

**SCHOOL OF PUBLIC HEALTH  
COLLEGE OF HEALTH SCIENCES  
UNIVERSITY OF GHANA**

**ENROLMENT OF URBAN POOR IN NATIONAL HEALTH INSURANCE SCHEME  
IN THE GA EAST MUNICIPALITY**

**BY**

**ELLEN OPOKU BOAMAH**

**10506621**

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### DECLARATION

I, Ellen Opoku Boamah hereby declare that apart from references to other people's work, which have been duly acknowledged, this work is a result of my own independent work. I further declare that this dissertation, either in whole or part has not been submitted for award of any degree in this institution and other universities elsewhere.

.....

**ELLEN OPOKU BOAMAH**

**10506621**

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**DATE**



October 2, 2015

.....

**ABDALLAH IBRAHIM, DrPH, CPH**

**(Supervisor)**

.....

**DATE**

## **DEDICATION**

This study is dedicated to Jehovah El-Shaddai for his sufficiency saw me through this programme. To my family especially Mr. Bismark Boateng my husband, the girls Maame Afia Boakye Boateng and Nana Ama Odurowaah Boateng, you were my inspiration. And to all friends and loved ones.

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## ABSTRACT

**Background:** The National Health Insurance Scheme is a financial arrangement that enable citizens of Ghana to access health care service without having to pay at the point of service delivery. This somehow ensures an improvement in the quality of basic health rendered to the people. Health insurance schemes are thus seen as viable alternatives in providing more sustainable and equitable health delivery system in countries.

To improve fairness in the provision of health care and provide risk protection to poor households, low – middle income countries are increasingly gearing toward social health insurance.

In 2003, National Health Insurance Authority Act 650 was passed in Ghana's Parliament. The scheme was to replace the hitherto unpleasant Cash and Carry system of paying for health care at the point of service. Even though there was some evidence of large coverage levels, the effect of the NHIS on health care demand and out of pocket expenditures have still not been fully examined.

The objective of this study was to estimate the level of enrolment of urban poor in the NHIS in the Grushi community. It was also to determine factors that motivate the people to enroll in the NHIS.

**Methodology:** A cross sectional study was conducted in the Grushi community of Ga East Municipality of the Greater Accra Region using data from a household survey of 250 household participants. Data were collected from household level and analyzed with Stata software. The study employed descriptive statistics to analyze the factors that influence the urban poor to enroll in the scheme.

**Results:** Findings indicated that majority of participants considered poor in the Grushi community were enrolled in the National Health Insurance Scheme. This study found interesting evidence of inequity in enrolment in NHIS. Generally there was a higher

enrolment among the urban poor people. Additionally, the respondents indicated that though the NHIS does not cover all their healthcare cost when they visit the hospital, their total bill is reduced by more than half due to the insurance, which motivate them to enroll in the scheme.

Furthermore, it was also found that individuals need for care was associated with the decision to enroll in the scheme.

**Conclusion:** There has to be a better method of identifying the poor, and the provision of premium exemptions needs to be looked at if the NHIS is to achieve its objective of total enrollment in the scheme.

The study found out that urban poor people are more likely to enroll in NHIS in the Grushi community. Factors such as sex, education, employment and health status were found to be predictors of health insurance enrolment among the people in the community.

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**LIST OF ABBREVIATIONS**

DHMT	District Health Management Team
DHS	Demographic and Health Survey
DMHIS	District Mutual Health Insurance scheme
GHS- ERC	Ghana Health Service Ethical Review Committee
LMIC	Low and Middle Income Countries
LMIC	Low and Middle Income Countries
MDG	Millennium Development Goals
MDGS	Millenium Development Goals
MDI	Multidimensional Index
MOH	Ministry Of Health
NHIA	National Health Insurance Authority
NHIL	National Health Insurance Levy
NHIS	National Health Insurance Scheme
OPD	Out Patient Department
SSNIT	Social Security and National Insurance Trust
UHC	Universal Health Coverage
UHC	Universal Health Coverage
VAT	Valued Added Tax
WHO	World Health Organization

## **DEFINITION OF TERMS**

**Enrollment:** The act of signing people or a group up for participation in a health insurance plan.

**Health Insurance:** It is an insurance against the risk of incurring medical and surgical expenses among people.

**Enrolled:** One who has or is covered by health insurance policy

**Non – enrolled:** Not covered by health insurance policy

**Urban poor:** People who live with many deprivations, their daily challenges include limited access to employment opportunities and income, inadequate and insecure housing and basic healthcare services.

**National Health Insurance Scheme:** Is a form of National health insurance established by the Government of Ghana, with a goal to provide equitable access and financial coverage for basic health care services to Ghanaian citizens.

## CHAPTER ONE

### INTRODUCTION

#### 1.1 Background

In 2003, the Parliament of Ghana passed the National Health Insurance Act 650 (NHIA now Art 850) to enhance the performance of its health system, with particular focus on the poor. The NHIA paved the way for the establishment of the national health insurance scheme (NHIS). The scheme focuses on meeting the needs of the poor, and providing social health protection based on the principles of equity, solidarity, risk sharing, cross-subsidization, reinsurance, and client and community ownership. The NHIS coverage is believed to be higher in the most disadvantaged districts, where there is higher incidence of poverty, lower levels of female literacy. Few health care facilities, and where the needs of pregnant women and the elderly may not being met in Ghana (WHO, 2010).

Social health insurance is seen as a mechanism that helps mobilize resources for health, pool risk, and provide more access to health care services for the poor (Dalinjong & Laar, 2012). Hence Ghana implemented the National Health Insurance Scheme to help promote access to health care services for Ghanaians. Ghana's National Health Insurance Scheme (NHIS) is one of the very few attempts by a sub-Saharan African country to implement a national-level, universal health insurance (Blanchet & Fink, 2012).

A new law, Act 852 has replaced ACT 650 in October 2012. National Health Insurance Authority (NHIA) was commissioned to secure the implementation of a national health insurance policy that ensures access to basic healthcare services to all. The NHIA licenses and regulates the district mutual health insurance schemes (DMHIS) as well as other

schemes allowed under the Act. Accredits providers; determines in consultation with district mutual health insurance scheme(DMHISs) premium levels, and generally oversees and reports on NHIS (Blanchet & Fink, 2012).

Apart from the Social Security and National Insurance Trust (SSNIT) contributors, broad swaths of the population are exempted from paying premiums (but not registration fees), including people who are over age 70 and children under age 18 who's both parents are enrolled. The core poor are unemployed and have no source of income, no proper residence, and not living with someone employed and with a legal residence, and some pregnant women.

Many practical barriers to enter into the NHIS program remains. These include economic, geographic, political and cultural. People living in remote and underdeveloped areas may not perceive the benefits of membership. For instance, data from two Ghanaian districts found that renewal of the NHIS membership was affected by location – 88% of urban members said that they were willing to renew, compared with 57% of rural residents (Durairaj et.al,2010). Similarly, the district income guidelines for exempting the poor actually excluded the marginal poor, who are not able to pay the premium. In some cases, an International Labour Organization (ILO) programme, some non-governmental organizations (NGOs) stepped in to pay the premium on their behalf (Durairaj et.al, 2010).

Urbanization has spread rapidly over the past century, creating major changes in several aspects of human life such as economics, education, housing and public health. In developing countries, a sizable proportion of this urbanization has happened in informal settlements, where low-income dwellers have, since the 1960s, secured shelter in violation

of urban regulations and sometimes property rights, and where the quality of housing and services is often markedly below state-sanctioned standards. While the physical and living conditions in these neighbor-hoods are expected to improve gradually through the self-help efforts of their dwellers, there is widespread evidence that physical consolidation only occurred in particular contexts; in many cases, living conditions have actually deteriorated (Habib, et al, 2009).

The national health insurance scheme is to improve access to healthcare and provide financial protection to health shocks and illness for poor households who lack access to go to the hospital due to finance. With limited insurance coverage, the cost of required health care can have implications for poor households who are resource and credit constrained. For example, if health payments are financed out of personal income and something were to happen, it may lead to increased poverty for that household. On the other hand, if out – of – pocket (OOP) payments cannot be completely financed through current income, households may resort to traditional coping strategies, such as depletion of assets and buffer stocks, or utilize social networks and incur debt (Sparrow, et al, 2013).

## **1.2 Statement of the Problem**

Urban growth is changing populations' health, especially for the urban poor. One in three urban dwellers lives in a slum, producing slum cities within cities. However, more than 90 per cent of slums are found in developing countries. Slum dwellers are not the only poor residents of cities, but they do represent a clustering of living conditions within a city, Coast, (2011). Again, Coast (2011) indicated that urbanization continues even if the relative levels of urban poor remain



constant, the absolute number of people living in poverty in cities will rise. Poverty is set to become an increasingly urban phenomenon. Urban poor populations, and the places where they live, are diverse. Neighborhoods are not uniformly poor. Being poor does not necessarily mean suffering ill health. Health is determined by many diverse factors, including income, gender, age, access to health services and infrastructure. Yet we know little about the health of the urban poor. Just because health services are located in an urban area does not mean that they are easily accessible by the urban poor. Health workers often find it difficult or are not willing to serve extremely poor urban areas.

In addition, the cost of health care represents a significant barrier for the urban poor. Poor populations spend major part of their income on health care. It is estimated that more than 100 million people are pushed into poverty every year due to health care expenses. As the presence of multiple ill health conditions increase in urban settings, health care costs can push poor people further into poverty, (Coast, 2011).

In August, 2008, the World Bank presented a major overhaul to their estimates of global poverty incorporating, what they described as better and new data.

The World Bank's long held estimate of the number of people living on the equivalent of \$1 a day has been changed to \$1.25 a day. At a poverty line of \$1.25 a day, the revised estimates find 1.4 billion people live at this poverty line or below (Ahmed et al., 2013).

A Canadian study in 1998 suggested that the wealthy nations do not necessarily have healthy people. Rather, it is countries with smallest economic gap between the rich and the poor that may have healthy people.

For many years, poverty has also been described as the number one health problem for many poor nations including Ghana as they do not have the resource to meet the growing needs of the people.

According to the world Bank, low-middle income countries where the poor and the informal sector comprise 80% of the total population of 6 million, out-of-pocket spending is more than 60% of total health expenditure, and government health spending is constrained in 2010 (Ahmed et al., 2013).

Health insurance is among the solutions promoted in developing countries since the 1990s to improve access to health care services because it avoids direct out – of - pocket payment by patients and spreads the financial risk among all the enrolled. Many mutual health insurance organizations have been developed in sub-Saharan Africa, and over the past several years some African countries have set up national health insurance systems. However, in those countries that elect to give an important role to health insurance, it remains to be verified whether such insurance reach those who are most vulnerable in terms of access to services: to the poor. In fact, lack of funds creates problems when it comes to registering to pay the premium, and when the enrolled need to use health care services. On these two levels, the program assess the situation of the poor, examines the problems they encounter and presents measures taken by some insurance organization to remedy these problems (Morestin, et al, 2009).

The problem of high level of urban poor dwellers in the Greater Accra region, which includes the Ga East District as a result of the high cost of healthcare, is causing urban poor dwellers in many communities, including the Grushi community at Dome in the Ga

East District, not able to enroll in the NHIS to have access to healthcare. This has led the district to record a high level of communicable and other preventable diseases, and has led to a lot of infectious diseases such as malaria and Typhoid fever (DHMT, 2011).

However, recent long queues at out-patient department (OPD) at the various health centers' and hospitals in Ghana have been attributed to the high subscription to the NHIS (Buor, 2008). Yet, according to Bruce et al., ( 2008), there is a high dissatisfaction among insured clients due to their perception that they are given poorer quality of care and wait longer compared to the out of pocket clients. Further, difference in the type, extent and quality of healthcare services are pronounced between the enrolled and not enrolled. This is because revenue expansions are not targeted at the poor and inequities between the enrolled and not enrolled as a result of regressive subsidization by government tend to be a negative impact on NHIS.

The scheme has made some slow progress during the past decade; however, it is far from achieving universal health coverage (UHC) as perceived. Despite its generous package, there are over 15 million people (about 65% of the population) who still pay out-of-pocket for health in the 'cash and carry' system. This cannot continue at the present pace of progress which would not see Ghana achieving UHC until the year 2076 at the earliest – 68 years after the Government of Ghana's own target date.

This study thus seeks to determine the rate of enrolment in the NHIS among the urban poor in Ghana and the factors that influence enrolment in the national health insurance program among the urban poor in the Grushi community. Findings in this study will enable the NHIS to better identify the urban poor to increase their enrollment in the NHIS program.

### **1.3 Objectives**

#### **General Objective**

- The general objective of the study was to estimate the level of enrolment of urban poor in the National Health Insurance Scheme in the Grushi community (Dome), between 2013 and 2014.

#### **Specific Objectives:**

The specific objectives are:

1. To determine the rate of National Health Insurance Scheme enrolment among the urban poor in the Grushi community.
2. To determine the factors that influence enrolment in the National Health Insurance among the urban poor in the Grushi community.

### **1.4 Significance of the study**

The high cost of healthcare has been detrimental to many urban poor individuals in the Grushi community to enroll in NHIS to access health care when need be. Thus, they have been identified as part of the vulnerable groups who should benefit from NHIS without paying premium. Since the NHIS provides an alternative means of financing health care for poor people, the need for more individuals to enroll their households on the scheme to avert high cost of healthcare which has been a major contributor to reduce mortality in Ghana is expedient. Therefore, the study is useful for highlighting some major contributions of the NHIS to households' health care and the need to ensure its benefits.

Furthermore, the study shows the rate of enrolment of urban poor in the NHIS and the factors that motivate them to enroll in NHIS. This is important for the NHIS to ensure that

enrolled individual receive health care services under scheme to remove the negative idea some people have about the scheme.

Moreover, these factors tend to influence the kind of challenges patients face in utilizing the scheme. This obviously have an implication for coverage of more people on the scheme in the long run. Therefore, the study will contribute to strengthening policies to improve the services of the scheme to increase enrollment and utilization of the scheme.

### **1.5 Conceptual Framework**

The study's conceptual framework (Figure 1) illustrates the process of enrollment in the NHIS among the Grushi community residents, which brings the attention of the people to policy makers and government to ensure accessible and affordable healthcare for the urban poor people.

There are a number of mediating factors such as age, sex, marital status, educational status and health status among others that seem to inhibit the people's enrollment in the National Health Insurance Scheme, which has a prime aim of given health care to mostly the core poor people.

This study is looked at the factors to identify any contributory factor for enrolment status in the NHIS. Enrolment and non enrolment have effect on the overall health status of the people.

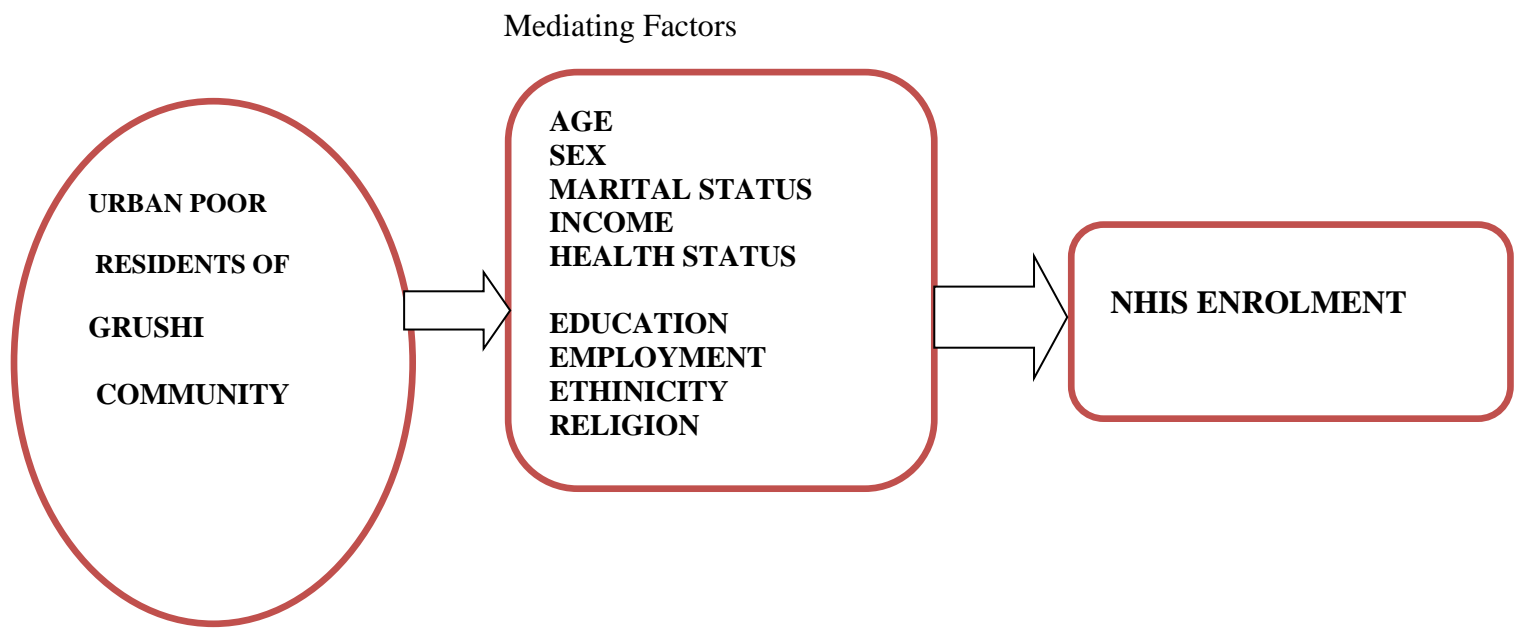


Figure 1: **Conceptual framework**

### 1.6 Organization of Thesis

This thesis is composed of six (6) chapters. The first chapter comprises of an introduction to the study, rational for the study and a review of theories and concepts for the study. Chapter two reviews relevant literature and examines the gaps that have made this research necessary while Chapter three is on the study methodology and discusses the study area adopted for the study. The first part provides information on the physical and the socioeconomic characteristics of the areas. The second part of this chapter dwelt on the methods and approaches for the study. Chapter four presents results that have been generated using statistical tools such as Statistical Analysis (STATA). The results are presented in graphical and tabular formats for easy interpretation. Chapter, five, is

discussions on the study's key findings. The final chapter six has the conclusions and recommendations for policy implementation and future research into the area.

## **CHAPTER TWO**

### **LITERATURE REVIEW**

#### **2.1 Introduction**

This chapter reviews topics that are important to this research. The topics present an overview of the theoretical framework upon which the entire research is based. Therefore, the researcher reviews such topics as the perspective of health in Ghana's healthcare. For example, financing, types of health insurance, mission of the National Health Insurance Scheme, importance of health insurance, benefits of NHIS in Ghana, challenges of the National Health Insurance Scheme and the urban poor.

#### **2.2 Perspective Health care in Ghana**

Ghana, like any other country in the world, remains committed to providing quality, accessible but affordable health care to her citizens. This dates back to the pre-independence era where successive governments have introduced various health reforms in a way to cater for the health needs of Ghanaians. Prior to independence, financial access to modern health care was mainly through out-of-pocket payments at point of service use (Arhinful, 2003). Following independence, the government switched to tax-based financing of public sector health services and all such services were made free. Private sector health services continued to be paid for by out-of-pocket fees at point of service use.

By the early 1970s, general tax revenue in Ghana could not support a tax-based health financing system. Due to irresponsible attitude of some health workers, who decided to take some consumables for their personal and family use. Therefore, in 1972, very low out-of-pocket fees at point of service use were introduced in the public sector. However,



following a stagnation of the economy, the health sector was affected and there were widespread shortage of essential medicines, supplies and equipment, and poor quality of care (Buor, 2010). Thus, in the early 1980s, there were considerations at different times to institute a National Health Insurance Scheme (NHIS) at national level.

Consequently, the International Labor Organization (I.L.O.), World Health Organization (WHO), European Union (EU) and London School of Hygiene and Tropical Medicine were requested by the Ministry of Health to provide technical advice on such a scheme and in 1997 a NHIS pilot project was launched. Due to a lack of consensus on health financing policy in general however, the pilot project broke down (Aikins et al., 2001, cited in Buor, 2010).

However, the NHIS concept was brought to light in 2001 by the government, as one of their key policy platforms was to eradicate out-of-pocket payment system, with a specified goal of having 50-60% of the population covered by health insurance within 10 years of the implementation of the new scheme, with a final goal of universal health insurance coverage (Cichon et al., 2003 cited in Buor, 2010).

To a high degree, the Christian Health Association of Ghana's (CHAG) providers began to experiment with hospital-based health insurance, called community health insurance, as early as 1992 (NHIS 2012). By the time the government introduced health insurance nationally, there were already at least 57 district wide health insurance schemes and over a hundred other group schemes. These community-based schemes greatly influenced and informed the development of national insurance (Mensah et al., 2009).

In 1998, a review by the World Health Organization (WHO) stated that across the world, little attention had been paid to understanding consumers' preferences in relation to the implementation of the health insurance scheme. The low demand for NHIS can partly be attributed to consumer dissatisfaction with scheme design, in order to enhance participation, efforts need to be channeled towards understanding what the people expect from the health insurance and how they wish to see their expectations met (De Allegri, Sanon, Bridges, & Sauerborn, 2006).

The World Health Report (2000) further reinforced their argument by proposing that responsiveness to people's expectations be considered a central goal of any health system. Six years later, demand for health insurance in low income countries remains low, indicating that NHI schemes continue to fail to reach satisfactory levels of participation among target populations. A clear understanding of why enrolment rates remain low is missing. Economic analysis has provided a partial answer to the question as it has successfully investigated the extent to which individual and household characteristics affect demand for health insurance in low income settings. Little has been done, however, to follow the WHO recommendation and explore consumers' preferences for different elements of a scheme and their impact on decision to enroll (De Allegri et al., 2006).

There has been a rise in unemployment and poverty levels, the deterioration of living condition, socio-economic infrastructure in the settlements, the increased migration of rural residents to the cities in the name of finding a job. These problems have become more acute for residents living in rural areas. There has been a significant decrease in investment and activities in the agricultural sector which has lost state funding and support. The development of rural entrepreneurship and farming is almost "relegated to

the backdrop". All these factors have resulted in the significant migration to the urban cities. A spiraling level of unemployment and a degraded quality of life for the people (Shedenova & Beimisheva, 2013).

Health care financing continues to stir debates around the world. Many low and middle income countries especially, keep on exploring different ways of financing their health systems. This is due to the fact that their health systems are not having adequate funding. User fees were initially introduced at the point of service delivery in some of these countries in order to generate revenue for the running of their health systems. In some contexts, the introduction of user fees led to improvement in the quality of health care services. However, the overwhelming evidence suggests that user fees constitute a strong barrier to the utilization of health care services, as well as preventing adherence to long term treatment among poor and vulnerable groups. These problems led to yet another debate to look for other alternatives of health care financing (Dalinjong & Laar, 2012).

### **2.3 Source of Finance in NHIS**

In low – middle income countries health insurance is more and more recognized as a promising instrument for the financing of equitable health care. By pooling risks and resources it promises to ensure better access and provide risk protection to poor households against the cost of illness Jehu – Appiah et al (2011). She went on to say that, “other alternatives such as cost recovery strategies have been criticized on equity grounds of affecting access to health care”

According to Jehu – Appiah et al (2011), currently, Rwanda and Ghana are among the few countries in sub – Saharan Africa that have taken insurance to great lengths in terms of

scope and coverage. Whilst Rwanda has achieved coverage of 91% in 2003, Ghana reached only 34% since its inception.

In Ghana, NHIS is financed from four main sources: a Value- Added Tax (VAT) on goods and services, an earmarked portion of social security taxes from formal sector workers. The Act mandates that all district schemes must charge a minimum of premium of roughly \$8 per adult for non-Social Security and National Trust (SSNIT) contributors to cover their premium and other miscellaneous funds from investment returns, Parliament, or donors. The 2.5 per cent tax on goods and services, called the National Health Insurance Levy (NHIL), is by far the largest source, comprising about 70 per cent of revenues. Social security taxes account for an additional 23 percent, premiums for about 5 per cent, and other funds for the remaining two percent.

Those under 18 years, over 70 years, pensioners, and pregnant women or deemed indigents (core poor) are exempt from the premium payments. In practice subscribers pay a flat rate because incomes are difficult to assess. There is no cost sharing beyond the premiums, members do not pay any money at the time of each visit to the doctor or paying money before accessing health care. All SSNIT contributors most of them are formal sector employees, have their premiums collected at the central level through pay roll deductions of 2.5% of SSNIT contributions which are proportional to income. Furthermore, the SSNIT contributors have to pay a registration fee at a DMHIS office to receive a membership card to be enrolled and to access health care.

Enrollment is mandatory for every Ghanaian, however, it is facing non – compliance as it is a social policy that is hard to enforce, given the large informal sector for which there is

no database and the need for SSNIT contributors to register voluntarily to be enrolled. Other than the premium, collected at the district level, the NHIS is financed by the Central Government. 2.5% Value Added Tax (VAT) is collected on goods and services.

## **2.4 Mission of the NHIS in Ghana**

The National Health Insurance ensures that, opportunities are provided for all Ghanaians to have access to the functional structure of health insurance. The NHIS ensures that Ghanaians do not move from an unaffordable “cash and carry” regime to another unaffordable health Insurance Scheme. The NHIS must ensure a sustainable health insurance option is made available to all Ghanaians and, the quality of health care provision is not compromised under Health Insurance (MOH, 2003).

According to the policy it is compulsory for every person living in Ghana to belong to a health insurance type and all Ghanaians pay 2.5% on selected expenditures and transactions to be put into the NHIS fund. The formal sector contributes 2.5% of their 17.5% Social Security and Insurance Trust (SSNIT) contribution whereas the informal sector contributes GH72.00 per annum (MOH, 2003). The scheme has some underlying principles such as Equity, Risk Equalization, Cross-subsidization, Solidarity, Quality care, Efficiency in premium collection and claims administration, Community or subscriber ownership, Partnership and Reinsurance.

## **2.5 Benefits in NHIS**

NHIA Act 850 technically requires all Ghanaians to enroll in the NHIS or in another health insurance plan. Specifically, Section 31 of Act 650 reads: “A person resident in Ghana other than a member of the Armed Forces of Ghana and the Police Service shall

belong to a health insurance scheme licensed under this NHIA (Act 850). A person resident in a district, who is not a member of a private health insurance scheme or any other district scheme registered under this Act, shall apply to be enrolled as a member of the district mutual health insurance scheme in the relevant district.” However, enrolment is de facto voluntary because there is no penalty for failing to enroll, and individuals or households are not automatically enrolled (Blanchet & Fink, 2012).

The NHIS including all DMHISs have a single benefit package that is set by Legislative Instrument 1809 and described by the National Health Insurance Act (NHIA) as covering ninety - five percent of disease conditions that afflict Ghanaians. The NHIS covers outpatient services, including diagnostic testing and operations such as hernia repair; most in-patient services, including specialist care, most surgeries, and hospital accommodation general ward oral health (Blanchet & Fink, 2012).

District Mutual Health Insurance Scheme (DMHIS) contract accredited providers (public, private, and faith – based) to deliver services to its membership and reimburse them after submission of claims for service rendered. Reimbursement is done currently based on the Ghana Diagnostic Related Groupings (G-DRGs) and fee for medicines using a medicine tariff list (MOH, 2008).

Revenues generated from the NHIF are used to manage the DMHIS and premium for exempt groups.

National Health Insurance Authority (NHIA) plays a significant role in guiding management of the National Health Insurance Fund (NHIF).

## **2.6 Health care usage**

A large number of studies have shown that individuals utilize medical services differently depending on whether they reside in rural or urban areas. Compared to those that form part of urban populations, individuals living in rural areas are generally less likely to obtain timely medical care services. Studies have pointed out that the low utilization of physician service in these areas could be due to either the inferior socioeconomic status of the residents (lower education or income) or alternatively critical per capita shortages of hospital beds, physicians, nurses, and specialists. In addition, geographical factors such as the distances or time taken to travel between a patient's residence and the closest service provider, as well as the lack of insurance coverage are other significant reasons that affect the utilization to medical care services.

The substantial differences in the utilization of medical services between residents of urban and rural areas may directly affect health outcomes, including both morbidity and mortality. Therefore, the reduction of disparities in the provision of medical care services between rural and urban areas have been a major concern for most industrialized countries (Lin, Tian, & Chen, 2011).

Ten years of the National Health Scheme in Ghana has made some modest progress over the past decade, but is far from achieving universal health coverage (UHC). Despite its generous package, there are nearly 15 million people (about 65% of the population) who still pay out-of-pocket for health in the 'cash and carry' system. Things cannot continue at the current pace of progress which would not see Ghana achieving UHC until the year 2076 at the earliest – 68 years after the Government of Ghana's own target date.

## **2.7 Enrolment in NHIS**

Enrolment in National Health Insurance Scheme (NHIS) is seen as a promising mechanism to increase access to health care and to generate additional financial resources for health services. It has an important comparative advantage over user-fees through the pooling of risks and resources it implies.

The World Health Organization (WHO) has pointed out that in those countries such as Ghana, with a small formal sector, the only viable way of promoting pooling of financial reserves is at district level. Studies carried out in West Africa have tried to investigate the causes of this low enrolment. According to Basaza et. al (2008), in Burkina Faso for instance, the low demand for CHI was attributed to institutional rigidities in the timing of the collection of the premium rather than to poverty per se. In another study conducted in Guinea Conakry Basaza, et al (2008) pointed to the poor quality of care in the health services as one of the main causes of the low and even declining enrolment in CHI despite initial enthusiasm at the set-up of the scheme. There are, however, no similar elaborate studies that have been conducted in Uganda or in any other East African country for that matter according to (Basaza, et. al, 2008).

As a long term measure for addressing financial access constraint especially for the poor posed by the cash and carry system, the Government of Ghana passed a National Health Insurance Authority Act 650 in 2003 mandating the establishment of district wide Mutual Health Organizations (MHO). Since then NHIS coverage has expanded significantly and by June 2009 there were a total of 145 District Health Insurance Schemes (DMHIS) and 55% of the population enrolled according to Jehu – Appiah, (2011)



## **2.8 Challenges in Enrollment**

According to Jehu – Appiah (2011), literature shows a wide range of barriers known to impede enrolment such as high cost of premiums, distance to health facilities, place of residence, poor quality of care, timing of premium payments and other behavioral and social factors. Again, Sarpong, N. (2010) says that, there is ample evidence on determinants of enrollment in MHOs to the best of his knowledge, it has not been looked with respect to differences in determinants between socio – economic groups, even though other studies have shown that price elasticities of health insurance differ between the rich and the poor by ( Wang et al.).

This study is aim to add to existing literature by looking at whether the NHIS is reaching the poor for them to enroll. However, this study is looking at factors that motivate enrollment in NHIS.

## **2.9 Categories of NHIS in Ghana**

The district mutual health insurance scheme, which is in operation, can be found in almost all the districts in Ghana. It is the public and non-commercial scheme and everybody resident in Ghana can register under this scheme. Individual can access health under this scheme any part of the country. The district mutual health insurance scheme also covers people who are poor, without a job and lacking the basic necessities of life to be able to afford insurance premiums.

Apart from the premium paid by members, there is a regular funding by the central government from the NHIS. Every Ghanaian worker pays two-and-a-half percent of their

social security contributions into this fund and the VAT rate in Ghana also has a two-and-a-half percentage component that goes into the fund.

The second category of health insurance is the private commercial health insurance schemes, operated by approved companies. Corporate and family buy the insurance from the company. Commercial health insurance companies since it is not national, the company do get some form of assistance from the central government to operate. However, the company is required to pay security deposit before it's operational.

The third category of health insurance is known as the private mutual health insurance scheme. The scheme do not require subsidy from the NHIS.

## **2.10 Importance of Health Insurance in Ghana**

The establishment of a National Health Insurance Scheme (NHIS) in Ghana was expected to provide affordable healthcare and make healthcare more accessible to all especially, poor parents and families to reduce child mortality. Consequently, there is an increase in both in-patient and out-patient utilization by at least one visit per year for children with NHIS in place. These visits are associated with an increased receipt of preventive care (Buchmueller at al., 2004). However, more children are still dying from poor health care, (UNICEF, 2012). Although the NHIS is believed to have improved accessibility to the urban poor health care, preventable diseases are still increasing among that population.

A global concern movement especially in the African sub-region is a commitment to significantly reduce financial constraints of access to quality health care in general, particularly with greater attention to high priority services and vulnerable groups (Witter et al., 2009).

Studies suggest that many low-and middle-income families depend largely on patients' out of pocket health payments to finance their health care systems (Xu et al., 2007); and this has always placed a huge financial burden on people especially the less fortunate.

According to the World Health Organization (WHO), studies have shown that out-of-pocket health payment is the most inefficient and inequitable alternative for financing health care. This makes many individuals to shun from early or timely search for medical care and thereby aggravating the poverty conditions of people (WHO, 2000; Xu et al., 2003).

Health insurance became important as cost of healthcare escalated in various countries making it difficult for individuals to pay these high cost. Thus, WHO saw the need and encouraged countries to find alternative means of paying for health care so it will be affordable (WHO. 2000). It has been seen to have numerous benefits for the various countries who have established and Ghana is no exception. It has been found out by various studies that the lack of health insurance has a higher fiscal burden on individuals in case of chronic diseases. It further prevents timely medical care thereby worsening the outcome of conditions for especially vulnerable since they mostly report to health facilities late (Jehu-Appiah et al., 2011, Xu et al., 2003).

As governments of developing countries have struggled with financing health care, national health insurance programs have increasingly become a popular mechanism to solve this problem (Hsiaso and Shaw, 2007). This is occurring in the context of what Mills et al. (2012) describe as an international "rallying call" for universal coverage, with specific attention on the poor. Ghana has been one of the leaders in sub-Saharan Africa

(SSA), trailblazing the health insurance model with its 2003 parliamentary ascension of the National Health Insurance Scheme (NHIS) e a social health insurance scheme, run at the district level. In principle, the NHIS offers a nationally recognized, heavily subsidized mechanism for the population to obtain health coverage without the risk of catastrophic(Dixon, Luginaah, & Mkandawire, 2014).

Health influences most other activities of life, from the ability to engage in everyday functions such as school and work through to the enjoyment of life. It is, therefore, not surprising that many are concerned about disparities in health tied to income and about the allocation of the most visible means by which health is thought to be influenced medical care. Many factors likely influence health among the poor, not just medical care but improving access to health care among the urban poor (Wolfe, 2014).

The Ghanaian NHIS was officially launched in March 2004 with the declared objective to ‘assure equitable and universal access for all residents of Ghana to an acceptable quality and essential health care for every resident of Ghana would belong to a health insurance scheme that will adequately cover him or her against the need to pay out of pocket at the health facility (Sarpong et al., 2010).

According to the Health Insurance Regulations (Ministry of Health of Ghana 2004), out - patient and in - patient services including surgical and gynecological operations, maternity care, oral health services, eye care services and emergency care are covered. A national Health Insurance Scheme fee per year is kept low to allow subscription for poor people. Individuals younger than 18, or older than 70, only pay a yearly registration fee, of four

Ghana Cedis (GHC 4.00) for their subscription. For individuals aged 18–70, the premium is, in addition to the registration fee, GHC 24.00 (Sarpong et al., 2010).

Whatever form of health insurance you sign up to, entitles you to some minimum services.

These are:

Out-patient services – general and specialist consultations reviews, general and specialist diagnostic testing including, laboratory investigation, X-rays, ultrasound scanning, medicines on the NHIS Medicines list, surgical operations such as hernia repair and physiotherapy.

In-patient services – General and specialist in patient care, diagnostic tests, medication-prescribed medicines on the NHIS medicines list, blood and blood products, surgical operations, in patient physiotherapy, accommodation in the general ward and feeding (where available).

Oral health – pain relief (tooth extraction, temporary incision and drainage), dental restoration (simple amalgam filling, temporary dressing)

Maternity care – antenatal care, deliveries (normal and assisted), Caesarean section, post-natal care

Emergencies – these refer to crises in health situations that demand urgent attention such as medical emergencies, surgical emergencies, pediatric emergencies, obstetric and gynecological emergencies and road traffic accidents.

### **2.11 Excluded Services**

The health insurance does not entitle the individual to all medical procedures and health care services. If an individual require any of the following the person has to pay more, for example, appliance and prostheses including optical aids, heart aids, orthopedic aids, dentures, cosmetic surgeries and aesthetic treatment. Anti-retroviral drugs for HIV is free for any patient who needs it. Excluded for coverage in the NHIS include assisted reproduction, for example artificial insemination, and gynecological hormone replacement therapy. Also excluded is echocardiography which is the use of ultrasound to examine the structure and functioning of the heart for abnormalities and disease, photography (an optical sensor), and angiography which is a radiographic visualization of the blood vessels after injection of a radiopaque substance.

Dialysis for chronic renal (kidney) failure, and organ transplants, are drugs that are not listed on the NHIS list. Drugs for heart and brain surgery other than those resulting from accidents, Cancer treatment, other than breast, and cervical cancers and mortuary services are not part of the NHIS covered list of drugs. Diagnosis and treatment abroad, medical examinations for purposes other than treatment in accredited health facilities for example Visa application, Education, Institutional, Driving license) and VIP ward (accommodation)

### **2.12 Challenges in the Healthcare**

The absence of equitable distribution of health facilities also means that the pattern of accreditation will remain inequitable as accreditation follows where facilities are sited. Another challenge that accreditation brings is that it accredits facilities and not

practitioners and the level of accreditation assigned is equivalent to the endowment of the facility. It also undermines task shifting (Support & Authors, 2011).

Targeting of the extreme poor has been difficult because of the absence of a clear definition and mechanism for identifying them. Provider response has been poor due to weaknesses in knowledge of the requirements of the Act, an absence of a systematic transformation of information technology and management skills at the facility level.

These factors have combined to disturb processing claims leading to loss of revenue and delays in payment. The uptake of the services of skilled midwife has dropped since insurance was introduced. A number of public health indicators are also dipping. These could be more of symptoms of health service delivery weakness than the financing end effect.

The existence of a time schedule for submitting and reimbursing claims is documented. In Ghana, Legislative Instrument 1809 stipulates a 60 day period to providers and 28 day period to Scheme managers to submit and reimburse claims respectively. In the United States, however, 60 day timeline is stipulated for some providers under the federal system of health insurance for those asking for financial assistance in Medicaid with the slight variation of an ill-defined timeline for reimbursements in Washington State (Aikins & Agyepong, 2012).

### **2.13 Healthcare Accessibility**

According to Wolfe, (2014) report on urban poverty, a limited access to medical care due to costs in National Health Survey data suggest a nearly 4.5 times greater constraint among the poor than those with incomes greater than 400 percent of the Federal Poverty

Level (FPL); more than 24 percent vs. 5.5 percent. Insurance appears to play an important role in reducing that ratio to less than 3 (2.9) or about 11 percent vs. 3.7 percent. A similar pattern exists for access to dental care. Among the poor, nearly 30 percent had no access over the previous 12 months compared to about 6 percent for those with incomes greater than 400 percent of the FPL. Once again, insurance play a large role in reducing disparity: only 19 percent of the poor who reported they had coverage, reported no access to dental care due to cost. (Wolfe, 2014)

Lack of access to routine and preventable health care forces many urban poor individuals to use high cost emergency room services, detoxification centers, and to receive limited physical, mental, and substance treatment services rather than receiving the ongoing and much needed services to manage chronic mental and physical illnesses and treat substance use disorders (Weber et al., 2013).

Inadequate access to sanitation and solid waste services has negative effects on human and environmental health which decent heavily on the urban poor (Tukahirwa, Mol, & Oosterveer, 2011).

In particular, poverty prevents poor people to register for the NHIS in the southern part of the country even though poor people in Ghana are generally less likely to enroll in the NHIS, to access healthcare (Dixon et al., 2014)

Illness can cause poverty through a downward spiral of income loss, treatment costs and asset depletion. Investing in pro-poor health services is therefore central to poverty



reduction and achievement of the Millennium Development Goals (Russel & Gilson, 2006).

Mostly, poor people who seek health care face out-of-pocket payments that can push them into poverty (Ranson et al., 2006).

#### **2.14 Challenges Facing the Urban Poor**

Poverty is multidimensional, thus measuring it presents a number of challenges. Beyond low income, there is low human, social and financial capital. The most common approach to measuring poverty is quantitative, money-metric measures which use income or consumption to assess whether a household can afford to purchase a basic basket of goods at a given point in time.

The basket ideally reflects local tastes, and adjusts for spatial price differentials across regions and urban areas in a given country. Money- metric methods are widely used because they are objective, can be used as the basis for a range of socio- economic variables, and it is possible to adjust for differences between households, and intra-household inequalities. Understanding urban poverty presents a set of issues distinct from general poverty analysis and thus may require additional tools and techniques. While there is less single approach in conducting urban poverty assessments, there are some common good practices that may facilitate the process of thinking through the design of a city poverty profile. While the dimensions of poverty are many, there is a subset of characteristics that are more pronounced for the poor in urban areas and may require specific analysis (Baharaoglu & Kessides, 2002).

The differences between the poor in small towns and big cities, or between urban slums areas within a given city could be measured. Income or Consumption Measures: Both are based on data that assesses whether an individual can afford basic necessity (typically food, housing water, clothing, transport, and others (Chen and Ravallion, 2000).

Money metric measures can be adjusted to account for the higher cost of living in urban areas when measuring poverty (Chamhuri, Karim, & Hamdan, 2012).

### **Unsatisfied Basic Needs Index**

This approach defines a minimum threshold for several dimensions of poverty classifying those households who do not have access to these basic needs. They include characteristics such as literacy, school attendance, pipe - borne water, sewage, adequate housing, overcrowding. If a household is deficient in one of the categories, they are classified as having unsatisfied basic needs. Asset Indicators have been used increasingly with the Demographic and health Surveys (DHS), a standardized survey now administered in approximately 50 countries. A range of variables on the ownership of household assets are used to construct an indicator of household's socio-economic status. These assets include: a car, refrigerator, television, dwelling characteristics (type of roof, flooring, toilet), and access to basic services including clean water and electricity (Falkingham, J. and C. Namazie, 2002).

#### **2.14.1 Vulnerability**

This approach defines vulnerability as a dynamic concept referring to the risk that a household or individual will experience an episode of income or health poverty over time, and the probability of being exposed to a number of other risks such as hurt or harmed

physically, mentally, or emotionally, crime, being pulled out of school. Vulnerability is measured by indicators that make it possible to assess a household's risk exposure over time through panel data. These indicators include measures of; physical assets, human capital, income diversification, links to networks, participation in the formal safety net, and access to credit markets. This kind of analysis can be quite complex, requiring a specially designed survey. (Chamhuri et al., 2012)

Since 2000, the United Nations and World Bank have compiled and reported data on the progress of nations and regions with respect to a uniform set of targets and indicators. These targets and indicators are agreed upon within the Millennium Development Goals (MDG) framework, and countries progress towards them has been monitored. The additional quantitative targets are needed because income poverty measures provide vitally important but incomplete guidance to redress multidimensional poverty. The multidimensional poverty index (MPI) is an index of acute multidimensional poverty.

### **2.15 Urban Poverty in Ghana**

Commitments of each country in the world by the world leaders leaving no stone unturned in targeting the reduction of global poverty and are focusing their attention on mobilizing resources influencing policies that will provide pro-poor growth and therefore alleviate poverty. The Millennium Development Goals (MDGs) are now comprise eight goals, eighteen targets 48 indicators (OECD, 2001). At their lead, as a global rallying call is goal 1- target (i): which says that "Halve, between 1990 and 2015, the proportion of people whose income is less than \$1 a day."

In November, 2011, urban growth transformed populations' health, especially for the urban poor communities. One in three urban dwellers lives in a slum within cities. More than 90 percent of slums are found in developing countries. Slum dwellers are not the only poor residents of cities, but they do represent a cluster of living conditions within a city. As urbanization continues, even if the relative levels of urban poor remain constant, the absolute number of people living in poverty in cities will rise. Poverty is set to become an increasingly urban phenomenon (Coast, 2011).

In an era of globalization, seeking to rapidly reduce poverty can produce two problems. First, such a focus will not meet the needs of all the different types of poor people. Second, such an approach encourages a focus on those poor who are in the market can liberate the poverty but neglects the need of those who need different forms of support, policy changes, or broader changes within society that take time. Therefore identification of many types of poverty reduction strategy that are most appropriate for countries (or urban areas) that have different mixes of poverty; chronic and transient poverty. In a country where poverty is largely a transient phenomenon, predominantly focuses on social safety. Limited unemployment allowances, social grants, workfare, micro credit, and new skills programs would be required. By contrast, a country like Malaysia, where a significant proportion of chronic poor are identified, direct investment toward basic physical infrastructure, to reduce social exclusion can significantly reduce poverty (Chamhuri et al., 2012).

In Ghana, especially Dome in the Ga East, District is an example of the urban poor communities in the country. Some of the women are fish mongers. However some of the youth are unemployed. There are three private - public toilets. Governments in developing

countries face with huge challenges in the field of housing for the urban poor. The majority of the countries in Africa, Asia and Latin America cope with massive quantitative and qualitative housing deficits. As the number of urban population in the developing countries will continue to rise dramatically, national governments, metropolitan authorities and city administrations are confronted with a major task of accommodating their citizens (Bredenoord & van Lindert, 2010).

UN estimates indicate that by the year 2030 that almost 5 billion people will live in the cities, around 60% of the world's population according to (UNFPA, 2007). According to recent data, urban population of the developing countries alone will be 5.3 billion by 2050 (UN-Habitat, 2008). Although such population projections may well be open to debate, it is obvious that millions of new houses will have to be provided, in order to accommodate the increasing urban population. An estimated number of over 2.8 billion people without adequate shelter will be in need of decent housing and urban services by the year 2030

## **CHAPTER THREE**

### **METHODOLOGY**

#### **3.1 Introduction**

This section of the study describes the study area, with emphasis on the location and size, vegetation, climate, drainage, sanitation, population and economic activities as found in the Ga East district. The second part is devoted to the methodology that is used in achieving the objectives of this study.

The study was a descriptive cross-sectional study carried out to collect information from urban poor individual regarding factors that motivate them to enroll or not enroll in the National Health Insurance Scheme.

The data for this research was collected from the Grushi community households in the Ga East Municipality

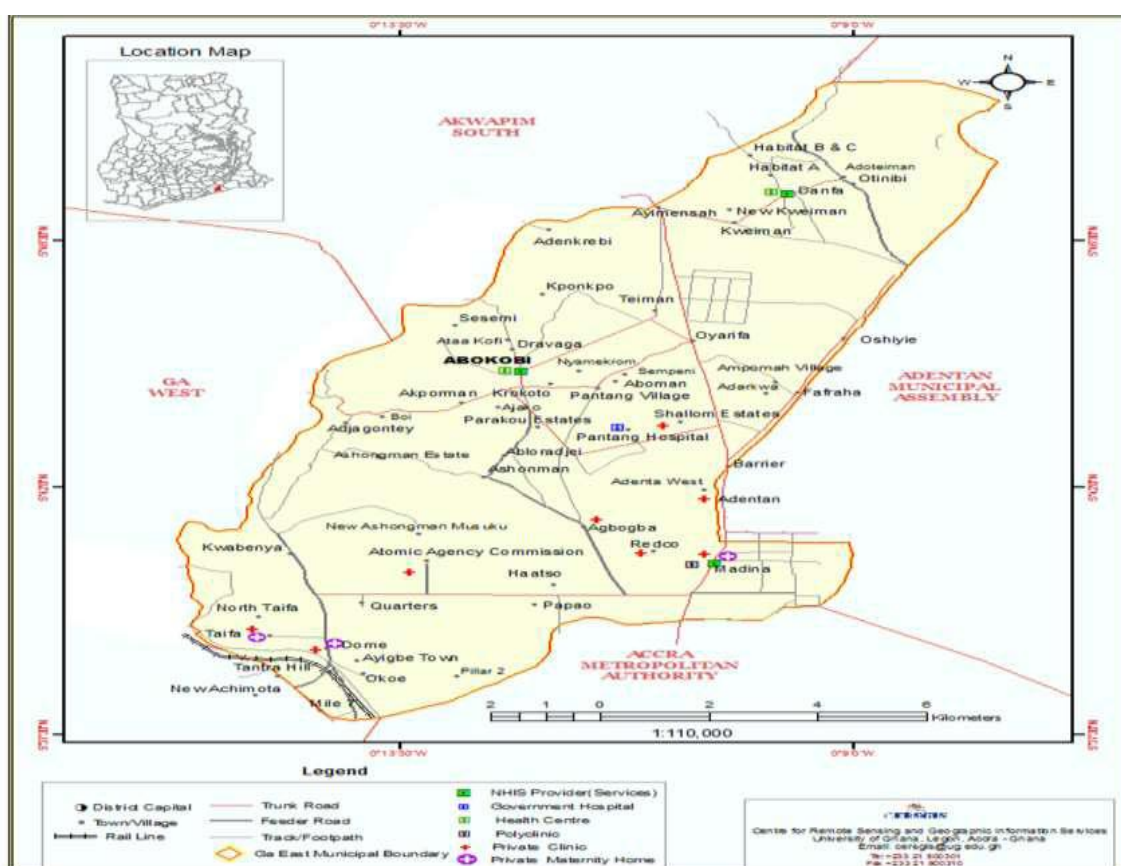
Research Assistants (RAs), fluent in English and local dialects and comfortable with the cultural and geographical area were recruited to interview. Training was conducted to familiarize RAs with the survey questionnaire, facilitated consistency in the survey administration, and ensured ethical conduct of the study.

Ethical approval was obtained from the GHS ERC before the study was commenced. A random sampling strategy was used. In each selected household, the adult aged 18 years and below 70 years were given questionnaire by the RAs. Survey was done in whichever language participants felt most comfortable English, or any local dialect. In total, a number of 250 questionnaires were be administered.

Questionnaire was designed to determine the level of NHIS enrolment among the urban poor. Previous studies by (Koegel et al., 2000) have demonstrated that samples of urban poor through these methods provide good approximations of the total urban poor population. Stata was employed.

### 3.2 Study Location

Ga East District is about 25 kilometers north of Accra with its capital at Abokobi and the total land area is about 1000 acres. It is bordered on the west by Ga West and on the East by the Adentan Municipal Assembly and the south by the Akuapem south district. However, Madina is the largest settlement within the district. Other settlements include Dome, Agbogba, Haatso and Oyarifa. The Ga east municipal in all has fifty-nine (59) communities



**Figure 2: A map of the study area.**

**Source:** Center for Remote Sensing and Geographic Information Services (CERSGIS). Map of Ga East Municipality, showing communities and health facilities.

The municipality lies entirely in the coastal savanna agro-ecological zone. The relief is generally undulating of less than 76 meters above sea level except for the areas around the Akuapem ranges. Moreover, shrubs occur mostly in the western side while in the north towards the Aburi hills, there is a dense cluster of small trees and shrubs that grow to an average height of about 5 meters. The rainfall pattern is bi-modal with annual mean varying between 790 millimeters on the coast to about 1,270 millimeters in the extreme north. The annual average temperature ranges between 25.1°C in August and 28.4°C in February and March. However, February and April are the hottest months in the year. Humidity is generally high throughout the year with figures ranging between 94% and 69% (Gema, 2004). The Ga East Municipal has few rivers and seasonal streams such as Sesemi and Dakubi. Nonetheless there are scattered ponds at Danfa, Otinibi and old Ashongman (Gema. 2004). Potable water supply in the urban/peri-urban areas of the Municipality has been a major challenge to the Ga East Assembly, and areas like Madina, Dome, Taifa, Agbogba, and North Legon. Extension, Adentan West and Ashongman Musuko have limited or no access to pipe-borne water. Others depend on tanker services and a few hand dug wells as alternative sources of potable water supply. Total sanitation coverage is estimated at 31% for household facilities and 29% for institutions. The types of facilities in use include WC toilets, KVIPs, Household VIPs and public KVIPs. Pit latrine even though not approved by the Assembly is being used by some households even in the urban communities ([www.ghanadistricts.com](http://www.ghanadistricts.com)). The study will be done in Grushi community (Dome), which faces the same challenges as mentioned above.



Dome consist of a number of communities, among them are Grushi, Afghanistan, Ewe, Dagati, Fanti Bozanga, Frafra, Dome Pillar 2. Dome is a Ga community but predominantly, Northners who were the first settlers in the community. The chief of the area was enstooled in 1988 and died in December 1998, since then there has been no chief in the community. The Elders and the queen mother are the care takers in the community. The community can boost of three private schools.

There are six public toilets which is man by private men. But have railway line which passes through Dome to neighboring communities. The community is full of kiosks which serve as accommodation for the people each kiosk or land where the kiosk is situated on cost ten Cedis per month. It has a population of forty - nine thousand five hundred and eighty two. The main occupation for the people was trading and the women are fish mongers. The major challenge in the community is bad drainage, during the rainy season the community is mostly flooded.

Health facilities' are unevenly distributed in the district. There are four private health centers but are not NHIS healthcare providers. The people usually access healthcare from Achimota and Atomic hospitals respectively with the NHIS. The people also resort to local medicines since they are many in the community.

### **3.3 STUDY METHODOLOGY**

The study employed questionnaire to collect data from the field. The primary data was taken from the people in the Gruhi community who were between 18 years and 69 years.

The questionnaires were used to solicit views from those who had enrolled and not enrolled on the scheme.

Secondary sources of data for the study were medical and social journals, published books and articles, census report, National Health Insurance scheme policy document and relevant internet documents were used.

### 3.4 Definition of Variables

Variable	Definition/Explanation
Dependent variable: NHIS Enrolment status	Are you enrolled or not: yes or no
Independent variables	
Age	Age at last birthday for persons 18 years and above
Sex	Male or female
Income	From a minimum of GHC 50.00 and above
Ethnicity	Which of the tribes participant belongs to
Marital status	Single, Married, never married and devoiced
Health status	The health of the participant at the time of the study (well or not well)
Employment	Self-employed, Private or Public
Religion	Which of the religion the participant belongs

### 3.5 Study Population

This study was done in Grushi community in the Ga East municipality. Grushi has a population of six thousand five hundred (6500). Grushi was selected because it is the community with the highest population amongst the entire communities. Dome has a population of forty nine thousand five hundred and eight two (49,582) population.

### Inclusion criteria

An individual was included in the study if he or she

1. Were above 18 years of age and below 70 years of age

2. Resided in the Grushi community
3. Either enrolled or not enrolled in the NHIS
4. Has consented to participate in the study

### **Exclusion criteria**

An individual was excluded from the study if he or she

1. Were below 18 years of age or above 70 years of age
2. Resided out- side the Grushi community
3. Has not consented to participate in this study

### **3.6 Sample Size Calculation**

The Ga DMHIS operational report (2009) indicates that the proportion of registered members with the NHIS ID card is 39%. Therefore, using 61% as the proportion of uninsured clients and the formula below, the minimum sample size will be 366 as shown below

$N = \frac{Z^2 P (1-P)}{d^2}$  at a 95% confidence interval and a margin of error of 5%;

$d^2$

The sample size estimation was based on the idea Cochran (1963:75)

$$n_0 = \frac{\left( \frac{Z_{\alpha/2}}{2} \right)^2 p(1-p)}{e^2}$$

Where  $n_0$  is the minimum required sample size,  $Z^2$  is an abscissa of the curve that cuts off an area  $\alpha$  at the tail ( $1 - \alpha$  equals the desired confidence level, i.e., 95%),  $e$  is the

desired level of precision,  $p$  is the estimated proportion of uninsured urban poor that is present in the population which was 60%. For 95% confidence interval,  $Z_{\frac{\alpha}{2}}$  is 1.96 and the level of precision “ $e$ ” (margin error for the study was  $\pm 5\%$ ). we have a minimum sample size  $n_0 = \frac{1.96^2 \times 0.6 \times 0.6}{0.05^2} = 369$ . Approximating the minimum sample size of 369 using the finite population correction factor formula, the estimated final sample size for study will be 235, that is,

$$\text{Estimated Final Sample Size} = \frac{n_0}{1 + \frac{n_0}{N}} = \frac{369}{1 + \frac{369}{6500}} = 235$$

The figure will be rounded up to 250 to offset possible effect of the non- responses

### 3.7 Data Collection Techniques & Tools

#### 3.7.1 Data Collection

The study was conducted using a purposive sampling method. The selection was done based on the characteristics of the areas Grushi (Dome) in addition to availability of an accredited NHIS health facility. Grushi is under the Dome Sub – Metro, was selected for this study, with the population of six thousand five hundred (6500). Out of that, two hundred and fifty was the sample size. The reason for the selection of one community was that the rest of the communities have the same challenges and one point of NHIS enrolment, and it would have being statistically duplication of data if more than one community were selected.

The largest community in Dome was selected to give a fair representation to the people in the study. Selecting the participants to collect data in the study must be from the selected

area. The household survey was carried out in May 2015 using a structured questionnaire. Information gathered on age, sex, occupation, education, religion, marital status, health status and income. Each participant was given equal and independent chance of being included in the study.

Collected insurance data included insurance status of all individuals living in the household. For this study, the “Enrolled” are members who have registered and paid the full premium irrespective of whether they are waiting or holding NHIS identity cards. “Previously enrolled” are those who have registered but may not have paid the full premium for the year or have not renewed membership and are not eligible to access services. “The non – enrolled” are those who have never registered with the NHIS.

### **3.7.2 Tools**

Structured Questionnaire were both opened and closed ended questions which covered relevant information on factors that motivate the enrolment of National Health Insurance among the urban poor. (DHS 2008)

### **3.8 Quality Control**

The study was conducted in accordance with the laid down procedure. The training of field assistants covered the key areas such as; objectives and importance of the study, filling of questionnaires, data collection procedures. Principal investigator supervised field work.

The investigator was responsible for ensuring the accuracy, completeness legibility and timeliness of the data reported. All data was entered legibly in English. Data was reviewed on an ongoing basis throughout the study.

### 3.9 Data Analysis

The household survey was carried out in May 2015, using a structured questionnaire. Information was gathered on age, sex, employment, education, religion, income, health status, marital status, insurance status. The questions were closed ended and few opened ended.

Collected insurance data included insurance status of all individuals living in the household. In this study, the “enrolled” are members who have registered and paid the full premium, irrespective of whether they are awaiting or holding NHIS membership cards.

The not enrolled are those who did not have membership card at the time of this study.

Data collected was checked for non- responses, accuracy and corrects answers. Responses to the questions were imported to excel spreadsheet for adequate capturing of responses.

Coding of each questionnaire was done to facilitate a comprehensive analysis.

With the aid of the software, the quantitative data was tabulated and summarized into

statistical tables. Cross tabulation were used to find the relationship between NHIS

utilization (dependent variable) and socio-demographic factors among the urban poor

(independent variables).

Pearson Chi–square test was used to test for association between the independent variables and outcome variable. Chi-Square was also used to determine differences among the enrolled and not-enrolled.

Descriptive statistics such as means and standard deviation was used to analyze continuous variables. The analyses were done using Stata version12 (Stata Corp., College Station, TX).

### **3.10 Pre-test**

The data collection tool (questionnaire) was pretested in Afghanistan a community in the Ga East Municipality. The pretesting was used to assess the flow of questions, presence of sensitive questions and the appropriateness of categorization of variables.

This was carried out in one day with the research assistants. There was in change in the tools, participants were able to answer the questions without any problem.

### **3.11 Ethical Consideration**

Ethical consideration included securing ethical clearance, consenting processes risk and benefits of this study, issues of privacy and confidentiality and data handling.

Ethical clearance was sought from Ghana Health Service Ethics Review Committee on Research on Human subjects.

Informed written consent was sought from all participants. The participants were adults between the ages of 18 years and below 70 years who have either enrolled or not enrolled in the NHIS. There was no compensation for study participant. There were no known risks of this study and minimal interference with the participants. The study provided evidence which can be used to institute reforms for the benefit of the NHIS.

The consenting process was done in a place with adequate privacy and in a language understood by the respondents. Participation in the study was voluntary. Information collected was used for the purpose for which it was gathered. The data will be stored for a period of five years beginning from the end of this study. It would be accessible to only



the principal investigator. All records would be destroyed in an environmentally friendly manner with witnesses' evidence when the five years elapse.

## **CHAPTER FOUR**

### **RESULTS**

#### **Introduction**

This chapter covers the presentation of results. Information gathered from the individuals are discussed in the direction of socio – economic conditions influencing enrolment under the NHIS as well as other factors that influence the use of NHIS services.

#### **4.1 Socio-demographic Characteristics of respondents**

Table 4.1 presents an overview of the socio-demographic and economic characteristics of the respondents. The respondents were asked to provide their socio-economic profile by indicating their age, gender, income, level of education, enrolment status, among others.

Out of the 250 respondents on whom the questionnaires were administered 194 of them were female representing about 81% with only 45 of them being male. Majority of the respondents (61.83%) fell under the age category (18 – 30) with just about 9 of them being 57 years and above. Though a Grushi community only 23 of the respondents were Grushi with 117(48.95) the majority group being Akans. 96.22% of the respondents answered that they were well on the subject of health status with just 7(2.94%) responding otherwise.

Majority of the respondents (133) were self-employed with about 50 of them with no employment. On their level of education it seemed a fairly literate community with 120(50.63) being educated to the secondary level and 21 of them having no formal education. 56(28.14) earned more than GHC 200 with the remainder earning less than or equal to GHC 50 and GHC 200. Most of the respondents 196(46.89%) were Christians.

113(46.89%) were married with just about 30 of them being either divorced, separated or widowed. (See table 4.1)

**Table 4.1: Socio –demographic features of respondents**

<b>Socio-demographic feature</b>	<b>Frequency</b>	<b>Percentage</b>
<b>Age</b>		
18 – 30	149	61.83
31 – 43	70	29.05
44 – 56	13	5.39
57 and above	9	3.73
<b>Sex</b>		
Male	45	18.83
Female	194	81.17
<b>Ethnicity</b>		
Grushi	23	9.62
Ga	58	24.95
Akan	117	48.95
Others	41	17.15
<b>Health Status</b>		
Well	229	96.22
Not well	7	2.94
Other	2	0.84
<b>Employment Status</b>		
Self-employed	133	55.42
Public	17	7.08
Private	40	16.67
Unemployed	50	20.83
<b>Level of Education</b>		
<b>No Education</b>	21	8.86
<b>Primary</b>	78	32.91
<b>SHS</b>	120	50.63
<b>Tertiary</b>	18	7.59
<b>Income</b>		
<GHC 100	91	45.73
GHC100 – GHC200	52	26.13
GHC200+	56	28.14
<b>Religion</b>		
Christian	196	81.33
Muslim	45	18.67
<b>Marital Status</b>		
Single	98	40.66
Married	113	46.89
Divorced/Separated/Widowed	30	12.45

#### 4.2 Rate of NHIS enrolment among the urban poor in the Grushi community.

Out of the 250 respondents 182 of the respondents were enrolled in the NHIS. Rate of NHIS enrolment is binomially distributed  $\text{bin}^{\sim}(n, p) = \text{bin}^{\sim}(182, 0.7647)$  with confidence interval (0.69 – 0.81). Hence the interval would contain the true rate of NHIS enrolment among the urban poor in the Grushi community. (See Table 4.2)

**Table 4.2: Rate of NHIS (National Health Insurance Scheme) enrolment among the urban poor in the Grushi Community**

	NHIS Enrolment (frequency)	Percentage
Yes	182	76.47
No	56	23.53

#### 4.3 Association between demographic factors and NHIS enrolment

All respondents had an equal knowledge of NHIS, no matter their insurance status. Whereas the majority representing (76.47%) are enrolled, a smaller population representing (23.53%) considered not enrolled. This is not surprising because according to them it gives financial protection against illness as the main reason they enrolled in the first place.

The covariates significantly associated ( $p < 0.05$ ) with NHIS enrolment among the urban poor in the Ga East Municipality were ethnicity, level of education, source of information on NHIS, how far the NHIS accredited facility is from the respondents home, how motivated they are when they are sick to visit an accredited health facility and the facility they visit when they are sick. (See Table 4.3)

**Table 4.1: Bivariate analysis of factors associated with NHIS enrolment at Grushi**

Characteristics	NHIS Enrolment n (%)		Chi square	P-value
	Enrolled	Not Enrolled		
Socio-Demographic Factors				
Age			6.96	0.073
18 – 30	118(79.73)	30(20.27)		
31 – 43	46(67.65)	22(32.35)		
44 – 56	9(69.63)	4(30.77)		
57 and above	9(100.00)	0(0.00)		
Religion			1.59	0.207
Christian	34(82.93)	7(17.07)		
Muslim	8(100.00)	0(0.00)		
Sex			2.05	0.152
Male	38(84.44)	7(15.56)		
Female	142(74.35)	49(25.65)		
Marital Status			1.15	0.563
Single	17(85.00)	3(15.00)		
Married	19(90.48)	2(9.52)		
Divorced/Separated/Widowed	6(75.00)	2(25.00)		
Ethnicity			7.83	<0.050
Grushi	20(86.96)	3(13.04)		
Ga	50(86.21)	8(13.79)		
Akan	83(71.81)	31(27.19)		
Others	27(65.85)	14(34.15)		
Health status			0.97	0.617
Well	172(76.11)	54(23.89)		
Not well	6(85.71)	1(14.29)		
Other	2(100.00)	0(0.00)		
Employment Status			3.94	0.268
Self-employed	98(75.38)	32(24.62)		
Public	13(76.47)	4(23.53)		
Private	35(87.50)	5(12.50)		
Unemployed	35(70.00)	15(30.00)		
Level of Education			15.27	<0.002
No Education	9(45.00)	11(55.00)		
Primary	61(79.22)	16(20.78)		
SHS	96(81.36)	22(18.64)		
Tertiary	13(72.22)	5(27.78)		
Income			1.25	0.534
<GHC 100	69(75.82)	22(24.18)		
GHC100 – GHC200	39(78.00)	11(22.00)		
GHC200+	38(69.09)	17(30.91)		
Awareness about Enrollment				
Heard about NHIS	180(76.92)	54(23.08)	1.58	0.208
Source of Information			24.04	<0.001
Through friends	11(50.00)	11(50.00)		
Through Relatives	13(65.00)	7(35.00)		
Radio	57(76.00)	18(24.00)		
Television	42(77.78)	12(22.22)		
Newspapers	3(50.00)	3(50.00)		
Other Specify	18(90.00)	2(10.00)		
More than one of the above	37(97.37)	1(2.63)		

Closeness of facility			7.82	<0.020
Very far	21(70.00)	9(30.00)		
Far	103(74.10)	36(25.90)		
Not far	56(90.32)	6(9.68)		
Visit facility when sick	122(90.37)	13(9.63)	6.41	<0.011
Facility visited when sick			14.11	<0.028
Herbal Clinic	4(100.00)	0(0.00)		
Maternity Home	2(50.00)	2(50.00)		
Pharmacy Shop	18(60.00)	12(40.00)		
Private Hospital	83(83.84)	16(16.16)		
Public Hospital	69(73.40)	25(26.60)		

Note: n (%) represents frequency and proportion of covariates with that particular outcome.

\* indicates that covariate was not significantly associated with outcome variable of interest.

#### 4.4 Factors influencing NHIS enrolment

In the univariate analysis, all the covariates were significantly associated ( $p < 0.05$ ) with the outcome variable of interest. The odds of being enrolled versus not being enrolled were 2.49 times higher among residents who are Akan than those who are Grushi. Also the odds of being enrolled versus not being enrolled were 3.45 times higher in those with tertiary education than those with no education. (See table 3)

Whilst in the multivariate ethnicity was not significantly associated ( $p = 0.05$ ) to Enrolment of NHIS as compared to all the other covariates of interest. The odds of being enrolled versus not being enrolled were 1.97 times higher among residents who had read about NHIS from newspapers than those who had heard it through friends. (See Table 3)

**Table 4. Factors associated with NHIS enrolment**

Factors	NHIS Enrolment			
	Univariable		Multivariable	
	OR	95 % CI	OR	95 % CI
<b>Ethnicity</b>				
Grushi	1.00		1.00	
Ga	1.01	0.26 – 4.43	1.89	0.27 – 13.35
Akan	2.49	0.69 – 8.97	2.38	0.39 – 14.56
Others	3.46	0.87 – 13.66	2.89	0.42 – 19.82
<b>Level of Education</b>				
No Education	1.00		1.00	
Primary	0.19	0.07 – 0.55	0.78	0.01 – 0.43
SHS	0.17	0.06 – 0.46	0.05	0.01 – 0.26
Tertiary	0.29	0.08 – 1.11	0.18	0.02 – 1.47
<b>Source of Information</b>				
Through friends	1.00		1.00	
Through Relatives	0.54	0.16 – 1.87	0.19	0.02 – 1.69
Radio	0.32	0.12 – 0.85	0.29	0.07 – 1.19
Television	0.29	0.10 – 0.82	0.18	0.03 – 0.92
Newspapers	1.00	0.16 – 6.08	1.97	0.08 – 47.31
Other Specify	0.11	0.02 – 0.59	1.00	
More than one of the above	1	0.00 – 0.23	0.03	0.00 – 0.33
<b>Closeness of facility</b>				
Very far	1.00		1.00	
Far	0.82	0.34 – 1.94	0.39	0.11 – 1.49
Not far	0.25	0.08 – 0.79	0.19	0.04 – 0.93
<b>Visit facility when sick</b>	2.73	1.23 – 6.06	3.81	1.33 – 10.91

Note: n (%) represents frequency and proportion of covariates with that particular outcome.

\* indicates that covariate was not significantly associated with outcome variable of interest. OR – Odds Ratio

**Problems faced in the use of NHIS card in the health facility**

Majority of the respondents, 161(76.30%) faced the problem of unavailability of drugs.

With just 2(0.95) respondents faced with poor attitude of health professionals.

**Table 4.3 Problems faced in the use of NHIS card in the health facility**

Characteristic	Frequency	Percentage
<b>Problem faced</b>		
Rejection of card	6	2.84
Unavailability of drugs	161	76.30
Poor attitude of health officials	2	0.95
Long queues	10	4.74
Other specify	32	15.17



## **CHAPTER FIVE**

### **DISCUSSION**

#### **5.1 Introduction**

This chapter discusses the relationship between the respondents' residence and the distances they cover to visit health facilities to seek healthcare. This is in comparison with similar works done by various scholars.

A total of 250 questionnaires were administered, out of it 76.47% of respondents were enrolled on the NHIS while 23.53% respondents were not enrolled. The level of enrolment was higher in the Grushi community.

This study found out an interesting evidence of inequity in enrolment in NHIS. Generally there was a higher enrolment among the urban poor people. Additionally, the respondents indicated that though the NHIS does not cover all their healthcare cost when they visit the hospital, their total bill is reduced by more than half due to the insurance, which motivates them to enroll in the scheme.

Furthermore, it was also found that individual need for care was associated with the decision to enroll in the scheme.

The study found out that the individual need of care has association with the decision of enrolment on the NHIS.

#### **5.2.1 Socio-demographic characteristics**

In agreement with the study conducted by Boateng and Awunyor, (2013) the result of this study showed that socio demographic characteristics influence the decision of being

enrolled in the NHIS. The gender of the respondents had a statistical significant relationship with enrolment. In agreement with previous study by Boateng and Awunyor (2013), again females were more likely to enroll as compare to males. This was attributable to females being vulnerable in the society in terms of health care service utilization and would therefore resort to insurance which offers some financial protection. Women as care givers for children and other ill members of the household were more likely to have positive decision than their male counterparts (Boateng & Awunyor- Vitor, 2013).

The policy which exempts pregnant women from paying premium under the NHIS assist women to benefit from the scheme at no cost (NHIS Annual Report, 2012).

In this study marital status does not influence enrolment.

This study did not report significant association between employment and enrolment on the NHIS. This was consistent with the study by Boateng and Awunyor- Vitor, (2013). This study found out that educational status of respondents did influence enrolment in NHIS.

### **Sex of Respondents**

In addition, age of respondents ranged from 18years to 65years. The study showed that 61.83% were between 18-30years while 29.39% were between 31-43years. Those who were between 44- 56 years were 5.39% while 3.73% of the respondents were between 57 and 65years. The modal age class of the respondents was 18-30years. This may be

explained by the fact that they fell within the fertility age and are financially sound who needed to be enrolled on the scheme.

More so, the data on education revealed that 8.86% of the respondents did not have formal Education, while 32.91% had primary education. The majority (50.63%) of the respondents was found to have had secondary education. However, those who had tertiary education were 7.59%. This indicated that respondents were well aware of the scheme, which informed their decision to enroll.

### **Level of income of respondents**

The majority of the respondents were self-employed engaged in small scale businesses.

The other income generating activity was non - formal employment. Thus, study showed close variations in income levels of respondents. In total 26.13% of the respondents stated that their average monthly earning was between GH¢100 and GHC 200. Majority (45.73%) of the respondents reported that their monthly average income was below GH¢100. Only 28.14% of the respondents reported that their monthly average income was above GH¢200. The study showed that most of the respondents were self-employed and earned income below GH¢ 100.

## **5.2 Relationship between accredited NHIS facilities**

Distance to health facilities play a major role in willingness to seek for healthcare for themselves. In general, the study assessed the location of respondents' residence in relation to the NHIS accredited health center in the area. From table 4.3, it showed that 74.10% of the enrolled respondents and (25.90%) of not enrolled respondents resided at areas which were far from an NHIS accredited health center while (90.32%) of enrolled respondents resided at areas which were not far from an accredited health center. This study was in contrast to a study Paez et al, (2010) and Schoeps et al, (2011) which concluded that geographical access to health care facilities tends to influence health services usage. Further, (Buor, 2010) draws attention to the large geographical inequalities in rural-urban accessibility to healthcare and how they create numerous problems.

To support the objective and factors influencing enrolment of urban poor and NHIS utilization centers, NHIS office and the communities was developed for the study.

Few public health facilities available in the district are mostly centralized in the urban communities especially, in Madina. However, Dome though an urban community where Grushi community is situated, does not have any public health facility. As such residents who prefer to use public health facilities are forced to move to Madina covering a distance about 9.80kilometers, or Achimota hospital which is closer to the Ga East Municipality. Otherwise enrollees have no option but to use the few private hospitals with NHIS accreditation. Meanwhile, most of these private health centers which accept the NHIS card

only for some health services or do not accept the card at all. As such, some respondents make some payments out of pocket.

As a result, a chi square test analysis was conducted in this study to show the relationship between distance to enrollment and NHIS office. From Table 4.3, distance to health facilities and enrollment in the scheme showed a chi square value of ( $X^2 = 7.82$ ) and P-value of  $<0.020$  indicating that there was a significant relationship between distance and enrollment. This means that there was a significant association.

However, relating to the theory of distance decay which states that things further away are unlikely to be used, (Skov-Petersen., 2001). This study proved contrary to the previous study. 70% of enrolled respondents lived very far were registered.

As distance from the respondents' residence to NHIS office increases, enrollment of urban poor in the scheme decreased. For instance in the rural areas, cost of transportation negatively affected enrollment. As distance to register and use the services of the scheme increased, the likelihood of the people to resort to alternative means of ensuring quality healthcare was very high.

During the same time, the reason why respondents enrolled on the scheme was for them to enjoy its benefits. Therefore, difficulty in accessing the services of the scheme created a break in the healthcare financing system thereby defeating the purpose of the NHIS.

During the study some respondents who lived farther from the registration center explained that they preferred to buy drugs from the chemical shop when they were sick, rather visit the hospital when the sickness became severe to pay for health care services. This attitude of some respondents was similar to a study by Mensah et al (2009), where it was found out that some individuals sought for healthcare only when their sickness had become worse because they could not afford to pay for healthcare.

### **5.2.2 Health Status and Enrolment**

The study found out significant association between enrolled and not-enrolled in the NHIS. Respondents who were enrolled were more likely to visit the hospital to access health without payment out of pocket than the non-enrolled. It was however contrast to the study done by Jehu-Appiah et al., (2011) which found no evidence that household status or prior health service utilization influenced enrollment in community insurance.

The phenomenon where individuals with relatively poor health status are more motivated to enroll in the NHIS can lead to adverse selection. In the NHIS participation is mandatory evidence suggested that mandatory participation has not been enforced as only 38% of the population are active members (NHIS Annual Report, 2012). Inability to enforce mandatory participation in the NHIS makes adverse selection one of the threats to the sustainability of the NHIS.

This study has shown that the NHIS currently not reaching the poor in general, follows with existing literature that shows low enrolment among the poor to be a problem facing health insurance schemes in low income countries such as Ghana, Sarpong, (2010).

Income has a basis to influence on the demand for insurance. This study findings present low income earnings but the people are enrolled for financial protection at the time they need health care which will prevent them from out of pocket expenses. This study draws attention to the poor who fall between the poorest and the poor “indigents” and those unable to pay the minimum premium representing 23.53% of the population living below the poverty line, which is contrary to a study done by Jehu – Appiah (2011)

Obviously this group needs special protection arrangements and policy options may not only involve rearranging public subsidies, but could also see the constraints that prevent them from enrolling.

However, a significant success of the NHIS is that it appeared to be better at reaching the core poor compare to the poor. Forgetting that there are poor core poor people in the cities. The explanation may be associated to the fact that the core poor value the protection insurance gives when they are sick. It may also be due to improved identification by schemes of the (indigents) and effectiveness of the exemption policy that has financial benefits in place where every core poor person is identified, premiums are paid from the NHIF to the scheme.

This study findings showed that age, gender, employment, education above primary were significant determinants in enrolment. Economic theory predict that as individual progress in age their well-being in terms of health begins to deteriorate so they tend to increase investments in health hence health insurance.

Existing literature predicted employment and education increases the odds of enrollment as both increase knowledge about the advantage of health insurance (Chankova, 2008). An

area of residence played an important role in enrollment as shown by a number of studies in Ghana, (Sarpong, 2010), Nigeria (Stock, 1983) and internationally. However, some studies in Ghana showed lower enrollment in rural areas, (Jehu – Appiah, 2011) and (Akazili, 2010) found the opposite to be true. These findings may be explained by the poor and decentralized model of the NHIS to district levels.

District and Sub district schemes are more effective in encouraging enrollment in the areas where community durbars, door to door and solidarity campaigns were much easier to organize. Previous literature have examined price as a determinant of health insurance in terms of premium (Chankova, 2008), but more specifically in terms of administrative charges. If the fee as in Ghana case, registration fee is unaffordable it can adversely affect demand and prevent people from enrolling, as in the case of elderly and other vulnerable groups, who are supposed to pay registration fees even though they are exempted from premium fees. However, perceived benefits and convenience of NHIS are important as price and have strong predictor effects on enrollment for the urban poor compared to the rich.

### **Problems faced in the use of NHIS card in the health facility**

From the study, various challenges were seen to hinder enrolment of urban poor the in NHIS. Variables used were, poor attitude of NHIS officials and long queues during registration. Long queues when accessing NHIS was the most pressing challenge in the rural areas including Grushi community. Poor attitude of NHIS officials in the rural and urban areas respectively was found to be less a challenge.



Some of the challenges respondents faced when visited the hospitals to assess healthcare were card rejection in the hospitals, unavailability of prescribed drugs was 76.30% which indicated the most pressing issue affecting the enrolled. Poor attitude of NHIS officials as well as long queues at the NHIS office affected enrolment.

In view of this, the NPDC agrees there are problems with registration and utilization of the scheme. However, they believe that amongst these problems, it is important for people to register to reduce out of pocket payment at the point of service. Therefore the individual healthcare access becomes a challenge for poor households who are not enrolled (NDPC, 2009).

## **Study limitations**

The limitations of this study include the following:

1. The time duration within which this research was carried out was obviously the greatest limitation.
2. Also, the general lack of information on the scheme with respect to service utilization combined with the unwillingness of users of the service to volunteer information impacted the gathering of data.
3. Due to the geographical, socio- economic differences between regions, the results are indicative but not necessarily applicable to all other districts in the region.
4. The research could have looked at the supply side of the NHIS implementation looking at issues related to challenges the scheme providers faced in providing quality healthcare to enrollees. This could be done by way of further research.

## **CHAPTER SIX**

### **CONCLUSION AND RECOMMENDATIONS**

#### **6.1 Introduction**

This chapter summarizes the major findings based on the two objectives of the study.

Based on the results, conclusions are drawn and recommendations are made for policy makers to ensure a smooth running of the scheme to encourage more respondents to enroll, to achieve the objectives of the scheme.

#### **6.2 Summary of major findings**

This study determined the enrollment of urban poor in the National Health Insurance Scheme by adults 18 years and below 70 years in the Grushi community.

From the study, it was observed that demographic characteristics such as age, health status and gender positively influenced NHIS at a very high significance level and therefore had a high negative impact on utilization of the services of the scheme.

For instance in the urban areas as income and education increased the probability of them enrolling on the scheme decreased. They preferred to pay out –of- pocket and use private hospitals rather than public NHIS accredited health centers. This was consistent with other studies done by Palacio- Vieira (2013), and Jehu- Appiah (2011) and others that show that families with affluence always wanted specialist hospitals.

Moreover, distance between residence of respondents and accredited health centers where they accessed healthcare had a negative influence on utilization of the scheme. Thus, respondents had a challenge travelling long distances to seek for healthcare. For instance, in the rural areas, transportation cost to register and access health centers farther away from where they lived was not challenge.

If the NHIS is to achieve its objective of total population coverage, better identification of the poor is needed and the provision of premium exemptions needs to be looked at.

The study found out that urban poor people are more likely to enroll in NHIS. Sex, education, employment and health status were found not to be predictors of health insurance enrolment among the people in the community.

The enrolment in the NHIS was a significant step in achieving universal health insurance coverage as evidenced by the findings of this study which showed that 76.47% of respondents were enrolled in the scheme.

The individuals' need of care influenced the decision to enroll in the NHIS to avoid out of pocket expenses at the point of service.

Enrollments was influenced by socio – demographic factors in different ways, extending enrollment would need the recognition of all these multiple factors as precursors to more effective interventions to stimulate enrolment.

## **6.2 Recommendations**

In the light of the above conclusions, the following recommendations are made:

### Policy recommendations

1. Based on the enrolled individual perspective, this study showed negative influence on unavailability of drugs. The NHIS should promote the policy by introducing more drugs and services to the already existing ones to help eradicate entirely out of pocket payment. The government should update prices of drugs, laboratory tests and other services under the scheme whenever it is necessary and bring that to the public notice to enable health facilities to improve the quality of service for enrolled individual.
2. The NHIS should open more outlet at the health centers in the communities to avoid and reduce long waiting time and queues during registration and renewal periods. This will improve accessibility and utilization of the scheme. Moreover, there should be mobile NHIS officers who will go to the homes of these people who live farther from accredited NHIS health centers to register and get themselves enrolled. However, these officers should have. NHIS identification and strictly be monitored regularly to minimize fraud in the system. The NHIS should establish a clear cut and realistic criteria for identification of individuals who fall within the exemption group so that their enrollment can be facilitated.
3. The NHIA should intensify their regular monitoring of NHIS accredited health centers through education to assess the services under the scheme to ensure an optimal operation of the scheme. In the light of this, regular workshops should be organized for hospital information officers to update them on any changes in the scheme, how to avoid mistakes in filling the claim forms which tend to delay payments resulting in rejection of NHIS cards of enrolled people. Furthermore, there should be proper and regular monitoring of services of the

scheme in the various accredited health centers most especially in the rural areas where their choices to change health centers due to poor services is very limited or not possible at all, to reduce the short falls in accredited health facilities in order to enhance child enrollment and utilization of the scheme.

**Research recommendation**

4. Further research especially with the use of qualitative techniques should be used to capture critical and in-depth reasons for enrolment of the NHIS

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## APPENDICES

### APPENDIX 1: INFORMED CONSENT FORM

Project Title: ENROLMENT OF URBAN POOR IN NATIONAL HEALTH INSURANCE SCHEME IN THE GA EAST MUNICIPALITY IN THE GREATER ACCRA REGION OF GHANA.

Institution affiliated

School of Public Health, University of Ghana, Legon, Accra.

Background of interviewer

My name is .....from.....helping a student to collect data solely for academic work for Master of Public Health

#### Procedure

Information to be included in this study includes background characteristics e.g. age, sex, occupation, educational status, monthly income, marital status, religion, ethnicity, as well as your current status with the National Health Insurance Scheme. You will be asked whether you are enrolled or not enrolled. Data collection is basically structured questionnaire.

#### Risks and Benefits

The study seeks to find out enrolment status among the urban poor within the Grushi community in the Ga east municipality. The outcome is expected to inform policy and problems regarding the health of the people

You may feel uncomfortable with some of the questions I will be asking you; however, they will be of help to me, other researchers and the health care system at large.

#### Permission

Your consent to participate in this study is voluntary, you are not under any obligation to do so. You are at liberty to withdraw from this study if you so wish. However, I will appreciate if you can complete it.

#### Anonymity and confidentiality

Be rest assured that any information given will be used solely for the purpose of research. Any information given will be treated with utmost confidentiality.

If you have any questions about the project or your participation feel free to ask or you can reach me on this number 0242269325

#### Before taking consent

Do you have any question or questions to ask me...? (if yes, write questions below)

#### Undertaken

I have read the above information. I am satisfied and therefore consent voluntarily to participate in this study.

-----  
Date

-----  
Signature/ thumbprint of respondent

-----  
Name of research assist.

-----  
Date/ signature of research assist.

**APPENDIX II: VOLUNTARY CONSENT**

The research titled ‘ENROLMENT OF URBAN POOR IN NATIONAL HEALTH INSURANCE SCHEME IN GA EAST MUNICIPALITY’ has been read and explained to me. I have been given the opportunity to have any questions about the research answered to my satisfaction. I agree to participate.

For further clarification you can contact me Principal investigator, Ellen Opoku Boamah on this number 0242269325, or the Ethical Review Committee administrator, Hannah Frimpong on these numbers 0243235225 or 0507041223.

-----  
Date

-----  
Signature or thumbprint of participant

If participant cannot read the form themselves, a witness must sign here;  
I was present while the benefits, risks, and procedures were read to the participant. All questions were answered and the participant has agreed to take part in the study.

-----  
Date

-----  
Signature or thumbprint of witness

I certify that the nature and purpose, the potential benefits, and possible risks associated with participating in this study have been explained to the above individual.

-----  
Date

-----  
Signature of person who obtained consent

**APPENDIX III: QUESTIONNAIRE**

Questionnaire survey: ENROLLMENT IN NATIONAL HEALTH INSURANCE SCHEME AMONG THE URBAN POOR IN GA EAST MUNICIPALITY.

*THIS QUESTIONNAIRE IS DEVELOPED TO ASK FOR YOUR OPINIONS ON THE NATIONAL HEALTH INSURANCE SCHEME (NHIS) ENROLMENT IN THE GA EAST DISTRICT OF THE GREATER ACCRA REGION. ANY INFORMATION GIVEN WILL BE KEPT IN STRICT CONFIDENCIAL FOR ACADEMIC PURPOSES ONLY. YOUR INVOLVEMENT WILL BE MUCH APPRECIATED.*

**INSTRUCTION**

Please tick correctly where you have provided your answers.

Number.....

Name of Community.....

**SECTION A: SOCIO DEMOGRAPHIC FEATURES**

1(a) Age .....

2. Sex Female ☐ Male ☐

3. Employment Status: Self-employed ☐ public ☐ Private ☐

Unemployed ☐

4. Level of Education

No education ☐ Primary ☐ S.H.S ☐ Tertiary ☐

5. INCOME

Less than GH¢50 – 100 ☐ GHC 100 - 200 ☐ GHC 200 and above

6. Marital Status

Single

Married

Divorced/widowed

7. Religion

a. Christian

b. Muslim

c. Tradition

8. Ethnicity

a. Grushi

b. Ga

C. Akan

d. Others specify

**SECTION A: AWARENESS ABOUT ENROLLMENT IN THE NHIS AMONG THE GRUSHI COMMUNITY.**

9. Have you heard about the NHIS? Yes ☐ No ☐

9a. how did you hear about NHIS? Through Friends ☐ Through Relatives ☐ Radio ☐  
Television ☐ Newspapers ☐ Other Specify

10. Have you enrolled in NHIS? Yes or No. If **NO skip to ques. 12**

If yes, **go to question 10a**

10a. what made you to enroll on the NHIS? To prevent out of pocket ☐ forced to enroll ☐  
Financial protection against sickness ☐ others ☐

11. Do you find it easier to go to the hospital with the NHIS ID card? Yes ☐ No ☐

12. Why have you not enrolled? I cannot afford premium ☐ always healthy ☐

Registration point is far ☐ other Specify ☐

13. How will you grade health care using NHIS card? Very good ☐ Good ☐ Poor ☐  
Very Poor ☐

14. Would you be willing to pay more to improvement in quality of health service under the scheme? Yes ☐ No ☐

**SECTION B: ACCESSIBILITY AND UTILIZATION OF NHIS ACCREDITED HEALTH SERVICES. (For both enrolled and non – enrolled).**

15. How far is the NHIS accredited health facility from your home? Very far ☐ Far ☐ Not far

16. Does the NHIS subscription motivate you to visit the facility when you are sick? Yes ☐  
No ☐

If **NO, skip to question 15a**

16a. how do you pay for health care when you are sick? Out – of – Pocket Payment ☐  
Family Support ☐ Employment Insurance ☐ others specify ☐

17. Which of the health facilities do you go when you are sick?

I. Herbal clinic ☐

II. Maternity home ☐

III. Pharmacy shop ☐

IV. Private hospital ☐

V. Public hospital ☐

Please give reason(s) for using that health facility you mentioned.

**SECTION C: CHALLENGES DURING NHIS REGISTRATION. (For those enrolled)**

18. Did you have easy access to the NHIS office during enrolment period in your district?

Yes [ ] No [ ]

19. How long did it take for you to receive your NHIS card after enrolment?

0-3months [ ] 3-6months [ ] 6 months and above [ ]

20. Were you given a temporary card to use in place of the NHIS card? Yes [ ] No [ ]

21. Which of these problems did you face in enrolling with the scheme?

Absence or poor attitude of officials [ ]

Long queues [ ]

Long waiting time [ ]

Other specify [ ]

**SECTION D: CHALLENGES DURING THE USE OF HEALTH FACILITY WITH NHIS**

22. How is your experience in using NHIS card in the health facility? Very good [ ] Good [ ] Poor [ ]

23. Which of these problem do you face in using your card in a health facility?

Rejection of card [ ]

Unavailability of drugs [ ]

Poor attitude of health officials [ ]

Long queues [ ]

Other specify [ ]

24. Would you renew your membership when it expires? Yes [ ] No [ ]

If no

24a. why would you not renew membership?

Unable to afford renewal payment [ ]

Not satisfied with provider [ ]

Difficulty in accessing services [ ]

Other specify [ ]

If yes

24b. why would you renew your membership?

It will expired [ ]

To access healthcare [ ]

It's better than Out Of Pocket payment [ ]



Other specify [ ]

25. What would you suggest to people to enroll in the NHIS?

It's available any time healthcare is needed [ ]

Good health is assured [ ]

No cash and Carry [ ]

Other specify [ ]