

**THE NATIONAL HEALTH INSURANCE SCHEME AND CHILD  
HEALTHCARE DELIVERY IN THE GA EAST DISTRICT**

**BY**

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**DECLARATION**

I , Akua Asah , hereby declare that this thesis is my own work and all help has been duly acknowledged . It has neither been partially nor wholly submitted to any other institution for the award of any degree.

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## ABSTRACT

The increasing cost of healthcare delivery has become a major issue in developed and developing countries. Resultantly, health policy makers are faced with competing alternatives for the systems of healthcare financing. Health Insurance schemes are thus seen as viable alternatives to providing a more sustainable and equitable health delivery system in countries. This study examined the role of the National Health Insurance Scheme in effective child health care delivery in the Ga East District of Ghana. The study adopted quantitative and qualitative techniques through structured questionnaires and in-depth interviews for respondents who had insured their children and those who had not in four (two urban and two rural) selected communities in the Ga East District. A total of 300 structured questionnaires were administered to respondents. Kendall's coefficient of concordance, binary logit model, chi square and t test were used to analyse the data. Findings from the study showed that socio-economic factors and distance from respondents' residence to accredited NHIS health facilities significantly influence child enrolment and utilisation of the scheme. Further, there was a significant difference in the perceptions of parents of insured and uninsured children of the quality of healthcare they received. Lastly, challenges respondents encountered in accessing the scheme and subsequently accessing healthcare for their children under the scheme also influenced child enrolment on the scheme negatively. Therefore, the study recommends among other things that the NHIA should intensify their regular monitoring accredited health centers to assess services under the scheme to ensure an optimal operation of the scheme. In this regard, regular workshops should be organized for hospital information officers to update them on any changes in the scheme.

## DEDICATION

This work is dedicated to the Asah family for their tremendous support in various ways to ensure I completed my studies. Special dedication to my mother, Ruth Ayebea Fianko for taking good care of Nana Kwame while I concentrated on my studies, and to the memory of Mr Alex Asah-Opoku.



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## LIST OF ABBREVIATIONS

GDP.....	Gross Domestic Product
MoH.....	Ministry of Health
NHIS.....	National Health Insurance Scheme
NHIA.....	National Health Insurance Authority
HI.....	Health Insurance
NGO.....	Non -Governmental Organisation
UNICEF.....	United Nations Children’s Fund
WHO.....	World Health Organization
CHIPS.....	Community Based Health Improvement Planning Services
NDPC.....	National Development Planning Commission
GLSS.....	Ghana Living Standards Survey
GEMA.....	Ga East Metropolitan Assembly
OAU.....	Organisation of African Union
KVIP.....	Kumasi Ventilated Improved Pit
MDG.....	Millennium Development Goal
OPD.....	Out-Patient Department

ECA.....	Economic Commission of Africa
SAP.....	Structural Adjustment Programme
CHAG.....	Christian Health Association of Ghana
MHMT.....	Municipal Health Management Team
DHMT.....	District Health Management Team
USAID.....	United States Agency for International Development
SSNIT.....	Social Security and Insurance Trust
NGO.....	Non -Governmental Organization
ILO.....	International Labor Organization
EU.....	European Union
PCMHS.....	Private Commercial Health Insurance Scheme
DMHS.....	District Mutual Health Insurance Scheme

# CHAPTER ONE

## INTRODUCTION

### 1.1 Background of the study

Healthcare issues are of great concern to every nation because her economic development is closely linked to the health status of its population. In view of this, the healthcare industry is one of the largest and fastest growing sectors of many developed nations, taking up about 10 percent of the Gross Domestic Product (GDP) of these nations (Cracium et al., 2004). Generally, healthcare is about prevention, treatment, and management of illness and the presentation of mental and physical wellbeing through the service offered by the medical and allied health professionals (Bond et al., 2003). Healthcare can be at the primary level, secondary level or tertiary level depending on the type of service provided for the individual by health professionals (WHO, 2011). Healthcare is essential for all and its provision must be of quality at every level. According to the World Health Organization (WHO), for healthcare to be of quality, it must be: safe - void of injuries to patients; effective - the services given based on scientific knowledge and patient centered - care provided is respectful and responsive to individual patient preferences, needs, values and that patient values - guide all clinical decisions. Not only should quality healthcare be efficient and equitable, it should also be timely to reduce waits and harmful delays (WHO, 2003).

Regardless of one's age, gender, socio-economic or ethnic background, health is basic and essential asset to all, making healthcare in general very paramount to everybody. However, it is more crucial for children because they face peculiar health challenges related to the stages of their physical and mental development which makes them exceptionally vulnerable to

malnutrition and infectious diseases (Alston et al., 2005; Hampshire et al., 2011). This is the more reason why the United Nations Children's Fund (UNICEF), in 1989 and the Organization of African Unity (OAU), in 1999 adopted the charter for children stating in their articles 24 and 14 respectively that, children have the right to enjoy the highest standard of health and as such they have the right to health facilities for treatment. As a result, governments are encouraged to ensure that no child is deprived of his or her right to access healthcare services (UNICEF, 2012).

As essential as healthcare is for children, most parents are unable to access it because it is expensive. There is growing evidence around the world that health care can drive parents into poverty due to the high cost of provision of health care. According to the WHO (2005), about a hundred million people become impoverished by paying for healthcare and about one hundred and fifty million more face financial hardship from healthcare cost. Studies have evidence documented that in Africa the heaviest burden of healthcare cost, particularly those that are considered catastrophic, falls on the poorest households (Xu et al., 2003, 2005; Whitehead et al., 2005). Consequently, in times of ill-health, many of these poor people are unable to have access to health care due to many factors such as unavailability of health facilities and cost of health services. As a result of the expensive nature of healthcare, many parents delay in seeking quick attention for their children when they are sick. Eventually, their health situation deteriorates and the cost of treatment even becomes higher (Oppong et al., 2009). For instance, it was observed that poor parents often develop a coping mechanism through avoidance of the high cost of treatment all together by modifying illness perception which is a phenomenon of ignoring a disease till they become worse (Sauerborn et al., 1995). By implication the increasing cost of medical services and the growing poverty levels in developing countries in Ghana have affected

many poor parents as they are denied access to health care especially, for their children, leading to deaths which could have been prevented (McIntyre, 2005).

The need to provide affordable but quality healthcare services for all especially, children regardless of their parents' economic status, has become paramount in most developing nations economic policies. This has compelled many countries around the world, of which Ghana is no exception, to consider alternative ways of financing health care with one of such being the Health Insurance Scheme.

Health insurance serves as an effective intermediary between providers and end users, linking planning and budget to service delivery. The purpose of health insurance is to provide financial resources for the health system, making sure individuals have adequate access to public health and personal care, and setting financial incentives for providers to deliver healthcare services in a cost effective way (Qingyue et al., 2010).

More often than not, the nonexistence of health insurance has a negative outcome on health status of children (Eisert et al., 2002). For instance, with regards to child health care, studies have shown that uninsured children are more likely to receive services through an emergency care setting due to delays, whereas insured children are more likely to receive services through an outpatient setting and to receive preventive care (Wallace et al., 2005). Health insurance has a positive impact on children's health for the reason that, the probability of parents and guardians sending their sick children to a health facility when they have health insurance is twice higher than when they do not have health insurance (Feinberg et al., 2002; Simpson et al., 1997).

Mavalankar et al. (2000) however, give a note of caution that it might not all be rosy with NHIS and that it can face certain challenges which may go a long way to destroy the government's objective of initiating the scheme. The reason being that, health insurance is different from other segments of insurance business and as such is more complex because of serious conflicts that arise out of unfavorable selection, moral hazard, and information gap problems. For example, experiences from other countries suggest that the entry of private firms into the health insurance sector, if not properly regulated, does have adverse consequences for the costs of care, equity, consumer satisfaction, fraud and ethical standards (Mavalankar et al., 2000).

Hampshire and others also maintain that, health insurance and the growth of telecommunications and advertising present new opportunities and challenges for children's health-seeking practices. Thus, they argue that policy should take children's medical realities as a starting point for interventions to facilitate safe and effective health-seeking (Hampshire et al., 2011).

In view of the fact that challenges in health insurance schemes can undermine a child's access to preventive and primary health care, (Kotch, 1997) it is important to ensure that the system functions in all aspects to aid in reducing child mortality rate to as minimal a level as possible for the reason that, access to health care is important in saving our children.

Various government policies over the years have in one way or the other affected the kind of health reform that come into place which eventually affect the healthcare system available. Ghana has had various health reforms ranging from tax based health financing which was free in public health facilities in the 1960s to very low out of pocket payment at public hospitals in the 1970s. For instance, in the 1980s, there was the introduction of the high out of pocket fee ('cash and carry') as an outcome of the Structural Adjustment Program (SAP) policy implementation which led to the removal of government subsidies from the public sectors and

the health sector was no exception. Consequently, health care became expensive for most Ghanaians. Nevertheless, the introduction for the Millennium Development Goals (MGDs) in the 1990s made it necessary for the nation to opt for a more humane health reform. Hence, there was the introduction of NHIS in 2003 to lessen the cost of healthcare for all Ghanaians. The NHIS was seen as a better option over the cash and carry system that was operating within the health sector and to improve health status of Ghanaians (Mensah et al., 2010).

To a large extent, the NHIS has impacted positively on the general healthcare delivery in Ghana and various researches have exhibited so. For instance, Sulzbach and others concluded that the NHIS has reduced individual hospitalization slightly from 2.4% in 2004 to 1.9% in 2007. They again observed that less people were detained in hospitals as a result of inability to pay hospital bills, and out of pocket expenditure on healthcare has reduced significantly (Sulzbach et al., 2009). In contrast, Brugiavini et al, discovered in 2010 that the NHIS had not significantly reduced out of pocket expenditure on healthcare but it has increased healthcare utilisation (Brugiavini et al., 2010).

With the petrifying statistics of about 80,000 children in Ghana not living to celebrate their 5<sup>th</sup> birthday (MoH, 2006), it is believed that the introduction of the national health insurance scheme in Ghana is a step in the right direction in the government's efforts to ensure all Ghanaians have access to affordable healthcare.

The high out-of- pocket payment for healthcare resulting from the Structural Adjustment Program (SAP) brought a lot of hardships resulting in poor healthcare assessment and delivery. Thus, the nation adopted the Millennium Development Goals (MDGs) from the United Nations which are to be met between 1990 and 2015. The MDGs are measurable targets attached to a timeframe for making a difference in the lives of people. Resultantly, the government in in

Ghana has committed themselves to providing the resources and the policies to implement these goals (ECA, 2005). Thus, the growing concern for improvement in children's healthcare quality across all domains such as safety, timeliness, effectiveness, equity, efficiency and patient centeredness has been heightened by the need for the country to meet the 4th millennium development goal by countries by 2015 and this goal to a large extent can be attained by providing an effective child healthcare.

## **1.2 Statement of Problem**

The problem of high child mortality still persists in the Greater Accra region which includes the Ga East district as a result of the high cost of healthcare which creates inequalities in access to healthcare. Thus, many children are lost in the district to communicable and other preventable diseases (M.H.D.T, 2011). Coupled with this is the limited or no access to pipe-borne water which generates the development of a lot of infectious diseases such as malaria and buruli ulcer, reducing child mortality in the district is has been very challenging. ([www.ghanadistricts.com](http://www.ghanadistricts.com)).

However, recent long queues at out-patient departments (OPDs) observed at the various health centres and hospitals in Ghana have been attributed to the high subscription to the NHIS (Buor, 2008). Yet, according to Bruce et al (2008) however, there is a growing dissatisfaction of insured clients due to their perception that they are given poorer quality of care and wait longer compared to the fee paying clients. Further, difference in the type, extent and quality of healthcare services are pronounced between the insured and the uninsured. This is because revenue expansions are not targeted at the poor and inequities between the insured and uninsured as a result of regressive subsidisation by government and tend to be a negative impact of NHIS (McIncynre et al, 2005).

This situation prevents new members from joining the scheme and it is difficult to even retain existing members such that the increase in the number of health insurers is not proportionate to growth in population. A preliminary data obtained from some health care institutions in the municipal area buttresses this point as it indicated that there has been an increment in the number of insured children reporting in the hospital between 2008 and 2010. For instance, data from one of the healthcare centres showed that only 39.9 per cent of children who received healthcare in 2008 were insured as against 42.6 per cent in 2010. However, the number of uninsured children is still low comparing with insured children and this has diverse immense consequences on child healthcare in the district. The important questions are; why are more parents not enrolling their children on the scheme? Has the introduction of the health insurance scheme since 2003 been an efficient alternative means of financing healthcare for children in Ghana?

Even though comprehensive studies are important for answering these rhetorical questions, there are few studies on the national health insurance scheme in Ghana (Aryeetey et al., 2011, Jehu-Appiah et al., 2011, Akazali et al., 2011, Witter et al, 2009 and Asenso-Okyere et al., 1997). However most of these studies have only looked at the type of Health Insurance in Ghana, implication of perception on enrolment, issues with cost and equity, the National Health Insurance Scheme in the context of the MDGs, willingness to pay for health insurance etc. None has looked at the implication of the NHIS on child health care in Ghana.

This study thus seeks to investigate the extent to which the introduction of the NHIS has contributed to improving child healthcare in Ghana and the challenges of NHIS in achieving quality child health care delivery to reduce child mortality in Ghana.

### 1.3 Research Questions

The study was guided by the following questions;

- ❖ What role do socio- economic conditions play in parent's utilization of services of the scheme?
- ❖ Does the distance to NHIS accredited health facilities affect parents' level of patronage of the services of the scheme for their children?
- ❖ Are there differences in the quality of services given to insured and uninsured children health centers?
- ❖ Are there different challenges that rural and urban parents face in using the scheme?

### 1.4 Research Objectives

Guided by the research questions, the broad objective was to investigate the operation of the national health insurance scheme and its contribution to child healthcare services delivery in Ghana. The specific objectives included the following:

1. To examine the socio-economic conditions that influence enrollment and utilisation of the scheme by parents in rural and urban communities.
2. To examine the relationship between distance to accredited NHIS facilities and child enrollment on the scheme.
3. To determine the difference in perception of quality of healthcare between parents of insured and uninsured children.
4. To investigate the challenges of NHIS in delivering quality healthcare services for subscribers.

## 1.5 Research Hypotheses

The research was guided by the following hypotheses:

Ho: There is no significant relationship between socio-economic conditions and child enrollment on the NHIS.

H<sub>1</sub>: There is a significant relationship between socio-economic conditions and child enrollment on the NHIS.

Ho: There is no significant relationship between distance to accredited facilities and utilisation of NHIS

H<sub>1</sub>: There is a significant relationship between distance to accredited facilities and utilisation

Ho: there is no significant difference in the perceptions of parents of insured and uninsured children about quality of health service delivery.

H<sub>1</sub>: there is a significant difference in the perceptions of parents of insured and uninsured children about quality of service delivery.

## 1.6: Rational for the study

The high cost of healthcare has been at a detriment to many children from poor homes. Thus, children were identified as part of the vulnerable groups who should benefit from the NHIS without paying premium. Since the NHIS provides an alternative means of financing healthcare for children, the need for more parents to enroll their children on the scheme to avert high cost of healthcare which has been a major contributor of child mortality in Ghana is expedient. Therefore, the study is useful for highlighting some major contributions of the NHIS to child healthcare and the need ensure it benefits insured children.

Furthermore, the study brings out parents' perspective of quality of healthcare received by their children and this significantly influences the decision of parents to enroll their children to benefit from the services of the NHIS. This is important for the NHIS to ensure that insured children receive quality services under scheme to erase the negative perception some parents have about the scheme.

Moreover, the study highlights the various factors that influence parents' accessibility and utilization of the scheme in different geographic settings. These factors tend to influence the kind of challenges parents face in utilizing the scheme. This eventually has an implication for coverage of more children on the scheme in the long run. Therefore, for study will contribute to strengthening policies to improve the services of the scheme to increase enrollment and utilization of the scheme.

### **1.8 Organization of Thesis**

This thesis is composed of five (5) chapters. The first chapter (Chapter one) comprises an introduction to the study, rationale for the study and a review of theories and concepts for the study. Chapter two (2) reviews relevant literature and examines the gaps that have made this research necessary while Chapter three (3) is on the study methodology and discusses the study area adopted for the study. The first part provides information on the physical and the socio-economic characteristics of the areas. The second part of this chapter dwelt on the methods and approaches for the study.

Chapter four (4) presents results that have been generated using statistical tools such as Statistical Package for Social Sciences (SPSS), Statistical Analysis (STATA) and Microsoft Excel from the field data. The results are presented in graphical and tabular formats for easy

interpretation. The final chapter, five (5), is on the study's key findings, conclusions and recommendations for policy implementation.

## **CHAPTER TWO**

### **LITERATURE REVIEW**

#### **2.1 Introduction**

This part of the study 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 health policies in Ghana, healthcare financing, types of health insurance, objectives of the National Health Insurance Scheme, significance of health insurance for children, benefits of NHIS in Ghana, challenges of the National Health Insurance Scheme and conceptual framework.

#### **2.2 Healthcare Policies 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 bid to cater for the health needs of Ghanaians. Prior to independence, financial access to modern health care was predominantly 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. 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 shortages 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, NHIS concept was rejuvenated in 2001 by the government, as one of their key policy platforms was to abolish 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).

Notably the Christian Health Association of Ghana's providers began to experiment with hospital-based health insurance, called community health insurance, as early as 1992. 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).

## **2.2: Healthcare Financing**

The accelerating cost of healthcare has been major issue for developed and developing countries. As a result of this, Health policy makers are faced with competing alternatives, and for the systems of healthcare financing. It is essential that the choice of financing method is able to

mobilize resources for health care and provide financial protection for all especially the poor. (Ekman, 2004)

There are numerous ways of financing healthcare costs and many take the form of public and private funding. Private funding includes private health insurance schemes, employer financed services, charitable and voluntary donations, and private house hold expenditures. On the other hand, tax revenues, social health insurance and out-of-pocket payment are sources of public funding of health care. (Mossialos et al., 2002 cited in Akorstu et al., 2009). However, most low income countries have resorted to social and micro health insurance to reduce direct spending by patients. In this regard, most African countries have either sought to schemes only for the formal sector, or micro insurance that target the informal sector or the health insurance which tends to achieve universal coverage but social health insurance tend to have many limitations (Letoumy, 2008).

Funding of the scheme is a major concern and should take into account the ability to pay to help the poor. In addition, waiting times should be shortened and sufficient coverage guaranteed. On the whole, the people would support a national health insurance with national pooling and purchasing under a public set-up, but important concerns of such a system regarding corruption and inefficiency (Mershed et al., 2011). For instance, China's efforts to improve public health insurance have seen the scheme go through several phases. In some cases the vulnerable, mostly children and women were negatively affected. Nevertheless, current health insurance schemes in China fall into three categories: urban employee basic health insurance scheme, urban resident scheme, and new rural cooperative medical system. This is because they realized that the national health insurance did not benefit the poor people who found themselves in the rural areas. Thus the new system is to ensure a universal coverage and benefit for all (Wang et al., 2011).

Despite the success, these substantially identity-based, district-varied health insurance schemes have separate operation mechanisms, various administrative institutions, and consequently poor connections. On the other hand, the establishment and implementation of various health insurance schemes provide the preconditioning of more sophisticated social health insurance schemes, the increase in the income of urban and rural people, and the great importance attached by the government (Wang et al., 2011).

Towards the end of the 1980s more and more evidence began to emerge that the structural adjustment and the associated conditions were not delivering on the promises of growth and prosperity and that the fiscal constraints they called for were rather damaging education, health and other essential services particularly in Africa and Latin America (Cornia et al., 1987, Mosely et al., 1995) and therefore the need for policies to improved lives was very crucial (Hulme., 2009). In recent years the measurement of development has moved beyond just economic growth to involve health, environment, education and human rights issues among others. Thus, the United Nations initiated the 8 Millennium Development Goals (MDGs) in 1997, with its achievement to be a yardstick for development for member nations.

In conclusion, when public health financing has the public's support, it is more sustainable and likely to improve over time. National health insurance attracts the most support, (Balabanova et al., 2004) but there is other debate about the establishment of an urban-rural integrated, citizen-based, and nationwide-universal health insurance scheme important to attain equality and national connection. Accordingly, the differences between urban and rural areas should be minimized (Wang et al., 2012).

### **2.3: Types of Health Insurance**

Health insurance is a financial arrangement in the health sector that is used to pay the medical expenses of insured persons who utilize the services of an accredited health provider. It thrives on three factors; the provider, the subscriber and the payer which is the scheme (Gorman., 2006). Health insurance thus, generally pays for medical expense. Like other forms of insurance, it is a means by which people collectively pool their health risks of incurring medical expenses. Nevertheless, health insurance can be privately or publicly owned. In this case, the covered groups or individuals pay premium or taxes to help protect themselves from unexpected health care expenses. For instance Private Mutual Health Insurance Scheme (PMHIS), is where private individual members of the scheme benefit from the scheme. On the other hand Private Commercial Health Insurance Scheme (PCHIS) is where private insurance companies register individuals and premiums are paid based on calculated risk of members. However, the Mutual Health Insurance Scheme is jointly owned by communities. It was introduced in 1985 by the Legislative Instrument (L.I) 1313. The Catholic Church established the first mutual health insurance scheme in Ghana in 1989 in Nkoranza (Owusu., 2010).

There are also various classifications of health insurance schemes around the world and the subscriber may have the opportunity to make a choice depending on the person's economic status. They include premium, deductible, co-payment, co-insurance, exclusions, coverage limits, and out-of-pocket maximums (Gorman, 2006). For instance the premium is where the policyholder pays an amount of money to the health plan each month to purchase health coverage while the deductible is an amount the insured person must pay out of pocket before the health

insurance pays its share. For example a policy holder might have to pay GH50 deductibles per year before his health is covered by the health insurer.

Co-payment on the other hand is the amount the insured person must pay out-of-pocket before the health insurer pays for a particular visit or service. A co-payment must be paid each time a particular service is obtained. For co-insurance, instead of, or in addition to paying a fixed amount up front like in co-payment, the co-insurance is a percentage of the total cost that insured person may also pay. For example the member might have to pay 20% of the cost of a surgery over and above a co-payment. While the insurance company pays the other 80%. If there is an upper limit or co-insurance, the policy-holder could end up owing very little or great deal, depending on the actual cost of the services they obtain.

Nonetheless exclusions do not cover all services. The insured person generally is expected to pay the full cost of non-covered services out of their own pocket and with coverage limits some health insurance policies only pay for health care up to a certain amount. The insured person may be expected to pay any charges in excess of a specific service. To add to that some insurance companies scheme have annual life time coverage maximums and the policy holder must pay all remaining costs.

The last but not least is out-of-pocket maximums which is similar to the coverage limits, except that with this case the insured person's payment obligation ends when they reach the out-of-pocket maximum and the health company pays all further covered cost to a specific benefit category or can apply to all coverage provided during a specific benefit year (Van, 2010). Since health insurance policy is a contract between an insurance company and an individual or his sponsor, it can be renewable annually or monthly.

However in Ghana there are two main types available namely. One is the Social- type which is made up of mutual health funds. Examples are District Mutual Health Scheme and Private Mutual Health Insurance Schemes. The other is the Private Commercial Health Insurance Schemes. The option depends on the individual although everybody must be a member of at least one of them (NHIA., 2002). Nevertheless, policy makers need to be better informed as to both the cost and the benefits of implementing various financing options in order to reach the target group (Ekman., 2004).

#### **2.4: Objectives of the National Health Insurance Scheme**

The national health insurance ensures first of all that opportunity is provided for all Ghanaians to have access to the functional structures of health insurance. Secondly, it ensures that Ghanaians do not move from an unaffordable ‘cash and carry’ regime to another unaffordable health Insurance Scheme. Thirdly, it must ensure a sustainable health insurance option is made available to all Ghanaians and fourthly, 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, Reinsurance and Sustainability.

Contribution is based on stratification. The policy comes out with six main categories being the core poor, very poor, poor, middle income, rich and the very rich according to the ability to pay. Health insurances have governing bodies which are responsible for the direction of policies of the scheme. They are registered under the companies code ACT 1973 as either limited by guarantee or liability. There is no restriction on the number and type of scheme that one can join. Initially, the Health Insurance Scheme was financed entirely by tax revenue. As the sustainability of this form of financing became questionable, there was the need to look at other sources of funds.

## **2.5 Significance of Health Insurance for Children**

Estimates released by UNICEF for 2008 show that 9.2 million children less than 5 years died in the year 2007 with the average mortality reduction rate of 1.8% between 1990 and 2007. Nevertheless, a rate of 9.8% is needed for 2008 to 2015 to achieve the MDG 4. The annual number of under 5years deaths for 2010 in Ghana stood at 57000 with a reduction rate of less than 4.0%; a scenario which is very alarming (UNICEF., 2012).

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 utilisation 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). If NHIS seems to have improved accessibility to child health care, then why is child mortality still increasing?

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 to 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 children since they mostly report to health facilities late (Jehu-Appiah et al., 2011, Xu et al., 2003).

In the recent decade, Health insurance schemes are increasingly gaining both institutional and public accent as a framework to finance health care provision in developing countries and it has the potential to increase health services utilization and better cushion people against health expenses and even resolving inequality tendencies (WHO, 2000). Health financing systems

through general taxation or through the development of social health insurance are generally recognized as powerful mechanisms to augment universal coverage with adequate financial protection for all against healthcare costs (Carrin et al., 2005). In most African countries including Ghana, Rwanda, Tanzania, Kenya and Nigeria, these are being tested through a multi wide-ranging, social health insurance schemes that engages both private and public-funding alternatives (Carrin et al., 2008; Witter et al., 2009; Mensah et al., 2010).

### **2.5.1: Benefits of the NHIS in Ghana**

The World Health Assembly (2005) called for all health systems to move towards universal coverage, defined as “access to adequate health care for all at an affordable price”. A crucial aspect in achieving universal coverage is the extent to which there are income and risk cross-subsidies in health systems (McIntyre et al., 2005).

Health policies in many nations have been revised and reformed to address increasing public healthcare demands and increasing limited resources in order to reach the less privileged.

The successes of the NHIS in Ghana have been achieved in various sectors of the economy ref. It covers about 95% of all diseases that occur in Ghana. The coverage is from out-patient services to emergencies including mental health cases once it is being handled by accredited institutions. For instance National Health Insurance Authority (NHIA) in collaboration with key stakeholders updated medicines list with an aim of improving quality health care. Significant additions which include new malaria drugs for children and pregnant women making up to about 522 medicines have been included and it took effect from March 1, 2011 with the aim of achieving the Millennium Development Goals 4 and 5 (NHIA., 2011). These developments enhance the progress of the scheme. In consequence patronage of health services has improved with the introduction of health insurance schemes in several sub-Sahara African countries. A classic

example is Ghana where OPD attendance has increased tremendously with the full implementation of the National Health Insurance Scheme in 2004 (Buor., 2008).

Since February, 2011 there have been add ups such as childhood immunizations, tuberculosis and mental health care into the program all geared towards improvement of health care in Ghana (NHIA., 2011). The benefits of the National Health Insurance have been categorized according to the services provided. The outpatient services include general and specialist consultations reviews, general and specialist diagnostics testing including laboratory investigation, x-rays, ultra sound scanning, medicines on the NHIS medicine lists surgical operations such as hernia repair and physiotherapy. On the other hand the in-patient services are made up of General and Specialist in patient care, diagnostic test, surgical operations, in-patient physiotherapy, accommodation in the general ward and feeding.

In addition, there is oral health which includes pain relief (tooth extractions, temporal incision and drainage) and dental restoration (simple amalgam filling, temporary dressing). Maternal care which is of the core reasons for the health insurance to reduce maternal mortality rate includes antenatal, deliveries (normal and assisted), caesarian session and postnatal care ([www.nhis.gov.gh](http://www.nhis.gov.gh)).

Nonetheless, there are various emergencies the scheme covers which involve cases in health situation that demand urgent attention such as Medical emergencies, surgical emergencies, pediatric emergencies, obstetric and gynecological emergencies and road traffic accidents.

However, there are some health cases that the NHIS does not cover and as such the individual must pay out of his or her pocket. These include appliance and prostheses including optical aid, heart aids, orthopedic aids among others, cosmetic surgeries and aesthetic treatment, HIV

retroviral drugs and assisted reproduction (artificial insemination and gynecological hormone placement therapy) ([www.nhis.gov.gh](http://www.nhis.gov.gh)).

Others include echocardiography, photography and angiography, dialysis for chronic renal failure and organ transplant. It also includes all drugs not listed on the NHIS medicine list, heart and brain surgery, cancer treatment other than breast and cervical cancers, mortuary services, medical exams for purposes other than treatment in accredited health facilities for example for visa, educational or driving licenses and VIP ward. ([www.nhis.gov.gh](http://www.nhis.gov.gh)).

Though national health insurance schemes are instituted by government it is the contributions of the clients that are the citizens which build up to become a substantial amount to take care of them when they are sick. But many countries exhibit the flaw removing consumers from participating in decisions regarding their health care. Thus the approach to health insurance ignores the important role clients play in controlling costs and enhancing quality. Gorman (2008) found in Wisconsin that people who pay for their own healthcare cut utilization by 10% to 30% with no discernable effect on health. Saving even 10% of Wisconsin's 2002-2003 health care spending would have saved \$260 million. Fortunately a movement has begun to put consumers in the central role where they belong. In Ghana there have been reported situations where individuals take minor cases to hospitals in the name of health insurance when they could just access a clinic. This goes a long way to affect the cost of health insurance and affect the scheme in the end.

Another dimension is the fact that clients may be registered with the scheme alright showing a large population of registered scheme members but in reality just a few may be able to access healthcare due to unequal distribution of health facilities or difficulty in using healthcare facilities with their card for various reasons such as delay in clients receiving their membership

cards. For instance a survey revealed that not all subscribers of the NHIS are able to access health services after completing the recommended waiting period due to delays in the issuance of identification cards and other forms of identification to members (SEND, 2010).

Yet another Non -Governmental Organization (NGO) observed in their study of the use of the NHIS in Ghana found out that only 18% of the 80% registered persons benefit from the NHIS (Oxfam, 2010).

Further in another analysis, it has been observed that perceptions related to providers, schemes and community attributes play an important role, albeit to a varying extent in household decisions to voluntarily enroll and remain enrolled in insurance schemes. Thus, scheme factors are of key importance and therefore policy makers need to recognize household perceptions as potential barriers or enablers to enrolment and invest in understanding them in their design of interventions to stimulate enrolment (Jehu-Appiah et al., 2011).

### **2.5.2 Challenges of the National Health Insurance Scheme**

The impact of health insurance can be assessed better if beneficiaries have access to better health services and there is change in professional behavior especially in the public health facilities (Letourmy, 2008). As there are imperfections in many government policies, the health insurance policy is no exception. For instance, in the United States of America, after Massachusetts expanded health insurance coverage to 98% of the state population, it now struggles to control healthcare costs that threaten the viability of its reform (Song et al., 2012).

In another instance, implementation of the National Health Insurance system in Taiwan has introduced instability into the medical system, as insurance premiums no longer correspond to

healthcare demand, Taiwanese live inadequately healthy lifestyles, and expectations of the healthcare system continue to grow (Liu al., 2012).

In 2004, the USAID-funded Partners for Health Reform plus project, in collaboration with the Health Research Unit of the Ghana Health Service, initiated an evaluation of the NHIS. The focus was on how the Health Insurance (HI) Act has been translated into implementation at the district level and to what extent the implementation practices reflect national level policy and guidelines, plus if there are differences in NHIS enrollment rates among different socio-economic groups and how implementation of the NHIS has affected health service utilization and out-of-pocket payments (NDPC., 2009).

It is interesting to note that the conclusions brought out a number of challenges mentioned by scheme officials and lack of understanding of the need for health insurance by community members. More to that, despite having an official waiting period of three months, actual waiting periods have been far longer for many enrollees. Another challenge concerns delays in the reimbursement of the district schemes from the NHI Fund. It was also revealed by scheme managers that delays in reimbursement soured their relationship with the service providers in the district, who in some cases threatened to stop accepting DMHIS patients (NDPC, 2009).

In a similar research by the Ghana Living Standards Survey (GLSS 5) to assess the national response to the health insurance scheme, it was found that just about 17 percent of the population were registered or covered by the health insurance scheme. Marked differences existed among the regions with Brong Ahafo having 35 percent of its population registered or covered while Upper West had only 5percent of its population registered or covered. High premium (32.7%)

and no knowledge of the scheme (14.8%), among others were cited as reasons for not registering under the National Health Insurance Scheme (GLSS., 2008).

However, amidst all these challenges it is better for parents to register their children for the reason that the burden cost of the health care on households is very high and therefore when the individuals are not registered with NHIS, healthcare accessibility becomes difficult and even more challenging for poorer households who are not insured (NDPC., 2009) .

A carefully planned health insurance schedule that drives the health reform, has systems for monitoring quality of care, has greater involvement of community and civil society organizations in decision making, and it is designed to protect and promote the health status of the most vulnerable who, are., women of reproductive age and children under five years of age, might be a way forward (Hanson et al., 2003).

## **2.6: Definitions of Key Concepts in the Study**

### **2.6.1: Theories of healthcare accessibility and healthcare utilization**

There have been various theories and models that explain accessibility and utilization of healthcare throughout the literature. Some are mathematical such as Pyle's gravity model and others are descriptive such as Andersen and Newman's Predisposing-Enabling-Need model, 1973, (Buor., 2008). Nonetheless, few pertaining to the study have been reviewed.

Defining accessibility is complex and according to Mosely (1979), it is a 'slippery' notion. First of all, Philips explains how healthcare goes beyond access to medical facilities in developing countries. According to him, accessibility can be described in three different ways, namely; physical (potential) and revealed accessibility (utilisation), equity and equality of services, and quality and quantity of service (Philips, 1990). In other words, having individuals use the

healthcare facilities is not enough. It must be in proportion to population in number and be available to all groups of persons. Notwithstanding, the services the users receive must be of the best standard to give them an overall satisfaction.

In another instance, Smith looks at physical and social resources as the factors which influence accessibility of health care. The physical factor has to do with geographic location of health facility; influenced by distance and quality of road which promote a person's ability to reach a health facility on time to receive healthcare. In another dimension, a longer distance may render a health facility inaccessible even though the facility is available. For instance, for an individual who has suffered severe injuries from an accident, geographic location can become a barrier to the use of health services (Smith et al., 2004). The relevance of distance decay theory which explains that things that are further away are unlikely to be used then becomes an important factor in the study (Skov-Petersen, 2001). Thus, as health centers are further away from individuals they are not likely to use those facilities.

However, the resources include family economic capital, social support, and knowledge of illnesses and health facilities to treat illnesses. For example, among Taiwanese, Kleinman (1980) found that if an individual's family has knowledge of an effective home remedy; the person will often attempt that treatment before utilizing professional health care services.

Accessibility to healthcare can be said to be in close association with utilization of healthcare because one is likely to use one service or the other after getting to the facility. As such, Andersen's 1968 model of health care utilization which looked determinants of health care utilization in three categories is important in this study.

The first predisposing characteristics (which is made up of age, sex, religion, education and employment, marital status and number of children) influences healthcare utilization. These

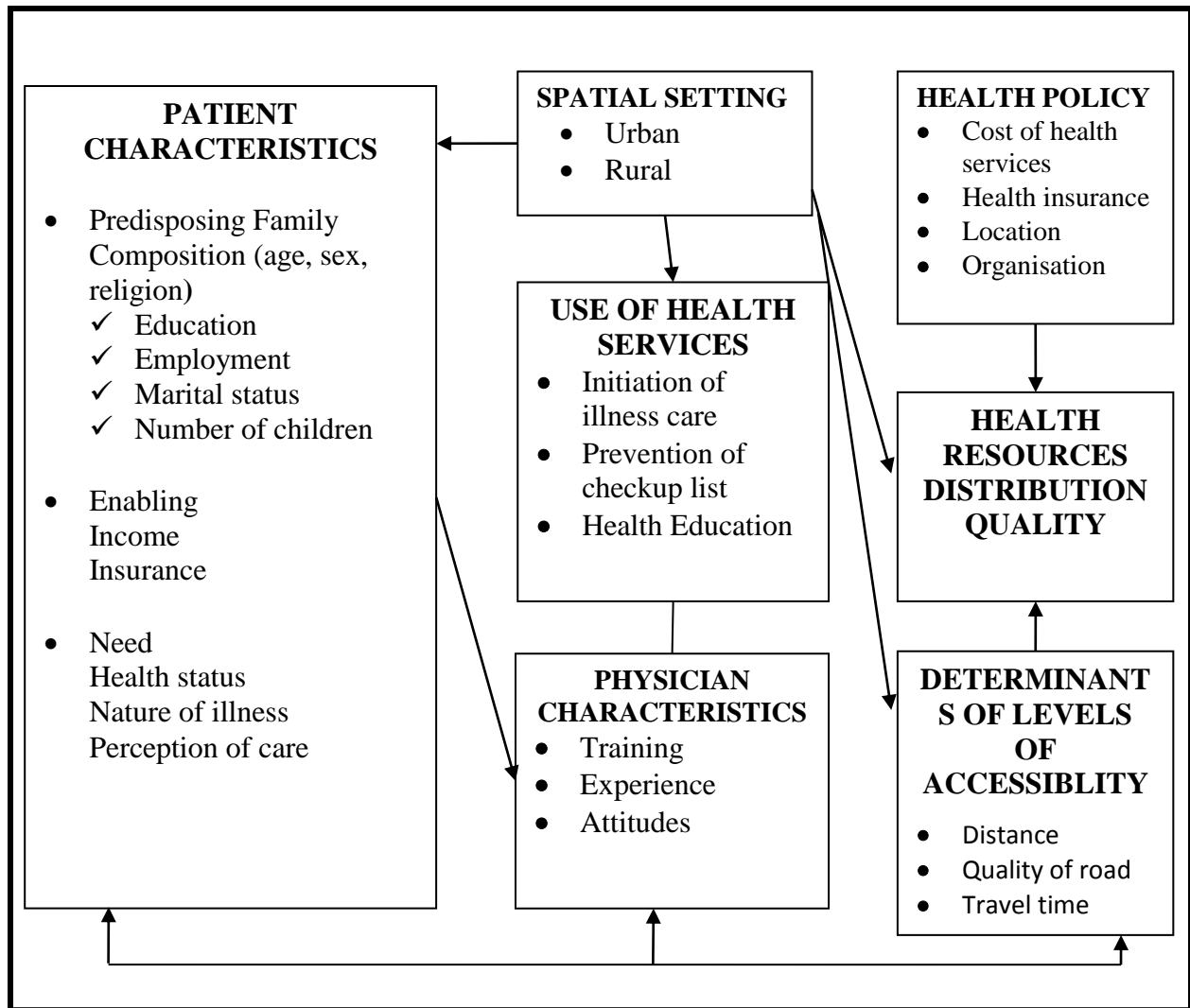
socio-economic factors that influence an individual's ability to use healthcare facilities are relevant to current situations. According to Andersen, an individual is more or less likely to use health service based on demographics, position within the social structure, and belief in health services benefits.

The second is enabling characteristic are made up of income and insurance. These are factors that give one the ability to pay for healthcare services either from out-of-pocket or through health insurance.

Finally, the third category is need which includes health status, nature of illness and perception (Andersen., 1980). Perception is said to be a coping mechanism for some poor people who cannot afford to pay for high cost of health care. They do this by adjusting to illness by ignoring a disease till they become worse (Sauerborn et al., 1995).

## **2.7: Conceptual Framework for the Study**

The study adapts Buor's 2004 model of healthcare and utilization which is based on Andresen and Newman's 1979 framework for accessibility and utilisation of healthcare. There are a number of factors that interact with each other to explain the accessibility and utilisation of health delivery system. Each of these factors is an individual system which works together to ensure an individual receives quality healthcare. For instance a patient's characteristics (predisposing, enabling and need) discussed above play a role here. However, patients find themselves in a geographic location which may be rural or urban. This feeds into use of health of services (initiation of illness care, prevention of checkup list and health education). This also links up with physician characteristics (training, experience and attitude).



**Figure 2.1: Health Delivery System [Source: Buor, 2004]**

On the other hand, there is health policy which influences cost of healthcare services, health insurance, location of health facilities and organization. Moreover, health policy influences allocation of health resources and their quality which eventually determines equity and equality of services, and quality and quantity of service that Philips discussed (Philips, 1990). The last factor is the factors that determine accessibility (distance, quality of road and travel time). Health policy also influences distribution of health resources and their quality. Nevertheless, health policies tend to be different for rural and urban settings and thus spatial setting has a role to play in the distribution as well as determinants of accessibility.

However, the focus of this study is to look at National Health Insurance Scheme and its contribution to child healthcare delivery and Buor's model is not entirely applicable. Thus, some frameworks that explain the utilization have been reviewed. The aim of health financing is to make funding available and to set the right financial incentive so that all individuals have access financially and geographically to effective public health and personal health care (WHO., 2000). Muiser highlights that, health system financing is supposed to contribute to the achievement of the health system goals of improved health, fairness of financial contribution and responsiveness (Muiser., 2007).

Foremost, Carrin et al (2004) make three suggestions to developing countries in developing national health insurance schemes to ensure its success and sustainability. According to them, the following targets must be met;

- i. generate sufficient and sustainable resources for health,
- ii. use these resources optimally (by modifying incentives and through appropriate use of these resources),
- iii. ensure that everyone has financial accessibility of health services (Carrin et al., 2004).

Carrin et al., (2004) further explained that to achieve these targets and guarantee financially fair, population-wide access to effective, essential health care, three sub functions are distinguished in health financing schemes: revenue collection, pooling and purchasing. The assumption is that if these three functions are strategically designed, the targets can be met. On this basis Carrin and James (2004), developed an analytical framework to facilitate the design and monitoring of health financing systems and the framework has been useful for countries that aim to achieve universal coverage as well as for those who aim to maintain it, while reforming their financing system.

In addition Ekman's study (2004) focuses on community-based health insurance in low-income populations in developing countries. He concluded that community-based health insurance provides some financial protection by reducing out-of-pocket spending. This review, however, did not consider whether these schemes protected households from catastrophic health expenditure, or whether they protected households from falling below the poverty line. Moreover, the review was limited to community health insurance schemes and the search was only up to 2003.

### **2.8: Adapted Conceptual framework for NHIS in child healthcare delivery**

Utilization of the services of the scheme depends on three main factors which are socio-economic, geographic and institutional. All of these factors have individual components which all link up to influence the final output which is utilization of the scheme by the enrolled children.

First of all, socio economic factors such as age of parents, their education, employment and income levels and the number of children have significantly influence parents' utilization of the NHIS services. Educational level of parents affects their employment status as well as their income levels. These intend influences their knowledge, choices and perception of their children's healthcare. Thus, depending on these factors parents are likely to use the services of the NHIS for their children or not.

Furthermore, in a geographical context, NHIS services may be perceived differently by parents in different geographical areas (rural or urban). This is so because parents in the areas may have

different socio-economic status which may be positively or negatively related to enrollment and eventually, NHIS utilization.

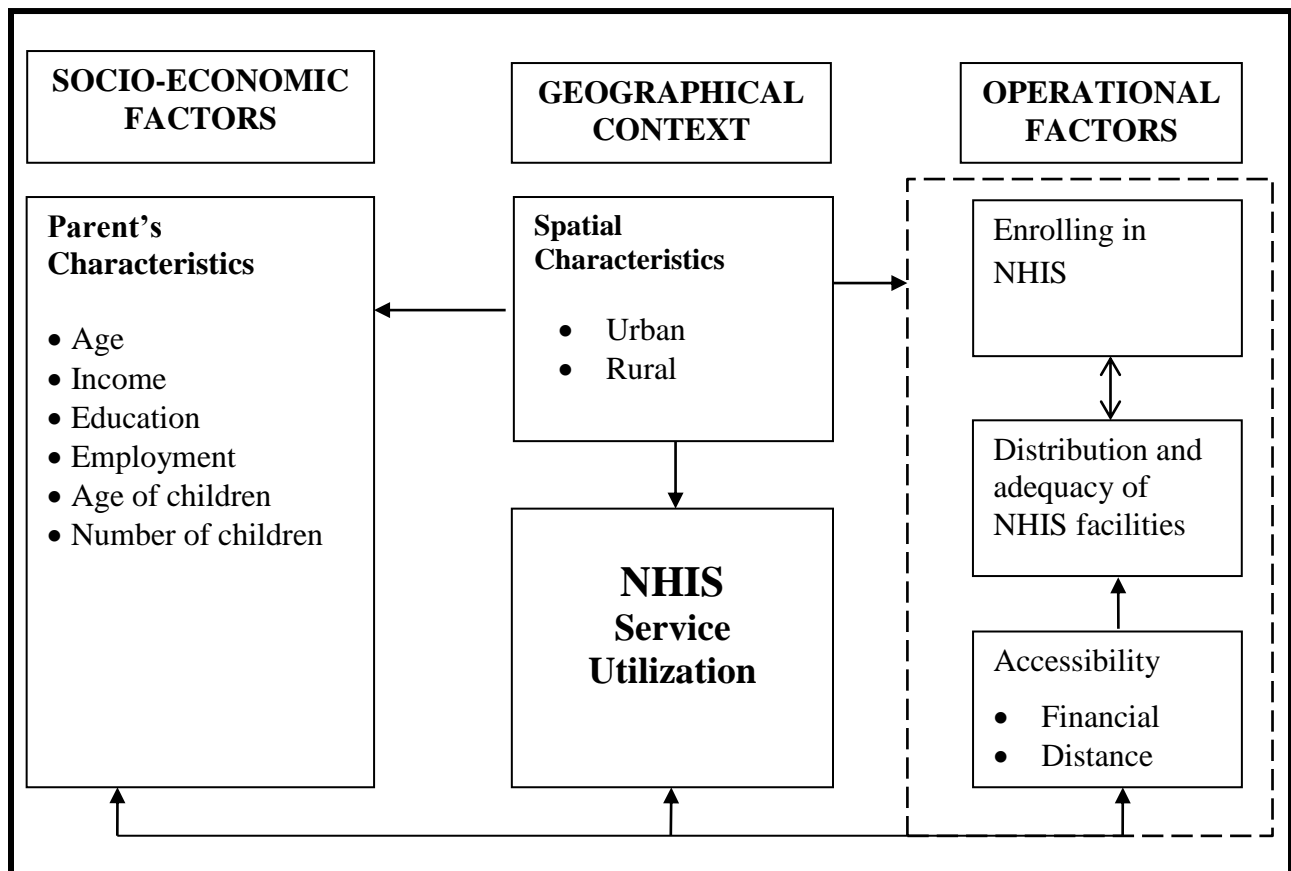
In addition, geographic factors influence distribution of health resources in urban areas and rural areas. Nevertheless, children in urban areas are more likely to have access to health personnel and improved health facilities at the disadvantage of children in rural areas. In other words, parents in the urban areas may have of healthcare services for their children besides the NHIS accredited health facilities provided they can afford them. This in the long run affects utilisation of the NHIS services in these locations.

Lastly, the institutional factors influence NHIS utilization in two ways; enrollment of children which directly depends on the operation of the scheme itself and the NHIS service available for children which also depends on the kind of health facility available. Thus, depending on availability and kind of health facility, an enrolled child may or may not benefit from the services of the scheme and this will influence parent's interest to register their children. Meanwhile, availability of health resources in an area is influenced by geographic factors.

Moreover, accessibility factors (distance and financial) play a role in utilization of the scheme services. Distance to access the scheme and healthcare services is influenced by both socio-economic factors and geographic factors. The reason is that education, employment and income influence a parent's financial status. Subsequently, it enhances financial accessibility for parents to afford the cost of enrolling their children on the scheme and eventually use the services of the scheme.

More essentially, challenges that pertains to enrolling children onto the scheme, limited accredited health facilities to be used by parents and accessibility (distance and cost) to use the scheme need to be overcome to ensure the utilization of the services of the scheme. These

challenges are open to various institutions linked to the scheme such as the Ghana Health Service which ensures the provision of quality healthcare services and the National Insurance Authority which ensures the scheme works smoothly. Other than that, the purpose of the scheme cannot be achieved in the long run.



----- Challenges to utilization NHIS services

Source: Adapted from Buor, 2004

**Figure 2.2: NHIS Utilization and Child Healthcare Delivery**

## **2.9: Conclusion**

This chapter reviewed various literatures on health policies in Ghana, health care financing, types of health insurance, objectives of the National Health Insurance Scheme in Ghana, significance of health insurance for children, benefits of health insurance and the challenges of health insurance. It also touched on various theories and concepts that bother on accessibility and utilization as well as healthcare financing from which the framework for the study was adapted.

## **CHAPTER THREE**

### **STUDY AREA AND METHODOLOGY**

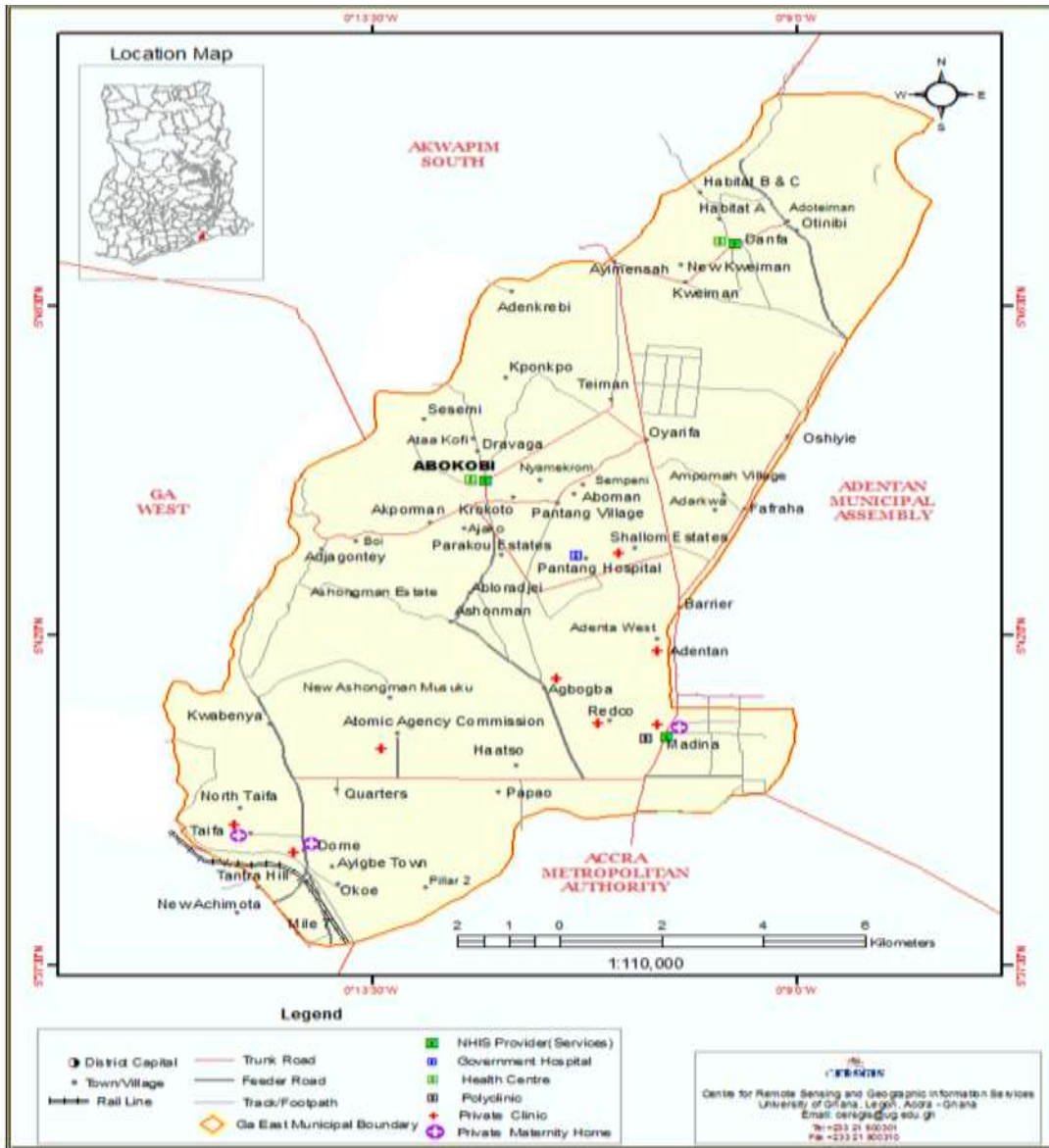
#### **3.1: Introduction**

This first part of this chapter 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.

#### **3.2 Study Area**

##### **3.2.1: Physical Location**

Ga East District is about 25 kilometers north of Accra with Abokobi as the district capital 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. Figure 3.1 is a map of the study area.



Source: Center for Remote Sensing and Geographic Information Services (CERGIS).

**Figure 3. 1: Map of Ga East Municipality showing communities and health facilities.**

### **3.2.2: Vegetation, Climate and Drainage**

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 5meters.

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).

### **3.2.3: Water and Sanitation**

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, North Legon Extension, Adenta 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)).

### **3.2.4: Demographic Characteristics**

The 2000 National Population and Housing Census put the Municipality's population at 201,542 with an annual growth rate of 2.3%. The structure of the population was 51% males and 49% females with a household size of 6.2. The population as of the year 2010 was 334,678 with children below 15 years being 73,897(22%) of the total population (DHMT., 2011) exceeding the projected estimate of 244,226. The growth of the population is mainly due to the influence of migration inflows. The projected population is however considered rather low considering the inflow of people into the municipality since the creation of the District in 2004.

There are about 65 settlements in the municipality with Abokobi, a well-known Presbyterian community as the capital. The population is concentrated mainly along the urban and peri-urban areas of the municipality particularly along the border with AMA to the south. These include Madina, Dome, Taifa and Haatso. The urban/peri-urban population constitutes 82% of the municipality's total population with the remaining 18% residing in the rural portion towards the Akuapem Hills. The municipality can therefore be described as urban. . It is however important to note that the urban population resides in about 65% of the total land area of the municipality. This indicates a densely populated urban area with its associated pressure on social infrastructure and land. Land litigation, encroachment on the few open spaces; overcrowding and construction of illegal structures are some of the development challenges the Assembly has to manage. Of most important are the pockets of slums that are fast developing in Taifa, Madina, Adenta West, Dome and Haatso. The hitherto sparsely populated rural area is also gradually opening up with the location of the municipality's capital at Abokobi and the reconstruction of the Pantang to Ayimensah portion of the Accra-Aburi trunk road.

Effective development control, upgrading and provision of the requisite social amenities are therefore some of the development issues to be addressed. The 2000 Population and Housing Census figure yields a density of 1,214 persons per square kilometers much higher than the national density of 79.3 and the regional density of 895.5 persons per square kilometers. With a projected population of 244,226 in 2010, the estimated population density is 1,391 persons per square kilometers. This indicates a great pressure of population on land and resources or what the land can generate

### **3.3: Distribution of Health Facilities and Health Service Delivery in Ga East District**

Health facilities were unevenly distributed in the Ga East District with most of them found in the urban communities. There were forty-three (43) health facilities in the municipality, consisting of public, private and quasi government facilities. Public facilities constitute 13 % ( 6), one quasi government, one CHAG, and the remaining 81% (35) are private hospitals. Out of the facilities, 2 are government polyclinics, two health centers and a Community Based Health Planning (CHPS) compound.

The Danfa Health Center is a government health facility built by the University of California in collaboration with the University of Ghana in 1976 to enhance research in rural healthcare for students of University of Ghana Medical School. Currently, it serves as the main health center for many surrounding communities as well as the purpose. There are two Polyclinics at Madina. These are found at Kekele and Rawlings circle (MHDT, 2011). There were health centers at Abokobi and Danfa whilst the CHPS compound was located at Taifa. Population to Doctor Ratio is 49,020:1 while Population to Nurse Ratio is 2254:1. This however is a challenge for the district ([www.ghanadistricts.com](http://www.ghanadistricts.com)).

### **3.4: Study Methodology**

#### **3.4.1: Sources of Data**

The study employed questionnaire, in-depth interview and direct observation to collect data from the field. The primary data was taken from parents and hospital administrators, hospital information officers and the public relation officer of the National Health Insurance Scheme in the district. Questionnaires and in-depth interview were used to solicit views from two groups of parents; those who had enrolled their children and those whose children were not enrolled on the scheme.

On the other hand interview guides were developed for hospital administrators, hospital information officers from selected health centers, and the NHIS Public Relations Officer in charge of the Ga East district. A digital recorder was used to record the various in-depth interviews with the officers. As one of the study objectives was to examine the relationship between distance and child enrollment on the scheme, a map showing distance between the selected communities and the health centers was developed.

Medical and social journals, published books and articles, census report, National Health Insurance scheme policy document and relevant internet documents were sources of secondary data for the study. In addition, out- patient department (OPD) and in-patient records (2006-2011) were taken from the district hospital and the district municipal health directorate.

#### **3.4.2: Method of data collection**

The study adopted a multi- stage approach. Four communities were selected using purposive sampling. The selection was based on the characteristics of the areas (rural or urban) in addition to availability of an accredited NHIS health facility. The total population of the district as at 2010 stood at 334,678 with 82% residing in urban areas whereas 18% reside in rural portion

towards the Akuapem hills (GEMA., 2010). This influenced the selection of the four communities which were two rural and two urban. Dome and Madina were the two urban communities selected and they both had health centers implementing NHIS. Though Dome had no public health center, there were a number of private health facilities which were NHIS accredited. Madina on the other hand had two polyclinics as well as district hospital which were all accepting the NHIS.

Danfa and Boi were the two rural communities selected for the study. Though Boi village did not have any NHIS accredited health center, it was 3.5kilometers away from the district capital, Abokobi which had an NHIS accredited public health center. Therefore, inhabitants of Boi mainly accessed healthcare at Abokobi or the Pantang hospital near Abokobi.

Subsequently, parents from the four communities were selected through proportional sampling based on the size of the population of the area. Using a projected population figures based on the 2000 population and housing census from Ghana Statistical Service (GSS), Madina had a population of 115,717 while Dome had a population of 44,685. Danfa on the other hand, had a population of 1,313 while Boi had the lowest population of 755.

For the questionnaires, a total of three hundred parents were selected through random sampling to answer questions about their children's enrollment, utilization and challenges they faced in using the scheme. From Madina, 130 parents were randomly selected; Dome had 70 parents while Danfa and Boi had 50 parents respectively being selected. Some of the randomly selected parents were interviewed at Alpha medical center, the two Polyclinics at Madina (Kekele and Rawlings circle) while they were accessing healthcare for their children. Others were interviewed in their homes, in the market and their work places. They were interviewed based on the questionnaire and the answers recorded accordingly. Data were collected on socio-

demographic background of parents, utilisation of health facilities by uninsured children, accessibility and utilisation of NHIS health services by insured children, assessment of quality of healthcare for insured children as well as the challenges of using the scheme by parents. A total of two hundred parents who had insured children with the scheme (controlled group) were interviewed as against one hundred parents with uninsured children (treated group). This was to ensure different perspectives of the different groups of parents were represented to prevent bias in the findings.

Later, 10 selected parents from the four communities were interviewed for further clarification on why their children use or do not use the health insurance and the various challenges they faced. This was to ascertain the factors that influence enrollment and utilisation of the scheme by parents as well as determine their perception on the quality of healthcare their children receive in health facilities.

The in-depth interview was used to solicit views of officers of the various hospitals selected in the district. Letters were taken to the health officers in charge of the selected hospitals from the department for permission to interview key persons whose work directly related to the work. Mr. George Afrifa, General Manager Alpha Medical Center (district hospital), and the hospital matron were interviewed to solicit their views on the utilisation of healthcare by insured and uninsured children in their hospital and the challenges they faced in ensuring quality healthcare for insured children. They also gave information on the common health conditions most children report with and whether those illnesses were covered by the scheme. Mr. Iddrisu, the hospital information officer provided data from 2007 to 2010 to support this. The administrator of Madina Polyclinic (Rawlings circle) and the information officer, Eugene also gave their views and provided statistics on the rate of use of their health facility by insured children as against

uninsured children. They were also interviewed on the challenges they faced in providing quality healthcare for insured children in their health facility.

The health assistant at Abokobi health center gave her views on the use of NHIS generally in the area and the challenges the facility faced in ensuring quality health care for insured children. The information officers, Mr. Ebenezer Amanor and Mr. Newton of Madina Polyclinic (Kekele), and Danfa health centers respectively were also interviewed. They gave their views and some statistics on the number of insured children who visit their health facilities as against uninsured ones. They also highlighted on services they gave to the insured children and some of the challenges they faced in implementing the scheme in their health facilities. The administrator who also acted as the information officer of the Municipal Health Directorate at Abokobi at the time of the study, Mr. Fiifi Ayenso was also interviewed. He gave his perspective on challenges the health facilities in the district face in ensuring quality healthcare services for children under the NHIS.

Two field assistants who had Ga language background were employed to help in the administering of questionnaires. This helped especially in Ga dominated areas such as Danfa and Boi where the author had a challenge with the language so that the questionnaires could be explained to them adequately.

The study was not void of challenges. Some of the parents were not forthcoming with information especially about their income, their ages and that of their children. Others were not ready to be interviewed at all because they thought had been interviewed too many times and had not benefited. According to them, there were occasions they had been promised some items after interviews which they never received. On the part of the health officials, it was difficult for them to make time for the interview. Thus, different date and times had to be fixed a number of times.

**Table 3. 1: Sampling Design**

Community	Population	Sample
Madina	115,717	130
Dome	44,685	70
Danfa	1,313	50
Boi	755	50
TOTAL	162,470	300

Source: Projections computed from Population and Housing Census, 2000.

### 3.4.3: Data Analysis

The data were sorted and coded and entered into Statistical Package for Social Science (SPSS) version 16.0 and analyzed using Statistical Analysis (STATA) version 16.0 to generate descriptive statistics. 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 the NHIS utilisation (dependent variable) and demographic conditions (independent variables). Pearson chi square test was used to test the relationship between distance and child's enrollment which showed that there was a significant relationship between distance and child enrollment on the NHIS. Furthermore, to show socio-economic conditions influence utilisation of NHIS by parents in rural and urban communities, the Binary logit model was used to show the relationship between demographic, institutional factors and child enrollment on the scheme. For the third objective which was to determine the difference in parents' perception of the NHIS and the quality of healthcare received by insured and uninsured children in health centers, the T test was used. Lastly, the Kendall's coefficient of concordance was used to measure the challenges that affect utilisation of the NHIS in rural and urban communities. Table 3.2 summarizes the data analysis techniques used in the study and the various hypotheses tested.

**Table 3. 2: Data Analyses Techniques**

Objective	Description	Analytical tool	Hypothesis tested
1	Test of relationship between distance and child's enrollment	Pearson chi square test	There is no significant relationship between distance and child enrollment on the NHIS
2	Examine the factors that influence utilisation of NHIS by parents in rural and urban communities.	Binary logit model	There is no significant difference between demographic, institutional factors and child enrollment on the scheme
3	To determine the difference between parents' perception of the NHIS and the quality of healthcare received by their children in health facilities.	T test	There is no significant difference in the perceptions of parents of insured and uninsured children about quality of healthcare they receive
4	Investigate the challenges that affect utilisation of the NHIS in rural and urban communities	Kendall's coefficient of concordance	

**3.4.4: Research Limitation**

The time duration within which this research was carried out was obviously the greatest limitation to this project.

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 hampered the gathering of data.

The research could have also examined the supply side of the NHIS implementation looking at issues related to challenges the scheme providers faced in providing quality healthcare to children. It is therefore an area for further research.

## **CHAPTER FOUR**

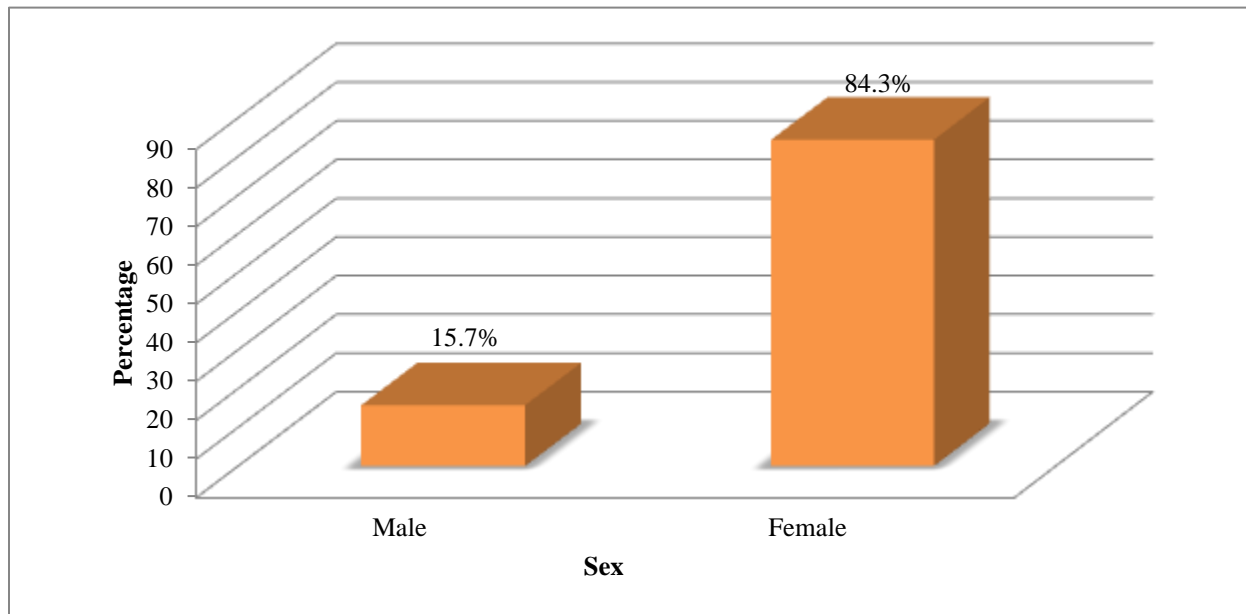
### **RESULTS AND DISCUSSION**

#### **4.0: Introduction**

This chapter covers the presentation of results and discussion. Information gathered from individuals interviewed for the study are discussed in the direction of socio-economic conditions influencing child's enrollment their children received under the NHIS as well as the other factors that influence the use of NHIS services by parents in the study area.

#### **4.1: Demographic Characteristics of Respondents**

Table 4.1 presents an overview of the socio-demographic and economic characteristics of the parents. The respondents were asked to provide their socio-economic profile by indicating their age, their children's age, number of children they had and those they had enrolled on the scheme as well as their level of education. The findings as presented in Table 4.1 show that, majority of the respondents (84.3%) were females whilst males were 15.7%. However, the reason for the high representation of females was due to the fact that they visited the health facilities with the children more frequently and had ready information about the healthcare of the children especially those below 10years old. Unfortunately, few men took their children (between 10 and 17years) to the hospital and could give any accurate information about their experiences about the health status of their children. Some of the fathers explained that it was the women's job to send children to the hospital while they made provision for the bills. However, they found it easier to send the older children to the hospital because they were easier to handle and they could explain to the doctor about how they felt. Table 4.1 shows the percentage of males as against female respondents who were interviewed.

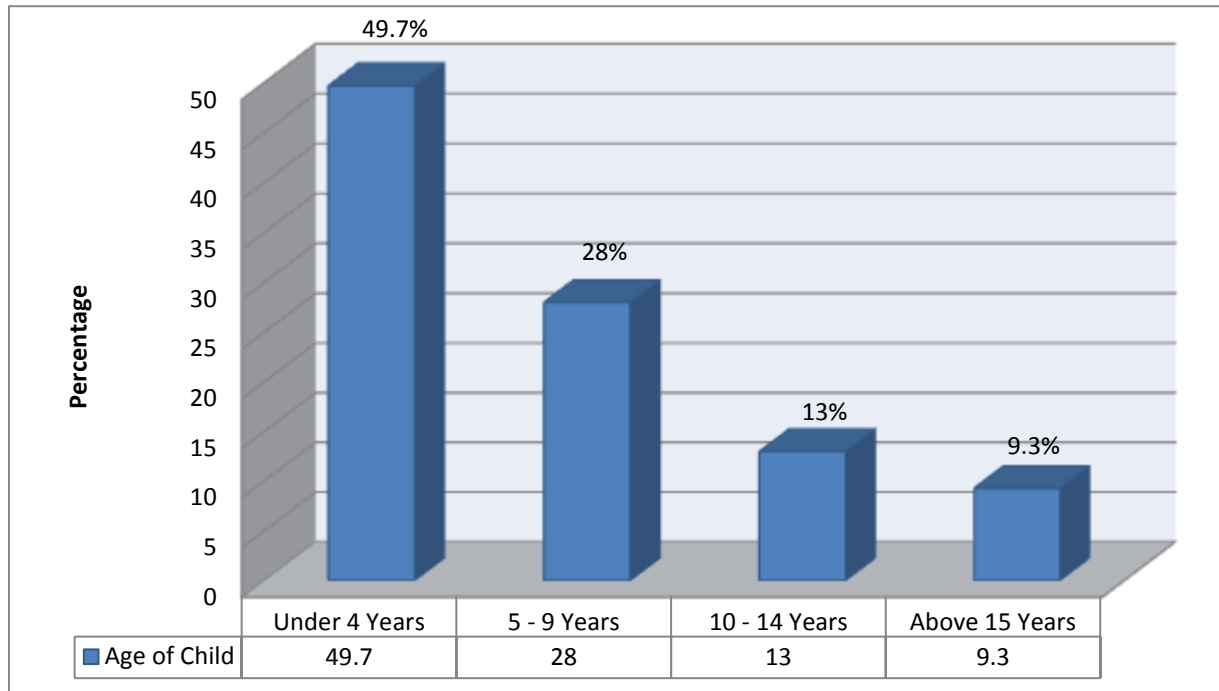


**Figure 4.1: Gender of respondents**

In addition, age of respondents ranged from 21years to 60years. The study showed that 26.3% were between 21-30years while 56.3% were between 31-40years. Those who were between 41-50years were 16.3% while 1.0% of the respondents were between 51 and 60years. The modal age class of the respondents was 31-40years. This may be explained by the fact that they fell within the fertility age which implies that they were more likely to have younger children who needed to be enrolled on the scheme.

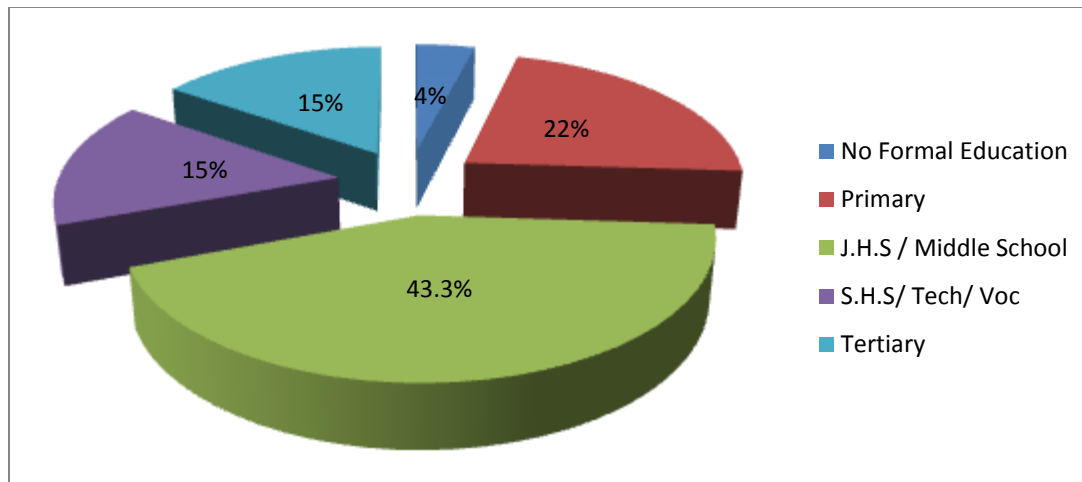
Furthermore, the age of the children was from birth to 17years. Children between 0-4years were 49.7% and they were the highest in number. Subsequently, those between 5-9years were 28% while those between 10-14years stood at 13.0%. The last group of children was those above 15years and they were 9.3%. Children are exempted from paying premium under the NHIS but they however need to be registered with the scheme to enjoy the benefits. For the fact that children are exempted from paying premium under the NHIS, more parents were expected

to register their children to enjoy the benefits of the scheme. Table 4.2 shows the age distribution of insured and uninsured children.



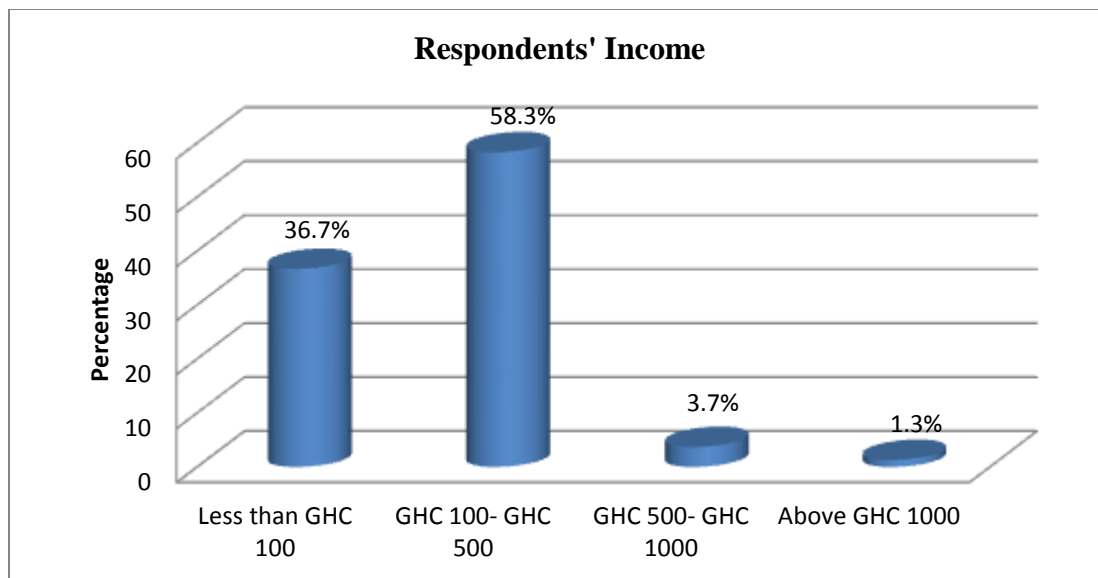
**Figure 4.2: Age distribution of children**

More so, the data on education revealed that 4% of the respondents did not have formal education while 22% had primary education. The majority (43.3%) of the respondents was found to have had Junior High/Middle School education. However, those who had Secondary education were 15% while those who had had Tertiary Education were also 15.3%. . From figure 4.3, the education level of respondents is shown by a pie chart.



**Figure 4.3: Level of education of respondents**

The majority of the respondents were self-employed engaged in small scale businesses. The other income generating activity was formal employment. Thus, study showed wide variations in income levels of respondents with a small percentage earning above GH¢500. In total 36.7% of the respondents stated that their average monthly earning was below GH¢100. Majority (58.3%) of the respondents reported that their monthly average income was between GH¢100 and GH¢500. Only 3.6% and 1.3% of the respondents reported that their monthly average income was between GH¢500 and GH¢1,000 and above GH¢1,000 respectively. The study showed that most of the respondents were self-employed and earned income mostly between GH¢ 100 and GH¢500



**Figure 4.4: Income of respondents**

**Table 4. 1: Descriptive statistics on the demographic features of the respondents**

<b>Variables</b>	<b>Frequency</b>	<b>Percentage (%)</b>
<b>Gender</b>		
Male	47	15.7
Female	253	84.3
<b>Age of Respondents</b>		
21-30years	79	26.3
31-40years	169	56.3
41-50years	49	16.3
51-60years	3	1.0
<b>Age of child</b>		
0 – 4years	149	49.7
5 – 9years	84	28.0
10–14years	39	13.0
Above 15yrs	28	9.3
<b>Education Level</b>		
Non – formal	12	4.0
Primary	66	22.0
JHS/Middle	130	43.0
SHS/Voc/Tech	46	15.0
Tertiary	46	15.0
<b>Income Levels</b>		
<GH¢100	110	36.7
GH¢100-GH¢500	175	53.3
GH¢500-GH¢1000	11	3.6
>GH¢1000	4	1.3

Source: Fieldwork, 2011

#### **4.2: Socio economic conditions that influence enrollment and utilisation NHIS in rural and urban communities**

From the survey, Binary logit model was used to measure enrollment and utilisation of NHIS by respondents. The variables that were used are; socio-economic conditions, characteristics of health centers and NHIS institutions. The results are displayed in tables. Table 4.2 shows the overall results, while tables 4.3 and 4.4 show results for urban and rural communities respectively.

**Table 4. 2: Factors Influencing Child Enrollment**

Variables	Coefficient	Std. Error	Z – Value	P- Value
<b><i>Demographic Characteristics</i></b>				
Age of Parents	0.2026	0.3483	0.58	0.561
Child Age	0.4276	0.2314	1.85	0.065
Gender	1.9833**	0.5175	3.83	0.000
Employment	0.0806	0.2583	0.31	0.755
Education	0.0058	0.2077	0.03	0.978
Income	-0.6787*	0.3039	-2.23	0.026
No. of children	0.2194	0.2107	1.04	0.298
Parent Registered	-2.6053**	0.4150	-6.28	0.000
<b><i>Institutional Characteristics</i></b>				
Distance	-0.2764	0.2846	-0.97	0.331
Facilities	0.3298**	0.0950	3.47	0.001
Cleanliness	-0.1612	0.2258	-0.71	0.475
Emergency	0.9020	0.4762	1.89	0.058
Promptness	1.1363*	0.4803	2.37	0.018
Accessibility	-1.8102**	0.4588	-3.95	0.000
<b><i>Challenges Variables (NHIS)</i></b>				
Low Accessibility	-0.6566	0.6324	-1.04	0.299
Long Distances	-0.9193*	0.5428	-1.69	0.023
Transportation Cost	0.9124*	0.5687	1.60	0.026
Attitude of NHIS officials	-0.1906	0.5939	-0.32	0.748
Long Queues	-0.1107**	0.0413	-2.68	0.003
<b><i>Challenges Variables (Health Centre)</i></b>				
Card Rejection	-0.2404	0.9455	-0.25	0.799
Drug Unavailability	-0.0985	0.4866	-0.20	0.840
Attitude of Health officials	-0.5030**	0.1797	-2.80	0.000
Long Queues	-0.3123	0.2895	-1.08	0.281
Constant	0.2892	0.4581	0.63	0.985
No. of Observation	300			
Wald Chi2	81.36			
Prob > Chi2	0.0000			
Pseudo R <sup>2</sup>	0.6520			
Log likelihood	-109.98			

Source: Fieldwork, 2011 (\* Significant at 5% and \*\* Significant at 1%)

#### **4.2.1: Demographic factors Influencing Child Enrollment**

From the overall results, the coefficient of gender of respondents was positive and highly significant at 1% indicating that there was a positive relationship between gender and child

enrollment onto the NHIS. This implies that mothers were more likely to enroll their children on the scheme than fathers. This is confirmed by a statement by one of the mothers who had not enrolled her children, “*my husband asked me not to enroll the children because he prefers to pay out of pocket*”. Likewise, the age of children influenced enrollment positively though not significant. This implies that as age of children increased the likelihood of them being enrolled on the scheme is high. It is possible that respondents see them as more vulnerable and thus more susceptible to illnesses.

However, the study found that parent’s income had a negative coefficient and was significant at 5% implying that income of parents influenced child enrollment negatively. This indicates that as income increases the likelihood of respondents enrolling their children is less. This depicts the evidence on the ground where those in the high income bracket preferred to pay out of pocket because according to them they did not trust the quality of healthcare their children receive under the scheme. In line with this they preferred to use the private health facilities solely because they provided them with better health services than the public health facilities. Thus, none of those in higher income class had enrolled their children with the scheme.

From the study, more of the respondents in the lower and middle income brackets enrolled their children on the scheme more than those in the high (over GH¢1000) income bracket. It was also discovered that those in the lower income group visited the public health facility most of the time with their children when they were sick. Further, most of those in the middle income bracket (between GH¢500 and GH¢1000) had registered their children with the scheme and their children used both public and private health centers when they fell sick.

Registration of parents also played a key role in enrollment of children and utilisation of the scheme. The results portrayed a negative relationship with child enrollment with a high

significance value of 1%. This means that as more parents register less of their children are likely to be enrolled on the scheme. This can be explained by what pertained on the field where most parents still believed that their registration covered their children. However, according to the NHIS publicity manager this used to be the situation till 2008 when the government encouraged mass registration of children in schools. This directive defeated the coupling policy being implemented by the NHIS where at least one parent should be registered on the scheme to cover a child. As such, a new policy was developed where children are de-coupled from their parent(s). So though children still do not pay premium, they need to be registered separately which is independent of whether one the parent has registered on the scheme or not.

#### **4.2.2 Institutional Characteristics Influencing Utilisation of NHIS Services in Health Centers**

Institutional characteristics in the study refer to the distance parents cover to health facilities, the kind of health facilities, cleanliness in those health facilities, the promptness to attend to emergencies and how easily accessible they are to parents.

From table 4.2, distance to health facility negatively influenced utilization of health care services by respondents though not significant. The accredited NHIS health centers in the study areas served a number of parents from nearby villages aside parents who were residents. They visited these facilities not only because they could use the services of the scheme but partly because they are within their reach. Thus, parents utilized less of health facilities that they could not easily access. For instance, the Abokobi Health Center serves a number of villages around Abokobi including Boi which is one of the study areas because it was closer to them. Never the less, when there are no accredited health centers or when available ones cannot easily be reached the

scheme's services cannot be used. It then makes enrollment of children on the scheme inadequate and this discourages parents from enrolling their children.

Moreover, respondents were selective with the kind of health centers they visited based on the services they could provide for their children and not merely because they are NHIS accredited. The study discovered that the kind of health facility respondents' children used was highly significant (1%) with a positive coefficient showing that there is a positive relationship between the kind of health center and child enrollment on the scheme. This means that enrolling and maintaining a child on the scheme highly depended on the kind of health center and the kind of service their children receive in the health center. According to the NHIS officer interviewed, a hospital may be accredited but not all the services in the facility may be accredited. For instance, a parent may have to pay for laboratory service in an accredited in an accredited facility and this creates a lot of confusion in these health facilities between parents and health officials. It was also a major reason why many parents refused to renew their children's status on the scheme or encourage others to join.

More so, based on the services children received in the various health centers parents were asked to grade the serves under the scheme. In other words, respondents graded the NHIS from the kind of service they received. It was realized that some respondents visited both private and public health facilities. When respondents were asked what kind of health facility they used when their children were sick and why they preferred using that, one respondent gave this answer, “ *when I have money I take my daughter to the private hospital but I visit the public hospital to use the NHIS card when I don't have money. The private hospital gives me a better service.* ”

Another factor that influenced respondents' decision to enroll their children and use the services of the scheme was the promptness with which they are attended to when they visit a health center. The relationship was positive and significant at 5%. The implication is that when health officials in NHIS accredited health facilities treat their clients with some urgency there is the likelihood that the enrolled children will continue to use the services of the scheme is very high. Notwithstanding, accessibility to the services was a major issue for respondents. The relationship between accessibility to health center and utilization of the services of the scheme was negative and highly significant at 1%. The implication is that when respondents find it difficult to access the scheme and utilize the healthcare services, the probability of respondents enrolling fewer or no children on the scheme is very high. It is therefore more likely that fewer respondents will be using the services of the scheme.

#### **4.2.3: NHIS factors that influence child enrollment and utilization of the scheme**

From table 4.2 some factors pertaining to the scheme and NHIS accredited health facilities that tend to influence child enrollment and utilization of the scheme. For instance, long distance parents needed to cover to register their children on the scheme inhibited child enrollment. With a negative relationship and 5% significance, it implies that a small number of children are likely to be enrolled on the scheme if the NHIS office is farther away from them. This was the situation in Danfa, one of the rural communities where some parents reported that they got discouraged to travel all the way to Amasaman to register their children. Though some NHIS officials came around to register them in their homes they never received their cards nor saw them again. Thus, most of them refused to register again at another cost.

On the other hand, long queues respondents had to join significantly influenced enrolment and utilization of the scheme. The negative relationship at a high significance level of 1% is a

disadvantage to enrollment and utilization because the likelihood of respondents to join long queues to enroll their children and use the scheme was very low. Some of the parents explained that Tuesdays and Fridays were days pregnant women were given preferential treatment at the NHIS district office and one had to join very long queues to do a registration.

In addition, poor attitude of health personnel negatively affected child enrollment and utilization of the scheme and this was highly significant at 1%. In other words, fewer respondents were likely to use the services of the scheme if they are met with poor attitude from health personnel.

In addition, long queues and delays at NHIS office, long distance and high cost of transportation to the NHIS office were very significant and influenced child enrollment negatively. Bad attitude from health officials in the health facilities was not different. It negatively influenced child enrollment as well and was highly significant at 1% meaning that bad attitude from health workers deterred more respondents from enrolling their children and using the scheme.

#### **4.3.1: Factors that influence Utilization of NHIS in Urban Areas**

The Table 4.3 shows the factors that influence child enrollment in urban communities. The variables that were used are; socio-economic conditions, characteristics of health centers and NHIS institutions.

**Table 4. 3: Factors Influencing Child Enrollment in the Urban Areas**

<b>Variables</b>	<b>Coefficient</b>	<b>Std. Error</b>	<b>Z – Value</b>	<b>P- Value</b>
<b><i>Demographic Characteristics</i></b>				
Age of Parents	0.7135	0.5652	1.26	0.207
Child Age	-0.3517	0.4403	-0.80	0.424
Gender	-1.3739	0.8017	-1.71	0.087
Employment	0.1957	0.4204	0.47	0.641
Education	0.3485	0.3013	1.16	0.247
Income	-2.1488*	0.8484	-2.53	0.011
Parent Registered	-3.9960**	0.8738	-4.57	0.000
No. of children	-0.1628	0.4278	-0.38	0.704
<b><i>Institutional Characteristics</i></b>				
Distance	-0.0403	0.5581	-0.07	0.942
Facilities	0.2605	0.1905	1.37	0.172
Cleanliness	-0.5808	0.3421	-1.70	0.090
Emergency	-0.7922	1.3044	-0.61	0.544
Promptness	0.2418	1.4471	0.17	0.867
Accessibility	-3.9524**	1.1257	-3.51	0.000
<b><i>Challenges Variables (NHIS)</i></b>				
Low Accessibility	-1.2232	1.1253	-1.09	0.277
Long Distances	-0.9536**	0.1943	-4.91	0.000
High Trans. Cost	1.0238	1.0138	1.01	0.313
Attitude of NHIS officials	-0.1454**	0.0649	-2.24	0.007
Long Queues	-0.7492	1.2687	-0.59	0.555
<b><i>Challenges Variables (Health Centre)</i></b>				
Card Rejection	-0.3144	1.1660	-0.27	0.787
Drug unavailability	-0.1906	0.0867	-2.20	0.009
Attitude of Health official	0.7007	0.7648	0.92	0.360
Long Queues	-0.6943	0.3782	-1.84	0.066
Constant	21.6726	3.9138	5.54	0.000
No. of Observation	200			
Chi2	58.59			
Prob > Chi2	0.0001			
Pseudo R <sup>2</sup>	0.6050			
Log likelihood	-49.225			

Source: Fieldwork, 2011 (\* Significant at 5% and \*\* Significant at 1%)

#### **4.3.2 Socio-economic Factors that influence Utilization of NHIS in Urban Areas**

From Table 4.3, the coefficient of gender of respondents was negative and significant indicating a negative relationship between gender and child enrolment in urban areas. This is dissimilar from the overall results, where the coefficient of gender of respondents was positive and highly significant at 1% indicating that there was a positive relationship between gender and child enrollment onto the NHIS. This implies that fewer mothers than fathers are likely to enroll their children on the scheme.

In addition, income was significant at 5% with a negative coefficient. This implies that in the urban communities as income of respondents' increases, the probability of their children being enrolled on the scheme is low. This explains why parents in the high income bracket had not enrolled their children on the scheme. Such parents prefer special services and the use of private hospitals which they do not have the assurance to receive under the NHIS. This is confirmed by the study by Palacio-Vieira which expounded that family affluence predicted the use of specialists (Palacio-Vieira., 2012). Moreover, Jehu-Appiah et al established that income level has an influence on enrollment on the NHIS (Jehu-Appiah et al., 2012).

Another factor that influenced child enrollment in urban areas was parents' registration. The relationship was negative and highly significant at 1%. In other words as more parents register with the scheme less children get enrolled on the scheme. According to the Public Relations officer of the scheme, children are now decoupled from their parents unlike initially when a parent's premium covered his or her child. This is to say that, currently a child's registration does not depend on the parent's registration. Thus, a parent can register his or her child without

necessarily being a member of the scheme. Therefore, it is not surprising that parents' registration had a negative relation with child enrollment. Thus, the null hypothesis that socio-economic conditions have no significance relationship with child enrollment is rejected and the alternative accepted.

Other factors such as age of children and number of children parents have also showed a negative relationship with enrolment. Thus, as children age and the number of children per parent increased, enrolment levels decreased. In other words, in the urban areas as children grew older parents do not see the need to enroll them on the scheme because they see them to be more immune to many childhood diseases.

#### **4.3.3 Health Institutional Challenges influencing child enrollment and utilization of the scheme in urban areas**

Factors that were considered were distance to health facilities, the kind of health facilities parents visited, cleanliness in health facilities, the promptness with which parents were attended to and how easy parents could access the services of the scheme. Others included rejection of NHIS card in hospitals, unavailability of drugs, attitude of health officials and long queues for insured children. All the variables except the kind of health facility parents visited, attitude of health officials and promptness of attention showed a negative relationship with child enrollment and utilisation of the scheme. This means that as parents' response to these factors that affect enrolment is elastic. Thus, if they continue to receive negative services the likelihood of discontinuing using the scheme is high.

Accessibility to health facilities which is linked to availability of health facilities had a negative relationship and a high significance of 1%. The implication is that as difficulty accessibility to

accredited health facilities increased the likelihood of parents enrolling more children and utilizing the scheme becomes less. More parents would tend to the available ones which may be more expensive because they do not have an alternative. This eventually reduces the utilisation of the scheme.

In the urban area cleanliness in a health center was significant at 10% and negatively related to enrolling children on the scheme. This implies that more respondents were particular about cleanliness of the environment in the health center they visit in that when the environment is not clean more respondents are not likely to enroll their children to use the place.

#### **4.3.4: NHIS factors that influence child enrollment and utilization of the scheme**

Further, the study showed that, long distance to the NHIS office coupled with the bad attitude of the workers greatly influenced child enrollment. The relationship was negative and highly significant at 1%. The implication is that as distance increases the probability of respondents enrolling their children on the scheme reduces. The reason being that, the long distance to the NHIS office discourage many who can afford to pay out-of-pocket for their children coupled with the options they have when it came to healthcare services due to their availability. A study by Buor (2008), on analyzing the socio-spatial inequalities in the health service in Sub-Saharan Africa confirms that distance plays a significant role in healthcare accessibility.

However, rejection of cards in health centers, unavailability of drugs as well as long queues respondents had to join for their children to receive healthcare negatively influenced child enrollment in urban areas. In other words as more respondents have such negative experiences in the health centers under the scheme, the likelihood of them renewing their children's status and encouraging other people to enroll their children is low; since family and friends is one important medium by which people get to know about the scheme. Thus, MyIncyntre et al, in

their study concluded that negative aspects of the scheme should be addressed because it discouraged some parents from enrolling their children which put their children's health in danger. (MyIncyntre et al., 2008).

Another factor that influences enrollment and usage of the scheme is attitude of NHIS officials. In other words as more officials put up unacceptable behavior toward parents it is more likely enrolment of new children will be affected. This was the scenario in Danfa where some parents refused to register again to join the scheme because they did not receive their cards after the three months period.

Other factors such as low accessibility to NHIS facilities, long queues at NHIS offices during registration also negatively affected how parents enrolled their children and used the services of the scheme.

#### **4.4.1: Socio-economic Factors that influence Utilization of NHIS in Rural Areas**

The Table 4.4 shows the factors that influence child enrollment in rural communities. The variables that were used are; socio-economic factors, characteristics of health centers and NHIS institutions.

**Table 4. 4: Factors Influencing Child Enrollment in the Rural Areas**

<b>Variables</b>	<b>Coefficient</b>	<b>Std. Error</b>	<b>Z – Value</b>	<b>P- Value</b>
<b><i>Demographic Characteristics</i></b>				
Age of Parents	-2.8242*	1.1943	-2.36	0.018
Child Age	2.0715*	0.9119	2.27	0.023
Gender	2.1880	1.4619	1.50	0.134
Employment	0.3919	0.7963	0.49	0.623
Education	-2.1969**	0.8278	-2.65	0.008
Income	1.6103	0.9012	1.79	0.074
Parent Registered	-5.2636**	1.7937	-2.93	0.003
No. of children	-0.7632	0.7463	-1.02	0.306
<b><i>Institutional Characteristics</i></b>				
Distance	-1.7684	0.9281	-1.91	0.057
Facilities	0.5000	0.3704	1.35	0.177
Cleanliness	-2.0639	1.0793	-1.91	0.056
Emergency	0.9242	1.6150	0.57	0.567
Promptness	-1.6734	1.1840	-1.41	0.158
Accessibility	-3.9136*	1.5945	-2.45	0.014
<b><i>Challenges Variables (NHIS)</i></b>				
Low Accessibility	-0.1759	2.8084	-0.06	0.950
Long Distances	-2.9263	2.1066	-1.39	0.165
Transportation cost	-1.5593**	0.7681	-2.03	0.003
Bad attitude of NHIS officials	-2.0142	2.6628	-0.76	0.449
Long Queues	3.9227	3.6637	1.07	0.284
<b><i>Challenges Variables (Health Centre)</i></b>				
Card Rejection	-1.9659	3.6434	-0.54	0.589
Drug Unavailability	-1.0778**	0.4797	-2.25	0.007
Attitude of Health officials	-1.5775**	0.5322	-2.96	0.000
Long Queues	-0.2578	1.1385	-0.23	0.821
Constant	24.1237**	8.4729	2.85	0.004
No. of Observation	100			
Chi2	81.74			
Prob > Chi2	0.0000			
Pseudo R <sup>2</sup>	0.6520			
Log likelihood	-21.818			

Source: Fieldwork, 2011 (\* Significant at 5% and \*\* Significant at 1%)

From Table 4.4, respondents' age is negatively related to child enrollment at 5% significance level. The implication is that, as age of respondents' increases the number of children they enrolled decreases. It was discovered the older respondents had the habit of using traditional medicine and preferred it in most cases than the orthodox medicine which required the health insurance. However, in the urban areas age of parents was not significant when it comes to child enrollment.

Furthermore, in the rural area, a child's age was positively related to enrollment at 5% significance level. This means that the probability that age of children increases enrollment of increasing enrollment is high. This was not the case in the urban areas where though there was a negative relationship it was not significant. Therefore, though some of the parents preferred traditional medicine they enrolled their children on the scheme even as they grow older. Thus, as child's age negatively influence enrollment in the urban areas it is the opposite in the rural areas.

Besides, education showed a negative relationship with child enrollment and high significant level of 1%. In other words, as more respondents attain higher educational levels, quality healthcare for children become paramount and thus when they are less likely to have confidence in the scheme to provide their children quality services they will not enroll them. Meanwhile, in the urban communities education had a positive relationship with enrollment though it was not significant. In other words, as enrollment decreases with higher education in the rural areas, higher education increases child enrollment in the urban areas. In the rural areas parents do not have the luxury of choosing between health facilities which do not give them quality service as their counterparts in the urban areas have. Thus, dissatisfaction of the service discourages enrollment significantly.

Further, in the rural communities, income of a parent had a positive relationship with enrollment and utilisation unlike in the urban areas where income negatively influenced child enrollment at 5% significance level. This implies that in the rural communities, as respondents' income increases, it is likely they are able to afford to enroll more of their children on the scheme. While in the urban areas higher incomes of respondents probably discourages more respondents from enrolling their children on the scheme because those in the high income level could afford to pay out –of- pocket.

More so, parents' registration significantly influenced a child's enrollment on the scheme at a high significance level of 1%. Since the relationship is negative it means that as more parents register, the number of children who are enrolled on the scheme decreases. Many of the parents explained that they believed their registration covered their children to enjoy the same benefits as they on the scheme. This situation was similar in the urban areas where the respondents' registration was highly significant at 1% and negatively influenced child enrollment on the scheme.

#### **4.4.2 Institutional Challenges influencing child enrollment and utilization of the scheme in rural areas**

Factors that were considered were distance to health facilities, the kind of health facilities parents visited, cleanliness in health facilities, the promptness with which parents were attended to and how easy parents could access the services of the scheme. Others included rejection of NHIS card in hospitals, unavailability of drugs, attitude of health officials and long queues for insured children.

Distance to health facilities, promptness with which children receive care and accessibility to health facilities showed a negative relationship between enrolment and utilisation. Accessibility

to facilities showed a 5% significance level. In other words, the easy access to health facilities for parents was very important and played a significant role in encouraging high enrollment and utilisation of NHIS. However, any difficulty in accessibility results in a reduction in enrolment and utilisation.

High cost of transportation in the rural communities is highly significant at 1% and negatively influence to child enrollment. It means that as cost of transportation to the NHIS office to register their children increased, fewer respondents were likely to enroll their children. This could also be linked with the negative influence of long distance on enrollment from the table. However, in the urban communities though long distance negatively influenced child enrollment, high cost of transportation positively influenced child enrollment. In any case, the later relationship was not significant.

Other factors such as how accessibility to NHIS office, long distance to NHIS office, poor attitude of NHIS officials all showed a negative relationship between enrolment and utilisation. In the rural areas, accessibility to NHIS office was a major issue because they were not available. Though parents could register their children at the Danfa health center at Danfa, they claimed it took them longer time to receive their cards. Thus, they preferred going to the NHIS head office at Amasaman which was also too far from them. Besides, the cost of transportation was unbearable or most of them. This discourages most of them to enroll their children on the scheme, much more utilize the services. The only factor here that had a positive relationship with child enrollment was long queues in to register. This is the case in the rural areas because they did not have a choice but join the long queue to register after travelling long distances to register their children. Thus, long queues did not influence enrolment eventually.

Furthermore, drug unavailability and bad attitude of health officials in the health centers are highly significant at 1% and negatively influenced utilization of the scheme. It implies that respondents in the rural areas are not likely to enroll or maintain their children on the scheme when there is drug unavailability and bad attitude of health officials in health centers. Since respondents in the rural areas have fewer alternatives when it comes to health centers, they visit the accredited NHIS public health centers that are available to them. As such, when health officials receive them with poor attitude coupled with drugs that are not available to complete the healthcare process for their children it discourages more other children from being enrolled on the scheme.

Unlike, the urban areas where attitude of health officials and long queues at health centers all showed a negative relationship with child enrolment and utilisation of the scheme in the rural areas. Unavailability of drugs and attitude of health officials had a significance of 1% respectively. This means that some parents in Boi bitterly complained that, most of their children visited the hospital, they did not receive all their drugs and they had to buy the others from somewhere. In addition, in situations where they were given prescription forms to get drugs from an NHIS accredited pharmacy too, it is sold for ₵1.00 which should not be the case. To add to that, health officials sometimes do not give them a good attitude. They explained in cases where they were clear with issues and they asked questions they were sometimes shouted at. This discourages them from using their cards and goes a long way to affect child enrollment and utilisation of the scheme to reduce child mortality in the long run.

#### **4.5 Conclusions**

Socio- economic factors highly influenced child enrollment and utilization of the scheme in both rural and urban areas. In urban areas gender, income and parent registration negatively influenced child enrollment in urban areas, In other words, in the urban areas, parents with high income and higher education showed low interest in child enrollment on the scheme and they preferred to use private hospitals. It was also realized parents in urban had more options when it came to health facilities and could easily move to other health facilities they disliked the service of the other. It is inferred from the reasons some the reasons that meant that they did not have a good perception of the scheme. They rather thought it is for those in the lower income bracket. On the other hand in the rural areas, age of parents, parents educational levels and registration of parents negatively influenced child enrollment. Besides socio-economic factors, negative relationship between distances from residences of respondents to the NHIS office to register their children in order to use the services of the scheme could not be underemphasized

## **CHAPTER FIVE**

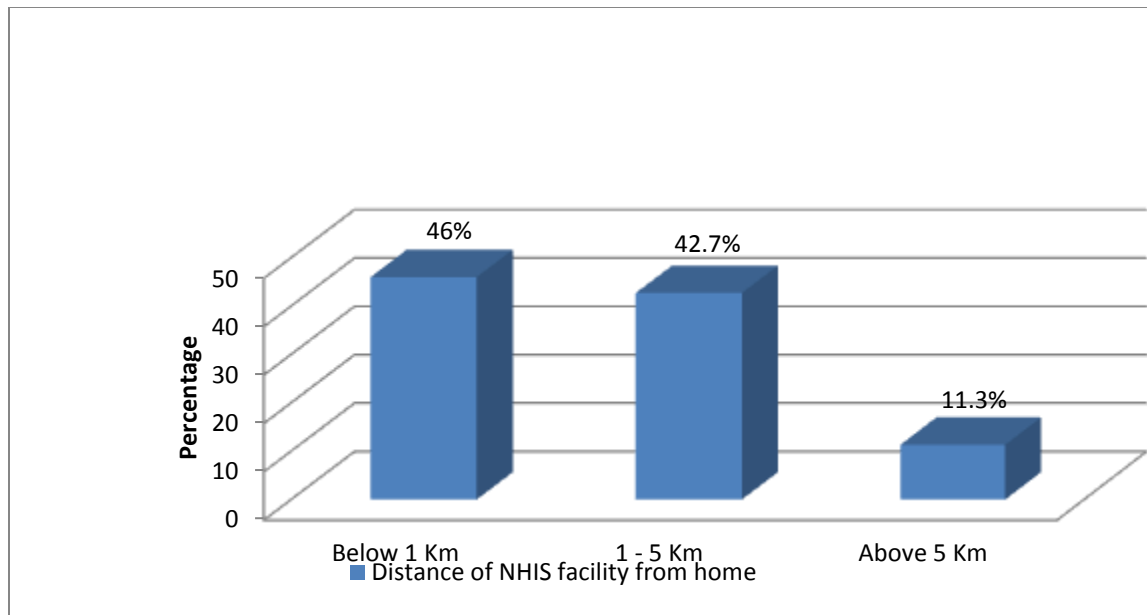
### **PPERCEPTION OF QUALITY OF HEALTHCARE RECEIVED BUY INSURED CHILDREN**

#### **5.0: Introduction**

This chapter discusses the relationship between the respondents' residences and the distance they cover to visit health facilities to seek healthcare for their insured children and difference in parents' perception of the quality of healthcare their children received under the NHIS. This is in comparison with similar works done by various scholars.

#### **5.1: Relationship between Distance of Accredited NHIS Facilities and the Effect on Utilisation**

Distance to health facilities play a significant role in parents' capability to seek for healthcare for their children. In general, the study assessed the location of respondents in relative to the NHIS accredited health center available in the area. From figure 4.5, it showed that 46% of the respondents resided at areas which were less than 1 kilometer far from an NHIS accredited health center while 42.7% of them resided at areas which were between 1 to 5 kilometers farther from an accredited health center. The remaining 11.3% of respondents however, lived beyond 5 kilometers from an accredited health center.



**Figure 5.1: Distance to NHIS accredited health facility from respondents home**

Consequently, a chi square test analysis was conducted in this study to show the relationship between distance and child enrollment and use of health facilities. From Table 4.5, distance to health facilities and enrollment of children on the scheme showed a chi square value of 6.39 ( $X^2 = 6.39$ ) and P-value of 0.041 indicating that there is a significant relationship at 5% between distance and enrollment. Therefore the null hypothesis that there is no significant relationship between distance and child enrolment on the scheme is rejected in favor of the presence of a significant relationship.

**Table 5. 1: Test of Relationship between Distance and Child Enrollment on the NHIS**

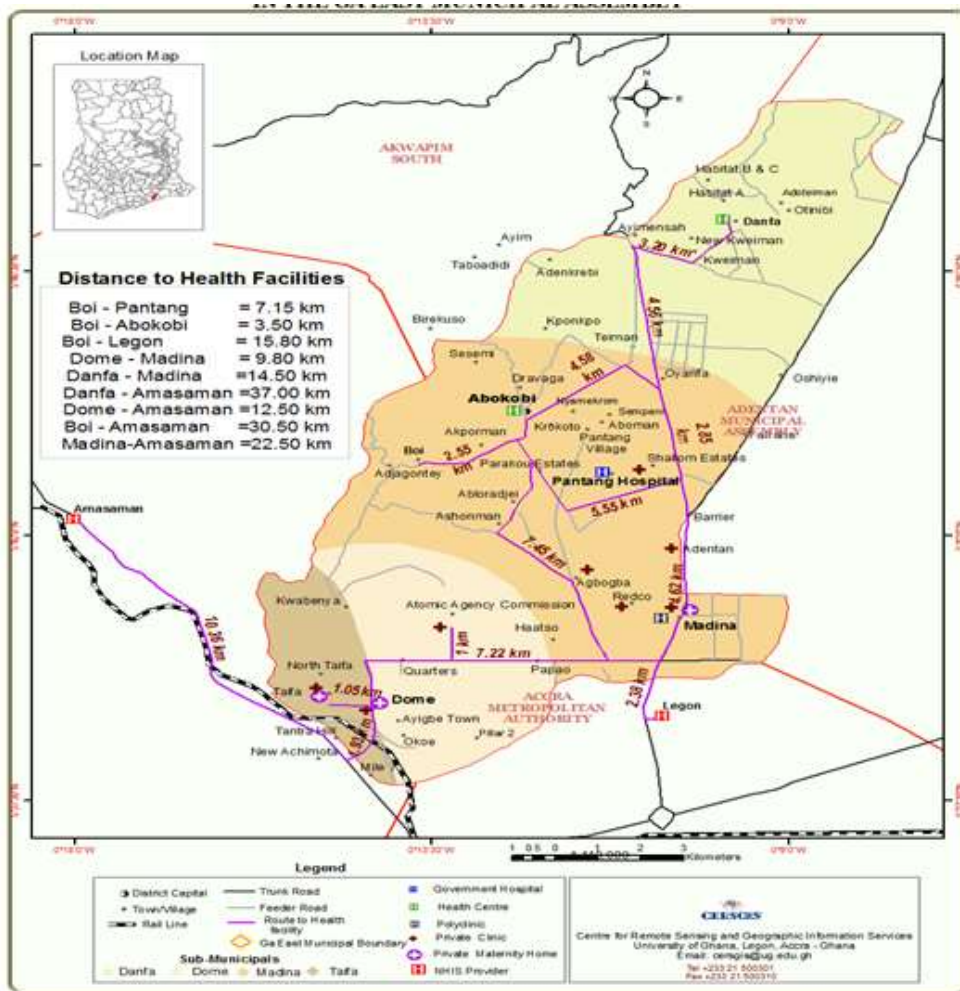
Variable	Child Enrollment		$\chi^2$	P – Value
	Not Enrolled N (%)	Enrolled N (%)		
<b>Distance</b>				
< 1 Km	36(37.50)	96(47.06)		
1Km – 5Km	53(55.21)	82(40.20)	6.39	0.041
Above 5Km	7(7.29)	26(12.75)		

Source: Fieldwork, 2011

From Table 5.1, there is a significant relationship between distance and child enrollment on the scheme. For the enrolled, within a distance of less than 1 kilometer, 47.06% of children were enrolled and this reduces to 40.20% for a distance of 1kilometer to 5kilometers. Furthermore, relating to the theory of distance decay which states that things further away are unlikely to be used, (Skov-Petersen., 2001) only 12.75% of children were registered within a distance of more than 5kilometers. Thus, as distance from the respondents' residence to a health center increased, the enrollment of children on the scheme decreased. For instance in the rural areas, cost of transportation negatively affected enrollment and this was at 5% significance level. As distance to register and use the services of the scheme increased, the likelihood of parents to resort to alternative means of ensuring their children receive quality healthcare is very high. Meanwhile the reason why respondents enroll their children on the scheme is for them to enjoy its benefits. Therefore, difficulty in accessing the services of the scheme creates a break in the healthcare financing system thereby defeating the purpose of the NHIS. During the study some parents who lived farther from health facilities explained that they preferred to buy drugs from the chemical shop when their children were sick and rather visit the hospital when the sickness became severe due to the distance. However, it may be difficult if not impossible for a respondent to determine whether a child is severely sick or not. This attitude of some respondents is 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. Though in this case, affordability of healthcare is not the issue because of the NHIS but rather cost of transportation is the issue.

This also confirms 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 mothers especially. Similarly, a study done in the Western Pacific region by Du et al confirmed that long distance lead to low demand for and use of healthcare services for children particularly for the poor. It made parents from the rural areas to travel longer hours to visit health facilities than those in the urban area (Du et al., 2001). To support the objective of relationship between distance and NHIS utilization, a map showing distance between health centers, NHIS office and the communities was developed for the study.



Source: Field Work, 2011

### Figure 5. 2: Distance to Health Facilities in the Ga East Municipality

From figure 5.1, the few public health facilities available in the district are mostly centralized in the urban communities especially, in Madina. However, Dome though an urban community 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. Otherwise parents 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.

It is also unfortunate that none of the public health facilities offer special pediatric services which are one of the benefits for children under the scheme. Consequently, it demanded that any child who needed to have a special child healthcare service had to be taken to University of Ghana Hospital or the other tertiary hospitals around. However, the University Hospital was not accepting the NHIS card for such services due to some issues with the NHIA as at the time of the research.

On the issue of registration, Amasaman office of the National Health Insurance handles all NHIS issues for Ga East, West and South districts. As such parents have to travel all the way from Danfa, Madina, Dome and Boi covering 37.00km, 22km, 12.50 km and 30.50 km respectively to go and register their children on the scheme or even sought out any registration problems they encounter at the sub registration centers. For some of the respondents, it was stressful to travel all that distance even when they had the means to do that. Though some of the health facilities had arranged with the NHIS office to send some officers to register members, that had resulted come in some challenges. In Danfa for instance, some of the parents never received the card for their children and later had to go Amasaman to do another registration at another fee. As such most of the parents said they preferred going to the office to do their registration once and for all though they had challenges with high cost of transportation.

## **5.2: Difference in Parents' Perception of the Quality of Healthcare in Health Facilities.**

The Table 5.2 shows the results obtained from the test of differences in perceptions among respondents who had enrolled their children and those who had not enrolled their children on the NHIS. Based on the Ministry of Health (2007) manual for quality assurance in health facilities, the following indicators were used; Prompt Attention, Doctor/MA's examination, Treatment advice given, drug availability and Overall satisfaction.

**Table 5.2: Test of Difference in Perceptions of NHIS Service Quality**

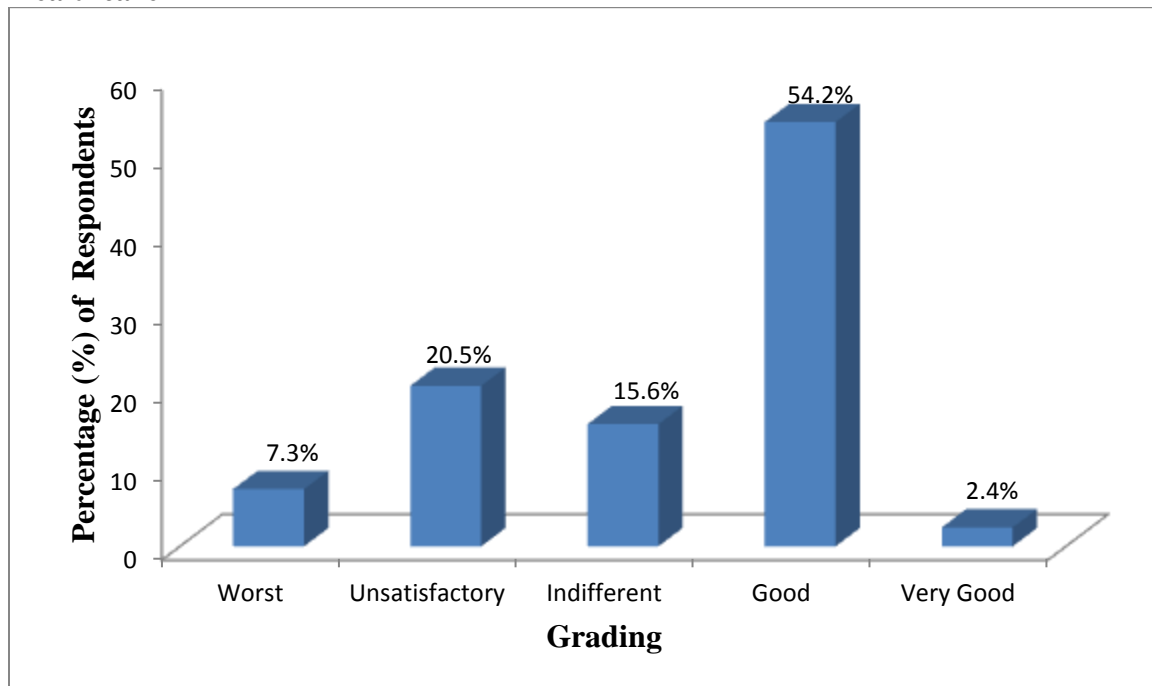
Variable	Enrolled		Not Enrolled		Mean Diff.
	Mean	S.d	Mean	S.d	
Prompt Attention	1.34	0.65	1.54	0.88	-0.20*
Doctor's Examination	2.12	0.68	2.43	0.99	-0.31**
Treatment advise	1.78	0.42	1.88	0.32	-0.11*
Drugs available	1.47	0.50	1.93	0.26	-0.46**
Overall Satisfaction	1.37	0.66	1.54	0.88	-0.17*

Source: Field Work (\* and \*\* indicate significance at 5% and 1% respectively).

The Table 5.2 shows the results obtained from the test of differences in perceptions among respondents who had enrolled their children and those who had not enrolled their children on the scheme. It was revealed that as far as perceptions about qualities in service delivery (prompt attention, Doctors examination, treatment advice, availability of drugs and overall satisfaction) was concerned; there was a negative significant difference between parents who had enrolled and those who had not enrolled their children on the NHIS scheme in the study area. Based on this evidence, it can be concluded that the null hypothesis that there is no significant differences in the perceptions of parents about the service delivery quality of NHIS is rejected in favor of the presence of a negative significant relationship between their perceptions.

By implication, parents of insured and uninsured children did not have the same satisfaction with the quality of healthcare services their children received based on the criteria used for accessing the quality of healthcare. This outcome contradicts with a study done by Turkson (2009) in some selected rural districts in Ghana where it was found out that generally the quality of healthcare delivery was perceived not to be different.

### 5.3 Satisfaction with NHIS and Willingness to Pay More for Improvement of Quality of Healthcare



**Figure 5.3: Grading of NHIS services by respondents**

Consequently, respondents who had enrolled their children were asked to grade the services of the scheme and figure 5.3 shows the results of the answers that the respondents gave. From a total of 205 respondents who had registered their children with the scheme, 7.3% revealed that the NHIS child healthcare services were worst, 20.5% reported the services were unsatisfactory while 15.6% of the respondents were indifferent about the services. Nevertheless, the majority of 54.1% stated that NHIS child healthcare services were good whereas the remaining 2.4% of the respondents graded the service to be very good.

Though children on the scheme do not pay premium, parents paid between GHC5 and GHC10 to register their children on the scheme. Thus, respondents were asked if the cost of registration was affordable. The results was that, 79% of the respondents said that the cost of registration was less

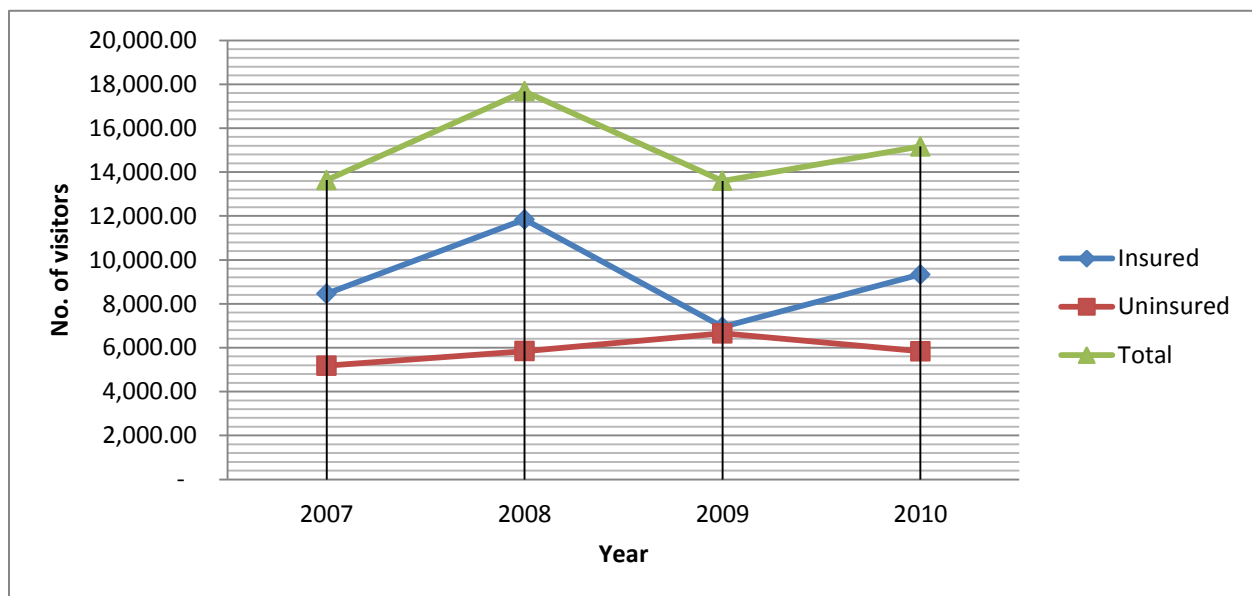
expensive, 10% revealed that the registration was expensive and the remaining 11% reported that they were indifferent about the cost involved in registering.

However, when they were asked if they would pay more for the quality of services to be improved, the results was that 47.8% were willing to pay more for improvement of the quality of healthcare services while 50.7% of the respondents reported that they were not willing to pay more for improvement in the quality of the NHIS healthcare services for the reason that they had been impressed with the scheme so far. On the other hand, the remaining 1.5% of the respondents was uncertain as to whether to pay more for improvement in the quality of the NHIS health care or not.

In addition they were asked if they found it convenient taking their children to the hospital with their NHIS cards, 87.3% reported that they it was easy for them to take their wards to the hospital under the NHIS because they did not need to have money to do that. However, the rest (12.7%) reported that they did not find it that easy taking their children to the health facility under the NHIS because there they made other payments in one way or the other at the hospital which sometimes they were not ready for. An example of other payments respondents made was the cost of laboratory test. In addition, 62.4% of these respondents (those who had registered their wards) stated that their children's subscription to the NHIS influenced their decision to take them to the hospital. In other words, they visiting the hospital with their children was highly dependent on the NHIS while the remaining 37.6% stated that their children's subscription to the NHIS did not influence their decision to take their children to the hospital.

Subsequently, figure 5.3 shows the number of insured and uninsured children who visited the district hospital (Alpha Medical Center) at Madina from 2007 to 2010. The hospital was accredited by the NHIA in 2006 and so had records of insured clients from 2007. According to

the in-patients and out-patients records, the insured were 8,458 as alongside 5,177 uninsured children in 2007. Following this, 11,840 insured children visited the hospital in 2008 as against 5,842 uninsured children who also visited the hospital. Furthermore, in 2009 the insured who visited the hospital were 6,942 while the uninsured were 6,652. Lastly in the year 2010, there were 9,330 insured children visited the hospital as against 5,834 uninsured who also visited the hospital. Though a larger number of insured children used the hospital as compared to insure children 2007 to 2010, the General Manager of the hospital explained that there was a need for more parents to be encouraged to register their children on the scheme since there are more parents who cannot pay for their children's treatment. According to him, some of such parents had been detained by the hospital with their children till they have had their bills paid. However, from figure 5.3, there has been a general increase in the numbers of insured children visiting the hospital.



**Figure 5.4: Number of children who used the District Health Center from 2007-2010**

#### 5.4: Challenges of NHIS in Delivering Quality Healthcare Services for Subscribers.

From the study, various challenges were seen to hamper the effort in children receiving quality service from healthcare providers under the NHIS through interviews and direct observation. Using Kendall's Coefficient of concordance the challenges parents encountered in the course of accessing the scheme for their children was ranked. Variables used were accessibility to the office, long distance to the NHIS Office, high cost of transportation, bad attitude of NHIS officials and long queues during accessibility. Table 5.5 displays the rank of challenges respondents faced both with the scheme and the health center.

**Table 5.3 Ranks of Challenges Respondents face with their Children Enrollment on the NHIS**

Challenges	Rural		Urban		Overall	
	Mean Score	Rank	Mean Score	Rank	Mean Score	Rank
Lack of Accessibility	2.71	2	2.68	2	2.69	2
Long Distance to the NHIS Office	3.36	4	3.36	4	3.36	4
High Cost of Transportation	3.25	3	3.29	3	3.28	3
Bad Attitude of NHIS Officials	3.43	5	3.44	5	3.44	5
Long Queues during Accessibility	2.26	1	2.23	1	2.24	1
N	100		200		300	
Kendall's W	0.250		0.260		0.250	
Chi – Square	99.985		208.282		308.178	
Degree of freedom (df)	4		4		4	
Asymptotic Significance	0.000***		0.000***		0.000***	

Source: Fieldwork, 2011 (\*\*\*) represent 1% level of significance)

From Table 5.5, respondents ranked the various challenges they encountered in enrolling their children on the scheme in both the rural and urban communities.

From the table, the most pressing challenge faced by the respondents differed in the different areas of residence. The Kendall's Coefficient of Concordance (W) indicates that there were 25% and 26% agreement among rankings by respondents in the rural and urban communities respectively and these were significant at one percent. Therefore, it can be concluded that there is

a low degree of agreement among the respondents in the ranking of challenges with the enrollment of their children in the two communities (rural and urban). The difference in the levels of agreement (75% and 74%) may be due to the heterogeneous nature of the study localities. Long queues when accessing NHIS is the most pressing challenge in the rural community with a mean score of 2.23. In the urban communities, long queues when accessing the scheme is ranked the highest challenge with a mean score of 2.24 whilst bad attitude of NHIS officials with a mean score of 3.43 and 3.44 in the rural and urban areas respectively were found to be the least pressing challenge (Table 5.3).

Similarly, the Table 5.3 displays rank of challenges the respondents encountered on their visit with their children to the hospitals to assess healthcare. They are card rejection in the hospitals, unavailability of prescribed drugs, and poor attitude of hospital officials as well as long queues at the hospitals.

**Table 5.4: Ranks of Challenges by the Respondents on their Children's Health Service Assessment in the Hospitals**

Challenges	Rural		Urban		Overall	
	Mean Score	Rank	Mean Score	Rank	Mean Score	Rank
Card Rejection	2.08	1	2.07	1	2.08	1
Unavailability Prescribed Drugs	2.78	4	2.77	4	2.77	4
Poor Attitude of Hospital Officials	2.44	2	2.43	2	2.43	2
Long Queues at the Hospitals	2.70	3	2.74	3	2.73	3
N	100		200		300	
Kendall's W	0.152		0.153			
Chi – Square	45.673		92.086			
Degree of freedom (df)	3		3			

Source: Fieldwork, 2011 (\*\*\*) represent 1% level of significance)

From Table 5.4, there was no difference in the ranking of challenges encountered by respondents in health facilities in neither rural nor urban communities in accessing healthcare for their children under the scheme.

From Table 5.4, the most pressing challenge (first rank) faced by the respondents did not differ from that experienced in the rural and urban communities. This was found to be card rejection with mean scores of 2.08 and 2.07 respectively. The Kendall's Coefficient of Concordance (W) indicates that there were 15.2% and 15.3% agreement among rankings by respondents in the rural and urban communities respectively and these were significant at one percent. Therefore, it can be concluded that there is a low degree of agreement among the respondents in the ranking of challenges for accessing healthcare for their children in the two communities (rural and urban). The difference in the levels of agreement (84.8% and 84.7%) may be due to the heterogeneous nature of the study localities.

In line of this, the NPDC admits there are challenges with utilization of the scheme. However, they advise that amidst all these challenges, it is better for parents to register their children for the reason that the burden cost of the health care on households is very high and therefore when the individuals are not registered with NHIS, healthcare accessibility becomes difficult and even more challenging for poorer households who are not insured (NDPC, 2009).

## **5.6: Conclusion**

Nevertheless, the negative perception parents of insured children had about the scheme coupled with the many challenges they faced in the course of enrolling their children and utilizing the services of the scheme were also deterrents of child enrollment and utilization of the scheme. Lastly, challenges parents encountered in accessing and utilizing the scheme did not differ in the two geographic areas.

## **CHAPTER SIX**

### **SUMMARY, CONCLUSION AND RECOMMENDATIONS**

#### **6.1: Introduction**

This chapter summarizes the major findings based on the four 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 their children, to achieve the objectives of the scheme.

#### **6.2: Summary of Major Findings**

The study employed questionnaire, in-depth interview and direct observation to gather data from the field. The primary data was taken from parents and hospital administrators, hospital information officers and public relation officer of the district through questionnaires and interviews. Questionnaires were used to solicit views from two groups of parents; those who had enrolled their children and those whose children were not enrolled on the scheme. On the other hand, interview guides were developed for hospital administrators and hospital information officers.

The study adopted a multi- stage approach. First of all, four communities were selected using purposive sampling. This was based on the characteristics of the areas (rural or urban) in addition to availability of an accredited NHIS health facility. Pearson chi square test was used to test the relationship between distance and child's enrollment which showed that there was a significant relationship between distance and child enrollment on the NHIS. Furthermore, to show socio-economic conditions influence utilisation of NHIS by parents in rural and urban communities, the Binary logit model was used to show the relationship between demographic, institutional factors and child enrollment on the scheme. The showed the difference in parents' perception of

the NHIS and the quality of healthcare received by insured and uninsured children in health centers, and here, T test was used. Lastly, the Kendall's coefficient of concordance was used to measure the challenges that affect utilisation of the NHIS in rural and urban communities.

A total of three hundred parents were selected through random sampling to answer questions about their children's enrollment, utilization and challenges they faced in using the scheme. Madina had 130 parents being selected; Dome had 70 parents while Danfa and Boi had 50 parents respectively being selected. In conclusion, some findings were made, leading to some conclusions being drawn. Following this, some recommendations have been made to ensure the NHIS has an enhanced contribution to child healthcare.

- I. The study revealed that, the implementation of the scheme has generally contributed positively to child health care in the district. According to one of the health information officers, child mortality has significantly reduced in the area since the inception of the scheme. Yet, there are more parents who had not enrolled their children to benefit from the services of the scheme. In this regard, the paradox was why some respondents had not enrolled their children and yet they could not afford to pay their children's hospital bills out-of-pocket.
- II. Consequently, it was found out that, socio-economic characteristics of parents such as income, education and place of residence significantly influenced enrollment of children on the scheme. On the other hand, distance to accredited NHIS health centers also significantly influenced utilization of the scheme by parents. From the study, some respondents had to walk or travel long distances to register their children with the

scheme. This discouraged some of them from using the scheme especially in the two rural areas.

- III. Furthermore, perception of parents about quality of service children received under the scheme (prompt attention, Doctors examination, treatment advice, availability of drugs and overall satisfaction) affected their use of the scheme. Thus, the results showed a negative significant difference in the perceptions of parents who had enrolled their children on the scheme and those who had not enrolled their children on the scheme.
- IV. Nevertheless, challenges parents faced with child enrollment and utilization of the scheme influenced the enrollment of their children and utilization of the scheme. The challenges came in two dimensions; those that emanated from the scheme (enrollment) which included long queues (ranked first) and difficulty in accessing the scheme (ranked second). On the other hand, challenges encountered in health centers (utilization) included rejection of NHIS cards (ranked first) and poor attitude of health officials (ranked second). As result, 50.7% of the respondents reported that they were not willing to pay more for improvement in the quality of the NHIS healthcare services for the reason that they had been impressed with the services of the scheme.
- V. The study also found out that the public health facilities had not seen an improvement in their facilities to match the increasing number of children being enrolled on the scheme. This has resulted in some of the challenges such as long queues and delays for respondents and is a great disincentive for utilization of the services of the scheme in the long run.

VI. Finally, for the overall results, all variables that pertained to the use of health facilities impacted negatively on parents' continuous use of the NHIS. In other words parents who used the services of the NHIS will not hesitate to stop using the scheme if they do not receive the services they expect from providers. Since the health centers providing these services for the NHIS is part of the whole health system, it is rational that the NHIS puts necessary tools in place to ensure delivery of the best services to its clients. The study revealed that, there was very little monitoring by the NHIA at the various accredited health facilities. This has been a contribution of the large nature of the district NHIS (Ga East, West and South together) and the lack of vehicles enhance movements of officers to do effective monitoring of the scheme's services; this challenge leaves room for fraudulent activities to go on in some health accredited health facilities which does not augur well for the scheme. In the long run, it is those children who have been enrolled by their parents who suffer. For instance, most respondents did not know that they could take NHIS prescription forms to accredited pharmacy shops for unavailable drugs while in some cases respondents were made to pay for some services which are covered by the scheme

### **6.3: Conclusion**

The study assessed the role of the National Health Insurance Scheme in improving child healthcare services in the study area. Socio-demographic factors (such as age, gender, employment, education, number of children and parent's registration), perception of quality healthcare, and challenges (such as long distance, high cost of transportation, long queuing, bad attitude of officials and card rejection ) have a negative impact on enrollment of children on the scheme and their utilization of its services. From the study, it was observed that demographic characteristics such as age, educational level and gender positively influenced NHIS at a very high significance level and therefore had a high negative impact on utilisation of the services of the scheme. For instance in the urban areas as income and education increased the probability of them enrolling their children on the scheme decreased. They preferred to pay out –of- pocket and use private hospitals rather than public NHIS accredited health centers. This is consistent with other studies done by Palacio- Vieira and Jehu- Appiah and others that show that families with affluence preferred specialist hospitals. Contrariwise, income positively influenced enrollment of more children on the scheme. For the rural parents, high income meant more children could be enrolled to access and benefit from the scheme. However, the problem was when more parents registered less children were rather enrolled. This can be explained by the fact that they had little knowledge about the policy of decoupling where a parent's registration does not affect his or her child. Thus children after the first three months after their birth needed to be registered separately.

Moreover, distance between residences 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 their children. For instance, in the rural areas, transportation cost to register and access health centers farther away from where they lived was a challenge. Unlike parents in the areas may who have choices when it comes to health facilities, parents in the rural areas may have to do with only the public NHIS accredited health facility whether they had satisfaction with the services not.

Furthermore, there was a significant difference in respondents' perception about the quality of healthcare their children (insured and uninsured) received in health centers. Thus, parents of insured children perceived the services they received in health centers to be substandard compared to that received by uninsured children.

Finally, there was no significant variation in the challenges of respondents in the two geographical which are rural and urban areas. They all ranked long queues associated with registration of children first for challenges with the scheme while rejection of NHIS card was ranked first for challenges encountered in health centers. However, it is probable that respondents in urban areas have the choice of changing healthcare centers if they are not satisfied with a service in a particular health center because there may be others available. This is a privilege respondents in the rural areas do not have and which makes them stick to one particular hospital and getting unsatisfied with the services of the scheme.

## **6.4: Recommendations**

Given the empirical findings, the proposed policy recommendations are as follows:

### **I. Decentralization of the National Insurance Scheme in the District**

The study revealed that, distance had a negative relationship with child enrollment and utilisation of the scheme by parents. Some of the parents who lived further away from accredited NHIS health centers and who could not afford high cost of transportation were reluctant to seek healthcare for children especially parents in the rural areas. Meanwhile, the district head office serves a combination of three districts (Ga East, West and South). This unquestionably increases the workload and slows down general administrative work. Thus, the NHIA should establish offices at various health centers to decentralize the scheme such that it will be easy for parents in the rural areas especially, to access the scheme. This will improve accessibility and utilization of the scheme. Moreover, there should be mobile NHIS officers who will go to the home of parents who live farther from accredited NHIS health centers to register children. However, these officers should have NHIS identification and strictly be monitored regularly to minimize fraud in the system.

### **II. Regular Monitoring and Strengthening of the Collaboration between the Scheme and the Accredited Health Facilities**

The study showed negative influence of drug unavailability, poor attitude of health officials in health centers and child enrollment on the scheme. The implication is that, as these challenges faced by parents are not curbed it is likely that more parents will not renew their children's status with the scheme. Besides, other parents may not be encouraged to enroll their children to use the services of the scheme. Meanwhile, family and friends were one of the important mediums of information dissemination for

prospective parents according to the study. Therefore, the NHIA should intensify their regular monitoring of NHIS accredited health centers 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. Foremost is how to avoid mistakes in filling the claim forms which tend to delay payments resulting in rejection of NHIS cards of enrolled children. 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. Against this backdrop more vehicles should be provided for the district to allow the officer to do a proper monitoring as currently only one vehicle is available for the three combined districts.

### **III. Improvement in the Quality of Service for Insured Children**

Lastly, the study indicated a negative significant difference in parents' perception of quality of service received in health centers by insured and uninsured children. This notion did not differ in the two different geographic settings. This implies that, parents of insured children in both the rural and the urban areas did not perceive that their children were receiving the same quality of healthcare as the uninsured children. According to the first and second objectives of the scheme, it must provide an opportunity for all Ghanaians to have access to the functional structures of health insurance.

Secondly, the NHIA must ensure that Ghanaians do not move from an unaffordable 'cash and carry' regime to another unaffordable health Insurance Scheme.

Thus, 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 insured children.

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**APPENDICES****APPENDIX I: Questionnaire for Parents.**

DEPARTMENT OF GEOGRAPHY AND RESOURCE DEVELOPMENT, UNIVERSITY OF  
GHANA, LEGON

**QUESTIONNAIRE SURVEY: NHIS & NON-NHIS SUBSCRIBERS**

*This questionnaire is designed to solicit your views on the National Health Insurance Scheme (NHIS) and Child HealthCare in the Ga East District of the Greater Accra Region. Any information given will be kept in strict confidence for academic purposes only. Your involvement will be much appreciated.*

**INSTRUCTION**

Where answers have been provided, please tick the box where appropriate. Where answers have not been provided kindly provide your own answer.

Number.....

Name of Hospital/Community.....

**SECTION A: SOCIO DEMOGRAPHIC FEATURES**

1(a) Age of Parent / Guardian.....1(b) Age of Child .....1(c) No. of children.....

2. Sex of Parent           Female [  ]           Male [  ]

3. Employment Status: Self-employed [  ] Publicly employed [  ] Privately employed [  ]  
Unemployed [  ]

4. Level of Education

No formal education [  ]           Primary [  ]           J.H.S/Middle School [  ]

S.H.S/Tech/Voc [  ]           Tertiary [  ]

5. What is the range of your income for a month?

Less than GH¢100 [  ] GH¢100 -500 [  ] GH¢ 500- 1000 [  ] above GH¢ 1000 [  ]

**SECTION A: EFFECT OF EDUCATION ON UTILISATION OF HEALTH FACILITIES**

6a. Do you have knowledge about the NHIS (procedures) system? Yes [ ] No [ ]

6 b. if yes, how did you get to know about it? Through Friends [ ] Through Relatives [ ] Radio [ ]  
Television [ ] Newspapers [ ] Others [ ] Specify-----

7. What do you think about the cost of the NHIS registration? Less expensive [ ] Expensive [ ] Very expensive [ ]

**SECTION B: ACCESSIBILITY AND UTILIZATION OF NHIS ACCREDITED HEALTH SERVICES**

8a. Are you registered with the national insurance scheme? Yes [ ] No [ ]

9a. Have you registered your child with the national insurance scheme? Yes [ ] No [ ]

No. of registered children -----

9b. If Yes, since when has your child been a member? -----

9c. If No, give reasons.

.....  
.....

9d. How then do you pay for your child's health bills?

Employee benefit [ ] Personal income [ ] Private health insurance [ ]

Others [ ] please explain.....

9e. Would you like to register in future? Yes [ ] No [ ]

10. How will you grade the of the NHIS child services? Unsatisfactory [ ] Good [ ] Excellent [ ]

11. Would you be willing to pay more for improvement in quality of child health service under the scheme?

Yes [ ] No [ ]

Why-----  
-----  
-----

12. How far is the NHIS accredited health facility from your home? Below 1km [ ] 1-5km [ ] above 5km [ ]

13. With the NHIS, do you find it easier to take your child to the hospital compared to the out of pocket payment? Yes [ ] No [ ] Kindly explain your answer-----

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-----  
 -----  
 14. Does the NHIS subscription influence you to visit the health facility with your child for healthcare?  
 Yes [ ] No [ ] Please explain -----  
 -----

15. Do you use the child’s NHIS card in a health facility all the time? Yes [ ] No [ ]  
 Why-----  
 -----

16a. Which kind of health facility do you visit **first** when your child is not well?

**Please specify by ticking where appropriate**

I.	HEALTH FACILITY	TICK
II.	Herbal center	
III.	Pharmacy shop	
IV.	Private hospital	
V.	Public hospital	

16b. Which of these health facilities do you use **most** when seeking healthcare for your child?  
 .....

16c. Where is the health facility you use **most** located? .....

16d. Please give reason(s) for using a particular health facility?  
 -----  
 -----

17. List some benefits you have received from using the NHIS card in a health facility.  
 -----  
 -----  
 -----

**SECTION C: ASSESSMENT OF QUALITY OF CHILD HEALTHCARE UNDER THE NHIS**

18. Have you assessed health care for your child in the past 6months? Yes [ ] No [ ]

If no, what is the reason? .....

19. Which of these experiences did your child have in the health facility you visited? Please tick where applicable.

No.	Quality Assurance Indicators	Yes	No
A	Prompt attention		
B	Doctor or medical assistant's examination		
C	Diagnosis information provided		
D	Treatment advise given		
E	Understanding of treatment advise		
F	Information of follow up given		
G	Privacy during consultation		
H	Availability of all prescribed drugs		
J	Overall Satisfaction		

20. How long do you spend in the health facility you visit? Less than 1hour [ ] 1- 3hours [ ] 3-6 [ ]  
Beyond 6hours

21. What do you think about the cleanliness in the health facility? Very clean [ ] Clean [ ] Dirty [ ]

22a. Have you visited the health facility in an emergency (including the night) in the last six months?

Yes [ ] No [ ]

22b. If Yes, was your child seen promptly? Yes [ ] No [ ]

#### SECTION D: CHALLENGES OF USING THE NHIS

Use the scale **1 (Not very good) to 5 (Very good)**. Tick appropriately in each case

**INDICATOR** **1 2 3 4 5**

23. Did you have easy access to the NHIS office during registration Yes [ ] No [ ]

24. Which of these challenges did you face in registering with the scheme?

Long distance [ ] [ ] [ ] [ ] [ ]

High cost of transportation [ ] [ ] [ ] [ ] [ ]

Absence or poor attitude of officials [ ] [ ] [ ] [ ] [ ]

Long queues [ ] [ ] [ ] [ ] [ ]

Others [ ]

Please specify-----

25. Which of these challenges do you face in using your card in a health facility?

Rejection of card [ ] [ ] [ ] [ ] [ ]

Unavailability of drugs [ ] [ ] [ ] [ ] [ ]

Poor attitude of health officials [ ] [ ] [ ] [ ] [ ]

Long queues [ ] [ ] [ ] [ ] [ ]

Others [ ] [ ] [ ] [ ] [ ]

Please specify-----

26. How long did it take for you to receive your child’s card after registration? 0-3months [ ]

3-6months [ ] 6-9months [ ] 1year + [ ] Never received it [ ]

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

28a. Are you able to renew your child’s membership every year? Yes [ ] No [ ]

28b. If No, what are the reasons

.....  
.....  
.....  
.....

**SECTION E: CHALLENGES OF NOT USING THE NHIS**

29 a. Do you encounter any challenge(s) in accessing healthcare as your child is not registered with the NHIS? Yes [ ] No [ ]

29b.If Yes, list some of them,

.....  
.....  
.....

30. How do you overcome these challenges?

.....  
.....

## **Appendix II: INTERVIEW GUIDE FOR HEALTH WORKERS**

### **QUESTIONNAIRE SURVEY**

*This questionnaire is designed to solicit your views on the National Health Insurance Scheme (NHIS) and Child HealthCare in the Ga East District of the Greater Accra Region. Any information given will be kept in strict confidence for academic purposes only. Your involvement will be much appreciated.*

In your view, has the NHIS improved child healthcare accessibility in the district?

What are some of the improvements?

Do you think it can be made better? How?

What do you think are the challenges?

How long has your hospital been subscribed to the scheme?

Will you say the NHIS has increased the attendance of children to your hospital over the years? Has it had an impact on child mortality?

Is there an instance your facility refuse to treat insured children? Reason(s)

What is the endemic disease in the area and is it covered by the scheme? If not, how can it be addressed to improve healthcare for children?

What benefits or dangers exist for uninsured children?

### **Appendix III: INTERVIEW GUIDE FOR NHIS OFFICIALS**

#### **QUESTIONNAIRE SURVEY**

*This questionnaire is designed to solicit your views on the National Health Insurance Scheme (NHIS) and Child HealthCare in the Ga East District of the Greater Accra Region. Any information given will be kept in strict confidence for academic purposes only. Your involvement will be much appreciated.*

Has membership of registered children met your expectation?

Do parents renew their children's membership regularly and timely?

Do all children in different social and economic classes have equal patronage of your services?

What are some of the challenges in ensuring universal coverage for all children?

Is it possible for children to access healthcare under the NHIS without registering since they classified under indigents?

Do you have operational difficulties and what are the major ones?

: Publicity, facilities, transportation and the ability to reach out to prospective subscribers

How will you grade the coordination between you and the health service providers?

Excellent [ ] Good [ ] Poor [ ] Please Explain