



Graduate School of Development Studies

**The Transiting to Universal Health Care Coverage:
An Analysis of the Ghana National Health Insurance Scheme.**

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Disclaimer:

This document represents part of the author's study programme while at the Institute of Social Studies. The views stated therein are those of the author and not necessarily those of the Institute.

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Dedication

This work is dedicated to the ever-loving memory of my father (deceased) who valued the importance of higher education for the success of a young woman but did not live to see the fruit of his labour and also to the Dadoza family for their immense support, encouragement and relentless prayers.

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List of Acronyms

AIDS	Acquired Immune Deficiency Syndrome
CBHI	Community-based Health Insurance
CHPS	Community-based Planning Services
DMHIS	District-wide Mutual Health Insurance Scheme
FFS	Fee-for Service
GDHS	Ghana Demographic Health Survey
G-DRG	Ghana Diagnostic Related Group
GHS	Ghana Health Service
IMF	International Monetary Fund
MOH	Ministry of Health
NDPC	National Development Planning Commission
NGO	Non-Governmental Organisation
NHIA	National Health Insurance Authority
NHIF	National Health Insurance Fund
NHIL	National Health Insurance Levy
NHIS	National Health Insurance Scheme
SAP	Structural Adjustment Programme
SSNIT	Social Security National Insurance Trust
SHI	Social Health Insurance
VAT	Value Added Tax
WHO	World Health Organisation

Abstract

The purpose of this study was to examine the reasons why the National Health Insurance Scheme (NHIS) has not been able to enrol all citizens of Ghana after seven years of its initiation despite the set target of five years. Data from the national development planning commission (NDPC) on citizens' assessment of the NHIS was examined using the modified version of the Anderson behavioural model as a theoretical framework. The results at the time of the survey indicate that insurance coverage was above half of the total population. With a generous benefit package, insured people still incur out of pocket expenditure for care for uncovered services. Nevertheless, the insured pay significantly less than the uninsured. The study concludes that achieving universal health insurance coverage with equitable, sustainable and effective health system is a great challenge. However, the challenge can be overcome when government and health authorities assume a clear-cut stewardship role of the health sector.

Relevance to Development Studies

Lack of financial protection to health care poses problems for both the individual and society as a whole as it has a direct effect on the health status of the population. However, there is an evident link between good health, productive life and economic development. That is why governments all over the world and other world organisations such as the WHO are involved in the development of health systems that can effectively provide financial protection to citizens. However, there is the need for a continuous assessment of the health care systems to evaluate its impact on the health status of the population and identify areas of improvement if any. It is therefore through high quality researches such as the ones in academia that can evaluate the impacts of health care policies and programmes. To this end, this study adds to the body of literature on health care systems and its impact on the society as a whole.

Keywords

Access, health care financing, health insurance, financial protection, universal health coverage

Chapter 1 Introduction

1.1 Background

In majority of the world's countries, there is an increasing interest in the provision of adequate and improved health service delivery outcomes for the achievement of broader developmental goal. However, the strategies of maintaining an effective health care system with meagre and inequitably distributed resources as well as accessibility to health services to all continue to elude many governments. Inadequate health systems has been identified as one of the main obstacles to scaling-up interventions to make the achievement of internationally agreed goals such as the Millennium Development Goals by many world organisations. Health financing in terms of raising the resources and the ways of managing the available resources must therefore be key in addressing these challenges.

The possibility of social health insurance to increase access to health care in Africa is being explored. Wagstaff (2009) suggests social health insurance as one of the approaches to health financing which has the potential to pool and share risk across population groups and time. However in contexts where the labour economy is dominated by an unregulated informal economy, the social health insurance has proved futile since it is mostly suitable to contexts where people are highly well paid and well regulated tax systems. In most of the African's contexts, Carrin et al. (2005) argues that the taxation systems are often not sufficiently developed to allow adequate revenue collection for universal coverage. Moreover, the World Health Organisation (WHO) in its assessment of the health care systems of member states acknowledged that many countries, especially the developing countries' health financing systems fall short of the precondition of universal coverage. It therefore encouraged a movement in health care systems in favour social insurance and other forms of prepayment mechanisms in member states at its 58th round of World Health Assembly. In recent times however, many countries are embracing universal health coverage defined by the World Health Organisation as "access to key promotive, preventive, curative and rehabilitative health interventions for all at an affordable cost, thereby achieving equity in access. Although there are variations in the path to achieving universal health coverage, countries are reorganising domestic health financing systems that share cost equitably across the entire population instead of concentrating the burden on the few who faces catastrophic illness in any given year.

In the hope of making health care services readily accessible and affordable to all, the government of Ghana, in 2003 established the National Health Insurance Scheme (NHIS). It was also viewed as a means of injecting new resources into the health sector. The scheme is a fusion of elements of Social Health Insurance (SHI) and elements of Community Based Health Insurance (CBHI) and it is based on a district-wide Mutual Health Organisation approach which is now operating in all the 145 administrative districts of the country. The aim of the scheme is to spread the risks associated with health care cost

over subscribers and as a means of raising funds for health care. The scheme provides a comprehensive drug list and covers 95% of disease conditions among the population.

1.2 Problems Statement

Ghana has ambitiously prioritised universal coverage of health care and therefore undertook a health financing reform in 2003 with the objective of providing financial protection to all citizens within the coming years. Specifically, the vision of government as stated in the national health insurance policy framework for Ghana (Ministry of Health 2004) is 'to assure equitable and universal access for all residents of Ghana to an acceptable quality package of essential healthcare. Principally, the stated policy objective for the NHIS is that 'within the next five years, every resident of Ghana shall belong to a health insurance scheme that adequately covers him or her against the need to pay out of pocket at the point of service use in order to obtain access to a defined package of acceptable quality of health service'. In the context of Ghana's national health policy, health insurance is also seen as one of the options of financing mechanisms generating additional resources for affordable healthcare. Overall, the long term goal is to improving financial access to health care services for all.

Ghana has made relatively significant progress over the years towards the expansion of insurance coverage. Over 60% of the population are covered by the national health insurance (NHIA Annual Report, 2009). Despite evidence of this large coverage level and the financial protection provided by social health insurance against uncertainties of illness, enrolment is still far from optimal though there is exemption policy for the poor. Some people may have chosen not to take up the insurance because of one reason or the other. Presumably, if these people become sick they will be forced to pay out-of-pocket fees at the point of service if they use the formal medical facilities or they may resort to other means of treatment such as self medication, for their health needs. A potential explanation for the uninsured that has been identified in the literature is that the premiums may be too high for to unable full enrolment by all citizens. (Agyepong and Adjei, 2008; Asante and Aikins 2008; GSS 2009). Though this evidence may be intuitively plausible, it may well be that other factors may be attributed to the non enrolment unto the national health insurance scheme. It may therefore be worth exploring in depth.

Whereas a number of empirical studies to assess the impact of the NHIS on the population of Ghana have been carried out, little has been said so far on why individuals or households would want to participate in the NHIS as a reform in health financing. In order to implement an appropriate health financing reforms and changes, it is essential to understand the current financing arrangements. The aim of this study therefore is to provide a coherent analysis of the current health insurance scheme in Ghana to determined reasons for some people not enrolling unto the scheme. This is done in terms of the main fi-

nancing features and policy objectives for which it was designed to achieve and to examine the challenges involved in extending health insurance coverage for all. It therefore inevitably leads to how best to extend health insurance coverage to all the population.

1.3 Relevance and Justification

A better health status is fundamental to human happiness and well-being. It is also essential to driving the economic and social progress of individuals, families and societies everywhere as health populations are productive and able to save more. A health risk poses one of the greatest threats to the lives and livelihoods of people especially the poor since a health shock is likely to add health expenditures to the burden of the poor and reduces their earning capacity. To improve the health status of populations however requires an effective health system among other factors. The health system is aimed at achieving an optimal access to healthcare, quality of care and efficiency. Therefore, governments are expected to see to the overall performance of a country's health systems and ensuring that access to the needed health care services of the population without the risk of financial catastrophe is prioritised. Furthermore, research into health systems is necessary and guides improvements in health systems and the development of evidence based policies.

Health among other socio-economic priorities was however put at the heart of government's agenda to transform Ghana into a middle-income country by 2015 with a strategy of improving human capital and productivity through health (Ministry of Health, 2007). Indeed, one of the major barriers to the attainment of good health is the ability to pay for health services. In recognition of this fact, efforts are constantly being made to make healthcare available for all citizens. Currently the government of Ghana wishes to make strategic decisions concerning the future direction of financing health care as well as making health facilities more accessible for all. Challenging to this task is how to reach the poor more effectively.

The policy strategy to manage health and to manage its financing requires an in-depth analysis aimed at understanding existing financial approaches, in order to evaluate the impact of these approaches and to identify strategies for improvements. In addition, evaluation of the approach in terms of effectiveness and sustainability is relevant. The study in the light of the above brings into perspective the current financing strategy of the National Health Insurance Scheme in Ghana with the aim of providing relevant information on the topic under review for policy decisions.

1.4 Research Objectives and Research Questions

1.4.1. Objective

The broad objective of this research is to analyse the Ghanaian National Health Insurance Scheme (NHIS) in order to contribute to the growing body of literature on health insurance reforms in low income countries providing key lessons for other countries to enhance the effectiveness of a similar policy reform.

Specifically, this study seeks to explore the non-participation of some people in the NHIS and whether it is actually accomplishing its purpose of providing access to affordable health care to all residents. It is hoped that, this inquiry serves to bring out an understanding of the strengths and challenges if any, of the financial and organisational structure of the healthcare financing scheme for further improvements.

1.4.2. Main Question:

The questions which this research hopes to find answer to includes;

Why is the coverage rate of the National Health Insurance Scheme (NHIS) still relatively low and how can it be increased?

1.4.3. Sub Questions:

- Who is covered by the NHIS and what determines enrolment?
- How effective is the NHIS to its members?
- What are the options for extending the national health insurance scheme to cover the entire population of Ghana?

1.5 Methodology

To achieve the stated objectives, this research focused on the national health insurance scheme in Ghana to analyse the extent to which the financing arrangements of the insurance scheme can help achieve universal coverage for all residents/citizens of Ghana. In answering the research question, information relating to Ghana health insurance scheme was collected through a desk re-

view. This was done by particularly searching for guidance documents, and scientific literature on the topic to develop an analytical argument.

1.5.1. Data sources

This study relied essentially on secondary data. The research used the latest nationally representative household data from the 2008 Citizens' Assessment Survey which was undertaken by the National Development Planning Commission in collaboration with the Ghana Statistical Service, Ghana Health Service, and the National Health Insurance Authority (NHIA) among others. This survey data was chosen for this study because of its special feature of an assessment from the citizens' perspective. Since the health insurance scheme was designed to serve the needs of the citizens, it is imperative to assess it from the perspective of the citizens in order to ascertain how best or otherwise the implementation of the NHIS is providing effective health financing arrangement to them. However, this particular survey was also designed to provide information on whether National Health Insurance Scheme (NHIS) is achieving its goal of ensuring equitable access to quality basic health care for all residents as well as gaining insight into how to bridge the equity gap in access to health care services. More specifically, the data included information on respondent's background characteristics, health conditions, and visits to health facilities, payment of medical expenses, health insurance, household assets and housing conditions (NDPC, 2008).

For this survey, 1,988 eligible households were selected for a face-to-face interview with a household questionnaire nationwide. Overall, 8,644 respondents were interviewed of which 56.7% were adults and 43.3 were children under 18 years of age. In addition to the household interview, patient exit polls were also conducted. Thus, patients leaving health facilities were approached and interviewed. In all, 920 individuals, randomly pooled patients from 100 NHIS accredited health facilities in the selected sampled districts were interviewed. Data collection for the entire survey took about four weeks between 5th and 29th of November, 2008.

For the other sources of data, the study relied on government policy documents and strategies for the health insurance scheme, which was obtained from a database search of the websites of the Ghana Health Services of the Ministry of health and the National Health Insurance authority. These institutions are responsible for the formulation and implementation of health policies and programmes respectively in Ghana. The review will ascertain the policy directions and options as well as the principles behind the options chosen for financing the health insurance scheme. Additionally, annual reports on the performance and progress of the scheme were also assessed.

To find out the functions of the health insurance financing mechanisms, empirical data from a varied number of articles, journals, country reports and other sources available will be consulted. Various search engines such as ISS and Google Scholar from online sources were consulted. This provided infor-

mation on the extent to which the introduction of the national health insurance scheme is able to help attain a universal coverage in Ghana. Since Ghana is in partnership with international agencies such as the World Bank and World Health Organisations who provide support for health project, literature was also accessed from their websites. The study then combines theoretical analysis and empirical data to assess progress on the policy objectives of universal health coverage.

1.6 Organisation of the Study

This paper is organised into five chapters. Chapter one provides a concise and general background to the study outlining the research objectives and questions. Chapter two presents an overview of health care systems in Ghana laying out the historical trajectories of health care systems and describing the structure and provision of health as well as the health status of the Ghanaian population. Chapter three set out the theoretical and analytical frameworks for the analysis of this study and it also gives a literature review on the various types of health care financing systems available to policy makers. Chapter four presents the research findings and then analyses and discusses the results with respect to why the object of universal health coverage has not yet been achieved and how it can be achieved in Ghana. Chapter five concludes with a presentation of summary of key findings and their implications for actions.

Chapter 2 The Research Context:

2.1 Introduction

This chapter presents the context in which the National Health Insurance Scheme was instituted. It looks at the Ghanaian health care systems in its various aspects, from its history to the current reform, its structure and provision of health services and the status of health conditions in Ghana.

2.2 History of Modern Health care financing

The development of modern health care delivery system in Ghana was introduced through the colonial administration with the establishment of the first hospital at Cape coast as well as several dispensaries at the rural communities (Senah 2001). The introduction of the new system was initially concentrated on the provision of health care to the European community and the colonial administrators. Eventually, few Ghanaian elites also enjoyed the formal health services provided and it was mainly curative health care. Since the colonial administration was based in the urban centres, colonial officers concentrated on improving the health infrastructure where they lived. For instance in 1927/28, over 70 percent of hospitals was in the urban areas (Patterson 1981). As a result, there was uneven distribution of health care facilities and medical personnel in the geographical regions (*ibid*) which appears to persist till date. The rural population could not access the new services not only because the facilities were unavailable but also, user charges which were instituted in the few available health facilities limited access.

In essence, the cost-sharing were instituted in public health care facilities during the colonial era. However, after independence in 1957, the newly formed government focused on building effective social welfare services and as such a provision of a comprehensive health care system (Nkrumah 1969). Senah (2001) observed that “between 1957 and 1963, a number of health centres increased from one to forty-one. Moreover health care services were made free to all Ghanaians through public health facilities and were financed through general tax. Nevertheless, sustaining the quality and delivery of health service over the subsequent years became problematic and alternative mechanisms had to be adopted to fund health care.

In the 1970's, the economic situation began to worsen as a result of the global oil hikes. This led to pressure on government budget for the health sector. Consequently, Ghana adopted the Structural Adjustment Programme (SAP) imposed by the IMF and the World Bank as part of the prescription for economic recovery in 1985. As a result, out-of-pocket payment (user fees) at the point of service was introduced in the public health facilities. The aim of this health policy was to generate internal revenue (15% of operating cost) to improve the quality of care. Although there were exemptions for antenatal and

family planning and communicable diseases (Nanda, 2002), implementation had limited success because exemption package was not clearly specified and its compliance level was low (MOH, 2004). However, the introduction of the user fees system was a significant barrier to access and utilisation of health care. Empirical studies of access and utilisation of health care showed a negative effect especially in the rural areas (Asenso- Okyere and Dzator 1997, Atim 1998, Nyonator and Kutzin 1999). In the view of Nyonator and Kutzin (1999), the introduction of user fees has undoubtedly contributed to the inequitable health service access and utilisation among the different socio-economic groups.

Due to the inherent inequities associated with user fees policy, other alternatives to improve access to health care were considered. A number of community-based prepayment schemes operated by health care providers were piloted in some districts. These health schemes were based on social solidarity and risk-sharing among community members and they were usually managed by non-for profit mutual organisations. The research findings on these piloted schemes indicated some increases in access and utilisation, promoting equity and efficiency in the areas in which they existed (Atim et al. 2001). This model was adopted and spread nationwide through various district health insurance schemes. Thus, the health care system in Ghana over the past decades has experienced the implementation of most of the known health financing mechanisms: general tax funded system, out-of pocket payment, and health insurance (community-based prepayment and national health insurance).

2.3 The National Health Insurance Scheme

The current Ghanaian health care system was established in 2003 and it combines social health insurance and a community-based health insurance with a large state tax funding system. The Act establishing the National Health Insurance Scheme (NHIS) was enacted to replace the existing out of pocket fees at the point of use. Its main vision was to ensure equitable and universal access to health care for all residents of Ghana without paying at the point of service. The law established and operate three different types of insurance schemes: district mutual health insurance schemes (non-profit and subsidised), private mutual health insurance non-profit and non-subsidised) and private commercial health insurance schemes (profit and non-subsidised).

The national health insurance scheme is administered mainly through a decentralised system at the district level and falls within the mandate of the district-wide mutual health insurance schemes (DMHIS) established in all the ten administrative regions the country. They are responsible for the populace on the benefits of the scheme, the collection of contributions, registration and renewal of membership, management of claims and ensuring the sustainability of the scheme. The DMHIS is however to be subsidised from government generated revenue. The law requires in principle that every Ghanaian both from the formal and informal sector to be a member of a district scheme but in practice enrolment is voluntary since there is no penalty for non-enrolment. All public health facilities in the country are automatically accredited to contract with the

scheme. However, private health facilities are also allowed to apply for accreditation. At the end of 2007, over 800 private health care providers in addition to all the public health care providers have been accredited by the NHIS (Ministry of health 2008). The other types of the established insurance schemes are regarded as a business venture which can be operated as either a registered limited liability company or as a private entity by any group of persons.

The membership of the NHIS is resident based. Thus a prospective client must reside in the district in which that particular scheme operates. Additionally, it is generally based on client's ability to pay and more importantly it differs according to the sector of employment of an individual. Membership in the NHIS is voluntary for members in the informal sector. To Facilitate membership based on the ability to pay, each administrative district is expected by law to identify and categorise residents of that district into four main social groups (the core poor or indigents; the poor and very poor; the middle class; the rich and the very rich) and allocate premiums accordingly. The premiums paid by the members of each category vary slightly from district to district and it generally ranges between a minimum of GH¢ 7.2 (US\$10.8) and a maximum of GH¢ 48 per annum. This was to allow the poor pay the lowest rate and the higher rate to be paid by the rich. In reality however, it appears that almost all the districts health insurance schemes have resorted to a flat rate premium system due to the difficulties in assessing an informal sector household's income data or ability to pay (Akazili et al, 2011:4) which will allow for the categorization of people into the different socio-economic groups mentioned above. However, people identified as core poor (indigents) together with pregnant women and those who are 70 years of age and above are exempted from paying premiums. The use of exemption categories as seen in the Ghanaian health insurance scheme as a system of cross-subsidy in order to reduce the financial burden of ill health on the poor or vulnerable groups and improve access to health care could pose a challenge. This is because, with limited information on the level of income earned especially by individuals in the informal sector, there is likely the challenge of effectively identifying those who actually need to be exempted.

The benefit package of the NHIS is standardised across the whole country and covers a wide range of outpatient services. The services include: drugs listed by the NHIA, general out-patient and in-patient services, laboratory tests, oral health, eye care, emergencies and maternity care such as prenatal care and deliveries. The benefit package also covers about 95 percent of all common diseases in Ghana; malaria, skin diseases, hypertension, diarrhoea, diabetics, upper respiratory tract infections, asthma, etc (Ministry of Health, 2004). In addition, the NHIS benefit offers payment for referrals (gatekeeper system) 'provided it is within the inclusive list'. There are no requirements of coinsurance, copayment or deductible by the beneficiary of the scheme (NHIA, 2009). However, the policy also specifies some exemptions for the benefit package, some of which are covered by an alternative national programmes or are either considered as expensive or non-medical: HIV anti-retroviral therapy, immunisation, dialysis for chronic renal failure, heart and brain surgery, appliances and prostheses, cosmetic surgeries and aesthetics treatment, VIP ward (accommodation), medical examination for purposes ei-

ther than treatment, organ transplantation, mortuary services, echocardiography, angiography and diagnoses and treatment abroad (Ministry of Health, 2004).

For those in the formal sector employment and who are under the SSNIT pension scheme, it is mandatory to join the NHIS. However, they are expected to pay only registration fees with their respective district health insurance schemes to have a valid membership card but without paying premium. They are then considered as automatic members of the NHIS as 2.5% of their contribution to SSNIT (Social Security and National Insurance Trust) is deducted at source as monthly health insurance premium. There is a six-month waiting period between the joining and being eligible for benefits while old members are supposed to renew their membership each year. However, a semi-autonomous agency, National Health Insurance Authority (NHIA) was established to register, license and regulate all the districts insurance schemes and to monitor health care providers operating under the scheme. In addition the NHIA is responsible for the management of the Fund into which resources for the insurance scheme are held through the collection, disbursement, investment and administration of the scheme.

The National Health Insurance Scheme (NHIS) financing is centralised. It uses a combination of contribution mechanisms such as taxes, insurance premiums and investment incomes as well as the health sector budget support from the central government. The type of contribution mechanism however is linked with the collecting agency even though all the collecting agencies pay into a common pool. The tax part of the contributions which forms the largest source of funding is a value added tax (VAT) called the National Health Insurance levy (NHIL). This is an earmarked tax of a two and a half percent levy on some selected goods and services produced in or imported into Ghana albeit some exemptions such as agricultural products in their raw state. This levy is collected by a Tax Division of Ghana Revenue Authority, a government agency and paid directly to the National Health Insurance Fund (NHIF) within Thirty days of collection.

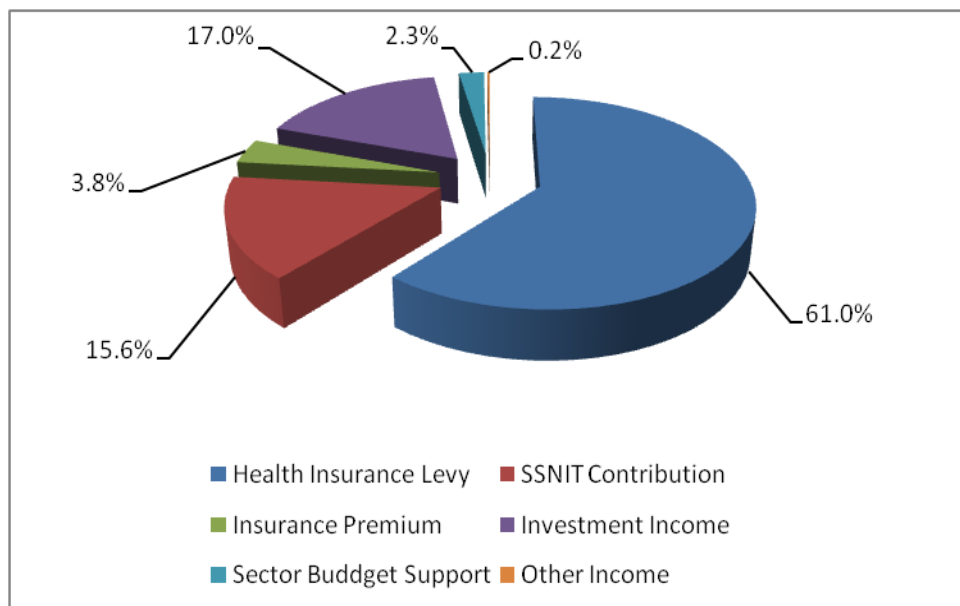
Apart from taxes, the NHIS is also funded by health insurance contributions consisting of premiums from the informal sector and a mandatory payroll deduction of formal sector workers who are contributors to the pension scheme (SSNIT pension Scheme). While the premiums of those outside the formal sector are collected directly by the various District-wide Health Insurance Schemes, the mandatory payroll deductions is collected by a government agency called, SSNIT and paid into the NHIF by the Ministry of Finance. However, investment incomes accruing to the fund are investments made by the collecting organisation (NHIA) and the allocations are statutory allocations made from the country's Parliament (Republic of Ghana, 2003).

The NHIS uses a combination of the Ghana Diagnosis Related Group (G-DRG) for service concept and a fee for service (FFS) payment for medicines as the main provider payment mechanism (Sodzi-Tettey, 2011) to transfer resources to providers. Under the fee for service system, providers charge the insurance scheme for every medicine provided under the government's Essential Drug List for the care of the patient. The G-DRG on the other hand,

categorises diseases, procedures or operations that are clinically similar, coherent and use similar health care resources into a given group. A price is allotted each category list. The health service providers deliver services to patients under the health insurance scheme and they are then paid an already determined all-inclusive flat payment for a patient's treatment according to his/her diagnosis group irrespective of the cost.

In terms of allocating resources to the purchasers (individual schemes), NHIA basically transfers certain funds to the individual district schemes which include the payroll-based health contributions of the respective formal sector employees of each scheme and a determined subsidy for each informal worker and the poor. A kind of need based resource allocation formulae is used for the transfer of funds to the individual district schemes. The basis for the formulae includes variables such as the regional population size, the population below the poverty line and the rates of under-five mortality (McIntyre et al, 2008: 874). However, for those who are granted exemptions from paying premiums (children under 18 years and ages 70 years and above), a separate channel for reimbursing is applied. Thus, the actual number of exemptions in each district schemes is used (*ibid*).

Figure 2.1 NHIS total inflow as at 31st December, 2009



Source: NHIS Annual Report 2009

According to the Ministry of Health 2008, the health insurance fund accounted for about 32 percent of total resources for the health sector.

2.4 Structure and Provision of Health Services

The main purpose of any healthcare system is to undertake activities designed to promote the health status of recipients. In Ghana, these activities were basically provided by government through the ministry of health prior to a sector reform in 1996. Through a decentralisation process, an implementation body for public health services called the Ghana Health Service (GHS) was established. The policy and regulatory duties were thereby left to the ministry of health. In addition to the government health system, there is also the private sector, which includes the private profit health facilities and relevant health based NGOs, i.e. Christian health institutions often located in the remote areas of the country. These institutions co-ordinate their programmes with the ministry and are fully integrated into the national health system.

Ghana's health care delivery system is hierarchically organised along a three-tier system: the primary, secondary and tertiary institutions. The first tier is based on the preventive, promotive and curative health services provided by the sub-district and at the community level. The health facilities (health post) at this level are usually staffed with minimally trained health workers. The health services are sometimes carried out through outreach services by Community-based Health Planning and Services (CHPS), a strategy to get health delivery to households in local communities. A key feature currently is the role of traditional birth attendants in the reduction of maternal mortality. The second tier is the secondary health care services which is provided at the district and regional hospitals usually staffed with a medical assistant, a community nurse, a health inspection assistant and a senior field technician for communicable diseases. At this level, in-patient and out-patient services for medical care are provided. Supervision and management support are provided to the district and sub-district by the Regional Health Administration. At the tertiary level, highly specialist health services are the main focus. It is provided by autonomous teaching hospitals and other specialist hospitals meant for specific diseases and referral cases form the other two tiers.

The Ghana Health Service (GHS) is responsible for co-ordinating the operations of both the primary and secondary institutions. However, in the provision of health facilities and services, government works closely with other non-governmental agencies but government constitute a larger proportion. According to the 2005 health review of the Ghana Health Service (GHS, 2005), the human resource base is inadequate. For instance it was estimated that, one doctor to a population of about ten thousand (1:10,000). The human resource constraints may be attributed to the low production levels of medical personnel and further compounded by a high rate of attrition in this sector. It also noted regional disparities in the level of public health facilities available, especially between the northern and the southern parts and between the rural and urban areas of the country. The report indicated that there are more health facilities (over 60%) and bed (70%) in proportional terms in Greater Accra, Ashanti, Volta and Western regions that the rest of the regions. This disproportion may be attributed to the population distribution in the regions and it poses a greater challenge on access to health care in those areas.

2.5 Health Status

With an estimated population of 23.48 million in 2007, accounting for 2.97% of the African population (WHO, 2009), Ghana's health system indicators shows that the health status of the country is that of a developing country but they are comparatively better in the region. These indicators present the overall population health of Ghana. In 2008, Ghana Demographic Health survey (GSS, 2008) indicated that life expectancy at birth was at 57 years (52 years in the WHO African region and 57 in low-income countries), maternal mortality ratio was 580 per 100,000 live births (900 in the region and 650 in low-income countries), infant mortality rate was 50 per 1000 live births (88 in the region and 80 in low-income), and under-five mortality rate was 80 deaths per 1000 live births. Similarly, antenatal care coverage was 95% (45% in the region and 38% in low-income countries) and a proportion of births attended by skilled health personnel have increased from 47 percent in 2003 to 59 percent in 2008.

Despite considerable attention given to the health sector aimed at improving the health status of the Ghana population over the years, some challenges still remains. The share of government health spending is low at 6 percent of Ghana's gross domestic product (GDP) in 2007 (WHO, 2009). Medically assisted deliveries by are still low, with 41 percent not benefiting from professional deliveries. The prevalence of communicable diseases conditions which are preventable and easily treatable, but increasingly causing death is worrying. Malaria, acute respiratory infections, skin diseases and diarrhoea continue to be major health challenge (Gyapong et al. 2007) although all of these diseases are preventable. In addition, lack of access to safe drinking water, unsanitary living conditions and malnutrition also contribute to ill health in Ghana.

2.6. Conclusion

After independence from the British in 1957, Ghana has initiated several reforms in the health sector aimed at improving the accessibility of and provision of quality health care make health care for all Ghanaians. The reforms have not only impacted on the structure and the forms in which health care in Ghana has been provided but also on the health status of Ghanaians. The current reform, the NHIS which was initiated about seven years ago therefore needs to be analysis in order to see how it is affecting the provision of health care. In this light the next chapter presents the framework with which the NHIS would be analysed.

Chapter 3 Theoretical and Analytical Framework

3.1 Introduction

This chapter focuses on the theoretical and analytical framework that was used in discussing and analysing this study. In this regard, the research draws on the factors that influence individual's or household's decisions to purchase health insurance and the extent to which the National Health Insurance Scheme can provide access to affordable health care for all and thus promoting universal health coverage for all citizens of Ghana. The analysis of the study dwells on a descriptive tool developed by Kutzin and used by the WHO for analysing the functioning of health care systems. It also presents the review of the literature on health care financing.

3.2 Health Insurance purchasing decision: a theoretical framework

The theoretical approach underlying this study is found in expected utility. According to Propper (1986), the decision to purchase health insurance is based on a comparison of the expected utility of having health insurance with having no health insurance. In Ghana, the other options to health insurance are to pay out of pocket at the point of use or use the traditional healing system. Thus, a potential purchaser of health insurance may compare the difference in the expected utility of medical care under insurance and uninsured scenarios to determine whether to take up the national health insurance plan. To put the incentive of analysing why some people are uninsured in Ghana, the study explored theoretically the decisions of households to take up a health insurance (Wiesmann and Jutting 2001; Carrin 2003; Osei-Akoto, 2003). The unit of analysis in this study is the household/family since the NHIS policy encourages family health insurance purchase. Moreover, the family unit is relevant since family insurance purchases may be a joint decision (Hopkins and Kidd, 1996). However, it is sometimes possible that households can decide to insure some of its members but not all. Therefore, the characteristics of the individual are as well important for the analysis.

Based on the review of the literature and the consideration of the methodology chosen, this study applied a model based on the framework of health-seeking behaviour proposed in the late 1960's by Anderson (Anderson 1968) and subsequently modified by others (Anderson and Newman, 1973; Aday et al., 1980). The model can be used to understand why people use health services as well as define and measure equitable access to health care (Anderson, 1995). It sees the use of health services as a sequential and conditional function of the household's predisposition to use health services, their ability to obtain them and their need to consume them. Therefore, the behavioural model asserts that

decision to enrol in the NHIS is a function of three sets of individual characteristics: (1) predisposing characteristics; (2) enabling characteristics; (3) need characteristics. Each of these characteristics comprises of several other variables.

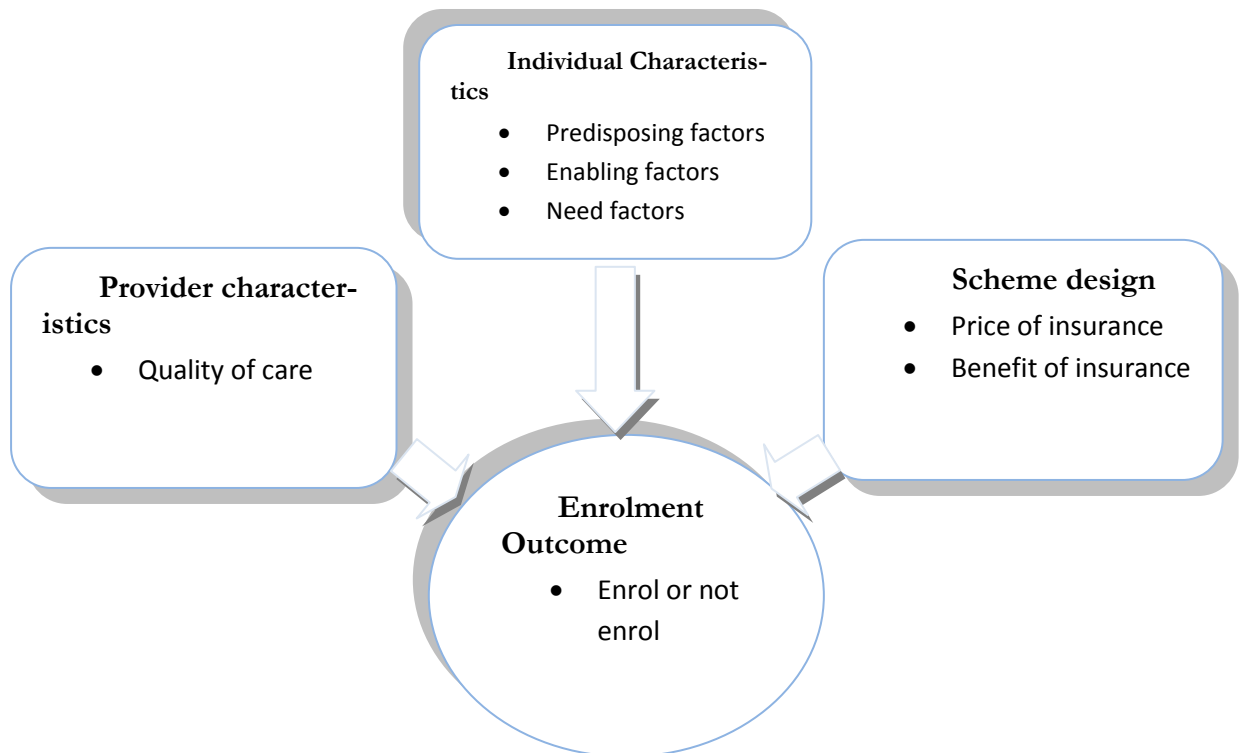
Predisposing factors influences attitudes about insurance and it reflects the fact that different households have different propensity to take up a health insurance of the differences in the characteristics of the households. Such characteristics include household size, sex, age, education, marital status, occupation and health related attitude. The enabling characteristics reflect the fact that even if the household is predisposed to enrol in an insurance scheme, it must have some means to obtain them. This component which may either facilitate or prevent enrolment comprises of income measure by the socio-economic groups¹ of the households since accurate data on income is not limited, and place of residence. Though the predisposing and enabling factors are necessary for enrolment decisions, they are not sufficient. The need factor which is the most immediate cause of enrolment (Anderson and Newman, 1973) reflects the perceived health status indicated by morbidity conditions. The condition may be acute or chronic, severe or trivial. However the more chronic or severe the condition, the more likelihood of taken up a health insurance. It also reflects the expected benefits from taking up insurance.

Apart from the above individual characteristics that determine the enrolment decisions, it is also very important to acknowledge the supply side of a country's health care system because if the services are easily accessible and the quality of service is not questionable, then it may have an impact on the demand for health services. According to Kroeger, 1983, a country's health care provider structure and processes can also facilitate or prevent enrolment. Therefore, it is imperative to factor into the Anderson model, the supply side factors in order to access the effectiveness of the NHIS. It is presumed that all of these factors interact with each other to produce an insurance enrolment decision which may differ across different groups of people. Hence, the model used in this study proposes that household's decision to enrol in the NHIS is a function of three groups of factors; individual, scheme and health care provider factors. Figure 3.1 shows the proposed framework used.

The application of this sets of variables in this model to this study could allow for the identification of the reasons why certain groups of people are not able to take up the health insurance and subsequently suggest changes that need to be made in order to make it more responsive to the needs of all thereby achieving universal health coverage.

¹Welfare measure: the study used a welfare quintile constructed with information on households' ownership of a number of consumer items which ranges from a television set to a bicycle or a car and dwelling characteristics such as sanitation facilities, sources of drinking water and the type of materials used for flooring. Each asset was weighted (standardised factor score) which was generated through principal component analysis.

Figure 3.1 Theoretical Framework



3.3 Analytical Framework

To provide a coherent analysis of the Ghanaian Health Insurance Scheme, this research employed a descriptive tool developed by Kutzin (2000). This framework aims at the analysis of an existing situation in a country's health system with regards to health care financing and resource allocation. He proposes that it is used to analyse key functions, policies and interactions within an existing health care system and also used as a tool to assist the identification and assessment of policy options. He defines the function of health care system as "access to care with financial risk protection". The objective of this framework is to make visible the available policy levers which can improve the financing functions for the population as efficiently as possible. The framework focuses on the three key health financing functions which can be considered as the overall guiding norms of a health financing system;

- a. Resource mobilisation
- b. Pooling of health care revenue
- c. Purchasing of service and provider payment.

These three key functions can be undertaken by different organisations or by one or more organisations in different combinations. Achieving all the three health financing functions ultimately contributes to arrive at the policy goal of

universal coverage (WHO 2005). This study adopted this analytical framework to lay out the criteria for the analysis of the Ghanaian Health Insurance Scheme and the extent to which the functions of the health insurance could be enhanced.

According to the framework, *revenue mobilization* generally refers to the sources of funds and how they are collected. It measures the extent to which the NHIS is viable. The financial status of the health insurance of Ghana is largely dependent on acquiring enough resources to cater for the increasing cost of health care. Therefore, the ability of the country to raise substantial level of revenues will impact on the allocation of resources to the health sector and the sustainability of the National health Insurance Scheme. It is very important for decision makers to take into consideration the general macroeconomic conditions into account in designing the financial arrangements of any health systems. The guiding norm of this function is to access the various ways by which the Ghanaian health insurance scheme is equitably and effectively collecting revenues to ensure sufficient and sustainable revenue.

Kutzin also defines *pooling* as “accumulation of prepared health care revenues on behalf of a population.” The key issues concerning risk pooling of funds include the size of the population covered by the health financing mechanism and the composition of the risk pool. The unpredictability of falling ill and cost of health care can allow for individuals to contribute to a pooled fund, so that their cost of health could be covered by the fund when they fall ill. This is to ensure that the costs of accessing health care are shared among those in the risk pool and thus guaranteeing financial accessibility. The degree to which a health financing mechanism can pool large groups of people is the criteria for assessing this function of health financing. “There is a growing consensus that, other things being equal, systems in which the degree of risk pooling is greater achieve more” (Davies and Carrin, 2001). In some health care systems, individuals can choose their pooling organisations especially in the voluntary health insurance schemes. This is likely to lead to a situation where the individuals have better knowledge of their own health status and potential needs than the pooling organisation thereby making insurance more expensive - adverse selection- which affects the financial viability of insurance scheme. Therefore the distribution of enrolment in the NHIS across different income groups can be considered as an indicator of equality of access.

Lastly *purchasing* is defined as “the transfer of pooled resources to service providers on behalf of the population for which the funds were pooled” (Kutzin 2001). This includes the kind of benefit package to which beneficiaries are entitled to and the provider payment mechanism for the transfer of resources. The purchasing function will assess the type of health services that has been included in the benefit package which could enhance the central goal of providing financial protection as well as the considerations for inclusion.

Provider payment is another aspect of purchasing function and it refers to the ways or methods that are used in allocating resources to health service providers. According to Kutzin, these methods could produce incentives which influence the way in which the service providers behave in their provision of health care to the population. Therefore, the type of provider payment mechanism has important implications for cost of and access to health care. The pur-

chasing function ensures that the NHIS purchases a set of health services at the best price from health providers for members. Thus, this function will ensure that funds to buy and provide health care services are used in the most efficient and equitable ways.

Using this framework allows to assessing whether the NHIS establishes fairness in the financial contributions and ensures that sufficient financial resources are made available so that people can access effective health care. Thus, the framework links the overall policy goal of universal coverage to the essential aspects of health financing policy such as equity, efficiency and financial sustainability. It is hoped that the analysis of these health financing functions of the NHIS will ultimately contribute to the extent to which these insurance functions can be enhanced, to operationalise and improve the policy objective of universal health coverage.

3.4 Literature Review

Basically, most households in low income countries are potentially exposed to health shocks defined as unpredictable illness that diminishes health status. A short-term health shock can affect poor households' income level as a result of the inability to work leaving them vulnerable to potential catastrophic consequences of high health care cost. Surveys covering 89 percent of the world's population suggests that each year, approximately 150 million people experience financial catastrophe as a result of spending on health services. Thus, low income and high medical expenses can force them to undertake costly strategies to manage their incomes and assets in the face of risks, thereby causing a decline in their income. Welfare cost resulting from such negatives shocks and forgone profitable opportunities have been found to be substantial, contributing to persistent poverty (Dercon, 2005; Elbers *et al.*, 2007, Pan, 2008). One popular approach to covering the cost of health by many governments is the social health insurance which has the potential to reduce these welfare cost. By covering the cost of care when a health shock occurs, other costly ways of coping with the shock are avoided, leaving future earnings opportunities intact.

However, there are varieties of ways by which the health care needs of a population can be financed in any country and these may take the form of a publicly or privately sources of financing. According to McIntyre (2007), the main mechanisms for financing health care includes government funding, health insurance and out-of-pocket payments. The choice of financing should be able to mobilise resources for health care and provide financial protection (WHO 2000).

This literature review will provide an overview of the current state of research or knowledge on health financing arrangements. It also assesses various health insurance options or models and how financing these models best meet

the needs of the whole population especially the poor in any particular geographical territory.

3.4.1 Risks in Health Insurance

Health insurance systems have evolved usually to promote the pooling of risk of incurring frequently high cost of health care relative to individual's income in times of need. Risk pooling is defined as "the practice of bringing several risks together for insurance purposes in order to balance the consequences of the realisation of each individual's risk" (WHO, 2000). The central objective of health insurance is rooted in the unpredictability of the cost of health care. Whilst individuals may know something about their health care needs, the exact amount they are likely to spend during ill health is to a large degree uncertain. Hence, health insurance ensures that risks related to health spending are not borne individually and that equal opportunity of access would be offered based on need.

The extent of risk pooling varies based on the size of the group being covered by a health financing model. The larger the group, the more heterogeneous members are likely to be in terms of risk, thereby providing a greater amount of risk pooling and cross-subsidisation. This arrangement implies that healthy members of the pool would be paying for some or all of the health care services used by the less healthy and also the richer will compensate for the poorer members. Perhaps, the key issue is whether the resources (revenues) generated by a particular risk pool is sufficient to provide the desired health care system.

In connection with health insurance systems, four different types of risk pooling mechanisms have been suggested in the literature: state funded or national insurance system, social insurance system, community-based insurance system and private insurance. A detail on this is given in the next section. To be protected from risk, the insured makes a contribution to the insurance pool known as premium. In a competitive insurance market, consumers' probability of claiming from the insurers differs and private insurers may wish to charge risk-rated premiums. However, they are confronted with lack of personal information about the health status of a prospective enrollee. If individuals have some personal information on their own risk of illness and insurers charge all enrollees the same premium, then low risk individuals may not purchase insurance or may withdraw from the scheme. Consequently, premium for the remaining may be increased leading to more withdrawal of the remaining enrollees leaving only those with expected high losses. In a voluntary insurance market, there is a greater danger to drive away other potential customers. A continuous cycle of this situation may collapse the insurance function and lead to market failure (Smith and Witter, 2004). This phenomenon where low risk individual underinsure is known as adverse selection. Results of case study in Ghana found evidence consistent with some adverse selection by pregnant women (Obeng, 2009). Women in their reproductive age were found to register immediately after they got pregnant. However, since one of the main objec-

tives of the health insurance is to increase access to health care, it can be argued that adverse selection in this case is a policy outcome. Moreover, this outcome could reduce maternal mortality rate which is still comparatively high.

An attempt to reduce adverse selection particularly in pursuit of equity may present other problems in the insurance market. For example, adverse selection could be eliminated if insurers are able to distinguish high risk people from low risk people and charge premiums accordingly to the level of risk. Alternatively, risk pools could be required by law to charge the same premium for all the insured. However, these measures of reducing adverse selection lead to insurers excluding people with high care cost ('dumping') or attempting to attract only the relatively healthy people ('cream-skimming') (van de Ven and van Vliet, 1992). Hence it may seem that health insurance in such a setting may fail to provide financial protection to high risk people (e.g. AIDS patients). In order to counter the inequities associated with adverse selection and cream-skimming in voluntary and health insurance schemes, a mandatory risk pool arrangement must be instituted by government (Smith and Witter, 2004).

3.4.2 Government funding

The first strategy that can be used for establishing universal coverage is through a government tax-funded health financing. In this system, coverage is automatically universal as it typically entitles all citizens and sometimes residents to health services. The main sources of government funds for health care services is generally derived from taxes including direct taxes levied on income and indirect taxes such as value added tax or custom duties. This model of financing popularly known as the tax-financed Beveridge model emerged in western countries that have well developed and sustained institutions for collecting and administering tax systems (Fried and Gaydos, 2002). In contrast, the specific institutional characteristics of most low and middle income countries' economies preclude the effective mobilisations of funds from such broad-based revenue sources.

Theoretically, a taxed funded system seems to be the most equitable form of health care financing due to its comprehensiveness of coverage of all citizens despite any health or financial risk. Thus, it provides medical coverage and ensures equal access to health care services to the whole population irrespective of income or other personal characteristics. In practice however, this system exist alongside one or more of the other mechanisms for financing health. The delivery of health care is usually through a network of public providers even though private providers are sometimes contracted.

Since this form of health financing forms part of the whole of state's general budget, the health sector may have to be competing with budgets of other sectors for the same resources which could lead to insufficient or unstable allocation of resources to the health sector. As a result of underfunding in the sector, quality of health care services and the needed infrastructure may be poor. This problem is even more acute in a lot of developing countries where condi-

tions suitable for raising sufficient resources for state funded activities are not well established.

3.4.3 User Charges

Another major health financing mechanism is user charges mostly used in most developing countries. It is an out-pocket charges or a direct payment made by a user to a provider of health services without any intermediaries. These charges are referred to as user fees and it has been advocated as an additional revenue source for health systems in countries with health sector budget constraints. Many developing countries mainly in Africa, introduced user fees in the late 1980's and late 1990's partly in response to shortages in public budget for government health services (Bitran and Giedion 2003). Schieber et al. (2006; 231) suggest that out-of-pocket payment in low-income countries accounts for almost half of health spending whereas it is 20% for some high-income countries such as the Netherlands. This indicates that generally, some form of fee is paid for health services at the point of use but for some low income countries, it constitute a major source of financing health care.

The role or beneficial effects of user fees for publicly provided health services in low income country has been much debated over the past two decades. Early proponents of this mechanism to financing health care, the World Bank argues that the adoption of the user fee policy could lead to improved access to and use of essential health services since the user fees would be used to subsidize those who are unable to afford (Shaw and Griffin 1995). According to Foreit and Levine (1993), by charging user fees at the tertiary level (hospital outpatient clinics) rather than at the primary level, clients are encouraged to use the appropriate service delivery outlet. Similarly, Gertler and Hammer (1997) argue that user fees in combination with a well functioning system of exemptions or waivers can help to re-allocate public subsidies towards the poor. One can conclude that the goal of introducing user fees is to ensure particularly financial sustainability and improve access to health care. These gains have been challenged.

Numerous studies to assess the impacts of user fees on access to medical care and health outcomes indicate a widespread dissatisfaction with this approach to financing health care. For instance Nyongato and Kutzin (1999) provided evidence from one of the ten administrative regions of Ghana. The study showed that even though user fees were generating significant revenues for health providers it prevented access to health care for the poor since official exemptions were almost non-existent. They therefore concluded that revenue mobilisation was the main concern under user fees policy at the expense of health care needs of the poor. Further, Gilson (1997) suggests that user fees on its own dissuade the poor from utilising health services and encourage the use of self medication and other sources for their health care needs.

Empirical analysis of user fees experience in developing countries over time suggest that user fees may play a large role of raising revenue to finance health care on one hand. However, on the other hand user fees often poses an

enormous financial burden to underprivileged households creating difficulties in accessing health care services. Therefore, in countries where the governments are not able to make available sufficient public revenues for health services, other means of funding health may be needed. They might resort to a trade off between financial sustainability in terms of mobilising enough revenue through user fees for the health sector and reduced access to health care for the population. With this trade off, achieving universal health coverage might continue to be a daunting challenge.

3.4.4 Health Insurance

Insurance is a mechanism which involves the sharing or pooling of risk among a large group of people. It provides financial protection against a loss arising out of happening of an uncertain event. The primary purpose of insurance is to smooth out the expenditure (financial risk pooling) of a good for which the need arises unexpectedly. The good in the case of health insurance is health care over life time. Health insurance therefore is a method of paying for the cost of health care through the spreading of the risk of incurring health cost over a group of individuals. Insurance thus, is an important element in the protection of risk against ill health. At the core of health insurance is the principle of social solidarity. This principle implies a high level of cross-subsidisation between the rich and the poor, low risk and high risk, and individuals and families.

Health insurance can be classified into two main categories: mandatory health insurance and voluntary health insurance.

Mandatory Health Insurance

The mandatory health insurance may be in a form of a ‘Social Health Insurance’ (SHI), especially if the principle involves a compulsory or when entitlement to coverage is based only on contribution to insurance schemes. This mechanism usually is based on a compulsory earmarked payroll contribution of members and it is much easily implemented in countries where the formal sector with a formal payroll system is dominant. It pools both the health risk of its member on one hand and the contributions of individuals, households, enterprises and government on the other hand. Entitlement is thereby linked to a contribution made by, or on behalf of, specific individuals in the population. In this system, people who cannot afford to pay contributions are likely to be excluded. For this reason, universal coverage can only be achieved if contributions are made on behalf of those who cannot afford to pay themselves. Additionally, the contributions to the system by employees and employers may be insufficient to cover the whole population. Therefore, government intervention through general taxation or earmarked taxes or even external aid may continue to be part of the source of funding for the health system.

As a way to achieving universal health coverage, Currin and James (2005) observed that the process is an incremental one which may take several dec-

ades. They further noted that, starting with Germany at the end of the nineteenth century, twenty seven countries have achieved universal health coverage through social health insurance. Currin et al (2005) indicated that health financing through the development of health insurance is recognised as a powerful option for the transition to universal coverage and as a means of decreasing the financial burden of health care cost. But how good is the evidence to support such a claim?

Voluntary Health Insurance

One main form of voluntary health insurance is private health insurance often operated for profit by owners or shareholders of a company. It is usually developed as a supplement to publicly financed coverage mostly in developed countries. Contributions to private health insurance schemes are usually not based on income and may be paid by either the individual, shared between employees and employer or paid entirely by the employer. Consequently, entitlement to this type of scheme is based on the amount of premium or contributions paid by or on behalf of an individual (insurer) which is also dependent on the risk of individual incurring health cost (Green, 2007). The cost of private insurance may be subsidised by government through tax reliefs or tax credits to employers (Mossailos and Dixon, 2002).

Another form of voluntary health insurance which has evolved in the context of government and market failure to provide adequate social protection of health needs to the informal sector population, especially in Africa and Asia is the community-based health insurance. It is sometimes referred to as 'mutual health organisation', 'micro-insurance', 'community health funds' and 'rural health insurance'. Membership in a community-based health insurance scheme is voluntary but based on being a member of the community and it is quite heterogeneous in population covered. The community-based health insurance schemes differ widely in its objectives, size, organisation and management. But common to all these schemes are mutual aid, solidarity and collective pooling of health risk (Atim 1998) among the community.

Due to its voluntary nature, community-based health insurance schemes are not able to achieve universal health coverage to the whole population. They rather serve as a supplement to other forms of health financing arrangements. According to Bennette et al (2004), they can help meet the needs of specific groups of people, such as the rural middle class and informal workers. In Ghana, community-based health insurance model is used to extend social health insurance coverage mainly to the informal employment sector population.

A large number of empirical studies evaluating the impact of health insurance in low income countries has focused on the type of health insurance and its impact on health care utilisation, out-of-pocket expenditure or social inclusion (Jowett et al., 2003; Jütting, 2001; Wagstaff, 2007). Several of these studies provide evidence that demonstrates that health insurance arrangements can significantly improve some health measures of the population (though not all) that is likely to be the target of coverage expansion policies. For instance, in a study of four community-based health insurance in rural Senegal, Jutting

(2001) found that members of a mutual health insurance scheme have a higher probability of hospital utilisation than non members. It was also found that “being a member reduces the expenditure for hospitalisation by 48 percent in comparison to non-members holding all other variables constant.” Similarly, in Rwanda, Saksena et al (2010) found that rates of hospital utilisation by members of a mutual health insurance for hospital care were significantly higher (twice as high) than for non-members. Recent studies conducted in Ghana also suggest the uninsured are likely to pay as high as 10-20 times more for inpatient care than insured persons (Sulzbach et al., 2005). Furthermore, Jowett et al (2003) accesses the effect of voluntary health insurance using data from a small household survey in Vietnam. They also found out that health insurance decreased average out-of pocket expenditure by 200 percent.

From the above evaluation studies, health insurance has the probability of increasing access to health care services and reducing catastrophic expenditure. A possible reason for this general finding might be that only the most successful health insurance schemes had been studied and reported. However, there are few other recent studies that provide evidence suggesting a contradiction. A recent study on Mexico health insurance did not find any effects of the universal health insurance scheme on health outcomes, utilisations or spending on medications (King et al., 2009). Studies from Zambia (Ekman, 2007) also observed that there is not enough evidence to support the claim that health insurance protects people from catastrophic health expenditure.

Identifying these conflicting results of the impact of health insurance on health outcomes may lead to a possible confusion in policy actions. Nevertheless, it must be noted that estimating the effects of health insurance is problematic as a result of its endogeneity. Thus, the unobserved characteristics of the insured such as age, gender or risk attitude can be correlated with health utilisation and spending, making difficult to establish a conclusive and reliable casual effects of health insurance. Nevertheless, in view of the objectives of establishing community-based health insurance schemes, increase in utilisation would be considered as a positive impact.

3.5. Conclusion

The theoretical and analytical framework discussed above is aimed at answering the research questions. Whereas the theoretical framework provides the basis upon which individuals and households will take up health insurance and hence will analyse why some people are still not yet covered by the NHIS, the analytical framework on the other hand looked at the roles that a health financing arrangement such as the NHIS is supposed to be performing in relation to the overall policy objectives of universal health coverage. The chapter also presented a review on the various health financing mechanisms that can be used to achieve health care coverage for all.

To this end, the next chapter presents and analyse the findings to the research questions.

Chapter 4 Analysis and Discussion of Findings

4.1 Introduction

This chapter presents the findings of the research and attempts both a qualitative and quantitative descriptive analysis of the National Health Insurance Scheme (NHIS) with the aim of providing an insight into how the NHIS is aiding access to affordable health care for all residents of Ghana. It is structured around the main health financing functions of revenue collection, pooling of resources and purchasing of services. It then discusses these functions in relation to the general policy objective of providing financial protection to all and the equity impacts of the health financing.

4.2. Results and Analysis

4.2.1. Coverage of the NHIS and Determinants of NHIS enrolment.

By the end of 2008, the National Health Insurance Scheme was fully operational in all the 145 administrative districts of the country (NHIA, 2009). Using the NDPC's survey report on the citizens' assessment of the NHIS, it was revealed that, overall, more than half of the total population of Ghana (55.6%) had registered with the NHIS. Out of this, 47.9% were valid card bearing members of the NHIS, which means that this percentage would actually be able to access health care services free at the point of services. The access rate decreases because of the waiting period of six months after registration for a valid card to use at the point of service. This record is lower than the administrative record of 61% of the same year by the NHIA. This is due to the fact that the NHIA did not use the estimated population figures for the year 2008 but rather used the population figures of the 2004. Though these coverage rates may be impressive, it is far less than the targeted objective of assuring universal access to health care for all within five years of implementation as about 44.4% of the total population are yet to be covered by the scheme.

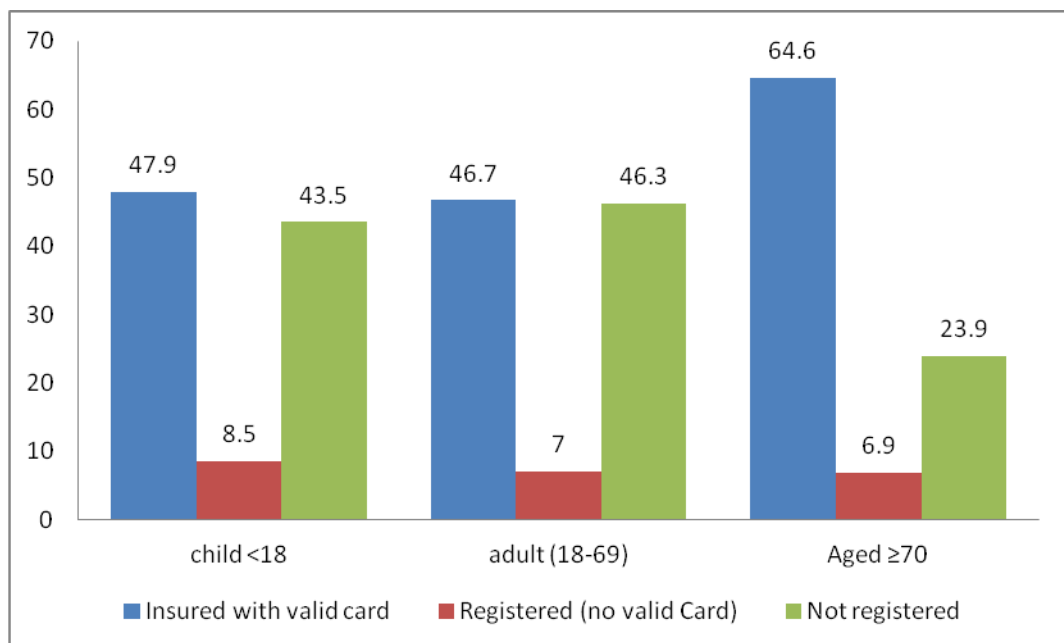
To find out why 44.4% of the population are not yet covered by the NHIS, the study examines multiple factors that determine the NHIS enrolment across households. Generally, gender, older age groups, higher education level, smaller household size and occupational status, increases the probability of enrolling in the health insurance scheme. From the NDPC survey it was clear that there were differences in the enrolment factors and NHIS membership status. The data shows that more females had enrolled with the NHIS than males. Thus, almost 50% of females have enrolled unto the NHIS as compared to 45.9% of males. The result support the general assertion that gender matters

in the predicting the probability of having an insurance. Women face some specific health risks that men do not face, such as maternal health issues and may therefore account for the likelihood of their enrolment in the NHIS more than men.

Further, the analysis of the data reinforces the assertion that higher educational level of the individual increases the likelihood of enrolling into the scheme. Thus 61.8% of those who have completed secondary or higher education have enrolled into the scheme compared to 46.9% of those who have completed primary education. This result makes sense because more highly educated people are more exposed to and more likely to digest the importance of the health insurance scheme.

Categorising membership into three different age groups as the NHIS policy prescribes, the survey as illustrated in figure 4.1 revealed that the proportion of adults aged 70 years and above who have enrolled is more than the proportion of other age groups. This confirms the assertion that older age groups are likely to demand health insurance more. However this result may have been influenced by the exemption from premium payment granted to this age group by the health insurance policy. Furthermore, relatively large proportions of children below 18 years (43.5%) are not insured under the scheme and are excluded from the benefits of the scheme. This result might be due to the fact that children’s membership in the NHIS is coupled with their parents’ membership. Thus a child can only enjoy the full benefit from the NHIS only if the parent of that child is a member of the scheme. Although children under eighteen years and adults 70 years and above are exempted from paying premiums, the result shows that a large number of children (43.5%) are excluded from the benefit of the NHIS.

Figure 4.1. Individual memberships of NHIS by age group



Source: 2008 NDPC PM&E Survey

With regards to occupation, the sector of employment of the respondents was the variable included here and it was represented by the formal sector, the informal sector and the unemployed. The NDPC survey showed that individuals or household heads working in the formal sector are more likely to be enrolled in the NHIS (62.2%) than those employed in the informal sector (41.7%). The smaller number of enrolment of those in the informal sector may account for the smaller percentage (cf., figure 2.1 above) of contribution to the funding sources of the NHIS. Thus more than half of the informal sector employees have not ensured. The type of occupation therefore determines enrolment. The explanation for the difference between the enrolment rates of these two groups can be found in the NHIS policy which makes enrolment for public sector workers mandatory but voluntary for those in the informal sector. Therefore, formal sector employees are more likely to have insurance than the informal sector employees. With a larger number of the population (over 80%) employed in the informal sector, a smaller proportion of registered members would have a negative effect on the level of revenue raised to finance the scheme. On the other hand, a relatively large proportion of the unemployed (54.9%) do not have health insurance coverage. It shows that the unemployed could have been relegated to other forms of health care provision.

In examining the size of the family, it was observed the result contradicts the general assertion that an increase in the size of the family should increase the likelihood of insurance purchase. The result shows that the smaller the number of children within the family, the more likely it is for all members of the household to be enrolled into the scheme. The data shows that 35.4% of households with no children at all, had all members of their households enrolled. The proportion however decreases among households with 1-3 children. It further decreases among households with more than three children. Table 4.1 illustrates the enrolment according to the size of the household. The observed trend may be due to misinformation on the number of children that qualify for the subsidisation policy or possibly the inability to afford the registration fees for all the children of the household. Consequently, households are more likely to enrol members with high health risk into the scheme- a possible “adverse household selection”. This result therefore begs government’s subsidization policy that allows registered parents to enrol all their children less than eighteen years of age into the scheme by registering them with a much lower fee.

Table 4.1 NHIS membership status of household size

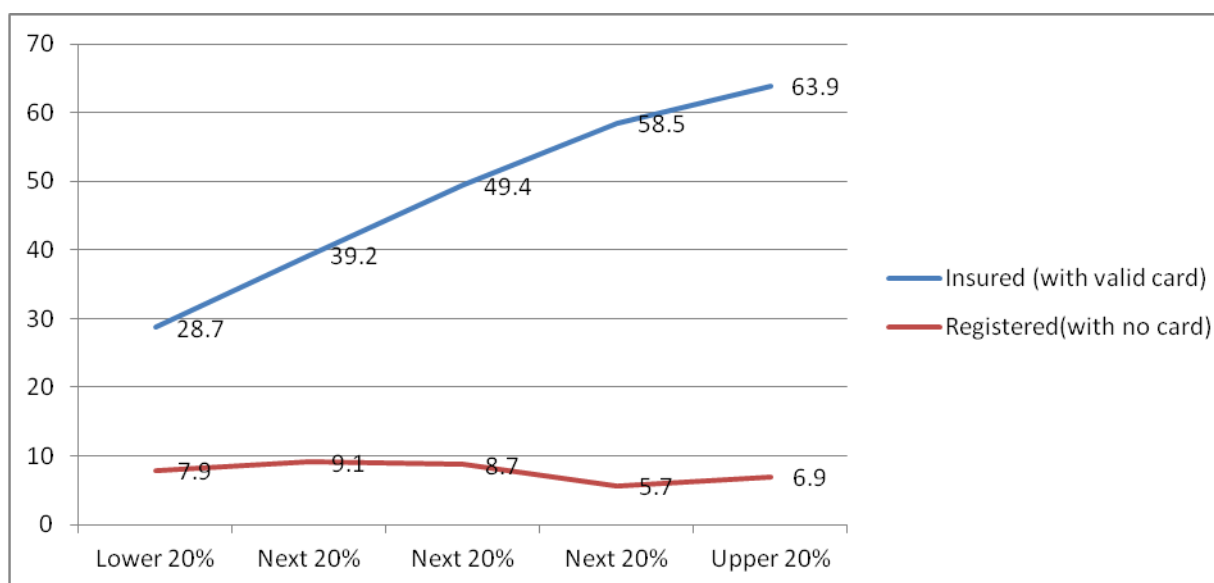
Size of family	None insured	Partially insured	All insured	Total
No child	47.3	17.2	35.4	100
1-3 Children	38.2	28.5	33.3	100
More than 3 children	40.0	31.8	28.2	100

Source: 2008 NDPC PM&E Survey

The enabling factors measured by the socio-economic group (income) of the households, knowledge or information about the NHIS and place of residence also determine the odds of enrolment unto the scheme. The survey however compared the socio-economic status of individual households with membership of the NHIS. The results suggest that between the lowest quintile and the highest wealth quintile, the proportion of individuals covered by the NHIS increases with increasing quintiles. As seen in figure 3, almost sixty-four percent of the wealthiest quintile have subscribed to the scheme as compared to only 28.7% of the poorest quintile. The flat rate premium charged by the schemes may however account for these disparities. There is therefore the possibility of charging different premiums for different socio-economic groups. This observation suggests that the NHIS is not able to pool lower socio-economic groups as much as it is able to pool the wealthier people more than people from the lower socio-economic groups. The lack of money may indeed be a major reason why many people do not join health insurance schemes (cf. Preker et al., 2002; Jutting 2004). Equity in health care financing usually stresses on the fact that individuals' payment of health care should be according to their ability to pay (McIntyre, 2007). This implies that there should be different payment for individuals or households with unequal ability to pay. The evidence that the district-wide health insurance schemes uses a flat rate system for payment of premiums rather than the differential categories of social groups suggests that the few lower income group members of the NHIS may be contributing a greater percentage of their income to health care than the higher income groups, indicating some level of inequity in health care financing not being addressed by the NHIS practically. On other hand, pooling a large proportion of those in the higher quintiles may also allow for a cross-subsidization from the rich to the poor though the proportion of the poor may be small.

Furthermore, the result shows disparities in enrolment based on the place of residence. It indicates a lower enrolment in the rural areas. Thus, more than half (53.6%) of the population in the urban areas are registered under the NHIS and hold valid cards as compared to 43.4% of rural valid card membership of the scheme. This finding is in confirmation with other studies that have found people in the rural areas are likely to enrol less in the NHIS (Chankova et al., 2008; GSS, 2009). This result is anticipated since compared to rural Ghanaian villages, cities and towns have more health facilities accredited with the NHIS and also there may be more knowledge diffusion about the advantages of health insurance in the urban areas than rural areas. In another vein, there are more formal public sector workers in the urban areas than the rural areas. The mandatory nature of their enrolment may make people in the formal sector more likely to be covered by the NHIS and may account for the higher enrolment rate in the urban areas.

Figure 4.2. Individual NHIS membership by socio-economic groups (%)



Source: 2008 NDPC PM&E Survey

The odd of enrolment is also affected by the price of the health insurance, the benefit package as well as the level of awareness and information about the NHIS. The NDPC survey also focused on those who have not enrolled as members of the NHIS to find out the reasons why they have not been registered under the scheme. As illustrated in table 4.2, an issue of high price of the health insurance premium was the main reason for not enrolling unto the scheme. Over two-thirds of individuals who have not registered with the NHIS attributed their non registration to the inability to afford the premium of the scheme. The proportion is even higher for those in the rural areas (64.5%) than for those in the urban areas (85%). In the same vein, all households which were not registered also cited high premium as the main reason for not enrolling unto the scheme. It was also observed that although affordability of the premium was mentioned as the main reasons, there was a significant difference between the reasons cited by poor households and those cited by non-poor households. For non poor households, high premium was significantly lower (36%) than for poor households (91%). What is more, no need for health insurance was also given as a reason for not enrolling in the NHIS and interestingly this reason was relatively significant among the wealthier households but not for the poor households.

With regards to the benefit package, the result suggests that most household desire to see the services covered under the scheme expanded. The expansion, they indicated should include all drugs not listed under the package (70%), free coverage for all children below 18 years of age (19.7), cancer treatments (11.4%), mortuary services (8.2%), appliances and prostheses (8.7%) and HIV anti-retroviral drugs (6.4%). The concern for expansion of the services provided by the scheme especially on cancer treatment and coverage for all children was expressed mostly by the uninsured households. Further, interview

with health care providers confirms that some essential drugs and medical care (e.g. buruli ulcers) are not covered by the NHIS. Therefore, this result suggests that the decision to enrol in the NHIS could also be influenced by the benefit package.

Table 4.2. Reasons for non-registration under NHIS by Socio-economic Group (% of non-registered individuals)

	Lower 20%	Next 20%	Next 20%	Next 20%	Upper 20%	Total
Not heard of NHIS	2.5	0.9	1.0	0.9	0.3	1.3
Premium is expensive	91.0	87.0	81.7	64.9	36.0	77.0
Does not trust the organisers	1.4	2.2	4.8	7.5	10.7	4.4
Do not need health insurance	1.2	2.0	4.8	13.4	21.1	6.6
NHIS does not cover health insurance needs	0.0	0.7	0.4	1.3	10.4	1.8
Others	4.0	7.2	7.3	12.1	21.5	8.9
Total	100	100	100	100	100	100

Source: NDPC PM&E Survey

The household's or individual decision to join or not to join an insurance scheme could also be influenced by the level of information available on the health insurance to them. This NDPC survey therefore assesses the respondent's level of knowledge about the period of registration, level of premium, exemptions under the scheme, the benefit package and procedure used to access it, accredited providers, renewal conditions and waiting period to receive insurance card. The survey results suggest that knowledge about the period of registration, level of premium paid, exemption granted and renewal condition among the insured was relatively higher than their knowledge on procedure used to access benefit, accredited health facilities in their area and the nature of health benefit package. This level of knowledge is higher among urban dwellers than the rural dwellers and also higher among the upper socio-economic group. Therefore, general knowledge about the existence of the health insurance scheme can be said to be extensive as households from all the regions were of the view that the level of publicity of the NHIS is high with Ashanti region topping the list with a 92% satisfaction level. On the other hand, only 1.3% of the households interviewed said they have not heard of the NHIS.

4.2.2. Effectiveness of the NHIS

The effectiveness of the NHIS on access to health care was examined in relation to specific aspects of health care provided by health care facilities under the scheme. This was carried out by using indicators such as reported ailment to a health facility within the last 4 weeks before the survey, type of health care professionals consulted for general care and the level of financial protection provided against the cost of treatment for general conditions.

The NDPC survey revealed that there is an increase in utilisation of health facilities by the insured compared to the uninsured. Thus households insured with valid cards made the greatest number of visits (14.2%) to a health care facility compared to those households that are not insured (9.8%). This difference may mean that many of the cases reported by members of the insurance scheme would not have been reported if they were not having insurance. The result on the type of health care professional consulted also established that being a beneficiary of the NHIS improves the chances of seeing a highly skilled health professional. While about 71% of registered members consulted with doctors/medical assistants, only about 40% of non-registered members consulted doctors/medical assistant. A relatively large number (39%) of the non-registered members consulted a drugstore instead, as compared to a smaller proportion (10%) of those who are registered members. This result may not necessarily imply that non-registered members face obstacles to access to health care. Rather, it could be due to the nature of their illness. However, this opportunity of seeing a doctor/ medical assistants is more in the urban areas (66%) than the rural areas (50.5%). It may be attributed to the disparities in health facilities between the urban and the rural areas.

Additionally, there was evidence of benefits to members of the scheme in terms of out-of-pocket expenditure. Even though about 28% of people insured with valid NHIS cards still seem to incur some cost for health care at the point of service, this is far less compared to the 90% of persons who were not insured. Considering that, 5% of the diseases of health conditions are not covered by the scheme, the cost incurred at the health facilities by members of the NHIS may be attributed to those illness and medications not covered. This result is in line with other empirical evidence (Xu et al., 2003, Chaudhury and Roy, 2008) that access to health insurance reduces out-of-pocket expenditure. Furthermore, the main source of payment of health care cost was assessed and the result showed that more of the uninsured (83.5%) households bore most of the cost of their health care compared to households with some of their members (33.1%) registered and also households with all their members (29.7%) registered. Thus the likelihood of incurring out-of pocket payment for health care and the financial burden of health care cost is higher for the uninsured. Moreover, the result also shows that the proportion of insured people in the poorest quintiles who have their health care cost paid for mainly by the NHIS are more than the proportion of the insured in the richest quintile. This implies that the NHIS may be said to have provided some form of financial protection against the cost of health care especially for the poorer households.

Furthermore the effect of the NHIS was assessed on the quality of health care delivery. The components of health care provision such as the availability and quality of drugs, quality of in-patients care, availability of nurses, beds and laboratory services, cleanliness of health facility, and how staff treat patients were used as indicators of quality. From the re-

sult, between 25-45% of respondent indicated that these components of health care provision have improved after the introduction of the NHIS.

4.2.3 Increasing Health Insurance Coverage

The preceding assessment indicates that a large proportion of the total population of Ghanaians still remains uninsured. About 44.4% of the population have not registered with the NHIS. This implies that strategies would have to be devised by health sector decision makers to encourage more people to enrol. Expanded coverage with the national health insurance scheme may be the means to make health care accessible to all. From the analysis of the data above, the study had identified some key strategic options that health decision makers in Ghana could use to expand health insurance coverage to the currently uninsured population.

Among the variables analysed in the study, the price of the insurance premium had a significant effect on the decision of people not to enrol on the NHIS. In fact, given that the decision not to take up health insurance coverage is substantially high among the low income groups, special efforts are needed to expand coverage for these low income groups. An option that may be considered to scale up coverage is to abolish the requirement of annual premium payment by potential members of the scheme. This could take an incremental process starting with the poorest regions of the country and then gradually extending to other regions until it eventually covers the whole population. This means that there is the need to explore and expand additional sources of finance required for the NHIS. With the current exploration of oil in Ghana, additional revenue could be generated through an earmarked tax from such an economic venture to finance the NHIS.

Alternatively, expanding coverage could be done by targeting specific population groups not yet covered by the NHIS. Currently, the government provides subsidies for the purchase of health insurance for indigents. To extend health insurance coverage, the subsidisation policy could be expanded to cover more of the poor people. The challenge however, lies in the effective identification of those who are poor and implementation: the identification and categorisation of a potential participant. This strategy may require the availability of a reliable data on the income of the whole population which has proven to be problematic in developing countries like Ghana. To overcome this challenge, the identification could be done using demographic characteristics of households during a survey. Even though this requires a major investment in a good statistical system to be put in place, it is very essential for any other social security system. Secondly, based on the evidence suggesting that nearly 45 percent of children below the ages of eighteen are uninsured, this study proposes an option to decouple children's registration in the NHIS from the requirement of parent's membership status. Instead children's enrolment could be attached to school enrolment which will increase insurance coverage for all children. Though it could happen that some children may not be enrolled in any school, this strategy is likely to guarantee a near full enrolment most of this population category.

Enrolment can be maximised also by differentiating premiums. The focus here should be on an effective method for identifying the various categories as well as the rigorous implementation of payment of premiums according to the ability to pay. Having different levels of premiums for the different socio-economic groups will introduce a higher degree of equity in the NHIS.

The findings on the quality of care even after the implementation of the NHIS is not very impressive as less than half of the respondents said quality has improved. An increase in utilisation without a corresponding increase in the number of staff and hospital consumables may jeopardise the quality of care that patients receive at accredited facilities. Therefore, a demand side strategy to increase enrolment could also focus on improving the quality of health care services provided at health facilities especially in relation to the availability of staff and the availability and quality of drugs.

4.3 Discussion

The previous section presented the findings of the research in terms of the determinant of enrolment, coverage size and the effects of the NHIS and analysed the result in terms of the main health financing functions of revenue collection, risk pooling and purchasing of services.

From a general perspective the government of Ghana has established a health financing system and broadly described the approach to reaching the goal of universal health coverage. Though the objective has not been completely achieved yet, a significant progress had been made. This section however discusses the implications of the findings on some of the key policy objectives of the NHIS such as the equity in health financing, financial sustainability and efficiency of health care delivery.

4.3.1. Equity in health care financing

The equity concern in health care financing refers to the fairness in raising resources for health care and the distribution of the resources mobilised. The Ghanaian NHIS was originally designed to facilitate equity in health. This is evident from the policy document which provides liberal benefits for vulnerable groups and specifies that individuals' contributions (premiums) to the health care fund should be based on ability to pay. However in reality, the situation is different as the premiums for each scheme are universal for all no matter the ability to pay. The contrast between the official payment structure and the reality is partly due to the inability to assess accurate data on the informal sector households' ability to pay, which is partly an indication of the critical challenges faced by developing countries in developing an equitable health financing mechanism.

The ways by which revenue is mobilised for the funding of the NHIS presents traces of inequities in health financing. The major source of funding the NHIS is through an earmarked tax (National Health Insurance Levy). Therefore, through the consumption of goods and services, everybody in Ghana rich or poor contributes to the funding of the NHIS. However, as noted above, the eligibility criteria for benefiting from the NHIS is through the payment of an annual premium. Thus the risk pooling is such that only those who are willing to pay the premium can be pooled into the scheme. This research has provided evidence that a significant proportion of poorer households are excluded from the benefits of the NHIS due to their inability to afford the insurance premium. The implication is that, whilst every Ghanaian is contributing financially to the health insurance funding, most poor households do not get to enjoy the benefits of the prepayment mechanism because of the criteria for enrolment unto the scheme. This however gives cause for concern from the perspective of equity in health financing. The argument can be raised that, the original design of the NHIS addresses this equity concern by making provision for the health care needs of indigents (poorest of the poor) through the government subsidies for exempt groups. However, this argument is partially true only on paper. According to the 2009 NHIA annual report, the NHIS has only a registered indigent membership of 2.3%. This figure however still falls far below the 28% of Ghanaians who are living in extreme poverty on less than one dollar a day (World Bank, 2009). Therefore NHIS, it is argued here, does not make sufficient provision for the poor since a significant proportion of the indigents do not get the benefits thereby causing inequities in the NHIS enrolment.

Despite the aforementioned equity challenge, there are dimensions favourable to financial equity. Thus, a horizontal equity in terms of access to services is built in the NHIS through a legally specified uniformed benefit package for all people enrolled in the scheme despite the fact that some members are exempted from paying annual premiums. This indicates a certain level of cross-subsidization is taking place from the relatively wealthier to the vulnerable groups whose premiums are subsidised by government. In addition, the exemption of children below 18 years of age from the payment of premiums also point to some cross-subsidisation of the older age groups to the younger group

4.3.2. Financial Sustainability

The sustainability of a health financing mechanism refers mainly to the long-term ability and potential for generating sufficient resources for health care as the need for health care grows (McPake and Kutzin, 1997) as well as containing cost. This implies that there should be a long term purposeful planning for gradual increases in domestic funding sources for health service. Regardless of the possible options government chooses for the expansion of the NHIS coverage, economic growth is very much necessary in order to sufficiently mobilise resources for health in a sustained manner.

As previously noted, the NHIS is financed mainly from taxes and other financing mechanisms such as the insurance premiums, government's health sector budget and any investment income. Moreover, the share of the insurance premiums to the health insurance fund is significantly lower especially from the informal sector. Though annual premium as a revenue source may grow and may be viable in the long term, it is dependent on the extent to which the rate of enrolment from the informal sector is also increasing. Therefore, there is the need to adopt strategies that is attractive to people in the informal sector to increase revenue. In addition, the contribution mechanism of the NHIS is such that only those in the productive age group (19-69 years) pay full premiums whilst all other age groups are exempted from paying premium. If the goal of universal health coverage is to be achieved through further targeted subsidisation for example, then, government will be required to allocate additional resources either by identifying other sources of tax revenues or by improving on the efficiency with which the current tax revenue is administered for the insurance system to be sustainable.

With regards to containing cost, there are in principle issues of moral hazard, adverse selection and supplier induced demand to be considered. Moral hazard in this context refers to a situation where the introduction of health insurance increases the demand for health care (Folland et al. 2004). The main point of introducing a health insurance in a context such as Ghana, where lot of health care needs are unmet, was to increase utilisation of health care. From the results of this research, this objective has been achieved to some extent. But it is not clear how much of this increment in utilisation is due to moral hazard. However, this observation could be something to be welcomed rather than a cause for concern since it is an objective for the introduction of the NHIS, though it has the ability to increase total expenditure for the scheme.

Furthermore, the downside of the implementation of a voluntary health insurance as a stand-alone strategy is the problem of adverse selection (Cutler and Zeckhauser, 2001) which implies inadequate risk pooling. The voluntary membership of the NHIS is prone to the risk of adverse selection which is likely to increase the cost of health care. If the scheme pools a lot of high risk individuals, then the reimbursement claims is more likely to be higher than expected. This may put a strain on the finances of the scheme considering the already rising cost of health care and eventually a likely collapse of the scheme if alternative sources of generating revenue are not initiated. One way of preventing adverse selection and its impact of health care cost in the NHIS is to make the scheme compulsory practically for every citizen.

Another aspect which is critical to the sustainability of the scheme is the question of supplier-induced demand - a process where providers treat patients for longer spells and with more expensive types of care than clinically necessary. Supplier-induced demand may lead to substantial cost escalation if the DMHIS are not able develop a strong system of auditing the claims submitted by providers. Indeed, the NHIA reports of some providers compelling insured clients to go for a second reviews even though they were found to be fine on the first review (NHIA, 2010).

Therefore the general financial sustainability of the NHIS will partly depend on government's continued ability to generate enough resources for health care and effective cost containment mechanisms.

4.3.3. Efficiency of health care delivery

Achieving efficiency is ensuring that resources are allocated in such a way as to maximise health gains for the society. It involves two aspects: technical efficiency and 'allocative' efficiency. The former relates to the selection between the costs of alternative means of achieving the same goal while the latter concerns whether the right types of services are provided given the epidemiological situation in the country and if it is worth doing.

Although a thorough research needs to be carried out to determine the cost effectiveness of the NHIS operations in terms of provider payments compared to other alternative means of producing health for the Ghanaian society, few observations can be made. While the Ghanaian NHIS has undoubtedly contributed to the reduction of the burden of health care cost, critical issues have currently been raised by the Ghana Medical Association concerning reimbursement to health facilities (Ghana News Agencies, 2010). The association noted that the NHIS owed some health facilities (eg. Korle-bu teaching Hospital GHS2.7 million) up to about six months outstanding claims. As a result, some health providers owe in substantial amounts in medicinal and consumables procured on credit and subsequently being denied supplies. This may lead to the unavailability of drugs and other consumables or collection of illegal fees from NHIS members at the health facilities thereby defeating the purpose of introducing the NHIS.

The existing resources allocation system compounds the situation by allocating based on per care episode, according to disease group and the level of provider. According to the 2008 Independent health sector review report, the introduction of the DRG system of provider payment has led to an increase in the NHIS claims, sometimes a doubling within the month (Ministry of Health, 2010). The review also report of a situation which providers bill for the most expensive diagnoses even when they treat for the cheaper diagnoses. The implication for the NHIS is that reimbursement per attendance claim for the insured will escalate the cost of health care per client. The flaws in the provider payment system seem to suggest that the NHIS is faced with some technical inefficiency which needs to be addressed by using an alternative but more cost effective payment mechanism.

In the context of allocative efficiency, the central goal of universal health coverage is to provide financial accessibility to households in order to prevent catastrophic health expenditure when a health shock occurs. Therefore, the design of a benefit package of any health care system should be able to achieve this aim. The question therefore lies in whether to focus on services for which there is high demand or to include those services that protect against

infrequent but potentially catastrophic risks. However, the definition of the benefit package is crucial in making universal health coverage feasible.

Technically, it is almost impossible for any country to provide coverage for all available services. It is imperative that some limitations on the benefit package would be made. According to the Ghana Health Services (GHS, 2003) the main diseases that are reported at Ghanaian health facilities include malaria, hypertension, diabetes, pregnancy related complications, etc. Given the epidemiological situation in Ghana, the NHIS provides a broad benefit package that covers the main reasons Ghanaians use health facilities suggesting that the NHIS is likely to protect households from catastrophic health care cost. Conversely, the exclusion of some services for which there is substantial demand may result in potential high health cost for poor households. This exclusion could result in impoverishment if a member of a household is suffering from a disease that is not covered due to its cost effectiveness.

4.4. Conclusions

The data indicates the NHIS is able to pool more of those in the formal sector employment and those in the higher income groups than those in the informal sector employment and lower economic groups. In addition the NHIS has reduced out-of-pocket health expenditure for the insured. However, the affordability of the premiums is a significant barrier to the attainment of universal health coverage in Ghana and also a cause of inequities in health care financing.

Chapter 5 Conclusion

The focus of this study has been on the recent reform in the health sector of Ghana, where the National Health Insurance Scheme (NHIS) was enacted in 2003 to make health care affordable and accessible for its population. Even though there is an evidence of some level of financial protection against the cost of health care, a significant level of the population has still not enrolled in the scheme. This paper uses the demand induced factors for enrolment in the NHIS to assess the reasons why some people are not covered by the scheme. Using data from the National Development Planning Commission (NDPC) citizens' assessment survey, some evidences of why the NHIS has not pooled the total population as well as the options that can aid the prospects of achieving universal health coverage is presented.

The results that emerged from this research suggest that those who have not enrolled in the NHIS are more likely to be those in the rural areas and those in the informal sector employment. Increases in the both income and education could increase the probability of purchasing health insurance. The probability of health insurance purchase also rises with advancing age and smaller family size. The results support several other studies on the determinants of health insurance enrolments. The findings also indicated an increase in hospital utilisation and a reduction in out-of-pocket expenditure for the insured. By implication, the NHIS is likely to positively affect the health outcomes of Ghanaians if health care becomes affordable.

Following the analysis, it is imperative that the NHIS is accomplishing the purpose for which it was established - improving access to healthcare. However, if the goal of universal health coverage is to be achieved, there is the need to develop strategies that can extend coverage to the uninsured. Consequently this study suggest the abolishing of the premium payment, the targeting of specific population groups, differentiation of contribution based on the ability to pay. This suggests that the transition to universal health coverage by a developing country like Ghana may require multiple approaches. Whilst the approaches may prove challenging, it may be relevant provided that attractive packages are identified for the purpose. One implication of the expansion of health insurance coverage concerns the role of government and other relevant government agencies. While the government needs to create the necessary fiscal space for a sustainable and viable health insurance scheme, the relevant agencies needs to invest in and develop the appropriate systems that will effectively supervise service provision in order to contain cost and sustain the insurance system.

Ghana's experience suggests that health reform along the line of insurance may take time to achieve the goal of universal coverage. After, considerable efforts and seven years of implementation, the national health insurance scheme has reached almost half of the population of Ghana and it appears that the most difficult population groups are yet to be covered by the NHIS. However, covering this final share of the population could take longer than the ini-

tial population groups (Carrin and James 2005). The NHIS thus still has a long way to go if it strongly wants to achieve universal health coverage for all.

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