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SCHOOL OF PUBLIC HEALTH, COLLEGE OF HEALTH SCIENCES,

UNIVERSITY OF GHANA

# ASSESSMENT OF PERFORMANCE OF GA DISTRICT MUTUAL HEALTH INSURANCE SCHEME

BY ERIC NSIAH-BOATENG

THIS DISSERTATION IS SUBMITTED TO THE UNIVERSITY OF GHANA, LEGON IN PARTIAL FULFILLMENT OF THE REQUIREMENT FOR THE AWARD OF MASTER OF PUBLIC HEALTH (MPH) DEGREE

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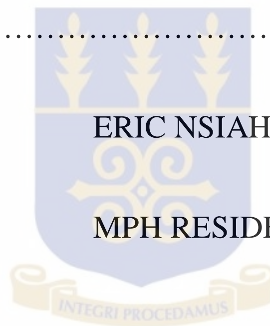
# DECLARATION

I hereby declare that except for the review of other people's investigations which have been duly acknowledged, this work is the result of my own research, and that this dissertation, either in whole or in part has not been presented elsewhere for another degree.

AUTHOR ………………………………………………………………………………



ERIC NSIAH-BOATENG

MPH RESIDENT-UG/SPH, LEGON

ACADEMIC SUPERVISOR …………………………………………………….………

DR. MOSES AIKINS

HEAD OF DEPARTMENT, HPPM, SPH, LEGON

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## DEDICATION

I dedicate this work to the West Africa Health Organisation (WAHO), Burkina Faso for their financial support, and my wife, Wendy Armah, and son, Nana Yaw Boateng for their support and encouragement.

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# ABSTRACT

**Background:** Ghana established National Health Insurance Scheme (NHIS) in 2004 to replace out-of-pocket payment popularly referred to as 'cash and carry', which created financial barrier to health care access to the poor and vulnerable. However, the NHIS was fully implemented in 2005 and has since faced performance challenges such as delays in issuance of ID cards to registered members and payment of provider claims.

**Objective:** To assess performance of the Ga District Mutual Health Insurance Scheme for the period, 2007-2009.

**Methods:** The study employed desk review method to collect secondary data to analyse membership coverage, revenue, expenditure, and claims settlement patterns of the Scheme. A household survey was also conducted in the Madina township to determine community penetration rate of the Scheme.

**Results:** The study shows a coverage rate of 22.6% and a community penetration rate of 22.2%. About one-third of the registered members pay premium and this affects revenue base of the Scheme. Financially, the Scheme depends on NHIA support (administrative, exempt, and reinsurance funds) for 89.8% of its revenue. Approximately 92% of the total revenue was spent on medical bills. The claims settlements pattern shows that about 99% of provider claims are settled beyond the stipulated four weeks period. This poses financial challenge to healthcare providers and may force them to take measures that defeat the purpose of the scheme.

**Conclusion:** The study shows that there are downward trends in membership coverage and revenue from contributions, and an increasing trend in claims expenses. Moreover,

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there are lengthy delays in claims settlements. An establishment of district schemes in the Ga East and Ga West sub-districts will be necessary to improve membership coverage and revenue mobilization especially from the informal sector. Also, amendment of the claims settlements period from four to twelve weeks will help ensure proper vetting of claims to minimize fraud and abuse. However, part-payment of claims to healthcare providers whilst the claims are being vetted will be important to ensure continuous provision of services to insured members.

**Keywords:** National Health Insurance Scheme, coverage rate, revenue, claims settlements, Ghana

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## LIST OF ABBREVIATIONS

| | |
|---|---|
| CHAG | Christian Health Association of Ghana |
| CHF | Community-Based Health Financing |
| CHI | Community Health Insurance |
| DMHIS | District Mutual Health Insurance Scheme |
| DP | Development Partners |
| DRG | Diagnostic Related Groupings |
| ERCRIHS | Ethical Review Committee on Research Involving Human Subjects |
| Ga DMHIS | Ga District Mutual Health Insurance Scheme |
| GDP | Gross Domestic Product |
| GPRS | Ghana Poverty Reduction Strategy |
| ID | Identification |
| IGF | Internally Generated Fund |
| ILO | International Labour Organisation |
| IPD | In-patient Department |
| LI | Legislative Instrument |

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| | |
|---|---|
| MDGs | Millennium Development Goals |
| MHO | Mutual Health Organisation |
| MOH | Ministry of Health |
| NDPC | National Development Planning Commission |
| NHIA | National Health Insurance Authority |
| NHIL | National Health Insurance Levy |
| NHIS | National Health Insurance Scheme |
| OPD | Out Patient Department |
| SPSS | Statistical Package for Social Sciences |
| SSNIT | Social Security and National Insurance Trust |
| VAT | Value Added Tax |
| WHO | World Health Organisation |

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## DEFINITION OF TERMS

1. **Claims Ratio:** Ratio of incurred medical bills to total premium collected from contributors
2. **Combined Ratio:** The sum of expense ratio and claims ratio
3. **Expenditure:** The sum of administrative expenses and medical bills (claims) expenses
4. **Expenses Ratio:** Ratio of administrative cost to total premium collected from contributors
5. **Growth Rate:** The change in number of insured in the current period and number of insured in the previous period as a ratio of number of insured in the previous period
6. **Membership Coverage:** The total number of valid card-holding members as a percent of the target population.
7. **Promptness of Claims Settlement:** Time required to pay claims according to the defined scheduled (0-28 days, more than 28 days) with 0-28 days being prompt
8. **Renewal Rate Ratio:** Ratio of number of renewals to number of potential renewals
9. **Revenue:** The total amount of money collected from contributors as premium, received from NHIA as subsidies and reinsurance, and from development partners as donations

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10. **Stata:** Statistical package which provides comprehensive data management and analysis

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# CHAPTER ONE

# INTRODUCTION

## 1.1Background

Out-of-pocket payments create financial barriers that prevent millions of people each year from seeking and receiving needed health service (Preker *et al*, 2002, Hjortsberg, 2003) In addition, many of those who do seek and pay for health services are confronted with financial catastrophe and impoverishment (Xu *et al*, 2003, 2005, Wagstaff & Doorslaer, 2003). People who do not use health services at all, or who suffer financial catastrophe are the extreme. Many others might forego only some services, or suffer less severe financial consequences imposed by user charges, but people everywhere, at all income levels, seek protection from the financial risks associated with ill health (Guy *et al*, 2008).

Many countries especially low and middle income ones are faced with the question of how their health financing systems can achieve or maintain universal coverage of health services. Recognizing this, in 2005 the Member States of World Health Organisations (WHO) adopted a resolution encouraging countries to develop health financing systems aimed at providing universal coverage (WHO, 2005). This was defined as securing access for all to appropriate promotive, preventive, curative and rehabilitative services at an affordable cost. Thus, universal coverage incorporates two complementary dimensions in addition to financial risk protection: the extent of population coverage (who is covered) and the extent of health service coverage (what is covered).

According to WHO (2000), healthcare expenditure has risen drastically, from 3% of world gross domestic product (GDP) in 1948 to 7.9% in 1997. However, this has certainly not been

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accompanied by an equally drastic improvement in universal coverage. Scarce economic resources, low or modest economic growth, constraints on the public sector and low organisational capacity explain why the design of adequate health financing systems in developing countries, especially the low income ones, remains cumbersome and the subject of significant debate.

Cost-recovery for health care via user fees was established in many developing countries usually as a response to severe constraints on government finance. However, most studies alert decision-makers to the negative effects of user fees on the demand for care, especially that of the poorest households (Atim *et al* 2000).

In the 1990s, a number of mutual health organisations (MHOs) developed in Ghana, with some external funding and technical support. However, most of these MHOs focused on providing financial protection against the potentially catastrophic costs of a limited range of inpatient services for the poor and vulnerable in society (Atim *et al* 2001). The National Health Insurance Scheme (NHIS) was introduced in 2004 to build on these organisations by establishing District-based Mutual Health Insurance Schemes nationwide (DMHIS) (Witter & Garshong, 2009).

The NHIS was designed as a mandatory health insurance system, with risk pooling across district schemes, funded from members' contributions and a levy on the value-added tax (VAT) charged on goods and services, from which a broad minimum package of care could be funded (Witter & Garshong, 2009).

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The National Health Insurance Act, Act 650 was passed into law in Ghana in 2003, though implementation in terms of access to benefits began in November, 2005 (Witter & Garshong, 2009). Its policy objective is that, within the next five years, every resident of Ghana shall belong to a health insurance scheme that adequately covers him or her against the need to pay out-or-pocket at point of service use in order to obtain access to a defined package of acceptable quality health services (MOH, 2004). The Ga District Mutual Health Insurance Scheme (Ga DMHIS) was established in 2004. However, very little is known about its performance in terms of coverage, revenue, expenditure, claims settlements pattern. Hence, the objective of this study is to assess performance of the scheme and propose recommendations to improve its operations.

## 1.2 Statement of the Problem

The policy objective of the NHIS is that, within the next five years, every resident of Ghana shall belong to a health insurance scheme that adequately covers him or her against the need to pay out-or-pocket at point of service use in order to obtain access to a defined package of acceptable quality health services (MOH, 2004).

The Ga DMHIS has been in existence since October, 2004 and available data from the scheme indicate that it has registered 348,743 out of a target population of 817,924. Out of this registered figure, 348,044 have been issued with ID cards, representing 43% of the target population (Ga DMHIS Operational Report, 2009). According to Witter and Garshong (2009), relatively low coverage contributes to poor performance problems such as low revenue generation, and high expenditure on administration and medical bills. These performance problems could threaten financial viability and sustainability of the Scheme.

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The relatively low population coverage of the Scheme means that majority of the population especially the poor and vulnerable (children, women, and the elderly) do not have access to quality and affordable health care as stated in the NHIS policy framework (MOH, 2004) and are therefore exposed to health risks. A study by Dror and Jacquier (1999), Jutting (2003), and McCord (2001) show that when households are exposed to great health risk, they are less likely to take advantage of growth opportunities, such as investing in new technology or expanding existing businesses.

According Guy *et al* (2008), up to 13% of households face financial catastrophe in any given year because of the charges associated with using health services and up to 6% are pushed below the poverty line. Households are considered to suffer financial catastrophe if they spend more than 40% of their disposable income on health services. They are often forced to reduce expenditure on other essential items such as housing, clothing and the education of children to pay for health services.

Since 2005, a number of initiatives and activities by researchers and development partners aimed at tackling performance challenges facing the DMHISs have taken place (NHIA & DP, 2007). However, most of these research and initiatives focused on inventories of MHOs, access, utilization, and quality of care, and were largely un-coordinated. As a result, key findings and associated recommendations were left unimplemented (NHIA & DP, 2007). Specifically, very little is known about the performance of the Ga DMHIS in terms of membership coverage, revenue mobilization,

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and expenditure levels as well as time required to settle claims. It is therefore imperative to assess the performance of the Ga DMHIS and propose recommendations to operational challenges facing the Scheme.

## 1.3 Justification

The NHIS is a key health sector initiative to support the Ghana Poverty Reduction Strategy (GPRS II) policy objective of ensuring sustainable financial arrangements that protects the poor. This policy is also key to Ghana's attainment of the Millennium Development Goals (MDGs) 1, 3, 4 & 5. Therefore, financial viability and sustainability of the Scheme is paramount to all NHIS stakeholders.

Since implementation of the NHIS in 2005, there have been a number of evaluations of most of the DMHISs. However, the Ga DMHIS has not been assessed. Therefore, little is known about its performance in terms of membership coverage, revenue, expenditure, and claims settlements rate. Though the Ga DMHIS has been in existence for five years, careful monitoring and assessment is important to diagnose factors that may undermine its sustainability.

## 1.4 Objectives of the study

### 1.4.1 General Objective

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The general objective of this study is to assess performance of Ga Mutual Health Insurance Scheme for the period, 2007-2009.

### 1.4.2 Specific Objectives

The specific objectives are:

1. To determine coverage rate and community penetration rate of the scheme
2. To estimate annual revenue of the scheme
3. To estimate annual expenditure of the scheme
4. To determine renewal rate, growth rate, expense ratio, claims ratio, and combined ratios of the scheme
5. To determine promptness of claims settlements of the scheme

## 1.5 Conceptual Framework

The framework for assessing performance of the Scheme was customized from WHO proposed framework of health systems performance assessment in 2000. The specific objectives which reflect the International Labour Oganisations' core performance indicators for assessing social health insurance schemes (ILO, 2009): coverage rate, annual revenue, annual expenditure, and claims settlements were incorporated into the framework. Figure 1 shows the four performance dimensions and their performance ratios. The figure also illustrates the relationship among these indicators. A high membership coverage, high revenue base, low expenditure, and prompt settlement of provider claims will enhance performance ratios such as coverage rate, renewal rate, expense ratio, and claims ratio and eventually results in high performance and an improved health status of the target population.

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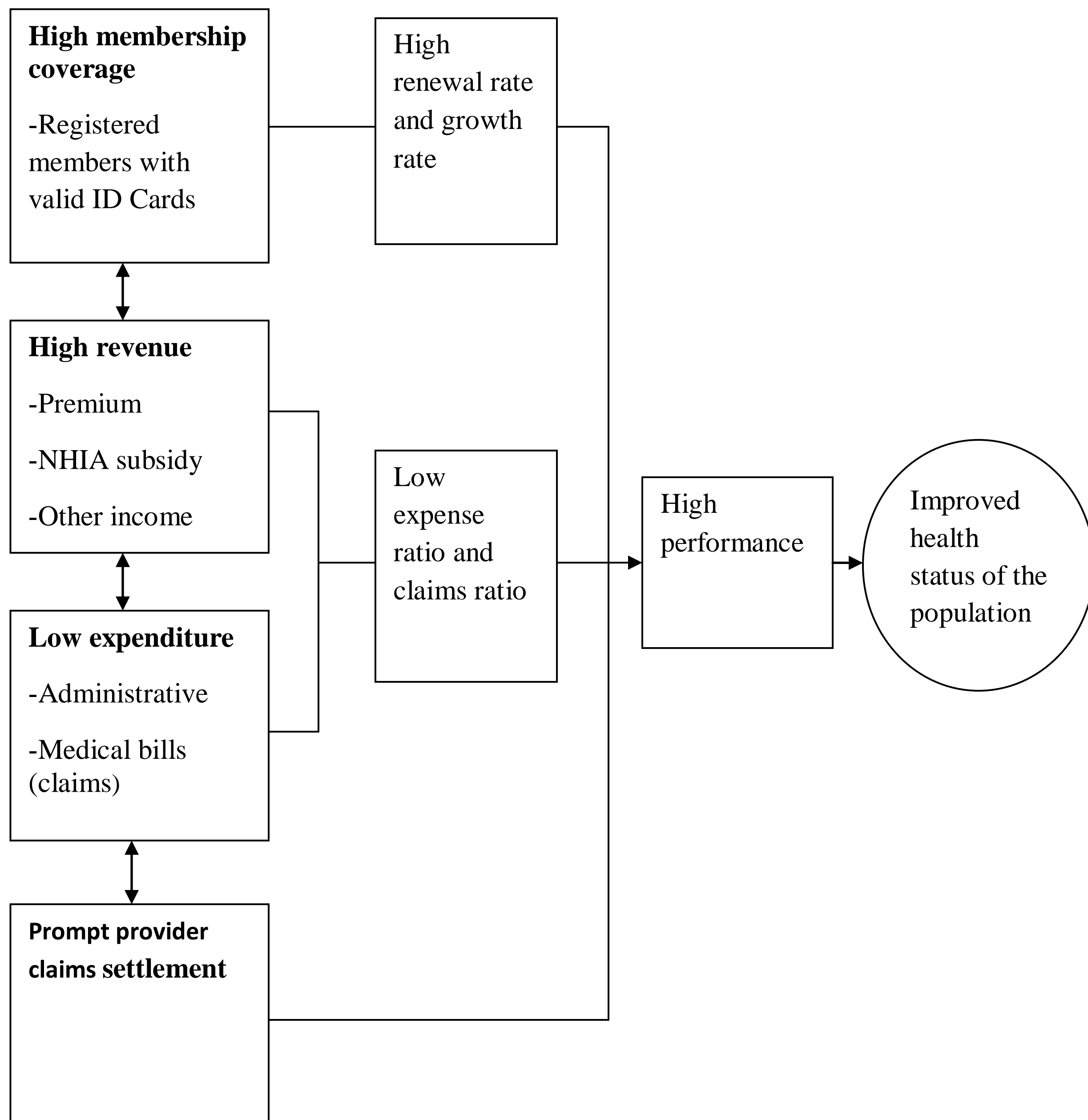
Figure1. Conceptual Framework for Assessment of Ga DMHIS



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# CHAPTER TWO

## 2.0 LITERATURE REVIEW

### 2.1 General overview of Health Financing in Africa

Guy and James (2005) refer to the report of WHO (2005) in describing the current situation of health financing in the WHO African Region and the key challenges confronting countries in the region. According to World Health Report (2005), forty-four countries of the WHO African Region spent less than 15% of their national annual budget on health; 29 national governments spent less than US$10 per person per year; 50% of the total expenditure on health in 24 countries came from government sources; prepaid health financing mechanisms cover only a small proportion of the populations in the Region; private spending constitute over 40% of the total expenditure on health in 31 countries; direct out-of-pocket expenditures constitute over 50% of the private health expenditure in 38 countries.

Countries of the region are confronted with a number of key challenges including: 1) low investment in health; 2) low economic growth rates; 3) lack of comprehensive health financing polices and strategic plans; 4) extensive out-of-pocket payments (consisting of mainly user fees); 5) limited financial access to health services; 6) limited coverage by health insurance; 7) lack of social safety nets to protect the poor; 8) inefficient resource use; 9) ineffective aid; and 10) weak mechanisms for coordinating partner support in the health sector ( WHO, 2006).

With a view to addressing some of the above-mentioned challenges, countries have been exploring various financing mechanisms, for example, taxes, health insurance for formal

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sector employees, social health insurance, private health insurance, community-based health financing (CHF), and external donations.

According to Preker (2001), some of the financing mechanisms adopted by several countries are increasing government funding for healthcare, localizing the management of selected health services, and improving the targeting of government spending on health needs of the poor. Health insurance has emerged as part of the reform drive in many countries, both as a way of augmenting resources available or care, and as a means of better linking health demand to the provision of services.

## 2.2 Health financing in Ghana

Health care financing in Ghana has gone through a chequered history (MOH, 2004). Prior to independence, financial access to modern health care was predominantly by out-out-pocket payments at point of service (Arhinful, 2003). Immediately after independence, health care provided to the people was “free” in public facilities. The financing of health in the public sector was, therefore, entirely through tax revenue. However, private sector health services continued to be paid for by out-of-pocket fees at point of service use. The sustainability of this form of financing became questionable as the economy began to show signs of decline and there were competing demands on the same source (MOH, 2004).

This situation continued until 1985 when the government introduced the user fees for all medical conditions except certain specified communicable diseases. This was part of the structural adjustment policies and became known as ‘cash and carry’. The aim of the

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1985 user fees was to recover at least 15% of recurrent cost for quality improvements (Agyepong & Adjei, 2008). According to MOH (2001), this aim was achieved. Also, there was improvement in supply of essential medicines and other healthcare products. However, the implementation of the 'cash and carry' compounded the utilization problems by creating financial barrier to health care access especially for the poor (MOH, 2004). The government noting the problems associated with the 'cash and carry' initiated the NHIS policy in 2001 to replace this out-of-pocket payment for health care at the point of service use.

## 2.3 Overview of the National Health Insurance Scheme (NHIS) Policy

In line with the Ghana Poverty Reduction Strategy (GPRS), the government initiated a policy to deliver accessible, affordable, and good quality health care to all Ghanaians especially the poor and most vulnerable in society (MOH, 2004).

The out-of-pocket payment for health care at the point of service delivery popularly known as 'cash and carry' posed a financial barrier to health care access. Indeed it was estimated that out of 18% of the population who required health care at any given time, only 20% of them were able to access it. That is about 80% of 18% of the population who needed health care could not afford to pay out-of-pocket at the point of service use. This resulted in delays in seeking health care, non-compliance to treatment, and consequently premature death (MOH, 2004).

The NHIS was fashioned out based on principles of equity, risk equalization, cross-subsidization, solidarity , quality care, efficiency in premium collection, community or

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subscriber ownership, partnership, reinsurance, and sustainability (MOH, 2004). Hence, there are two main types of health insurance in Ghana: the social-type health insurance scheme which is made up of DMHISs and the Private Mutual Health Insurance Schemes, and the Private Commercial Health Insurance Schemes (MOH, 2004).

According to the policy framework (MOH, 2004), it is mandatory for every person living in Ghana to belong to a health insurance scheme type. This is in light of solidarity, social responsibility, equity and sense of belongingness in the building of a healthy and prosperous nation. Every person living in Ghana shall contribute according to the principle of ability to pay in order to enjoy a package of health services covering over 95% of diseases afflicting Ghanaians.

### 2.3.1 Leadership and Governance

In line with WHO health system framework for action (WHO, 2007), the NHIS has a regulatory body (NHIA) which provides leadership and governance function. The regulatory body oversees and guides the establishment of NHIS on a national scale. It is an autonomous body established by an act of parliament and has an executive secretary that has the direct day-to-day responsibility of ensuring that the policy decisions taken by the NHIA are effectively implemented. The NHIA reports to the President of the Republic of Ghana through the Minister for Health. As part of the process of reporting to stakeholders, the NHIA ensures preparation of an annual report describing the state of the NHIS (MOH, 2004).

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There are four units that assist the NHIA to effectively execute its leadership and governance functions, namely: 1) Policy Planning, Monitoring and Evaluation, 2) Licensing and Accreditation, 3) Administration, Management Support and Training, and 4) Fund Management and Investment (MOH, 2004). These units perform various functions to ensure that the policy goal of government in instituting a National Health Insurance programme is attained. Some of these functions are review and analysis of policy options and formulation of policies related to NHIS, licensing and regulating all health insurance schemes in the country, accrediting health care providers, setting of tariffs for payment to accredited providers, and financial analysis on the state of the schemes. Others are monitoring and evaluating operations of all the schemes in the country, and providing funds to support DMHISs to cover the poor and vulnerable groups.

### 2.3.2 Financing Sources

The NHIS is financed mainly through taxation and contributions made by registered members. The formal sector contributes two and half percent (2.5%) of their Social Security and National Insurance Trust (SSNIT) contributions whereas the informal sector contribute at least GH¢7.20 per annum. The contribution levels have an inbuilt cross-subsidization mechanism whereby the rich pay more than the less privileged, adults pay on behalf of children, the healthy cover for the sick and urban dwellers pay more than the rural dwellers (MOH, 2004).

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Due to anticipated teething problems related to adverse and risk selection issues, and low incomes, the policy framework established a fund to provide financing to subsidize the cost of providing health care services for members of DMHISs licensed under the Act 650. The fund implicitly subsidizes families by exempting children (under 18 years of age) whose parents fully pay their annual premium. A further aspect of exemption under the policy is embedded in its approach of generating funds, which is through a levy on consumption of goods and services that are believed to be patronized less often by the poor (NDPC PM&E, 2008).

The NHIS does not abolish cost recovery but it does replace direct out-of-pockets payment at the point of service use. This means that individuals still make payment for services consumed but in a more humane manner as they do not have to carry the burden of health care alone. This underscores the policy of making it compulsory among others for every resident in Ghana to belong to a health insurance scheme of his/her choice (MOH, 2004).

### 2.3.3 Information

The generation and strategic use of information, intelligence and research on health and health systems are an integral part of the leadership and governance function (WHO, 2007). A well functioning health information system is one that ensures the production, analysis, dissemination and use of reliable and timely health information system, both on a regular basis and in emergencies.

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According to the NHIS policy framework, the NHIA has a policy, planning, monitoring and evaluation unit which is responsible for providing information on the state of the DMHIS. Under this unit is a research and data management section that is responsible for receiving, compiling, and analysing data on an agreed set of variables from all health insurance schemes operating in the country as part of the process of monitoring, coordination and evaluation of their performance. The data center is also responsible for the compilation of national annual reports.

### 2.4 Implementation of the NHIS Policy

Through the Legislative Instrument, LI 1809 (Republic of Ghana, 2004), and the National Health Insurance Act, Act 650 (Republic of Ghana, 2003), NHIS was established with the aim of increasing access to health care and to improve the quality of basic health care services for all citizens, especially the poor and vulnerable (NDPC PM&E, 2008). It is envisaged under the GPRS II that access to quality health care will improve with the establishment of affordable health care financing arrangement, while creating the necessary environment for the attainment of the health MDGs namely, the eradication of poverty and hunger, the reduction in child and maternal mortality, and the combating of HIV/AIDS, malaria and other diseases. Additionally, improving health in this way will go a long way to reduce extreme poverty when impoverishment effects of illness are reduced.

According to the NHIS progress report for 2008, the total registered members have increased from 1,797,140 in 2005 to 12,518,560 as at end of 2008, representing 61.3% of the population (NDPC PM&E, 2008). However, only around a third of these are

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contributing to the scheme financially. This presents a sustainability problem, in that revenue is decoupled from the growing membership. In addition, the NHIS offers a broad benefits package, with no copayments and limited gate-keeping, and also faces cost escalation related to its new payment system and the growing utilization of members. These features contributed to a growth in distressed schemes and failure to pay outstanding facility claims in 2008 (Witter & Garshong, 2009).

## 2.5 Key Performance Indicators

According to Churchill (2006), Health Insurance is regarded as a risk management mechanism that the poor can use to compensate for the lack of appropriate state-sponsored social protection programmes. All health insurance programmes should aim to become viable since donor or government subsidies are only temporary or not available. Without subsidies, all programmes are subject to the same economic and market forces as mainstream businesses, and this requires them to be managed professionally. Management goals, however, cannot be achieved without constant monitoring and transparent measurements of performance.

Mutual health insurance schemes are one way in which financial and social protection services can be provided and health risks effectively managed. It is therefore important that the performance of health insurance schemes be carefully monitored and evaluated (Tabor, 2005).

### 2.5.1 Coverage Ratio

Garand and Wipf (2008) refers to the coverage ratio as an indicator of marketing effectiveness and it is one of the most important requirements for the long-term sustainability of a scheme. Socially, a high coverage ratio is indicative of a widely acceptable programme in which the participants are readily pooling their scarce resources to seek a measure of protection from the risks that they face.

According to Agyepong and Adjei (2008), achieving universal health financial protection in a low-income country like Ghana is a laudable ideal, but technically difficult and challenging. There is currently no low-income country that has achieved universal health insurance coverage. With the exception of Thailand, a lower middle-income country, that has achieved virtually universal coverage since 2001 using a big bang approach (Tangcharoensathien & Jongudomsuk, 2004), countries which have achieved universal coverage are wealthier nations such as those of Western Europe, Canada, Japan and South Korea. They have done so over the long rather than short term. Related to income, the structure of Ghana's economy, with many citizens employed in the informal sector and living in rural communities and small towns with poor road access, telecommunications and health service access, is a major challenge.

### 2.5.2 Annual Revenue

Guy (2002) stated that it is very difficult to define an absolute income threshold below which it would be very hard for a social health insurance to progress. However, income growth will facilitate health insurance development. The study emphasized that, the level of income of target population especially the informal sector group is an important factor

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in payment of health insurance contributions. Thus, more income means, better capacity to pay health insurance contributions. Fluctuations in the number of members also influence contribution income. The challenge for health insurance schemes is both to attract members and to retain them over long periods during which they consume no or few services (Dror, 2007).

### 2.5.3 Annual Expenditure

Evaluation studies of mutual health organizations conducted in the northern and southern Ghana by Lem et al (2006) and Baku et al (2006) respectively concluded that a higher administrative expenditure brings about low efficiency. A scheme spending a higher percentage of income from premiums on administration than on medical bills (claims) is not financially sustainable. A study by Muiser (2007) also shows that administrative expenditure higher than 7% is indicative of administrative inefficiencies.

### 2.5.4 Promptness of Claims Settlements

The promptness indicator measures the time spent by the mutual health insurance scheme on settling the benefits that are due to the insured. According to the NHIS Act, Act 650 (Republic of Ghana, 2003), all claims are to be paid within four weeks upon receipt. Paying claims promptly is an important aspect of service and good value. Untimely claims payment diminishes the value of the NHIS and in some cases may even aggravate the healthcare provider’s condition and situation (Garand & Wipf, 2006).

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### 2.5.5 Renewal Rate Ratio

The renewal rate helps determine how satisfied the insured members are, and is a crucial indicator of the viability and sustainability of the scheme. (Lem et al, 2006). If the rate is very high (such as 90% or more) it may signify that 1) there is a good understanding of the needs of the target population; 2) the price is acceptable to the target population; 3) the service levels are reasonable; and 4) the benefit is highly valued by the community. The opposite is also true: "For schemes with voluntary participation, low renewal rate is often indicative of client dissatisfaction, possibly due to poor communication, unacceptable service value, unsatisfactory claims payment, and so on (Garand & Wipf, 2008).

### 2.5.6 Membership Growth Ratio

The growth ratio reflects the growth of activity from one particular period to another. The trend in the growth rate is usually an important indicator of the program's success over the period in question. There are a few generalizations that can be made about the growth ratio indicator. For example, growth will usually be higher for newer and smaller schemes because of the lower base. Second, the growth ratio will reduce over time as the participation rate nears 100 percent (Garand & Wipf, 2008).

### 2.5.7 Expense Ratio

The expense ratio indicates how efficient the delivery of health insurance is. A high or low expense ratio is indicative of efficient delivery of services to the poor. If there is general satisfaction within the insured population, efficient delivery reduces the cost

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burden of the premium. On the other hand, if there is insufficient quality of service and satisfaction, then more should be invested in improving services. High expense ratio can also be indicative of abusive Management who may be enjoying fat salaries and rich benefits at the expense of the poor (ADA et al, 2009).

### 2.5.8 Claims Ratio

The claims ratio indicates how valuable the NHIS programme is to the insured. A higher claims ratio of a viable programme demonstrates to clients that they are getting good value for their premiums. On the other hand, a ratio that is too high may indicate the collapse of the programme, ultimately resulting in diminished social protection and value to the insured. A very low claims ratio could be viewed by clients as being exploitative of their situation; however, this depends on the type of programme and circumstances (ADA et al (2009).

According to Garand and Wipf (2008), the claims ratio for health insurance usually increases due to inflation of medical services or increased awareness and utilization. To reduce an escalating claims ratio may require actions such as modifying the benefit structure, introducing co-payments, introducing waiting periods, or imposing sub-limits on certain procedures.

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# CHAPTER THREE

## 3.0 METHODS

The study covered the period of 2007-2009 in the Ga DMHIS financial year and it used both qualitative and quantitative approaches to address the specific objectives.

## 3.1 Type of Study

The study was a cross sectional study and it involved a retrospective analysis of coverage, revenue and expenditure data of the Scheme for the period 2007-2009.

## 3.2 Study Area

The study was conducted in the Ga District of Accra. The Ga District is the fastest growing district of Greater Accra Region. It lies in the northern part of Greater Accra Region and is bounded in the north by Akuapim South district, east by Tema Municipal and south by Accra Metropolis. In 2007, the district was divided into three sub-districts, namely; Ga South, Ga East, and Ga West sub-districts to enhance local government administration. The district has 594 communities comprising mixed settlements: urban, peri-urban, and rural areas with an estimated population of 891,609 and a growth rate of 4.4% (Ga DMHIS Operational Report, 2009).

There is one mutual health insurance scheme in the district, and 58 health facilities comprising public, private, and Christian Health Association of Ghana (CHAG) facilities.

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The Ga DMHIS is one of the NHISs which were established in 2004. The Scheme has staff strength of nine (9) and seventy-four (74) contracted healthcare providers including community pharmacies.

The main economic activities in the district are public service, trading, farming and craftsmanship. Besides, a significant proportion of the inhabitants are unemployed, reflecting the high poverty level in the district (Ga DMHIS Operational Report, 2009).

### 3.3 Variables

The variables measured were coverage rate, annual revenue, annual expenditure, promptness of claims settlements, and performance ratios such as renewal rate, growth rate, expenses ratio, claims ratio, and combined ratio. The operational definitions of these variables are summarized in Table 1.

Table 1: Operational Definitions of Study Variables

| **Variable** | **Operational Definition** |
|---|---|
| Coverage Rate | Total number of valid card-bearing members as a percent of the target population. |
| Annual Revenue | Total amount of money mobilized from contributors, received from NHIA, and other donor agencies in each year of the period under review. |
| Annual Expenditure | The sum of money spent on administration and medical bills in each year of the period under review. |

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| | |
|---|---|
| Promptness of Claims Settlements | The number of days taken to pay medical bills according to a defined schedule of 0-28 days, and more than 28 days with 0-28 as being prompt payment. |
| Performance Ratios: | |
| Renewal Rate Ratio | The ratio of number of renewals to the number of potential renewals |
| Membership Growth Rate | The change in number of insured in the current period and previous period as a ratio of number of insured in the previous period |
| Expense Ratio | The ratio of incurred administrative expenses to total amount of premium mobilized from contributors |
| Claims Ratio | The ratio of incurred medical bills to total amount of premium mobilized from contributors |
| Combined Ratio | The sum of expense ratio and claims ratio |

### 3.4 Study Population

The study population comprised of records of Ga DMHIS, and households in Madina township. Records of the Ga DMHIS were made up of membership, revenue, expenditure, and claims reimbursement data. Study population of the household survey was heads of selected households in Madina township.

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## 3.5 Sample Size

**Desk Review:** The desk review involved a retrospective review of all registration, revenue, expenditure, claims records, and operational reports for the period 2007-2009. A total number of 50 registration files, 2 audited account reports, 1 unaudited account report, and 2 claims logbooks were reviewed.

**Household Survey:** According to the Ga DMHIS Operational Report (2009), prevalence of registered members with valid ID cards is 43%. Allowing a margin of error of 5% in the estimate of the proportion and a confidence level of 95%, a total sample size of 376 households was determined for the household survey in the Madina township.

## 3.6 Sampling Method

Desk review of secondary data and household survey were conducted in the district to achieve the study objectives.

### 3.6.1 Desk Review

The registration, revenue, expenditure, and claims records of Ga DMIHS for 2007-2009 periods were collected and a desk review conducted. The registration files were reviewed in terms of number of people registered, number of ID cards issued, and number of renewals for each year under review. The audited accounts for 2007-2008 and unaudited accounts for 2009 were examined for total premium collected, subsidies received from NHIA, donor support, and other internally generated funds. The expenditure on

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administration and medical bills were also extracted. The claims register and payment files for 2009 were reviewed to determine the number of days it took to settle selected samples of claims which had been processed and paid.

### 3.6.2 Household Survey

A multi-stage sampling method was employed to select houses in Madina township for the household survey on membership coverage. Firstly, a list of zones in the Madina township was obtained from the Ga East Health District Directorate. A proportion of the sample size (376) was apportioned to each zone based on the population size and this constituted the total number of houses selected in each zone for the study. A systematic sampling interval was determined by dividing each zone's population by the total number of houses. The sampling interval determined was then used to select the houses from the respective zones. A centre of each zone was located and a bottle spun to determine a direction to follow for selecting the houses. The heads of households in the selected houses were then interviewed. Where there were more than one household in a house, a simple random sampling was used to select one household head for the interview.

## 3.7 Data Collection Techniques/Methods

Desk review was employed to review registration and membership files, operational reports, audited reports, financial statements, and claims payment books of the Scheme in order to estimate coverage rate, annual revenue, annual expenditure, promptness of claims settlements, and performance ratios such as expense ratio, claims ratio, combined ratio. Face-to-face interview was also employed to collect data on community coverage

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from heads of selected households in the Madina township to estimate the community penetration rate of the Scheme.

## 3.8 Data Collection Tools

Registration and cost compilation sheets were used for the desk review to collect data on membership, revenue, expenditure, and claims settlements from the Scheme. In the household survey, a semi-structured questionnaire was used to collect data on membership coverage from heads of selected households in the Madina township.

## 3.9 Quality Control

### 3.9.1 Training and Pre-test

A total of number of twelve (12) interviewers and two (2) supervisors with adequate knowledge in NHIS operations, and socio-cultural characteristics of the communities in Madina township were recruited and trained on data collection and field procedures. The cost compilation sheet for the desk review and semi-structured questionnaire for household survey were pre-tested at Ashiedu Keteke Mutual Health Insurance Scheme to check consistency and feasibility in terms of wording and flow of questions.

### 3.9.2 Data Collection and Entry

**Desk Review:** The registration files, audited accounts reports, operational reports, and claims logbooks were reviewed. The data collected on membership coverage, revenue, expenditure, and claims settlements were entered into Excel 2007 programme.

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**Household Survey:** Two interviewers were assigned to each of the six zones in the Madina township for the data collection. The interviewers were closely monitored through random visits to ensure adherence to data collection process and protocols. Manual checking and editing of the completed questionnaires from the field were carried out before data entry and processing. The returned forms were serialized for identification, and the data entered into SPSS version 16.0 programme. For purposes of cross checking, double entry of the data was carried out.

## 3.10 Data Processing and Analysis

Data obtained from the desk review and household survey were processed and analysed differently using tables and graphs.

### 3.10.1 Desk Review

The membership, revenue, expenditure, and claims settlements data collected from the Scheme were processed and analyzed using Microsoft Excel 2007 Programme. The variables and performance indicators were analyzed as follows:

**Coverage Rate:** This was estimated as total number of registered members with valid ID cards as a percent of the target population. The categories of registered members and district population for the period 2007-2009 were obtained from membership files and annual reports using data compilation sheets.

**Annual Revenue:** This was determined by identifying all sources of revenue (premium, support from NHIA, donor support, interest on investments, and other internally generated funds). The revenue data obtained from audited reports and accounts ledger books for the period, 2007-2009 were then tabulated. The revenue was estimated as total

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amount of money mobilized from contributors and support (subsidies and reinsurance) received from NHIA.

**Annual Expenditure:** The main forms of expenditure were identified and broadly categorized as administrative expenses and medical bills (claims) expenses. The administrative expenses were made up of salaries, allowances, transport, logistics, utilities, and office accommodation. The medical expenses comprised of expenses on Out Patient Department (OPD) and In-patient Department (IPD) services rendered to insured members and submitted as medical claims. Expenditure captured from claims payment books and audited reports for the period 2007-2009 was estimated as total amount of money spent on administration and medical bills.

**Promptness of claims settlements:** This was estimated as time in days required to pay claims according to a defined schedule (0-28 days, and more than 28 days) with 0-28 days being prompt payment. Firstly, the entire set of claims reported for the year 2009 was determined from claims register book. The second step involved selection of processed and paid claims for the last quarter of 2009 from claims payment record book. Finally, the selected monthly paid claims for October-December, 2009 were apportioned in terms of the number of days it took to pay them.

**Renewal Rate Ratio:** This was calculated as the ratio of number of renewals to number of potential renewals for each year of the study period, 2007-2009.

**Membership Growth Rate:** This was determined by calculating the number of active participants with valid coverage at the end of the period in question as well as the number of active participants with valid coverage at the beginning of the period. The growth rate was then estimated as the difference between the number of insured at the end of the

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period in question and the number of insured at the beginning of the period divided by the number of insured at the beginning of the period.

**Expense Ratio:** This was calculated as the ratio of administrative expenses to total amount of premium collected for each year of the period under review, 2007-2009.

**Claims Ratio:** This was calculated as the ratio of medical bills expenses to total amount of premium collected in each year of the period under review, 2007-2009.

**Combined Ratio:** This was calculated as the sum of expense ratio and claims ratio.

### 3.10.2 Household Survey

**Community Penetration Rate:** Data collected from the household survey using face-to-face interview were collated and entered into SPSS version 16.0 programme and analysed using STATA version 7 programme. The community penetration rate was calculated as the number of households with valid ID cards as a percent of total number of households interviewed.

## 3.11 Ethical Consideration

A proposal of the study was submitted to the Ghana Health Service Ethical Review Committee on Research Involving Human Subjects (ERCRIHS) for ethical clearance before the study was carried out. Approval was sought from the National Health Insurance Authority (NHIA) and Ga DMHIS to use their data. Permission was also sought from the Municipal Health Services Directorate and Ga East District Assembly to conduct the household survey on community penetration rate of the Scheme.

The study participants were informed of the aim and importance of the study and assured that their names would not be used in any section of the study and also any information

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given would not be disclosed to the public. They were also assured of change of venue due to presence of other members in the household. Only selected participants who voluntarily provided signed informed consent were interviewed. The data collected were written on compact disks (CDs) and kept at safe but different places.

In relation to benefits, the study reveals trends of the main areas of concern of the scheme; coverage levels, revenues, cost components, and expenditures which could be used by stakeholders for assessing long-term sustainability of the scheme. Students can also use the data for academic and other reference purposes. There were no potential risks to the study subjects. Hence, no payment of compensation was made to any participant except training and fieldwork allowances. The study was purely for academic purpose and of public value and as such there was no conflict of interest.

### 3.12 Limitations of the Study

Firstly, poor keeping of membership records prolonged the data collection process. Secondly, data on number of deaths for the period under review were not available and this affected estimation of the renewal rate since potential renewals were considered to be all clients that did not die during each year. Lastly, the audited report for 2009 was not available since the scheme had not been audited for the period. As a result, revenue and expenditure data for 2009 were obtained from account ledger books and other financial documents (receipt books and bank statements) which may not present the true picture of the Scheme's financial position in 2009.

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# CHAPTER FOUR

## 4.0 RESULTS

### 4.1 Coverage of the Scheme

The membership coverage was assessed from two perspectives: the scheme perspective and community perspective.

#### 4.1.1 Coverage Rate

In 2007, the scheme registered a total number of 52,648 members which represents 7% of the target population of 749,022 (Table 2). This coverage rate increased to 8.5% in 2008 and dropped to 7.1% in 2009. In all, children under eighteen (18) years were the most registered group, and indigent the least registered. There were no registration of pregnant women in 2007 and indigent in 2009. The total membership coverage of the scheme for the period reviewed is 22.6%.

#### 4.1.2 Community Penetration Rate

Out of the total number of 365 household heads interviewed in the Madina township, 81 were registered members with valid ID cards which represents 22.2 % community penetration rate of the Scheme in the township. Table 3 shows the reasons why some of the respondents are not registered members of the Scheme. The main reasons are: 1) contribution is expensive (35.3%); and 2) the scheme does not offer the needed services (33.2%).

Table 2: Membership by Category, 2007-2009

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| | 2007 | 2008 | 2009 |
|---|---|---|---|
| District Population | 749,022 | 782,715 | 817,924 |
| Formal Sector | 4,957 | 4,837 | 6,149 |
| Informal Sector (18-69years) | 19,035 | 23,283 | 13243 |
| SSNIT Pensioners | 237 | 934 | 2,313 |
| Aged (70+ years) | 1,990 | 2,037 | 3,882 |
| Under 18 Years | 25,598 | 21,642 | 16,272 |
| Indigent | 831 | 2,089 | 0 |
| Pregnant Women | na | 11,997 | 16,597 |
| Total Membership | 52,648 | 66,819 | 58,456 |
| **Total Coverage (%)** | **7.0** | **8.5** | **7.1** |

na=not applicable ( the free maternal care policy was introduced in 2008)

Table 3: Reasons for not registering with the Ga DMHIS

| Reason (n=194) | Percent (%) |
|---|---|
| Contribution is expensive | 35.3 |
| Not sick now | 10.5 |
| Hospital is too far | 1.0 |
| Treat elsewhere | 9.5 |
| Does not offer services needed | 33.2 |
| Belong to other district scheme (NHIS) | 10.5 |
| **Total** | **100** |

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### 4.2 Annual Revenue

In absolute terms, annual revenue of the scheme increased from 12.2% in 2007 to 60.9% in 2009 (Table 4). Whilst premium collected and other income generated show a decreasing trend especially from 2008 to 2009, NHIA support in the form of subsidy for the exempt group[1] and reinsurance for claims payment increased annually from 2007 to 2009. The total revenue for the period under study is GH¢12,789,860.93 which is made up of 6.5% premium, 89.8% NHIA support, and 3.7% other income.

Table 4: Revenue Status of the Scheme, 2007-2009

| Year | Premium Collected (GH¢) | NHIA Support (GH¢) | Other Income (GH¢) | Total (GH¢) | Total Share (%) |
|---|---|---|---|---|---|
| 2007 | 149,313.34 | 1,326,610.67 | 85,989.94 | 1,561,913.95 | 12.2 |
| 2008 | 373,587.97 | 2,853,678.76 | 214,249.75 | 3,441,516.48 | 26.9 |
| 2009 | 304,756.00 | 7,316,093.50 | 174,581.00 | 7,795,430.50 | 60.9 |

### 4.3 Annual Expenditure

The main expenditure areas of the scheme were administrative and medical bills. The administrative expenses comprised of personal emolument and other operational expenses.

[1]Exempt group: SSNIT contributors, children under 18years, indigents, and aged (70+ years)

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The expenditure for the period under review increased from 16.3% in 2007 to 42.0% in 2008, and dropped slightly to 41.8% in 2009 (Table 5). The administrative expenses showed a downward trend from 2008 to 2009 whilst expenses on medical bills increased annually from 2007 to 2009. The total expenditure comprises of 8.2% administrative cost and 91.8% medical bills (claims).

Table 5: Expenditure Status of the Scheme, 2007-2009

| Year | Administrative Expenses | Medical Bills Expenses | Total | Total Share (%) |
|---|---|---|---|---|
| 2007 | 406,361.80 | 1,825,801.18 | 2,232,162.98 | 16.3% |
| 2008 | 514,322.99 | 5,243,226.76 | 5,757,549.75 | 42.0% |
| 2009 | 205,851.79 | 5,526,252.36 | 5,732,104.15 | 41.8% |

### 4.4 Promptness of Claims Settlements

A selected sample of claims which had been vetted and paid in 2009 was reviewed according to the number of days it took for settlement. Out of the total number of 38,737 claims reviewed, 38,178 representing 98.6% were paid beyond the stipulated period of 28 days for claims settlement (Figure 2).

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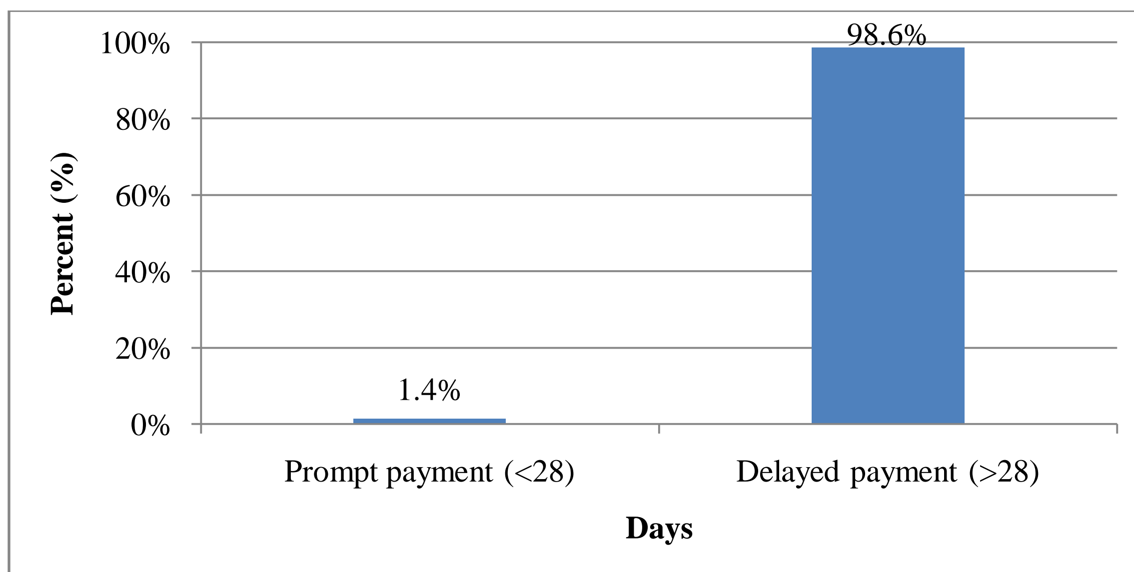
Figure 2: Claims Settlement Pattern, October-December, 2009




## 4.5 Performance Ratios

In order to adequately assess performance of the scheme, performance indicators such as renewal rate, membership growth rate, expense ratio, claims ratio, and combined ratio were also determined.

### 4.5.1 Renewal Rate

The number of clients who renewed their membership decreased from 48.0% in 2008 to 36.2% in 2009 as shown in Figure 3.

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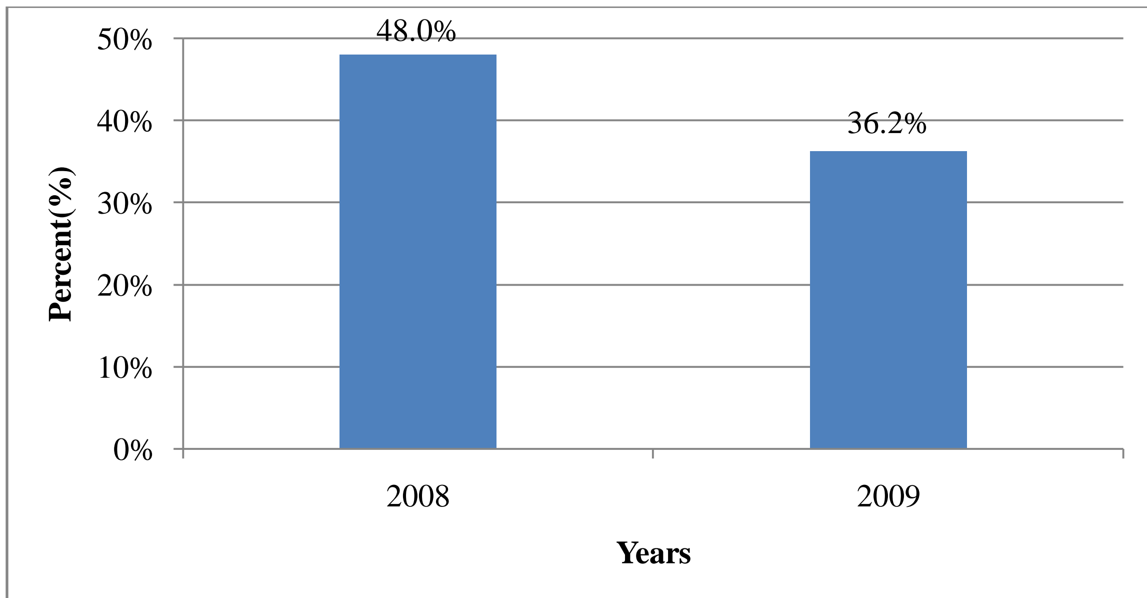
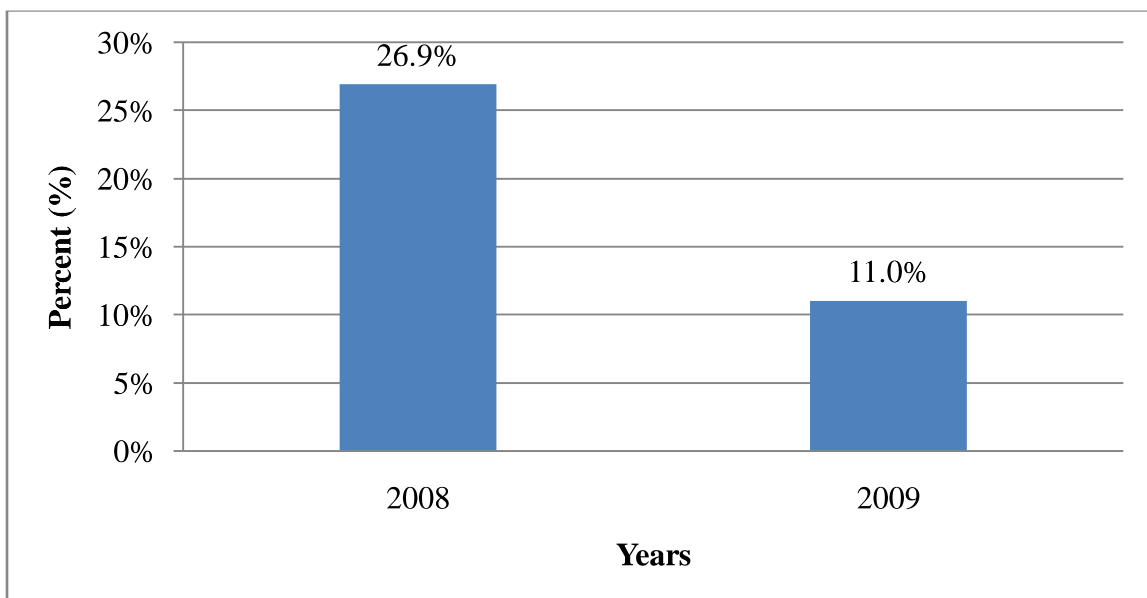
Figure 3: Renewal Rate, 2007-2009




#### 4.5.2 Membership Growth Rate

The membership growth rate decreased from 26.9% in 2008 to 11.0% in 2009 as shown in Figure 4.

Figure 4: Membership Growth Rate, 2007-2009



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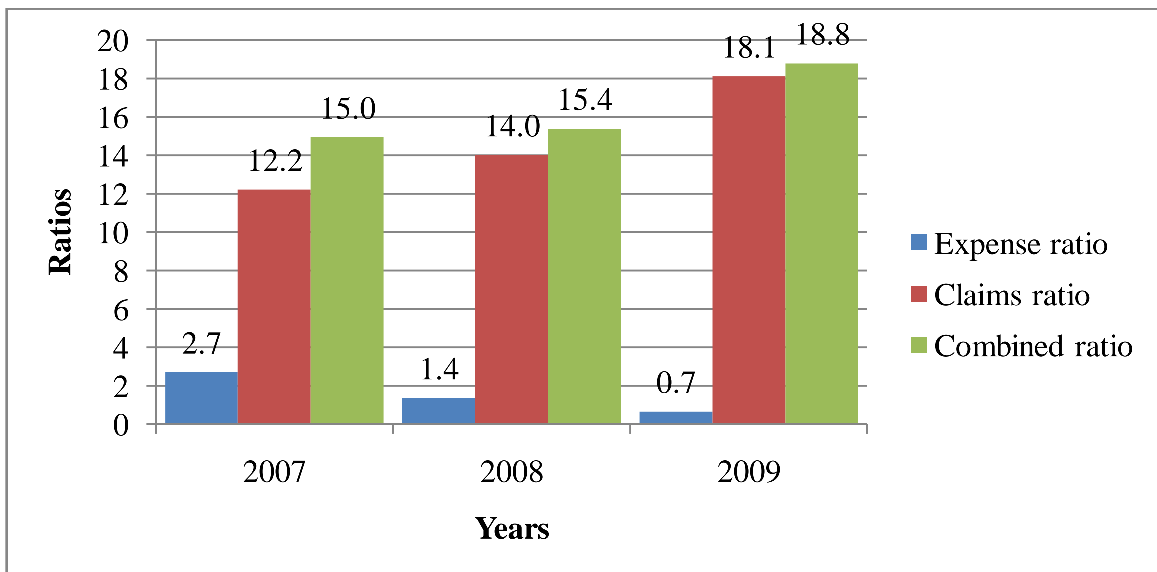
### 4.5.3 Expense, Claims, and Combined Ratios

Figure 5 shows a downward trend in the expense ratio from 2.7 in 2007 to 0.7 in 2009 whilst the claims ratio increased from 12.2 in 2007 to 18.1 in 2009. The combined ratio which is the sum of the expense ratio and claims ratio increased from 15.0 in 2007 to 18.8 in 2009.

Figure 5: Expense, claims, and combined ratios, 2007-2009



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# CHAPTER FIVE

## 5.0 DISCUSSIONS

### 5.1 Coverage Rate

The total membership coverage obtained from the desk review is 22.6% whilst that obtained from the household survey in Madina township is 22.2%. The slight difference between these membership coverage rates is partly due to poor keeping of membership records in the Scheme. The membership coverage went up from 7% in 2007 to 8.5% in 2008 and declined to 7.1% in 2009. This downward trend in membership coverage from 2008 to 2009 is also reflected in the renewal and growth rates indicators. The effect of this downward trend in membership coverage is that it reduces revenue base since growth in revenue is largely influenced by wider participation.

There were no registration of pregnant women in 2007 and indigent members in 2009. The explanations given were that the free maternal policy was introduced in 2008, and in relation to the indigent, it is practically difficult to properly identify true indigents. The informal sector group (18-69 years) which forms majority of the total membership (31.2%), contributes financially to the Scheme. This affects revenue and presents sustainability problem (Witter & Garshong, 2009).

According to Garand and Wipf (2008), the membership coverage rate, renewal rate, and growth rate indicators are the most important requirements for the long-term sustainability of social health insurance schemes. The decreasing trend in these indicators shows client dissatisfaction, possibly due to poor communication, unacceptable service value, unsatisfactory claims payment, and so on. Moreover, these negative trends are

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signs that providers of coverage have not met the social obligation of helping members to understand the role that insurance has in stabilizing their situation. The household survey ascertained these findings as most of the clients interviewed were dissatisfied with services of the Scheme and healthcare providers, citing delay in issuance of ID cards, long queues and extortion of money at provider facilities to support their claims. The declining trends in membership coverage, renewal rate, and growth rate indicators were attributed to inadequate number of personnel and logistics, low income level of inhabitants, and large catchment area of the Scheme.

A study by Kwon (2008) shows that mandatory enrolment is more efficient in increasing membership coverage than voluntary enrolment and it also helps to avoid problems of adverse selection. Therefore, enforcement of the mandatory participation law in the NHIS Act will help improve membership coverage and premium collection. This will also ensure maximum risk pooling, and consequently control medical expenses. Moreover, the coverage, renewal, and growth rates indicators have to be monitored periodically so that any emerging negative trends could be addressed.

## 5.2 Annual Revenue

The main sources of revenue of the Scheme are support from NHIA in the form of subsidy and reinsurance, contributions from the informal sector, and internally generated funds such as ID cards processing fees and interest on investments. The total revenue for the period under study is GH¢12,798,860.93 which is made up of 6.5% premium collected, 89.8% NHIA support, and 3.7% other income. Though, the annual revenue increased significantly over the period under review, NHIA support was the major

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contributing factor. As seen in the membership coverage, the premium collected and other income generated increased in the first year (2007-2008) and declined in the second year (2008-2009).

A study has shown that revenue growth facilitates health insurance development (Guy, 2002). Therefore, as part of its monitoring and evaluation exercise, the NHIA needs to study the trends in contributions from the informal sector at the Scheme level and strategize ways to improve revenue mobilization when declining trends are detected. A decrease in revenue as seen in contributions from the informal sector will greatly affect financially viability of the Scheme especially if support from NHIA ceased. Aside low membership coverage which affects revenue base, low-income level of inhabitants in the district also contributes to the declining trend in premium collection. The household survey reveals that most of the respondents are unable to subscribe to the scheme due to low income and unemployment. The challenge for the Scheme to reverse this downward trend in revenue from the informal sector is both to attract members and to retain them over long periods during which they consume no or few services (Dror, 2007).

### 5.3 Annual Expenditure

The total expenditure for the period under review is GH¢13,721,816.88. Out of this amount, 8.2% was spent on administrative cost and 91.8% on medical bills (claims). Whilst expenses on administration and other operations decreased significantly over the study period, medical bill expenses escalated. These trends are also shown in the expense, claims, and combined ratios indicators.

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Muiser (2007) shows that administrative expenditure higher than 7% is indicative of administrative inefficiencies. Although, the administrative expenditure is reducing, further reduction will ensure financial viability of the scheme. However, the increasing trend of medical expenses will pose serious financial challenge to the Scheme, and may ultimately result in diminished social protection and value to the insured members. For instance, it could present medical cost containment problem if measures such as payment of realistic contribution, modification of the benefit package, co-payments, waiting periods, or sub-limits on certain procedures are not introduced in the near future to prevent escalating claims expenses (Garand & Wipf, 2008). The principle of data gathering, and constant claims monitoring and analysis at the level of each service provider are also particularly important to detect provider abuse and inappropriate treatment and as such should be part of the NHIA monitoring indicators.

The reduction in administrative expenses is attributed to centralization of ID cards production since 2008. The cost of producing ID cards for registered members is borne by NHIA and this has significantly reduced administrative expenditure of the DMHISs. The increasing rate of medical bills expenditure as explained by management is due to: 1) comprehensive benefit package with no ceiling or co-payment mechanism to control cost, 2) the perceived over-utilization of healthcare services (moral hazards), 3) alleged healthcare provider abuse, 4) lack of screening mechanism to prevent registration of sick people (adverse selection), and 5) ineffective gate-keeper system which contributes to increase in attendance and cost at secondary and tertiary facilities. Also, the change in claims payment mechanism from fee-for-service to Diagnostic Related Groupings

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(DRG), and an upward review of the medicine price list in October, 2008 contributed to the high medical bill expenditure especially from 2007 to 2008. A study has shown that these factors contributed to a growth in distressed schemes and failure to pay outstanding provider claims in 2008 (Witter & Garshong, 2009).

### 5.4 Promptness of Claims Settlements

A review of claims settlements pattern of the Scheme shows that there are lengthy delays in payment of claims. According to NHIS Act 2003 (Act 650), the stipulated period for vetting and payment of claims is four weeks (28 days). However, out of 38,737 sampled claims reviewed for October-December, 2009, about 99% was paid beyond the mandatory four weeks period for claims settlement. It has been found that paying claims promptly is an important aspect of service and good value (Garand & Wipf, 2006). Also, claims payment system is an essential element of the financial incentives of healthcare providers and is a key factor affecting provider behaviour (Kwon, 2008). Therefore, there is the need for the Scheme to reimburse providers on time to enable them render continuous service to insured members.

More often, healthcare providers require funds immediately after provision of service. If there are significant delays in claims settlements they may be forced to take other measures that defeat the purpose of the Scheme (Garand & Wipf, 2006). For instance, they may indulge in unhealthy practices such as extortion of money from insured members, and refusing healthcare services to insured members. If these happen, then the Scheme has failed to provide meaningful social protection to the insured. These provider-

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abuse practices also affect renewal rate because dissatisfied insured members see no value in the Scheme and as such are less likely to renew their memberships.

The factors contributing to delays in claims settlements were mentioned as delays in transfer of subsidies form NHIA, inadequate number of personnel, ineffective claims processing software, and large volumes of submitted claims. It was found that the scheme receives an average volume of 30,000 claims per month and this is practically challenging for two personnel to vet and settle these claims within the mandatory four weeks period.

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# CHAPTER SIX

## 6.0 CONCLUSIONS AND RECOMEMDATIONS

### 6.1 CONCLUSIONS

The study shows that there are downward trends in membership coverage and revenue from contributions, and an increasing trend in claims expenses. Moreover, there are lengthy delays in claims settlements. Most of the claims are settled beyond the mandatory four weeks period for vetting and payment. Although, the NHIS is barely six years in operation, it is important that these core performance indicators are continuously monitored at the district level and unfavourable trends addressed for effective management and high performance.

### 6.2 RECOMMENDATIONS

The following are important considerations that would help improve management of the scheme to ensure long-term sustainability. The NHIA should:

1. establish district schemes in the GA East and Ga South sub-districts to improve membership coverage and revenue mobilization especially from the informal sector;
2. amend the claims settlements period from four to twelve weeks to ensure proper vetting of claims to minimize fraud and abuse. However, part-payment of claims (for example, 40%) to healthcare providers whilst the claims are being vetted will be necessary to ensure continuous provision of service to insured members; and
3. design an automated system to generate feedback on performance indicators to facilitate information sharing and continuous monitoring and assessment of the scheme at the district level.

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# APPENDICES

## A. INFORMED CONSENT FORM

**Project Title**

Assessment of Performance of Ga Mutual Health Insurance Scheme

**Institutional affiliation**

Department of Health Policy, Planning and Management, School of Public Health, College of Health Sciences, University of Ghana, Legon

**Background**

My name is Eric Nsiah-Boateng, a student from the School of Public Health, University of Ghana. I am conducting a study on assessment of Performance of Ga Mutual Health Insurance Scheme in Ga District. It will therefore be helpful to know what factors affect performance of the scheme. This is purely an academic research which forms part of my work for the award of a Master of Public Health Degree.

**Procedures**

You will be asked to complete a questionnaire about your professional and family background, and membership status with the National Health Insurance Scheme.

**Risks and Benefits**

The study does not involve any risks. However, you may feel uneasy with some of the questions I will be asking you. Your responses will be very helpful to the study. The information you provide will contribute to knowledge on population coverage of the Ga District Mutual Health Insurance Scheme.

**Right to refuse**

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Participation in this study is voluntary and you can choose not to answer any individual question or all the questions. You are at liberty to withdraw from the study at any time. However, I will encourage you to participate and complete the questions since your opinions are important to help provide recommendations for the scheme to improve on its services.

**Anonymity and Confidentiality**

I would like to assure you that whatever information you will provide will be handled with strict confidentiality and will be used purely for research purposes. Your responses will not be shared with anybody who is not part of the study team. Data analysis will be done at the aggregate level to ensure anonymity.

The questionnaire will take between 20 to 30 minutes to complete and there is no right or wrong answers.

The results of this study will be sent to you, if you provide us with your address below.

***Before taking consent***

Do you have any questions you wish to ask about the study? Yes ☐ No ☐

(If yes, questions to be noted below)

____________________________________________________________

____________________________________________________________

____________________________________________________________

If you have questions later, you may contact **Eric Nsiah-Boateng on 020 8376711**

<u>**Consent**</u>

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I ________________________________________, declare that the purpose, procedures as well as risks and benefits of the study have been thoroughly explained to me in English/Ga/Akan language and I have understood. I hereby [agree ☐ disagree ☐] to participate in the study.

Signature/Thumbprint of Participant __________________________

Date: _____/_____/_____

Address: ____________________________________________________________

**Interviewer's statement:**

I, the undersigned, have explained this consent form to the subject in the English/Ga/Akan language. She/He understands the purpose of the study, procedures to be followed, as well as the risks and benefits involved. The subject has freely agreed to participate in the study.

Signature of Interviewer _____________________________

Date: _____/_____/_____

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**B. DATA COMPILATION SHEET**

Table 1: Membership by category (2007-2009)

| Year | Dis- trict Pop. | Formal sector | Informal sector (18-69) | SSNIT Pensi- oners | 70+ (aged) | Under 18 yrs | Indi- gent | Pregna- nt Women | Total |
|---|---|---|---|---|---|---|---|---|---|
| 2007 | | | | | | | | | |
| 2008 | | | | | | | | | |
| 2009 | | | | | | | | | |

Table 2: Revenue Status of the Scheme

| Year | Premium collected | Support from NHIA | | | Interest on investment | Donor support |
|---|---|---|---|---|---|---|
| | | Administrative | Exemptions | Reinsurance | | |
| 2007 | | | | | | |
| 2008 | | | | | | |
| 2009 | | | | | | |

Table 3: Expenditure status of the Schemes

| Year | Administrative Expenses | Medical Bills Expenses | Total |
|---|---|---|---|
| 2007 | | | |
| 2008 | | | |
| 2009 | | | |

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Table 4: Claims reimbursement rate schedule

| Interval (in days) | Number of claims | Percent of total claims |
| --- | --- | --- |
| 0-28 | | |
| More than 28 | | |
| | Total | 100% |

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## C. HOUSEHOLD SURVEY QUESTIONNAIRE

Name of Location Madina Township

Zones (Atiman 1(1), Atiman 2(2), Presby (3), ☐

Haatso (4), Estate (5), Zongo (6)

Date of visit ______________________

Name of interviewer ______________________

Result *(Completed questionnaire, partly administered)* ______________________

Language of interview ______________________

**Supervision/ quality control**

Name: ______________________

Date: ______________________

**Background characteristics of Household**

1. Name of household head: ______________________
2. Sex Male(1), Female (2): ☐
3. Age: ☐☐
4. Occupation (*salaried worker (1), self-employed/business/trader (2)* *Unemployed (3), student (4), retired (5)):* ☐
5. Education Level (none (0), primary (1), Junior secondary(2), Senior secondary (3), above senior secondary (4) ☐

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**Membership in National Health Insurance Scheme**

6. Have you heard of Ga District Mutual Health Insurance Scheme?

   (1) Yes

   (2) No (go to question 11)

7. Do you and your household members currently belong to the Ga District Mutual Health Insurance Scheme?

   (1) Yes

   (2) No (skip to question 11)

8. How many of the household members currently belong to Ga District Mutual Health Insurance Scheme? *(observe number of valid NHIS Cards and indicate them in the box)*

| Name of household member | Sex Male(1), Female (2) | Age | Valid NHIS card Yes 1 No: 2 |
|---|---|---|---|
| | | | Yes No: |
| | | | Yes No: |
| | | | Yes No: |
| | | | Yes No: |

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9. What are the main reasons why you belong to the Ga District Mutual Health Insurance Scheme?

   (1) Contribution inexpensive

   (2) Chronic illness in family

   (3) Hospital close by

   (4) Other (specify) ____________________

10. When did you and your household registered with the Ga District Mutual Health Insurance Scheme? (enter year) [ ]

11. What would you say is the main reason you do not belong to the Ga District Mutual Health Insurance Scheme? [ ]

    (1) Contribution too expensive

    (2) Not sick now

    (3) Hospital too far

    (4) Treat elsewhere

    (5) Does not offer services needed. Please specify ____________________

    ____________________

    (6) Belong to other scheme. Please specify ____________________