceptability of such proposals (Gilson et al., 2003, Thomas and Gilson, 2004). The stakeholder analysis presented in Chapter 4 showed that the political context, as well as the roles played by the main policy actors – political leaders and health maintenance organisations in particular - influenced the pace and outcome of the policy-making process for national health insurance in Nigeria. While a change from military to democratic government triggered the emergence of strong political leadership for the policy process, a failure to recognize the importance of sub-national (state) governments in the policy impeded the efforts to extend coverage to employees of state governments. The availability of private sector options, in the form of HMOs, for operating the proposed national health insurance enhanced the prospects of policy implementation, but led to modification of the policy by HMO enthusiasts in ways that favoured their interests, and disfavoured and displaced those of states. The finding provided an example of considerable involvement of private sector actors in reforms that target universal health coverage. They also confirmed observations in the literature that when private sector actors play roles in national health reforms they may take the opportunity to promote their interests, including to substantially influence the regulations that are meant to guide their operations (Iriart et al., 2001). Such situations contribute to failure of regulation (Sheikh et al., 2013) – an issue which was identified in subsequent chapters. The finding also highlights the importance of deliberate stakeholder management in order to ensure that policy proposals do not derail from their intended objectives (Thomas and Gilson, 2004, Bloom, 2001).

Although there is potentially a role for both private and social health insurance to contribute to extension of healthcare coverage, it is important for the strategy to promote the efficient use of pooled healthcare revenue, if it is to contribute to universal health coverage (WHO, 2013). It is also important to understand the business practices of organisations that have the

responsibility to purchase healthcare services, in order to inform government policies to promote active purchasing (Kutzin, 2001). This formed the basis for the second major finding of this thesis. The thesis reveals imperfect competition in the private health insurance sub-market due to product differentiation, resulting in existence of multiple private pools and health plans that have relatively higher premiums for benefits compared to the social health insurance programme. It also confirms suggestions by Sekhri and Savedoff (2006) that competition could lead to high insurer administrative expenditures, fragmentation of pools, and adoption of pricing strategies that are detrimental to the economic stability of private insurers. Thus, while it was hoped that the HMOs would enhance efficiency, the strategies they adopted yielded contrary results from a societal point of view, suggesting that a more critical position is needed in relation to the potential for private sector insurance to contribute to reforms to extend healthcare coverage. However, the finding that HMOs were expanding their infrastructural and financial capacity to better carry out their insurance functions for the government's social health insurance programme, which seemed profitable to them, led to the conclusion that HMOs might have a useful role in the extension of social health insurance where public health systems are weak. Nonetheless, the regulatory systems to control HMOs' behaviours must be strong for such a strategy to succeed.

Thirdly, purchasers of health services in healthcare systems are expected to ensure the supply of healthcare services to beneficiaries, for whom revenue has been collected (Robinson et al., 2005, WHO, 2000). Purchaser-provider separation arrangements are supposed to enhance this objective by encouraging decentralization of decision making, use of more cost-effective healthcare interventions, and use of approaches to contracting that create incentives for providers to be more efficient. How true this is in the health financing system in Nigeria has not been assessed. Hence, this thesis described the business practices of purchasers and providers, and interpreted them in terms of the agency problems that arise in the purchaser-provider split arrangement between HMOs and healthcare providers, looking in particular at

how the incentives created by the relationship affect the supply of health insurance. The thesis reveals that an agency problem that emanated from the profit maximising objectives of HMOs (acting as purchasers) and providers, and the informational problems within their purchasing relationship, were impediments to the efficient supply of quality services to health insurance beneficiaries. Reimbursement systems that encouraged inefficiencies were established and implemented with HMOs having a power advantage in the relationship, and in the process, quality of care was compromised through delays in service authorisation and provision to patients. The weak public regulatory system did little to control negative purchasing behaviours within the relationship. This chapter provides evidence from a developing country setting that healthcare providers in a health insurance system respond to incentives created by the business strategies of purchasers, in a way to maximise or protect their own income, with the extent to which they are able to do so depending on the distribution of power within their relationship with HMOs.

Finally, on the basis of the conceptual framework, clear relationships were established across various foci of analysis. The weak regulatory system that emerged from the policy making process influenced (and was influenced by) HMOs and subsequently, contributed to inappropriate behaviours in the purchasing relationship between HMOs and providers. The competitive behaviours that defined the health insurance market (especially the product differentiation strategies) occasioned providers' misunderstanding of benefit packages, increased the tendency for providers to lose income, and in their efforts to prevent such losses, led to delays in access to care for beneficiaries. Provider responses were partly motivated by their lack of trust in the regulatory system that ought to control negative behaviours of HMOs. Weak industry coalition amongst providers also made them vulnerable to HMO strategies that harmed their interests. HMOs' investments in strategies to prevent provider moral hazard also contributed to the inefficient performance of the HMO industry. These findings confirm the hypothesis of interrelatedness of the different components

indicated by the conceptual framework outlined in Chapter 2. Additionally, providers' demand for increased reimbursements (which was influenced by changes effected by the regulator on the SHI programme) led HMOs to attempt to increase premiums for private health plans, but the nature of competition in the market left HMOs with two choices – either to raise premiums and risk losing their members to competitors, or to retain their premiums and their members along with higher cost burdens. The former choice threatens consumer demand, and therefore, the market share of the HMO, while the latter threatens its performance in terms of profitability or quality, if they are able to cut costs. This finding suggests that where PHI exists in parallel to SHI, interventions in one programme can have effects beyond the programme.

### 7.3 Strengths and limitations

This research used a case study approach to allow comprehensive investigation into complex processes and interactions within a health financing system (Gilson et al., 2003, Mills et al., 2008). This approach enabled holistic examination of the national health financing system in such a way that in-depth information was generated about the policy environment and policy processes, the functions and effectiveness of the financing organisation, the nature and outcomes of the insurer-provider relationship and the regulatory systems in place to control behaviours of both health maintenance organisations and healthcare providers. The embedded design provided multiple subunits of analysis that allowed complementary, contradictory and corroborative evidence to be identified, and for comparisons across subunits. Qualitative data also helped explain quantitative evidence. Such an approach has also been suggested as a way to overcome the limitation posed by the cross-sectional nature of neo-classical economic methods which aggregate groups and in the process lose relevant information that characterises individual firms (Ferguson and Ferguson, 1994).

This thesis involved a substantial application of social science theories and frameworks drawn from the economics and policy analysis literatures to guide the analysis of a national health

financing strategy. Insights drawn from the policy analysis framework by Walt and Gilson (1994), and the theory of punctuated equilibrium by Baumgartner and Jones (1993), were useful in analysing the influence of contextual factors on the process of policy making. Use of the stakeholder analysis technique to analyse a policy development process was a valuable approach in characterising stakeholder interests, positions and influences. A modified structure-conduct-performance paradigm model from the industrial organisation theory of the firm that allowed a bi-directional analysis of the structure, conduct and performance of the health insurance market was used (Waterson, 1984, Scherer and Ross, 1990, Shepherd, 2004). Agency theory was useful to understand how incentives within the purchasing relationship were appraised and managed by the purchasers and providers (Shapiro, 2005). Hence, the application of the theory here highlights its value for analysing contractual relationships, and problems within those relationships that affect the implementation and outcomes of contract agreements.

The study also has some limitations which can be largely attributed to the challenge of poor availability of, and accessibility to, the information in Nigeria that is required to undertake research. There was a general lack of accountability in the health insurance system, with HMOs, healthcare providers and the regulator all failing to share information. Providers fail to organise and share data on health service utilisation. The regulator also does not share much information about its operations and does not possess data on premium levels and coverage for HMOs' private plans, which it would need to effectively control behaviours of actors in the health insurance market. Weak regulatory systems also made HMOs vulnerable to predatory behaviours of others within the industry and made them reluctant to share information. For instance, one HMO that was approached for inclusion in the study opted out because the owners were unwilling to share the required information with an 'outsider', even for research, which in their view, could make them vulnerable to competitors. Overall, these factors created limitations and constraints to the analysis that was possible.

The analysis was limited by its use of a small number of HMOs and healthcare providers for analysis of the characteristics of a market that comprises many HMOs and healthcare providers. Quantitative data from a large number of HMOs about premiums, renewal rates, and claims would have provided more generalizable information about performance. Reflections on administrative expenditure would have been more robust if data were available for most HMOs as is evident in the USA (Sherlock, 2009), but gaining access to such data was not possible in the Nigerian context.

The fact that the HMOs used for the study were large ones means that the results are mainly generalizable to the larger HMOs. However, the impact of not using smaller HMOs is minimised by the observation that HMOs were generally few in number and interacted significantly, and their staff also switched jobs a lot within the industry. Thus, the information obtained from interviews with HMO personnel and the leaders of the industry association about behaviours within the industry are likely to have provided insight into the behaviours of HMOs more generally. Similarly, only a handful of private providers contracted by HMOs were used for the study. The experiences of more providers (including those with a very small number of HMO members) would have further enriched the analysis of provider behaviours.

In contrast to the comprehensive approach to studying HMO market structure, conduct, and performance, a more limited approach was taken to studying providers, focusing primarily on their conduct and business practices. An understanding of the structural characteristics of the provider market (such as entry barriers, market share and concentration), and performance indicators (such as the profitability) might have helped explain their behaviours towards HMOs. However, since a bi-directional relationship exists between the SCP elements, the market conduct will to some extent, reflect the nature of the providers' market structure and performance.

Finally, the conceptual framework allows the examination of the market in a way that takes demand-side influences on the health insurance market into consideration. However, there

was no collection of complementary demand side information to strengthen the supply side evidence that was generated. Such demand side factors are known to affect purchasing relationships (Robinson et al., 2005). For instance, HMO members could switch their private insurance plans for those of other HMOs because they are dissatisfied with the quality of support services they receive from the HMO, the healthcare they receive from a provider, or other challenges such as inability to sustain premium payments because of financial shocks in their business environment. These events would impact negatively on a HMO's market share. Without demand side data it was not possible to fully examine the underlying reasons for the observed market strategies of HMOs.

#### 7.4 Main contributions of the thesis to methods and theory

The conceptual framework for the study took a comprehensive view of the health financing system by considering the characteristics of HMOs, providers, and the regulatory institution and environment that guide the implementation of the national health insurance strategy, as well as the actual interactions that occur within and between these components. This section summarises the main contributions of the thesis to methods and theory based on this conceptual framework.

The conceptual framework developed for the study paid particular attention to the nature of the private organisations that play a critical health financing role in the system, and allowed the assessment of the organisations' effectiveness within the context of the health financing system. This was a different approach from Kutzin's framework that looks at the health financing system from the perspective of the entire health system (Kutzin, 2001). It also went beyond looking at structural characteristics of the health insurance market, to examine the conduct and performance, which Kutzin's framework did not explicitly include. These aspects were considered in the framework by Mossialos and Thomson (2002) that takes the organisational perspective used here. However, unlike the framework by Mossialos and Thomson (2002), the framework used in this study further includes the healthcare provider

market. In so doing, the thesis showed that provider behaviours (such as demanding an increase in reimbursements) helped explain HMOs' behaviours (attempts to raise premiums) and threatened their market shares. The framework also allowed analysis beyond the purchasing function of health systems, which is the focus of the framework by Robinson et al. (2005) and embeds the purchaser and provider relationship within the overall financing system to understand how different components of the system interact. Overall, the framework accounted for the major actors that are within the financing system and their interrelationships and approached the analysis from the perspective of the insurance organisation. This framework was helpful in analysing the effectiveness of private health financing organisations within the context of a national health financing system.

This thesis provides a further example of the application of retrospective stakeholder analysis and so, contributes to the policy analysis literature. While the value of stakeholder analysis in providing a snapshot of the position and influence of actors involved in policy processes is recognised, its usefulness in analysing processes that take a long time and involve many changes in actor positions is still a subject for empirical investigation (Varvasovszky and Brugha, 2000). The analysis here emphasizes a salient value of stakeholder analysis: retrospective stakeholder analysis creates the opportunity for understanding the reasons for changes in stakeholder positions over time. The reasons for those changes also suggest the levers for actor management strategies that may be useful to improve the chance of success of health financing policy proposals.

The thesis provides an example of the application of qualitative methods in health economics. The typical econometric approach to economic analysis is insufficient in providing guidance for health systems changes because it ignores contextual factors, which are better appreciated using qualitative methods (Coast, 1999, Coast et al., 2004, Mills et al., 2008). While this approach cannot substitute for a quantitative analysis of inefficiencies, it provides a useful complement in the form of a detailed description of the nature of price and non-price

competition in a health insurance market, and identified behaviours that actually lead to inefficiencies associated with competition. The qualitative approach to the analysis of agency problems further provided insight into the behaviours within the purchasing system, and as such, helped to analyse behaviours and concepts that are usually abstract when quantitative measures are employed (Shapiro, 2005). This approach led to generation of a more comprehensive understanding of a health financing system on the basis of economic theories. The analysis highlights the role of qualitative data in complementing quantitative data that is more commonly used in economic analysis.

## 7.5 Main contribution of the thesis to policy debates on universal health coverage

The final objective of this study was to draw lessons about the effectiveness of the strategy of providing a role for the private sector in the national health financing system in contributing to UHC. This sub-section discusses the policy implications of the study findings for UHC by considering the importance of contextual factors in the policy environment in the strategy of using HMOs (as private financing organisations), the problems with private health insurance and the potential role for HMOs as private health financing organisations in the national health financing system. It also highlights the need for improved regulation to make the strategy work.

### 7.5.1 Importance of contextual factors

Policymaking processes that fail to recognize the potential impact of contextual factors put health financing reforms at risk (Walt and Gilson, 1994, WHO, 2014). Yet, the health policy literature is considerably silent about how authority should be shared in a federal system where sub-national governments also have constitutional power over reforms (Greer and Jacobson, 2010). Policy debates on ways of achieving UHC have also not given attention to the implications of a federal system of government on UHC proposals. Nigeria's experience provides evidence from such a federal system and shows that securing federal level

commitment does not assure that a national health insurance proposal has become a national agenda. This occurs because federalism creates the situation of a voluntariness for sub-national governments that is enshrined in the overall constitution of the country, which makes the achievement of national level reforms for UHC more complex in such settings.

In the attempt to make the insurance system more market-oriented, the health financing strategy included a vital intermediary role for the private sector at the expense of sub-national governments, and in so doing, failed to recognise the political context of the country. This contrasts with India's use of sub-national governments as the third party payers that have responsibility to contract insurers in their federal system (Devadasan et al., 2013, Lagomarsino et al., 2012). In federal systems, providing explicit roles for sub-national governments in governance, definition of benefit packages, HMO and healthcare provider accreditation and monitoring, contracting, and evaluation of implementation, may enhance trust in the financing system and can enhance the prospects for national consensus around UHC, rather than having a federal government agency solely play such roles. Furthermore, the fact that federalism as a system allows for opportunism, dynamism, and self-expression by sub-national governments (Nathan, 2005), means that federal level policy makers should be open to modification of UHC policies in ways that will enable different states play ascribed roles as long as the core principles that promote UHC are not compromised.

By failing to provide a role for states in the process, the strategy compromised the opportunity to achieve national level consensus and solidarity for a national health insurance agenda, which it had gained before the introduction of HMOs. Efforts to achieve UHC require national consensus to succeed (Carrin et al., 2008, Savedoff et al., 2012). Given the large private sector in Nigeria, it was apparently necessary to encourage the participation of the private sector in the health financing strategy to enhance the potential for policy acceptance, and for revenue to be mobilised from the private sector. However, the manner in which the private sector was integrated into the policy overlooked the importance of states'

participation and thus, interrupted the prospects for a publicly-led movement that sought to attain social solidarity (at a national level). The strategy was a costly trade-off that ought to be discouraged in financing reforms. The outcome was that the potential for funds to be raised from sub-national governments for further extension of coverage was impeded. Unfortunately, the politics of policy processes may result in the situation that once a significant private sector role is established it is difficult to change it. Efforts to enact a federal law that compels citizens to enrol in a national health insurance system provides only a first step as it does not translate to compulsion at the sub-national level, unless corresponding legislation is enacted and enforced through democratic processes at that level. Policy advocates need to take further steps to engage directly with sub-national governments to motivate them to accept and contribute to compulsory “national” health financing strategies.

#### 7.5.2 A role for private health insurance in universal health coverage

To achieve UHC, it is necessary to raise more resources for health, achieve larger pools that include diverse population groups, and provide effective coverage (WHO, 2010, WHO, 2005). This thesis provides some lessons about the effectiveness of private health insurance in this regard.

The promotion of private health insurance by the private sector provided the opportunity for more revenue to be mobilised from private sources for prepaid healthcare, but the extent to which this could be achieved was limited by their focus on the more profitable formal private sector population. Their natural focus on the formal private sector and disregard for the informal sector because of profit objectives supports the argument that private health insurance is limited as an instrument for mobilising prepayment contributions for healthcare in settings with a predominant informal sector workforce. Their informal sector plans do not provide opportunities for coverage to be extended in any significant way because they are not profitable.

Although PHI offered the opportunity to raise more funds, its existence contributed to a divergence from the policy aim of having private firms contribute into a single formal sector social health insurance (SHI) pool under the NHIS. The reality that the private sector has persisted in using private health insurance in Nigeria rather than contribute to the single SHI pool, explained the call for the formal sector programme of the NHIS to be split into separate public and private sector pools, and for the latter to be managed by private sector actors (FMOH, 2003). UHC requires large risk pools which include a diverse population so that risks can be shared, and cross-subsidization can occur within the pool. However, the promotion of PHI in Nigeria reinforced the presence of multiple pools, which is a common characteristic of financing systems in low and middle income countries (Mills and Ranson, 2005). The multiple administrative systems used for them also encourages inefficiency.

In terms of the effectiveness of PHI as a tool to extend healthcare coverage, the PHI plans offered by HMOs in Nigeria also have significant shortcomings. PHI excludes people outside the formal private sector and appears unsustainable, since its suppliers still seemed to depend on funds from the SHI programme of the government to sustain them in the market. Although provider choice is available to beneficiaries, the restrictions instituted mean that the capacity to choose providers is inequitably in favour of wealthier HMO members. Although access to treatment can be delayed for beneficiaries of both private and social health insurance, the fact that wealthier groups were less prone to such delays in the PHI system meant that access to care was inequitably distributed. Like community health insurance schemes and micro-finance schemes that are more commonly promoted in developing countries (Drechsler and Jutting, 2007a, Drechsler and Jutting, 2007b, Onwujekwe et al., 2010), private health insurance also appears unable to guarantee comprehensive benefit packages, and to achieve reasonable coverage levels.

In essence, the use of government revenue and taxes to provide resources to cater for the poor and vulnerable, complemented by SHI (for salaried employees) still appears to be the

preferred strategy for Nigeria and similar developing nations where citizens (such as informal sector workers, the poor, and vulnerable groups) are often excluded from PHI, and wages are low to pay for comprehensive benefits packages. Applying tax-based systems and SHI may also mean that government subsidies have to be provided for beneficiaries to access comprehensive services. Countries such as India, Ghana, and Rwanda are providing such subsidies on a growing scale (Lagomarsino et al., 2012). Hence, tax-financed systems and SHI which are more effective risk-sharing strategies need to be encouraged early enough in proposals that seek to achieve UHC in developing countries. This is important, given the complex challenges with reforming health financing systems that first focus on SHI (that first targets formal sector workers) or and those that first allow PHI to flourish at the expense of more equitable financing systems (Onoka et al., 2013, McIntyre et al., 2013).

As in other settings, private health insurance can provide substitute coverage to people in the private sector who are able to pay for it (Mossialos and Dixon, 2002, Pauly et al., 2006). As noted by Sekhri and Savedoff (2005), countries in western Europe started out with voluntary private health insurance (whether for working groups or individuals), which helped them develop the necessary institutions and capacity that created the foundations for provision of universal coverage through SHI mechanisms. However, effective regulation is critical for PHI to contribute to national efforts to expand health insurance in any reasonable way (Sekhri and Savedoff, 2006, Sekhri and Savedoff, 2005). As shown in this study, the effectiveness of regulation influences the nature of competition and the performance of PHI markets, and impacts on its capacity to support or undermine UHC in a developing country setting.

### 7.5.3 A role for HMOs as health financing organisations in national health financing systems

The availability of effective health financing organisations to carry out the health financing function in national systems is vital to achieving progress toward UHC in developing countries (Carrin et al., 2008, Kutzin, 2001). However, effective public organisations do not exist in many

developing countries. Recognising this, the World Health Assembly encourages countries transitioning towards UHC to take advantage of opportunities in their contexts for effective collaborations with both public and private providers and health financing organisations to expand coverage (WHO, 2011).

This thesis provides evidence that the use of private organisations can support national health financing system towards achievement of UHC. Specifically, the use of HMOs was initially motivated by perceived weaknesses in the health system in the 1990s. HMOs' innovations in the system such as purchasing services from a limited set of providers, which enabled a HMO to charge lower premiums for informal sector plans, were based on the idea that larger prepayment pools helped reduce inefficiencies, and was partly a motivation for their suggested use for the informal sector workers (Arhin-Tenkorang, 2001). The establishment of a 'health financing unit' by HMOs and providers to limit the impact of informational problems in managing beneficiaries was an attempt by the private sector to respond to gaps created by the absence of public sector guidance of policy implementation. Strategies to improve purchasing such as the periodic re-accreditation of healthcare providers due to informational problems (even when public systems have ignored this), can be useful in settings with similar information gaps, in order to ensure that the quality of care promised in health financing proposals is not compromised.

Overall, even though public systems are more desirable where they exist and function, the likelihood that HMOs will go away soon in Nigeria is quite minimal, especially with the vested interest in the industry, and the fact that the alternative option of using public systems in Nigeria is still challenged by its health system's weaknesses (FMOH, 2010). Hence, based on the Nigerian context, this thesis suggests scope for a private sector (HMO) role in managing national health financing systems in a developing country setting. The main opportunity within the industry for significantly extending coverage lies with deploying their growing infrastructural, financial and technical capacity to expand government-initiated SHI. In order

words, the role of HMOs lies in considering them as a mechanism through which SHI is delivered. This view is also premised on the evidence that HMOs have significant interest in public social health insurance products whose premiums and benefits are prescribed by the government, and are able to make profits by supplying them. The above approach to health financing models the philosophy underlying the use of the private sector for healthcare provision.

For private health financing organisations to contribute effectively to UHC goals, it is necessary for leadership to be provided by the public sector to ensure that the strategy does not compromise the goals of universal health coverage. Experiences elsewhere show that countries that have achieved significant progress toward UHC have been characterized by significant public sector involvement (Kutzin, 2012, Savedoff et al., 2012). The health insurance products supplied by private organisations within the national health financing system must have their prices and benefit packages determined by the a publicly-led purchaser at national or sub-national levels, as is the case for the formal sector programme of the NHIS in Nigeria. Situations of leaving the private sector to fix the price of components of the national health insurance programme (such as the tertiary institutions social health insurance programme of the NHIS), are counter-productive and ought to be discouraged.

#### 7.5.4 Importance of regulation in health financing systems that include private sector actors

It is cardinal to emphasize that the effective use of private organisation in national health financing systems is contingent on establishing effective institutions to control their behaviours without which its application could be counterproductive, as observed in markets for private healthcare providers and financing systems elsewhere (Drechsler and Jutting, 2007a, Drechsler and Jutting, 2007b, Taylor, 2010, van den Heever, 2012). The regulator needs to institutionalise robust accountability mechanisms that ensure priority setting, monitoring and evaluation of policy implementation by insurers and providers, and

enforcement of policy prescriptions, which are vital for health financing strategies that successfully contribute to UHC (WHO, 2014). Such a mechanism should be sensitive enough to identify and support or sanction insurers and providers, based on their behaviours. The regulator must also exhibit a strong sense of public stewardship as required in health systems (WHO, 2000). Strong accountability systems have potential to engender public trust in the system, and to sustain public interest and support for the achievement of the intentions of health financing reforms.

In practice, applying stronger regulation of the private sector is challenging in many developing countries. As observed in this thesis, it is weakened by contextual factors, especially private sector capture. The behaviour of elites that included individuals serving as public officials in the government but who had private interests in the HMO industry, also shows how the dual interests of such powerful actors impede regulation. These features often characterize public health systems in developing countries and make the policy-making environment more politically challenging.

Regulation is also hindered by a weak effort towards implementation of regulatory mandates for all the parties involved in the financing system. Regulatory agencies that have responsibility to manage public funds but fail to keep the public informed of how such funds are used undermine public trust as noted in the Nigerian situation (Onoka et al., 2013). As noted elsewhere, poor accountability systems allow implementers to act inappropriately, through actions which ultimately impact negatively on the health services that are provided to citizens, and erodes trust in the health financing system (Savedoff and Gottret, 2008). Processes that would have allowed independent assessment of HMOs and providers and promoted accountability are hampered by their poor compliance to mandates to generate and share information. In contrast, HMOs in the USA report their data (including administrative expenditures) to analysts (Sherlock, 2009). Such information enables the examination of organisational behaviours and performance, and allows the identification and

control of harmful behaviours including mergers and acquisitions (USDOJ, 2010). The weak effort of the regulator to implement regulatory mandates including sanctions, allowed negative business strategies to flourish amongst HMOs and providers. For instance, delays in treatment authorisation that arose due to the strategies they developed to protect their income have negative implications for quality of care, and conflict with the goals of universal health coverage.

Given the above noted challenges, achieving effective regulation where private mechanisms are used in national health financing systems will require the implementation of governance arrangements that work. The role of PHI supplied by private organisations in the national health financing system needs to be clearly defined so that its contribution or negative impact can be observed and controlled to preclude negative consequences on UHC. A basic minimum benefit package can be prescribed for PHI plans to ensure that competition is premised on the right healthcare package, and insurers that comply can be provided with operating licences. Government requirements that insurers display the prices and healthcare plans available in the market (which should be compulsorily made available to the government) and to provide information necessary to guide a consumers' choice of insurer, have potential to significantly control HMO prices if deployed in Nigeria. To further improve the behaviours of both the purchasers and providers, effort should be made to ensure access to their service-related information, such as waiting times for treatment authorisation, and healthcare outcomes. Complaints from participants in the purchasing relationship need to be investigated and acted on by regulators to ensure trust in the system. In so doing, purchasers and providers with harmful business strategies can be identified and corrected, in order to discourage such behaviours. In settings where regulators can be captured, it may also be useful for regulatory systems to require that evaluation of health financing strategies be carried out by independent organisations such as research institutions.

## 7.6 Conclusions and areas of further research

This thesis has provided additional insight, based on the Nigerian experience with a national health insurance policy, into the importance of political and historical context in determining the nature and outcomes of health financing strategies that aim to move countries towards universal coverage. It has also considered the effectiveness of private health insurance and private financing organisations in a national healthcare financing system that aims to achieve UHC. The research used a case study design which drew on theoretical frameworks in the economics and policy analysis literature, and adopted a mixed methods approach involving qualitative and quantitative methods. The thesis also raises further research questions that need consideration.

In countries where a federal system of government operates, more policy analysis research is needed to consider the trade-off between a focus on the use of single national pool that may be unfeasible in a federal system and may delay transition to UHC, and the option of focusing on lower levels (states or regions). The argument against the latter is that sub-national systems imply fragmentation of financial pools, which portends negative equity implications, as the potential for cross-subsidies may be undermined. However, how large should a pool be to achieve effective cross-subsidisation? In the Nigerian situation where each state has an average of 4.3 million people, can a state's population provide a sufficient pool so that effort can be applied to support each state to develop its own financing plan? It is notable that a technical committee of the government proposed that states could set up their insurance schemes (FMOH, 2003). It is also possible that focusing on states would allow an incremental approach to implementation of the national health insurance scheme, and for lessons to be drawn from implementing states to improving the system. However, policy recommendations to use sub-regional levels as the focus of implementation and to implement financing strategies in an incremental manner ought to be informed by careful policy analysis of their

feasibility and acceptability since the path that is taken is likely to involve political contestation by various entrenched interest groups, and may be difficult to reverse.

Even though financial incentives affect quality (Conrad and B., 2004), there was little consideration of quality in this study. Future studies should obtain data on service quality for different beneficiary categories and different healthcare providers and insurers, which would be useful in examining the outcome of their behaviours in order to better understand the agency problem, and the influences on clients' demand for HCPs and HMOs. Such analyses will also depend on the availability of the information needed to analyse quality. This will include data on number of patients actually treated, patient days of care provided, expertise of the medical staff, re-admission, nosocomial infection rates and patients' perspectives about services that are useful in assessing quality of care (Newhouse, 1970) and understanding providers' outcome management strategies.

There is a potential for further mobilisation of funds from the formal private sector into less fragmented pools such as the opportunities provided in the social health insurance programmes of the NHIS. However, private voluntary health insurance is preferred by private firms in Nigeria to mandatory insurance (Onwujekwe and Velenyi, 2010). The reasons for such preferences often have to do with the distrust in the public healthcare systems. However, the situation studied here provides a different context: the same private insurers (HMOs) are used to purchase the services for the government SHI programme, the benefits package is more comprehensive, and most of the providers used are the same private providers that are available and used for the more expensive private health plans. In such situations, the reason why private firms still choose not to use the SHI programme is a subject for empirical investigation, and the lessons from such research will inform debates about how to mobilise funds from the formal private sector into larger pools.

The observation that an increase in the SHI reimbursements threatened the private insurance market suggests scope for investigation into the macro-level consequences of interventions in

healthcare financing systems. In this thesis, there was the potential for PHI premiums to become unaffordable to private employers, which could lead them to demand a reduction in the benefit package, withdraw their employees from an insurance pool, or increase the prices of their own products, depending on their market structure and the overall economic outlook in the country. Hence, the existing and potential impacts of such public interventions in the health financing system requires investigation. Such analysis will also provide insights into how private firms will respond to changes in the health financing system that affect their cost structure, whether they are mandatorily or voluntarily included in national health insurance pools.

Finally, in addition to the growing evidence about the organisational characteristics of private healthcare providers in developing countries, it would be useful to gather information from a broader range of settings on the nature of private healthcare financing organisations and the role(s) they are playing in the health financing systems in developing countries to understand their usefulness in advancing countries towards UHC. Such analysis should consider using similar theoretical frameworks from economic and policy analysis literature as used in this thesis. The conceptual framework employed here can also provide a guidance to the analysis.

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## Appendices

### Appendix 1: Quantitative data form for all HMOs

SUB DOMAIN	QUESTION
HMO number	
Which year did you commence operation	
Market concentration	What is the number and distribution of enrolees by any category you use that are covered by your firm overall and according to those categories?

<b>What is your area of operation</b>			National/regional/state		
			How many state branches do you have and how has this changed over the past 3 years?		
<b>Product</b>			Kindly list the range of products you offer and who they are targeted at What range of products do you offer your clients?		
No	Product name	When was the first member registered	Target population	Number of beneficiaries	Number of enrolees (members)
<b>If more than one product, what are the characteristics of these products and in what ways are they similar to or different from each other?</b>					

Appendix 2: Tools for selected HMO interviews

Appendix 2a: Tool for Preliminary Data Collection about HMO Products

**HMO Study Number [   ]**

**Product Number [   ]**

**Section 1: Characteristics of the product**

1	Health plan/Product Name	
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2	When was the first member for the product enrolled? (month/year)	
3	Description of target population characteristics	
4	Size of target population for the product	
5	How does someone become a member	<input type="checkbox"/> Voluntary (prospective member decides to join on his/her own) <input type="checkbox"/> Automatic (member joins automatically after because a group/employer he/she is bound to voluntarily takes up the product) <input type="checkbox"/> Compulsory (member is externally mandated to join)
6	Unit of membership (smallest unit that a policy is established with)	<input type="checkbox"/> Individual <input type="checkbox"/> Family <input type="checkbox"/> Group (specify) _____
7	Eligible beneficiaries (those who can benefit from the policy obtained)	<input type="checkbox"/> Member only <input type="checkbox"/> Member and dependents (specify number of dependents) _____
8	Number of beneficiaries (2009)	<input type="checkbox"/> Members _____ <input type="checkbox"/> Members and dependents _____
9	Number of beneficiaries (2010)	<input type="checkbox"/> Members _____ <input type="checkbox"/> Members and dependents _____
10	Number of beneficiaries (2011)	<input type="checkbox"/> Members _____ <input type="checkbox"/> Members and dependents _____
11	Enrolment period (when can individuals enrol)	<input type="checkbox"/> Any time of the year (open) <input type="checkbox"/> Limited to specific times (closed) <i>please describe</i> _____
12	Is there a waiting time for enrolees	<input type="checkbox"/> No <input type="checkbox"/> Yes (describe) _____
13	Is this product related to other type of insurance (e.g. reinsurance)	<input type="checkbox"/> No <input type="checkbox"/> Yes (describe) _____ _____

## Section 2: Who pays for the product?

1	Nature of premiums	<input type="checkbox"/> Flat rate <input type="checkbox"/> Related to wages (please describe) _____ <input type="checkbox"/> Other _____
2	Basis for fixing premium	<input type="checkbox"/> Fixed for all beneficiaries in the plan and not dependent on any characteristic of client <input type="checkbox"/> Health risk <input type="checkbox"/> Characteristic of beneficiary e.g. income, age, sex

		(please describe) _____ <input type="checkbox"/> Other (specify) _____
3	Who contributes to premiums?	<input type="checkbox"/> Employer only <input type="checkbox"/> Member only <input type="checkbox"/> Member and employer <input type="checkbox"/> Member and dependents <input type="checkbox"/> Other (specify) _____
4	Are premiums equal for all members of the plan?	<input type="checkbox"/> Yes (amount) _____ <input type="checkbox"/> No (how do they differ) _____
5	How are premium rates for the primary member defined in terms of having dependents?	<input type="checkbox"/> Members with dependents pay higher premiums <input type="checkbox"/> Members without dependents pay higher <input type="checkbox"/> Other (specify) _____
6	How are premium rates defined amongst those with dependents	<input type="checkbox"/> Single rate is applied irrespective of number of dependents of a member <input type="checkbox"/> Equal rate for a member and his/her dependents <input type="checkbox"/> Dependents rates are reduced compared the member's rate <input type="checkbox"/> Members without dependents pay  Please describe the option chosen _____

### Section 3: Establishment of contracts with providers

1	Health care providers used for those covered by the product (tick all that apply)	<input type="checkbox"/> Public <input type="checkbox"/> Private for profit <input type="checkbox"/> Private not for profit <input type="checkbox"/> Other (specify) _____
2	Who makes the choice of health care provider (tick all that apply)	<input type="checkbox"/> Member <input type="checkbox"/> Employer <input type="checkbox"/> Group head <input type="checkbox"/> Other (specify) _____

3	Which provider can be chosen	<input type="checkbox"/> Any provider <input type="checkbox"/> Provider within the list provided by HMO <input type="checkbox"/> Provider within the list provided by enrolee employer/payer <input type="checkbox"/> Other
4	Is approval required by the primary provider before referring a member for specialist care	<input type="checkbox"/> No <input type="checkbox"/> Yes (describe) _____ _____
5	Is approval required by the specialist before attending to a member	<input type="checkbox"/> No <input type="checkbox"/> Yes (describe) _____ _____
6	Are standardized treatment protocols given to providers or agreed on for members of plan	<input type="checkbox"/> Disease type specification <input type="checkbox"/> Diagnostic procedures (laboratory test, Xray, etc) <input type="checkbox"/> Medical treatment approach <input type="checkbox"/> Medicines to be prescribed <input type="checkbox"/> Other (specify) _____
7	Issues considered in contract negotiations with providers for this product	<input type="checkbox"/> Fees <input type="checkbox"/> Conditions of coverage <input type="checkbox"/> Service quality <input type="checkbox"/> Method of fee payment <input type="checkbox"/> Conditions for allocation of more members <input type="checkbox"/> Arbitration procedures <input type="checkbox"/> Others (describe) _____

#### Section 4: Payment approach used for the product

		Outpatient care	In patient care (hospitalization)	Medicines	Specialist care (referrals)
1	<b>Provider payment mechanism used</b>				
2	<b>Enter options and some description:</b> <ul style="list-style-type: none"> <li>▪ Capitation</li> <li>▪ Fee for service</li> <li>▪ Flat fee for diagnosis</li> </ul>				

	related group (DRG) <ul style="list-style-type: none"> <li>▪ Flat fee per day/diem)</li> <li>▪ Fee schedule with specific fee for each type of service rather than DRGs</li> <li>▪ Other</li> </ul>				
3	<b>If Capitation is used, is the amount adjusted</b> (what characteristic is used e.g. age, sex or member, provider practice location, etc.)				
5	<b>Enrolee cost sharing mechanism (enter if it exists and describe its nature)</b>				
6	<b>Co-payment</b> (a flat-rate for payment for each service)				
7	<b>Deductible</b> (A fixed amount member would bear beyond which insurer comes in to pay the excess)				
8	<b>Co-insurance</b> (Member pays a percentage of health care costs when services are used)				
9	<b>Expenditure cap/maximum benefit</b> (predetermined amount beyond which member bears the expenditure)				
10	<b>Approval of services/expenditure</b> Is approval required for provision of any of the services and from whom? <i>Describe</i>				

### Section 5: Instrument for HMO's Expenditure: Target – finance unit

Administrative activities	Amount
Staff wages	
Rent (or equivalent discount costs for owned buildings)	
Travel costs for	
Office supplies	
Travel costs related to administration of the	

	product for existing members	
	Others	
<b>Promotional activities</b>		
	Promotional expenses such as leaflets, brochures and related materials	
	Staff training related to the product	
	Workshops for potential members of the product	
	Fees and wages of external trainers	
	Travel costs for advertising the product	
	Others	

## Appendix 2b: In-depth Interview guide for CEO/Business Manager of HMO

### Section 1: Market Structure Characteristics

	QUESTION
Nature of ownership and control	How was this HMO established? (Probe to find out the overall organizational goals); Who owns the organization; Are there any related firms owned by the owners (e.g. HMO, health providers, insurance firms)? Is there a business plan?
	Who makes decisions about the enrolees to cover, staff to recruit,

	premium level, and capitation rates? Are the owners also amongst managers?
	What are the main objectives of the organization; How would you rank them in order of importance?
	What particular objectives do you pay attention to in your daily business with regards to your clients? Which ones do you pay attention to with regards to your linked providers? (Rank in order of priority)
Entry and exit conditions	Are there requirements that you had to meet up with in order to commence business? What were these requirements (probe for registration, licensing, accreditation)
	What is the chance that a new organization that intends to start as a HMO will be able to start business? What factors would such an organization have to contend with in order to join as a HMO? (probe for challenges related to existing laws, costs, accreditation requirements, profit-making potential)
	In what ways can they overcome such challenges?
	If a HMO were to consider discontinuing business, what factors would be of concern to it and how will such factors affect such a decision?
Market regulation	What regulatory systems are in place to control the way HMOs do business? How did these regulations emerge and how are they implemented?
	Are there challenges that are raised by the regulatory systems? What are these challenges and what strategies do you employ to overcome them?
	Has your firm ever been visited by regulators NHIS for supervisory or regulatory related activities? If yes, how often has this happened?
	Are there standards for monitoring HMO performance? How were these standards developed? How are they enforced (explore for standards related to the product and the premiums?)

## Section 2: Member preferences and product development (Product development/Business manager)

	QUESTION
Characteristics of members	Do you take steps to categorize your potential customers in any way for any particular purpose? (Probe to find out reasons why they do so)
	If yes, how do you go about taking such steps? (Probe to find out whether the strategies were explicitly developed prior to reaching out to clients or whether they gradually developed afterward)
	If yes, what are the categories you have identified? (Explore to find out different categories of clients - individuals, groups, various categories of private clients)

<b>The basis for segmentation</b>	What characteristics do you consider important that identifies these categories? (Probe to find out how these factors differ for various client categories)
	Which categories of clients are more important to your business and are there reasons why this may be so? (Rank the categories vertically, in order of importance)
<b>Nature of the products offered by HMOs</b>	What motivated the development of your product(s)? (Probe for information related to the products identified from the preliminary interview)
	In what ways and to what degree have these products been structured to address the consumer characteristics and categories? (Probe for linkages of characteristics earlier mentioned with particular products; explore for benefit package, service delivery differences)
	How did these products emerge over time and what factors underlie their emergence? (explore for different product types and varieties mentioned and whether their emergence was related to any internal or external events)
	Are there additional features such as non-clinical services that you think certain kinds of clients require from HMOs they enrol with? What are these features and how do they influence your product?
<b>Pricing (premium setting)</b>	How are premiums determined, and in what ways do these differ for various client categories?
	Have there been premium reviews? What prompts such reviews? How are these reviews done? How often does this happen?
	Are there particular enrolees that pay more than others, and what accounts for these differences?
<b>Strategies advertising product to prime category</b>	How do you go about informing potential clients about your product (focus on the highest ranked/prime category of clients mentioned earlier; probe for examples of strategies used)
<b>Strategies for others</b>	What strategies do you employ for other categories (explore to find out whether and to what extent each of the strategies mentioned for the prime category is applied to others and what may account for any differences)
<b>Enrollee growth</b>	Overall, what factors account for the way your enrollee numbers have changed? (Question based on the data from preliminary interview)

### Section 3: Health financing functions

**Product name:** \_\_\_\_\_

	QUESTIONS
<b>Revenue collection</b>	In what ways do you collect your premiums from enrolees? (probe to identify the similarities and differences in strategies for different categories and why they are used)
	How regular are payments by clients; what steps do you take to ensure payments are regular; what accounts for any irregularities and how do you manage defaulters?

<b>Pooling</b>	Is the revenue collected for all enrolees aggregated and used irrespective of the contributor characteristic? If not, in what ways are they aggregated, and why?
	Are there measures in place for certain enrolee categories to bear certain costs or are all costs shared equally? If there are, which costs are managed in this way and what are the reasons for this?
<b>Purchasing</b>	How are providers selected for enrolees; What roles do clients, firms, HMOs, etc play in provider choice? (explore for differences by enrolee category)
	Are there providers that you consider more appropriate for certain kinds of enrolees and why? Are there ways that you employ to ensure that the providers that such providers are used?
	Are there concerns about overuse of services, and if there are, what steps are taken to prevent overuse of services (probe to identify steps taken towards providers, steps taken for existing enrolees and for potential enrolees; explore tests based on various categories served by HMO)?
	What are the capitation rates paid providers? Does the capitation rate differ across enrolees? To what degree does this differ and why?
	Do the capitation rates for enrolees of similar categories differ for different providers? If yes, what reasons underlie such differences?
	Are there service provision supervisory activities, and utilization reviews and how are these structured to control provider behaviour?
	Does cost sharing exist? What form does it take (e.g. Coinsurance, co-payments, and deductibles), to what extent do they differ for various categories?
	What are the differences in premium relative to the excluded services?
	What strategies do you employ towards providers to ensure that capitation rates are adequate, and stable?
	Are there strategies that you employ to control the number and cost of referrals by providers?
	In what way do the revenues accruing from various categories covered account for your expenditures?

#### Section 4: Interaction with other HMOs

	QUESTIONS
<b>Pricing behaviours across HMOs</b>	Are there differences in premiums and the way premiums have changed over time for products across HMOs for clients in similar categories (examine premiums for the last 3 year period)? How have these changes affected your own premiums?
	How do your capitation rates compare with those paid by other HMOs? (Explore for different categories) In what ways have these rates changed over time? How have these changes affected your own capitation rates?

<b>Product differentiation across HMOs</b>	Are there innovations and differences in your product that would make a client to prefer your product to those of other HMOs (probe further for differences by enrollee categories)
	Where they exist, are there reasons why these products are made to be different from those of other HMOs?
<b>Competition for members (output)</b>	Do all HMOs employ the same strategy to attract more enrollees? If not, what are the similarities and differences (probe for differences based on categories)? What innovations make your firm unique and how do these innovations affect your enrollee number relative to other HMOs?
	How much information do you have about the products that are offered by other HMOs; How does your knowledge or lack of it influence the strategies you use to ensure your products are relevant to and selected by potential clients?
<b>Relationships to further business interests</b>	How do HMOs relate with one another? In what ways do these relationships enhance or hinder desired premium levels, and the number of people covered by health plans?
	How do you think HMOs that have large numbers of enrollees are able to enrol such high numbers?
	Are there HMOs whose prices are lower than that of others? If yes, how are they able to offer products at low prices? If No, how are HMOs able to keep prices more or less uniform?
<b>Measures to control behaviours amongst HMOs</b>	Are there measures in place amongst HMOs to control the behaviour of existing and potential members? What are these measures? How were they developed? How are they implemented (probe further for measures to control price increase or decrease, advertising)

#### Appendix 2c: Qualitative instrument for observing and reporting HMO insurance

administration functions: Primary target – Insurance administration unit

<b>SUB DOMAIN</b>	<b>QUESTION</b>
<b>Administrative functions</b>	What administrative tools are available to manage enrollees (for instance insurance certificate, membership card, insured and premium payers file, membership, insured and premium fee registers, health provider file, claims register).
	How are premiums collected for the different categories of members? How are debts collected?

	How are these tools used in the provision of services? (eg. Are total number of beneficiaries covered, average number of beneficiaries per member, premiums paid/premiums expected, and list of members who are yet to pay premium easily available?). Are the lists of beneficiaries (members +/- dependents) regularly updated and how often, Are the lists of members who are defaulting with payment updated and how often?
	What measures are in place to communicate benefits of the plan? Do they include information about benefits, how to subscribe, how to access health services, and how to make complaints?
	Are there reviews done to ensure that the benefits are meeting members' needs (e.g. Are there member satisfaction surveys)? What are these measures and how are they carried out and for whom? How often are they done?
	In what ways have the outcomes of these measures influenced your plans and activities?
	Are reviews of encounter data available? Are they analysed? How are they used by the firm? (Probe to find out if and how they are used to improve on plans and activities)
	Are periodic audits of providers carried out? How are these done?
<b>Technical function</b>	Are steps taken to monitor renewal of membership? What is the renewal rate for different groups and what accounts for the rate [Proportion of members within an earlier years cohort that maintain membership in the next year (say 2010 and 2011)] (Document if information is not available for determining such rates)
	Are actuarial reviews done? How often and for which products? How are they used?
	How are claims for specialist care monitored?
	How are provider services monitored (probe to understand the way HMO monitors number of services delivered, and extent of a service provided); Are there measures to identify and control overconsumption and over prescription?

Appendix 3: Tools for data collection from health care providers

Appendix 3a: Tool for preliminary data collection from healthcare providers (for all HMOs that provider has contract with)

	Provider Study Number [ ] List product types	Key beneficiary characteristics	Number of beneficiaries covered (based on product types)	Capitation rates	Is the contract for HMO products the same or multiple	Remarks
HMO no. ____						
HMO no. ____						
HMO no. ____						

**Section 1: Preferences for enrolees and HMOs**

Focus	QUESTION	
About HMOs	Do you take steps to categorize HMOs that you work with in any particular way and for what reasons? If yes, what are the categories you have defined?	IDI – MD or Administrator
	If yes, how do you go about taking such steps (Probe to find out whether the strategies were explicitly developed prior to setting out contracts with HMOs or whether they gradually developed afterward)	IDI – MD or Administrator
	What particular characteristics account for these categories?	IDI – MD or Administrator
	In what ways are these steps meant to facilitate your business?	IDI – MD or Administrator
	Are there particular kinds of HMOs that you prefer? What factors account for this?	IDI – MD or Administrator
	How do you go about getting the HMOs you prefer? (Probe for the steps taken and the way provider believes those steps place enhance the likelihood of getting the attention of such HMOs)	IDI – MD or Administrator
About HMO enrolees	What steps do you take to attract more enrolees to your facility?	IDI – MD or Administrator
	Are there particular kinds of HMO enrolees you prefer?	
	What are their characteristics and how do their characteristics affect your business?	IDI – MD or Administrator
	How do you go about ensuring that you get preferred categories of enrolees allocated to you? (Probe for steps taken, how they are taken and the way such steps are believed to enhance chances of getting such enrolees)	IDI – MD or Administrator
	Who chose you as a provider? (probe for different categories of enrolees) What reasons do you think may have led HMOs/enrolees to choose you as provider? Are there strategies providers generally employ to gain advantage over others with regards to getting more HMO beneficiaries?	IDI – MD or Administrator

## Section 2: Financing function

Focus	QUESTION
<b>Capitation</b>	Do all HMOs pay equal capitation for enrolees within HMO and across HMOs for similar patient categories? If not, how does this differ and what reasons account for differences in capitation?
	Are there delays in capitation payments for any of the segments? How does this differ across HMOs and what steps do you take to protect your interests?
	What strategies do you employ to manage patients when this occurs and does this differ by segment?
	In what ways does this affect your relationship with HMOs and what strategies are employed to manage defaulting HMOs?
	Are all enrolees handled the same way for services not included in the benefit package irrespective of the HMO or enrolee category? If not, how are they handled and what reasons underlie this?
<b>Polling</b>	Is the capitation you receive for enrolees aggregated and used irrespective of the enrolee characteristics? If not, in what ways are they used, and why?
	Are there measures in place for certain enrolee categories to bear certain costs on behalf of others or are all costs shared equally? If there are, which costs are managed in this way and what are the reasons for this?

## Section 3: Service provision

Focus	QUESTION
<b>Service Delivery</b>	Do all HMO enrolees with the same diagnosis receive the same treatment? (Probe to find out whether variations occur for enrolees of different categories within and across HMOs, explore for prescriptions)
	Do differences exist in the extent of laboratory investigations carried out for enrolees of different categories having the same diagnosis?
	Is HMO approval required before providing any of the services for any product?
	Is HMO approval required before referring a member for specialist care?
<b>Referrals</b>	How do you handle re in the way referrals are initiated, the chance of getting referred, the choice of secondary care provider, and the time it takes for approval responses from HMOs? Are there reasons why this may be so?
	Are referrals for all categories of enrolees and all HMOs handled in a similar way?
<b>Complaints</b>	How are enrolee complaints handled?
	Do these activities differ based on the product under which enrolee is covered? How?
	Does it differ based on HMOs under which enrolee is covered?
<b>Supervision</b>	Are there service provision supervisory activities, and utilization reviews? How are they carried out? (probe to find out the extent to which they are carried out for enrolees of different categories and why)
	Does the intensity of their deployment vary by HMO and why?
	How do these supervisory activities affect your services to HMO product beneficiaries? In what ways if any have they affected your relationships with HMOs?

#### Section 4: Administration and Profitability of Products

Focus	QUESTION
Expenditure	What activities do you spend on that are related to the management of clients covered by HMO products?
	On your part, are there strategies in place to ensure that your expenditures are kept low? (explore with regards to salaries and wages, drugs and other supplies, any other cost item)
	On the part of HMOs, how do HMOs ensure that your expenditures are low for enrolees? Which strategies work and which ones do not work and why? (explore for differences for categories of enrolees, and for capitation and referral care)
	What measures/innovations do you employ to keep costs low? (probe for strategies related to minimizing salaries and wages, drugs and laboratory equipment and supplies, adjusting quantity or nature of services, any other cost item) Which ones work and which ones do not work and what reasons account for this?
	Are there other strategies you employ to ensure that revenue collected for enrolees are adequate?

## Appendix 4: Ethics clearance

### London School of Hygiene & Tropical Medicine

Keppel Street, London WC1E 7HT  
United Kingdom  
Switchboard: +44 (0)20 7636 8636

[www.lshtm.ac.uk](http://www.lshtm.ac.uk)

LONDON  
SCHOOL of  
HYGIENE  
& TROPICAL  
MEDICINE



### Observational / Interventions Research Ethics Committee

Chima Onoka  
Research Student  
GHD/PHP  
LSHTM

7 August 2012

Dear Chima,

**Study Title:** Economic analysis of the market for health insurance in Nigeria: examining the roles of health maintenance organizations (HMOs) and linked health providers

**LSHTM ethics ref:** 6233

Thank you for your application of 6 July 2012 for the above research, which has now been considered by the Observational Committee.

#### Confirmation of ethical opinion

On behalf of the Committee, I am pleased to confirm a favourable ethical opinion for the above research on the basis described in the application form, protocol and supporting documentation as revised, subject to the conditions specified below.

#### Conditions of the favourable opinion

Approval is dependent on local ethical approval having been received, where relevant.

#### Approved documents

The final list of documents reviewed and approved by the Committee is as follows:

Document	Version	Date
LSHTM ethics application	n/a	05/07/2012
Protocol		June 2012
Information Sheet & Consent form		05/07/2012

#### After ethical review

Any subsequent changes to the application must be submitted to the Committee via an E2 amendment form. All studies are also required to notify the ethics committee of any serious adverse events which occur during the project via form E4. At the end of the study, please notify the committee via form E5.

Yours sincerely,

**Professor Andrew J Hall**  
Chair

[ethics@lshtm.ac.uk](mailto:ethics@lshtm.ac.uk)

<http://intra.lshtm.ac.uk/management/committees/ethics/>



## National Health Research Ethics Committee of Nigeria (NHREC)

Promoting Highest Ethical and Scientific Standards  
for Health Research in Nigeria



Federal Ministry of Health

NHREC Protocol Number NHREC/01/01/2007- 26/08/2012  
NHREC Approval Number NHREC/01/01/2007-26/09/2012  
Date: 29<sup>th</sup> September, 2012

**Re: Economic analysis of the market for health insurance in Nigeria:  
examining the roles of HMOs and linked health providers**

Health Research Ethics Committee (HREC) assigned number: NHREC/01/01/2007

Name of Student Supervisor: Kara Hanson  
Name of Student Investigator: Chima A. Onoka  
Address of Student Investigator: London School of Hygiene and Tropical Medicine  
London, UK  
e-mail: chimaonoka@yahoo.com

Date of receipt of valid application: 26-08-2012  
Date when final determination of research was made: 26-09-2012

**Notice of Full Committee Approval**

This is to inform you that the research described in the submitted protocol, the consent forms, advertisements and other participant information materials have *been reviewed and given full committee approval by the National Health Research Ethics Committee.*

This approval dates from 26/09/2012 to 25/09/2013. If there is delay in starting the research, please inform the HREC so that the dates of approval can be adjusted accordingly. Note that no participant accrual or activity related to this research may be conducted outside of these dates. All informed consent forms used in this study must carry the HREC assigned number and duration of HREC approval of the study. In multiyear research, endeavor to submit your annual report to the HREC early in order to obtain renewal of your approval and avoid disruption of your research.

*The National Code for Health Research Ethics requires you to comply with all institutional guidelines, rules and regulations and with the tenets of the Code including ensuring that all adverse events are reported promptly to NHREC. No changes are permitted in the research without prior approval by the NHREC except in circumstances outlined in the Code. NHREC reserves the right to conduct compliance visit your research site without previous notification.*

Signed

Clement Adebamowo BMChB Hons (Jos), FWACS, FACS, DSc (Harvard)  
Honorary Consultant Surgeon, Director, West African Center for Bioethics and  
Chairman, National Health Research Ethics Committee of Nigeria (NHREC)

Department of Health Planning, Research & Statistics  
Federal Ministry of Health  
11<sup>th</sup> Floor Federal Secretariat Complex Phase III  
Ahmadu Bello Way, Abuja

Tel: +234-09-523-8367  
E mail: [chairman@nhrec.net](mailto:chairman@nhrec.net), [secretary@nhrec.net](mailto:secretary@nhrec.net),  
[deskofficer@nhrec.net](mailto:deskofficer@nhrec.net)  
URL: <http://www.nhrec.net>,

## CITI Collaborative Institutional Training Initiative

### Human Research Curriculum Completion Report Printed on 8/26/2012

**Learner:** CHIMA ONOKA (username: COnoka)  
**Institution:** West African Bioethics Training Program  
**Contact Information** Phone: +2348033802711  
 Email: chimaonoka@yahoo.com

#### Group 2 - Investigators:

#### Stage 1. Basic Course Passed on 08/24/12 (Ref # 8278663)

Required Modules	Date Completed	
Introduction	08/05/12	no quiz
History and Ethical Principles - SBR	08/08/12	4/5 (80%)
Defining Research with Human Subjects - SBR	08/08/12	5/5 (100%)
The Regulations and The Social and Behavioral Sciences - SBR	08/08/12	5/5 (100%)
Assessing Risk in Social and Behavioral Sciences - SBR	08/09/12	5/5 (100%)
Informed Consent - SBR	08/10/12	4/5 (80%)
Privacy and Confidentiality - SBR	08/10/12	5/5 (100%)
Research with Prisoners - SBR	08/10/12	4/4 (100%)
Research with Children - SBR	08/16/12	4/4 (100%)
Research in Public Elementary and Secondary Schools - SBR	08/16/12	4/4 (100%)
International Research - SBR	08/16/12	3/3 (100%)
Internet Research - SBR	08/17/12	5/5 (100%)
Avoiding Group Harms: U.S. Research Perspectives	08/18/12	3/3 (100%)
Vulnerable Subjects - Research Involving Workers/Employees	08/22/12	4/4 (100%)
Conflicts of Interest in Research Involving Human Subjects	08/24/12	3/5 (60%)
West African Bioethics Training Program Module	08/24/12	no quiz

**For this Completion Report to be valid, the learner listed above must be affiliated with a CITI participating institution. Falsified information and unauthorized use of the CITI course site is unethical, and may be considered scientific misconduct by your institution.**

Paul Braunschweiger Ph.D.  
 Professor, University of Miami  
 Director Office of Research Education  
 CITI Course Coordinator

[Return](#)



# *West African Bioethics*

*Monday, August 27, 2012*

*NCHRE Training Trial*

## *Certificate of Completion*

*In recognition of successful completion of the revision of the Nigerian National Code for Health Research Ethics online training program of the West African Bioethics Training Program and the National Health Research Ethics Committee of Nigeria. This certifies that*

*Chíma OnoKa*

- ◆ reviewed regulatory and informational documents on human-subject protection*
- ◆ passed a quiz on the responsible conduct of human studies*
- ◆ signed a statement of commitment to the protection of the rights and welfare of human subjects participating in research.*

*Dr. Clement A. Adebamowo  
BM ChB (Hons), FWACS FACS ScD  
Professor of Surgery  
Director, West African Bioethics Training Program*

*Cc: Program Administrator, WAB*

## Appendix 5: Information sheet and consent form

### HMO

#### **Project title: Economic analysis of the market for health insurance in Nigeria: examining the roles of HMOs and linked health providers**

<b>Name of Principal Investigator</b>	Dr Chima A. Onoka
<b>Address</b> <i>London</i>  <i>Nigeria</i>	Department of Global Health and Development, Faculty of Public Health and Policy, London School of Hygiene and Tropical Medicine, 15-17 Tavistock, London WC1H 9SH UK Health Policy Research Unit, College of Medicine, University of Nigeria, Enugu, Nigeria
<b>Contact details</b>	08033802711  <a href="mailto:chimaonoka@yahoo.com">chimaonoka@yahoo.com</a> <a href="mailto:chima.onoka@lshtm.ac.uk">chima.onoka@lshtm.ac.uk</a>

#### **Information sheet for participants**

**Background:** In Nigeria, private (for-profit) Health Maintenance Organizations (HMOs) have emerged at the centre of efforts towards expansion of health insurance coverage with a number of health insurance products that serve the health insurance market in Nigeria. HMOs collect revenue from or on behalf of people covered by these products, pool collected funds products, and also purchase health services from health care providers on behalf of those for whom funds were collected. However, little is known about the nature of the programmes offered by HMOs in Nigeria (including their private insurance products), the way these programmes are administered by the HMOs and their linked providers and how their roles can contribute to expanding the health insurance market in Nigeria and attaining the global goal of “universal coverage”.

**Voluntary nature of participation:** Participation in this project is completely voluntary. Thus although you have been approached, you are free to participate or to decide otherwise. If you decide to, you are free to withdraw at any stage of the project without any consequence.

**Study procedure:** The study involves use of in-depth interview to collect information from you and examination of documents about the nature and quantity of products you offer, and the costs of administering health insurance. You have been approached to request your participation because you manage a HMO. If you agree to participate, you will be asked questions about your health insurance products and the way your products are offered. The interview will take place in a place and a time that is convenient for you and that will allow you the privacy and serenity that is necessary for the process. I will be happy to do this in your office if you consider it as such. The interview will last about 60 minutes and I will be careful not to place further demand on your time. I will also request to record the interview to enable me not miss out on any issue we may discuss. Please be informed that I may need to see you again in the course of the study to follow up with questions or clarifications about findings that may emerge in the course of the study.

**Risks:** Being a private organization, I am aware that employees may be concerned about sharing information that may not be in the interest of the firm. While I do not think that

conflicts will arise, I have taken steps to minimize the risk of occurrence of such conflicts by making the selection of employees to be done in conjunction with the head of this organization and deciding that all information and opinions that are presented are harmonized within the organization before being used. I also know that the interview will take some of your time.

**Confidentiality:** There are likely to be some challenges with maintaining confidentiality given the small number of firms and individuals that will be used for this study even where data is presented in an anonymous way. The reason is that though there are 62 HMOs, most of the major HMOs are known and would naturally be assumed as the sources of evidence. I will therefore engage with you throughout the process on the best ways of presenting the data. Specifically, I request that you grant consent to be interviewed knowing that data presentation will be presented with or without identifiers (as we will agree), and where this is done without identifiers, you acknowledge the existence of the risk that readers could still ascribe the evidence to your organization given the small market size. Please note that quotations arising from the interviews will be presented as arising from one of three broad categories namely: 'HMO', 'Provider' or 'Policy maker'. In addition, people who are interviewed on behalf of their organizations will be assigned study code numbers (*Participant 1 to n*) and will not be identified by their names both in the transcripts, audio records and the data analysis.

**Questions/concerns:** I will be available at any necessary time to answer any question(s) you may have concerning the project or to deal with any problem that may arise. You can always reach me using any of the contact information provided in this information sheet.

**Participation and action required:** I would be glad if you agree to participate in this study. Keep this information sheet with you and feel free to ask me questions at any time or consult anyone who you think might help you decide whether or not to participate. If you have read the information sheet, have understood, and have agreed to participate in the study, kindly sign a consent form to confirm that you have agreed to participate.

<b>Consent form for potential participants (HMO manager/Employee)</b>		
I have read and understood the contents of the information sheet. All the questions I had about the study have been answered. I clearly understand what I am required to do if I agree to participate in the study. I am aware that I have the right to leave at any time if I don't want to continue. I am aware that all the information that I give will be kept secret.		
I agree to take part in this study		
<b>Participant</b>		
<b>Name</b>	<b>Signature</b>	<b>Date signed (dd/mm/yy)</b>
<b>Participant:</b> I am also willing to allow the interview to be audio recorded		
<b>YES/NO</b>	<b>Signature (if yes)</b>	<b>Date signed (dd/mm/yy)</b>
<b>Principal investigator</b>		
<b>Name (in capital letters)</b>	<b>Signature</b>	<b>Date signed (dd/mm/yy)</b>

## PROVIDERS

### Project title: Economic analysis of the market for health insurance in Nigeria: examining the roles of HMOs and linked health providers

<b>Name of Principal Investigator</b>	Dr Chima A. Onoka
<b>Address</b> <i>London</i>  <i>Nigeria</i>	Department of Global Health and Development, Faculty of Public Health and Policy, London School of Hygiene and Tropical Medicine, 15-17 Tavistock, London WC1H 9SH UK Health Policy Research Unit, College of Medicine, University of Nigeria, Enugu, Nigeria
<b>Contact details</b>	08033802711 <a href="mailto:chimaonoka@yahoo.com">chimaonoka@yahoo.com</a> <a href="mailto:chima.onoka@lshtm.ac.uk">chima.onoka@lshtm.ac.uk</a>

### Information sheet for participants

**Background:** In Nigeria, private (for-profit) Health Maintenance Organizations (HMOs) have emerged at the centre of efforts towards expansion of health insurance coverage with a number of health insurance products that serve the health insurance market in Nigeria. HMOs collect revenue from or on behalf of people covered by these products, pool collected funds products, and also purchase health services from health care providers on behalf of those for whom funds were collected. However, little is known about the nature of the programmes offered by HMOs in Nigeria (including their private insurance products), the way these programmes are administered by the HMOs and their linked providers and how their roles can contribute to expanding the health insurance market in Nigeria and attaining the global goal of “universal coverage”.

**Voluntary nature of participation:** Participation in this project is completely voluntary. Thus although you have been approached, you are free to participate or to decide otherwise. If you decide to, you are free to withdraw at any stage of the project without any consequence.

**Study procedure:** The study involves use of in-depth interview to collect information from you and examination of documents about the nature and quantity of insurance products you deliver. You have been approached to request your participation because you serve as a provider for some HMOs. If you agree to participate, you will be asked questions about health insurance products of these HMOs and the way your deliver the associated benefits. The interview will take place in a place and a time that is convenient for you and that will allow you the privacy and serenity that is necessary for the process. I will be happy to do this in your office if you consider it as such. The interview will last about 60 minutes and I will be careful not to place further demand on your time. I will also request to record the interview to enable me not miss out on any issue we may discuss. Please be informed that I may need to see you again in the course of the study to follow up with questions or clarifications about findings that may emerge in the course of the study.

**Risks:** Being a private organization, I am aware that employees may be concerned about sharing information that may not be in the interest of the firm. While I do not think that conflicts will arise, I have taken steps to minimize the risk of occurrence of such conflicts by making the selection of employees to be done in conjunction with the head of this organization and deciding that all information and opinions that are presented are harmonized within the organization before being used. It is also possible that information you

present to me may affect your relationship with a HMO if the information is misapplied. I have taken steps to keep this from happening by engaging with HMOs about the value of all information that will emerge from the study to the market and the need to maintain fidelity with the recommended linked provider and use information to improve service delivery. Additionally, I will agree with you on the best way of providing any information that you may consider controversial. Finally, I also know that the interview will take some of your time.

**Confidentiality:** There are likely to be some challenges with maintaining confidentiality given the small number of firms and individuals that will be used for this study even where data may be presented in an anonymous way. The reason is that the number of providers selected is few and selection has been done in collaboration with HMOs. I will therefore engage with you throughout the process on the best ways of presenting the data. Specifically, I request that you grant consent to be interviewed knowing that data presentation will be presented with or without identifiers (as we will agree), and where this is done without identifiers, you acknowledge the existence of the risk that readers could still ascribe the evidence to your organization given the small market size. Please note that quotations arising from the interviews will be presented as arising from one of three broad categories namely: ‘HMO’, ‘Provider’ or ‘Policy maker’. In addition, people who are interviewed on behalf of their organizations will be assigned study code numbers (*Participant 1 to n*) and will not be identified by their names both in the transcripts, audio records and the data analysis.

**Questions/concerns:** I will be available at any necessary time to answer any question(s) you may have concerning the project or to deal with any problem that may arise. You can always reach me using any of the contact information provided in this information sheet.

**Participation and action required:** I would be glad if you would agree to participate in this study. Keep this information sheet with you and feel free to ask me questions at any time or consult anyone who you think might help you decide whether or not to participate. If you have read the information sheet, have understood, and have agreed to participate in the study, kindly sign a consent form to confirm that you have agreed to participate.

<b>Consent form for potential participants (Medial Director – Health facility/Employee)</b>		
I have read and understood the contents of the information sheet. All the questions I had about the study have been answered. I clearly understand what I am required to do if I agree to participate in the study. I am aware that I have the right to leave at any time if I don't want to continue. I am aware that all the information that I give will be kept secret.		
I agree to take part in this study		
<b>Participant</b>		
<b>Name</b>	<b>Signature</b>	<b>Date signed (dd/mm/yy)</b>
<b>Participant:</b> I am also willing to allow the interview to be audio recorded		
<b>YES/NO</b>	<b>Signature (if yes)</b>	<b>Date signed (dd/mm/yy)</b>
<b>Principal investigator</b>		
<b>Name (in capital letters)</b>	<b>Signature</b>	<b>Date signed (dd/mm/yy)</b>

## POLICY MAKERS

**Project title: Economic analysis of the market for health insurance in Nigeria: examining the roles of HMOs and linked health providers**

<b>Name of Principal Investigator</b>	Dr Chima A. Onoka
<b>Address</b> <i>London</i>  <i>Nigeria</i>	Department of Global Health and Development, Faculty of Public Health and Policy, London School of Hygiene and Tropical Medicine, 15-17 Tavistock, London WC1H 9SH UK Health Policy Research Unit, College of Medicine, University of Nigeria, Enugu, Nigeria
<b>Contact details</b>	08033802711 <a href="mailto:chimaonoka@yahoo.com">chimaonoka@yahoo.com</a> <a href="mailto:chima.onoka@lshtm.ac.uk">chima.onoka@lshtm.ac.uk</a>

### Information sheet for participants

**Background:** In Nigeria, private (for-profit) Health Maintenance Organizations (HMOs) have emerged at the centre of efforts towards expansion of health insurance coverage with a number of health insurance products that serve the health insurance market in Nigeria. HMOs collect revenue from or on behalf of people covered by these products, pool collected funds, and also purchase health services from health care providers on behalf of those for whom funds were collected. However, little is known about the nature of the programmes offered by HMOs in Nigeria (including their private insurance products), the way these programmes are administered by the HMOs and their linked providers and how their roles can contribute to expanding the health insurance market in Nigeria and attaining the global goal of “universal coverage”.

**Voluntary nature of participation:** Participation in this project is completely voluntary. Thus although you have been approached, you are free to participate or to decide otherwise. If you decide to, you are free to withdraw at any stage of the project without any consequence.

**Study procedure:** The study involves use of in-depth interview to collect information from you and examination of documents about the nature and quantity of products you offer, and the costs of administering health insurance. You have been approached to request your participation because of your position as a policy maker/regulator involved in the health insurance system in Nigeria. If you agree to participate, you will be asked questions about your health insurance products and the way your products are offered. The interview will take place in a place and a time that is convenient for you and that will allow you the privacy and serenity that is necessary for the process. I will be happy to do this in your office if you consider it as such. The interview will last about 60 minutes and I will be careful not to place further demand on your time. I will also request to record the interview to enable me not miss out on any issue we may discuss. Please be informed that I may need to see you again in the course of the study to follow up with questions or clarifications about findings that may emerge in the course of the study.

#### Risks:

There is no known risk that you will be exposed to by participating in this study. However, I know that the interview will take some of your time.

**Confidentiality:** There are likely to be some challenges with maintaining confidentiality given the small number of firms and individuals that will be used for this study even where data may

is presented in an anonymous way. The reason is that though there are 62 HMOs, most of the major HMOs are known and would naturally be assumed as the sources of evidence. I will therefore engage with you throughout the process on the best ways of presenting the data. Specifically, I request that you grant consent to be interviewed knowing that data presentation will be presented with or without identifiers (as we will agree), and where this is done without identifiers, you acknowledge the existence of the risk that readers could still ascribe the evidence to your organization given the small market size. Please note that quotations arising from the interviews will be presented as arising from one of three broad categories namely: 'HMO', 'Provider' or 'Policy maker'. In addition, people who are interviewed on behalf of their organizations will be assigned study code numbers (*Participant 1 to n*) and will not be identified by their names both in the transcripts, audio records and the data analysis.

**Questions/concerns:** I will be available at any necessary time to answer any question(s) you may have concerning the project or to deal with any problem that may arise. You can always reach me using any of the contact information provided in this information sheet.

**Participation and action required:** I would be glad if you agree to participate in this study. Keep this information sheet with you and feel free to ask me questions at any time or consult anyone who you think might help you decide whether or not to participate. If you have read the information sheet, have understood, and have agreed to participate in the study, kindly sign a consent form to confirm that you have agreed to participate.

**Consent form for potential participants (Policy maker)**

<p>I have read and understood the contents of the information sheet. All the questions I had about the study have been answered. I clearly understand what I am required to do if I agree to participate in the study. I am aware that I have the right to leave at any time if I don't want to continue. I am aware that all the information that I give will be kept secret.</p> <p>I agree to take part in this study</p>		
<b>Participant</b>		
<b>Name</b>	<b>Signature</b>	<b>Date signed (dd/mm/yy)</b>
<p><b>Participant:</b> I am also willing to allow the interview to be audio recorded</p>		
<b>YES/NO</b>	<b>Signature (if yes)</b>	<b>Date signed (dd/mm/yy)</b>
<b>Principal investigator</b>		
<b>Name (in capital letters)</b>	<b>Signature</b>	<b>Date signed (dd/mm/yy)</b>