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NATIONAL HEALTH INSURANCE AND QUALITY HEALTH CARE IN THE LAWRA DISTRICT

BY

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DECLARATION

I hereby declare that this thesis is the result of my own original work and that no part of it has been presented for another degree in this university or elsewhere

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ABSTRACT

The National Health Insurance Scheme (NHIS) has been designed to find a lasting, efficient, and acceptable solution to the nagging problem of health care financing. The introduction of the NHIS in 2003 sought to provide a clear way out and make quality health care not only affordable but also accessible. However six years down the lane after the introduction of the NHIS, health indicators still remains appalling in the Lawra District. The Study sought to find out whether the National Health Insurance Scheme is a viable option for increased access to quality health care delivery in the Lawra District. In collecting data for the study, the researcher employed questionnaires and focus groups discussions. Simple random and purposive sampling techniques were also employed to select the respondents. The Research revealed that, the Lawra District Mutual Health Insurance Scheme (LDMHIS) is a viable option for increased access to health care delivery in the Lawra District; there is increased attendance to health facilities in the District as a result of the NHIS. However, the study revealed that quality in terms of convenient working hours, availability of drugs and qualified health professionals and acceptable time spend at facilities among others remains a challenge was in question. The LDMHIS is challenged by inadequate health personnel, and some lapses identified in the operations of the LDMHIS.

The Researcher therefore recommends vigorous education of service providers and some key stakeholders as well as members to increase awareness on the operation by way of reducing abuse of the Scheme. Again, key stake holders should make conscious efforts to improve the operations of the LDMHIS.

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LIST OF ACRONYMS

CHICs	Community Health Insurance Committees
CSM	Cerebrum Spinal Meningitis
DMHIS	District Mutual Health Insurance Scheme
DMTDP	District Medium Term Development Plan
GHS	Ghana Health Service
GHSAR	Ghana Health Service Annual Report
GHSNHIS	Ghana Health Service National Health Insurance Scheme
GHSPD	Ghana Health Service Policy Document
GMA	Ghana Medical Association
GPRS	Ghana Poverty Reduction Strategy
GSS	Ghana Statistical Service
ID	Identification
L.I	Legislative Instrument
MDG	Millennium Development Goal
MHIS	Mutual Health Insurance Scheme
MOH	Ministry of Health
NHIA	National Health Insurance Authority
NHIS	National Health Insurance Scheme
NLC	National Liberation Council
OECD	Organization for Economic Co-operation and Development
OPD	Out Patient Department
WB	World Bank
WHO	World Health Organization

CHAPTER ONE
BACKGROUND OF STUDY

1.1 INTRODUCTION

Provision of quality healthcare is a major developmental issue for countries in the World. It is particularly significant in recent times and has taken a centre stage in the development agenda of the nation due to the alarming proportion of national expenditure on health service delivery and the constant increasing magnitude of diseases, illness and subsequent increasing death rates.

The World Bank in acknowledging the health challenges and its related financial difficulty and the need for support launched the Malaria Booster II which committed 1.1 billion US dollars to expand the country programme to combat malaria in developing countries. The World Group President, Robert B Zoellick in launching the package said the new financial commitment will help African countries over the next three years expand prevention, care, and treatment programmes and sharply reduce the numbers of malaria and related deaths and illness in their countries each year. He added that malaria is a crucial development burden for poor people and developing countries which the World Bank is committed at fighting for as long as it takes to get under control. "Malaria preys on the poor and keeps them poor. Poverty prevents people from buying bed nets to prevent malaria and medicine to cure it. When people are struck by disease, parents miss work, children miss school and malaria emergencies plunge families into debt from which they cannot recover." Zeollick stated. (GNA 18/12/08).

According to WHO (2007) Ghana is one of the 36 developing countries in which over 30% of children less than five years are stunted growth. He observed that though interventions such as promotion of exclusive breast feeding , appropriate complementary feeding with vitamin A, use of iodised salt and other strategies to reduce the burden of malaria during pregnancy are widely available , there is still the challenges of making these services accessible to all children in the country .

According to World Health Organisation Report on Statistical Information System in Ghana, most health care is provided by the government, but hospitals and clinics run by religious groups also play an important role. Some for-profit clinics exist, but they provide less than 2% of health services. Health care delivery is very variable throughout the country. The major urban centres are well served, but rural areas often have no modem health care. Patients in these areas either rely on traditional medicine or travel great distances for care. In 2005, Ghana spent 6.2% of GDP on health care, or US$30 per capita. Of that, approximately 34% was government expenditure (WHO, 2008). A situation which makes health care financing challenging for the State, which paved way for the introduction of NHIS as an alternative choice to health care financing and delivery in Ghana.

In response to these challenges, the Government of Ghana initiated the National Health Insurance Scheme (NHIS) in 2003. Both the Growth and Poverty Reduction Strategy and 2006-2009 and the 2007-2011 Program of Work of the Ministry of Health consider the NHIS as the most important mechanism to achieve the goals of equitable access to healthcare for all Ghanaian and to the benefit of the poor in particular.

1.2 PROBLEM STATEMENT

Very serious health challenges still exist in Ghana in the late 1990s in recent times especially among the rural poor. The World Health Organisation annual report (2005) stated that prevailing neonatal mortality rates in Ghana stand at 43 per 1000 live births. According to health statistics in Ghana, 2008 life expectancy at birth is 59.5 percent while infant mortality rate, per 1000 live births is 76 percent. In 2006 there were 46,693 new cases of tuberculosis with an estimated incidence of 370 per 100,000 population including HIV positive cases. Infant mortality rate is 48 per 100,000 in 2006 (MOH, 2007). Malaria cases and deaths from it are also on the ascendancy in Ghana which caught the attention of the World Bank to launch support in 2008 to fight the malaria pandemic. Ghana is also reported to be among 3 6 developing countries with over 30 percent of children with stunted growth. The picture painted above is

just the tip of the iceberg if comparism is made with health conditions in the Upper West Region and the Lawra District in particular. According to the annual health review report in the Region maternal deaths were reported to be on the increase. The regional average figure stands at 6 per 100,000 in 2007. In the case of Lawra District the figure was 3 in 2006 and increased to 10 per 100,000 in 2007. The number of still births in Lawra District was 33 in 2006 and increased to 44 in 2007 (DHMT,LAWRA). HIV/AIDS and TB related deaths were among the top ten killer diseases in the Lawra District between 2004 and 2005. In both 2004 and2005 there were five HIV/AIDS deaths in the Lawra District. (DHMT, Lawra).

Available statistics indicates that the Lawra District has only eighteen health facilities which comprise two hospitals and sixteen health posts and clinic. Health professional are woefully inadequate. Between 2003 and 2009, the doctor and pharmacist population in the Lawra District has been two. With the total estimated population of 101, 995 in the District in 2009, the doctor to person ratio and pharmacist to person ratio stood as 1:51,093.The picture is same for the other health professionals. For instance the nurse to patient ratio and midwife to patient ratio in 2009 were 1:728 and 1:91 respectively (DHMT, Lawra). The situation indicated above poses a challenge to access of quality health care in the Lawra District.

Availability of drugs at the health facilities to ensure quality care delivery is a challenge. A visit to all the eighteen health facilities in the District revealed that they do not have enough drugs and this was attributed to inadequacy of funds to procure quality drugs.

Meanwhile, the avowed mission of the National Health Insurance Scheme is to provide quality and affordable health care to all residents in Ghana. The NHIS was introduced in 2003 and became operational in 2005 in most districts in Ghana. The Lawra Mutual Health Scheme was one of such scheme that was in full operation by 2005.

With the introduction and full operation of the NHIS in the District one would have expected an improvement in the health situation of the people. But if the

statistics on the health indicators showed above are anything to go by then the downward trend leaves a series of questions unanswered.

What are the factors responsible for the worsening health situation in Ghana and the Lawra Districts?, Do people have access to the NIBS; what about the health professional situation in the District; is quality of health care delivery guaranteed under the NHIS; Have people readily accepted the NIBS as good alternative to health care delivery; what about their attitude and behaviour in seeking health care; what are the challenges of the National health Insurance in delivering quality health care to the poor? Thus, the problem the study intend to investigate is *the worsening health conditions of the people in the Lawra District inspite of the District Mutual Health Insurance Scheme (DMHJS)*

1.3 RESEACH METHODS

1.3.1 Main Question

Does the Lawra mutual health insurance provide affordable and accessible quality health for the rural poor?

1.3.2 Sub questions

1. How do the operations of the DMIBS enhance or impede the poor from accessing quality health care?
2. What are the challenges of the health facilities in providing quality health care to the poor?
3. What is the health-seeking behavior and challenges of the poor in accessing quality health care?
4. What can be done to make the NHIS fully responsive to quality health care delivery in the Lawra District?

1.4 OBJECTIVES OF THE STUDY

1.4.1 Main Objective

To ascertain how of the Lawra District Mutual Health Insurance Scheme in providing affordable and accessible quality health care to the poor

1.4.2 Sub objectives

1. To examine how the operations of the DHMIS enhance or impede access to quality health care for the members.
2. To uncover the challenges/major abuses health facilities are faced with in delivering health care to the members.
3. To analyze the health risk seeking behavior of the members in accessing quality health care.
4. To find what can be done to make the DMHIS more responsive to quality health care delivery in the Lawra District.

1.5 RATIONALE OF THE STUDY

The choice of Lawra District is by no means arbitrary. Research works in the District are very few especially in health. Academia will find the study useful especially in any futuristic agenda pertaining to health care and poverty alleviation. It has also been the aim of the researcher that this investigation will add to the existing health literature in the Lawra District.

The purpose is also to examine the relationship between quality health care and the poor in the District and demonstrate concrete and practical measures that can be taken to improve health care delivery. The analysis will place the District within its national context in terms of various performance measures and "best practices" to be adopted on a regional basis.

1.6 ORGANISATION OF THE CHAPTERS

This dissertation covers five distinct chapters. Chapter one deals with the background of the study including introduction, statement of the problem, objectives of the study, research questions, and a description of the study area.

Chapter two reviews relevant literature, including concepts and themes on National Health Insurance. Discussions on relevant frameworks on health care and poverty reduction, National Health Insurance and quality health care to the poor are included in this chapter. Chapter three encompasses methodology for the study, including sampling frame and sample size selection, choice of respondents, research instruments adopted and the sampling method. Chapter four delves into data analysis, presentation and discussion of results, with chapter five dealing with summary, recommendations and conclusions.

CHAPTER TWO
LITERATURE REVIEW

2.1. INTRODUCTION

According to Cooper (1988) literature review uses as its database reports of primary or original scholarship, and does not report new primary scholarship itself. The primary reports used in the literature may be verbal, but in the vast majority of cases reports are written documents. The types of scholarship may be empirical, theoretical, critical/analytic, or methodological in nature. Secondly, a literature review seeks to describe, summarize, evaluate clarity and/or integrate the content of primary reports. The review forms an important chapter in a thesis where its purpose is to provide the background to and justification for the research undertaken (Bruce 1994).

Thus this chapter examined relevant literature in relation to the thesis and delved into definitions of concepts such as health insurance, quality health care and, an examination of Ghana's poverty situation in relation to health care financing, among others. Relevant theories and models on health care financing were also discussed. Based on the review, important elements of these models and theories which helped inform the study and were adopted as instruments for analyzing the National Health Insurance Scheme in Ghana to enhance quality and sustainability of the scheme.

2.1.1 Brief History of Health Insurance in Ghana

At independence, there was no direct out of pocket payment at public health facilities in Ghana. According to Senah (1989), healthcare was financed entirely through government tax revenue. In 1970, the sustainability of "free" health care became problematic as a result of economic decline. To respond to the problem of health care financing, a statutory dispensing fee of 30np (New Pesewa) was introduced by the National Liberation Council (NLC) but was immediately withdrawn as a result of heavy public outcry (Senah 1989). However, considering the cost of dispensed drugs to the government, the Progress Party (PP) government enacted the Hospital fees 1969 Amendment Act 1970, Act 325 which sought to introduce fee for the generality

of patients including civil servants, Out-Patient Care and treatment (including antenatal care)

The Provisional National Defence Council (PNDC), as a measure to arrest the situation, introduced surcharges on the delivery of imported drugs and hospital equipment in 1983. And by the end of 1983, government expenditure on the health sector had dropped to less than 20% of the pre-197 5 levels. The effect of such low spending on health care led to a significant reduction in the capacity to produce and import drugs and consumables (MOH 2004). This situation continued until 1985 when the government introduced the user fees for all medical conditions except certain specified communicable diseases. The exemption policy was badly implemented that those who were supposed to enjoy it never did in practice. A guideline for implementation was not provided and no conscious system was designed to prevent possible financial leakages. As a result, the standard of health care provision fell drastically. There was acute shortage of medicine in all public health facilities. More importantly, the introduction of user fees resulted in the first observed decline in utilization of health services in the country. In spite of this, the government went ahead to institute full cost recovery for drugs as a way of generating revenue to address the shortage of drugs. The payment mechanism put in place was termed Cash and Carry System (CCS). The implementation of this system compounded the utilization problem by creating a financial barrier to health care access especially for the poor. This resulted in delays in seeking health care, non-compliance with treatment, and consequently pre-mature deaths (Senah, 1989).

In pursuance of a more humane approach to financing health care the NHIS was introduced in 2003 through an Act of Parliament (Act 650) to provide affordable and accessible quality health care for all residents of Ghana. The health insurance scheme is aimed at making the health goal of the government within the context of the Ghana Poverty Reduction Strategy (GPRS) achievable and also to accomplish the targets set in the Health Sector's Five-Year Programme of Work, 2002-2006(MOH 2004)

The National Health Insurance Act of 2003, Act 650 provides three different categories of contributions for different categories of people depending on their income status. This ranges from the core poor who are exempted, very poor and the poor who are supposed to pay GH¢7.20, the rich who are required to pay GH¢28.00

and the very rich who are supposed to pay GH¢48.00. Unfortunately, because of difficulty in classifying people's income in the Ghanaian economy, almost everybody pays the minimum contribution. However, a bulk of money for the schemes comes from the National Health Insurance Authority which mobilizes funds through Social Security contribution of members, pensioners and from the National Health Insurance levy.

2.2 THEORETICAL FRAMEWORK

Multilevel Model of Determinants of Health Expenditures

The model explains that the purpose of insurance is to remove the individual budget constraint, and to reduce or eliminate the influence of cost of care on patients and physicians' decisions of how much care to use. Thus, we do not expect to find significant income effects on the utilization of care among members, and only modest income effects among members of an indemnity plan with 10% coinsurance (Getzen, 2000). According to Getzen health care is neither a necessity nor a luxury but both since the income elasticity varies with the level of analysis. Using the multi-level decision model to analyse health care expenditures, Getzen estimated that with insurance individual income elasticities are typically zero while the national health expenditure elasticities are commonly greater than one. If persons are fully insured, correlations with measures of individual income provide no information about income effects per se.(e.g., the effect of monetary budget constraints) but instead reflect the influence of other unmeasured variables (cost of time, family resources, education preferences, planning horizons etc) that are correlated with individual's income.) Variation in spending in individuals is associated with individual differences in health status while income elasticiticies are small or negative (Wagstaff et al 1991). Nyman (1999) explains that the increase in spending in health is really an income effect resulting from the higher insurance created in the very sick state.

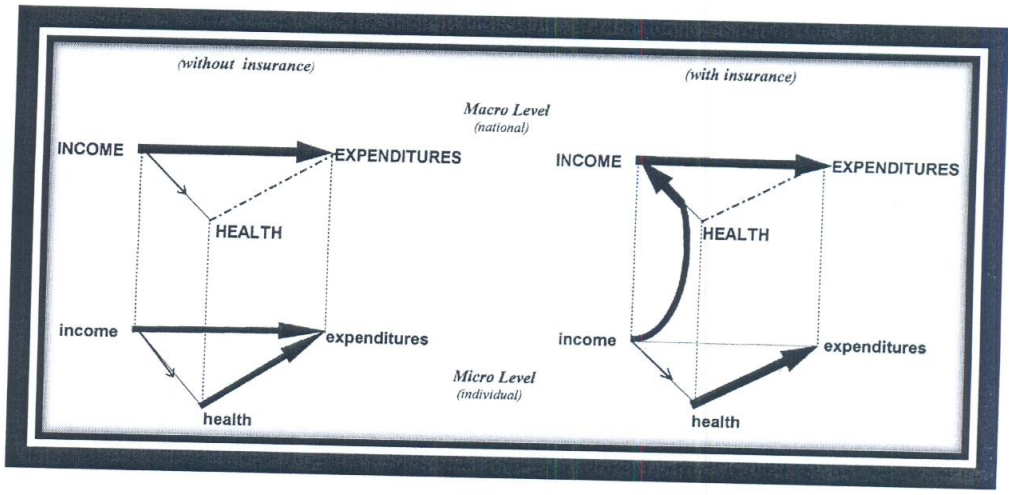

Figure 2.1 Multi-level Model of Determinant of Health Expenditures Source (adopted from *Getzen, 2000)*

The multilevel model of determinants of health expenditures explains that without insurance both income and health statuses affect expenditures at the micro level (see Figure 2.1). At the macro level, income effects are still strong, but variation due to differences in health status is no longer visible. The short arrows as shown in Figure 2.1 indicate that income also affects health status directly at both the micro and macro levels. With insurance rights, the pooling of funds removes the income constraints at the micro level, and tends to strengthen the correlation of individual health status with expenditures.

At the individual micro level, without organized medical financing, both health status and income affect expenditures, but most of the variance is due to differences in individual health status (Getzen 2000) At the macro level in an uninsured state, the large individual variation due to differences in health status is averaged out and disappears, so that income effects, while no bigger in magnitude, become more visible as the background noise is removed. With the development of insurance, an organized link is created between the micro and macro levels which further attenuates the individual income effects, and reinforces the health status effects at the individual level. However, the

aggregate effect of individual incomes on the group mean is not reduced or eliminated, merely pooled and transferred to a higher level.

The model as constructed determines total spending at the national level based largely on the average amount of national resources per capita income while the allocation of expenditures across individuals is based primarily on their need for care rather than their contribution to total resources. Gerdtham et al (1992) indicates that, at the macro level, national expenditures on health consistently show income elasticity greater than one with about 90+% of cross- sectional and time series variation explainable by differences in per capita income and differences in health status as having negligible effects. According to Di Matteo (1998) it is to be expected that measured income elasticities will differ from individual, a risk pooling group or a national health system, just as price elasticities for individual firm and market demand normally differ from each other. Hittris and Posnett (1992) pointed out that income elasticities of individuals, health expenditures under insurance usually is between 60 to 95 percent of total spending typically near zero or negative while the elasticities of the national health expenditures with respect to national income is typically greater than one.

Getzen (2000) states that it is not entirely correct to speak about individual spending in such a model since the expenditures on individuals are based on group decisions, with little financial opportunity cost foregone at the individual level.

Allocative models separating group and individual choices work best when effects are clearly separated, and when budget constraints apply to the group more than to the individual within the group. Insurance pools are not only likely to display separation between group and individual behavior, they are designed to bring about such a separation. The purpose of insurance is to remove the individual budget constraint, and to reduce or eliminate the influence of cost of care on patients' and physicians' decisions of how much care to use (Bryk and Raudenbush, 1992).

The model as espoused above and supported by many authors is a meaningful tool in explaining health care expenditures in relation to income levels and is therefore a useful instrument in the analysis of insurance alternatives in health care financing. The Government Ghana avowed aim of introducing the National Health Insurance as an alternative to the 'Cash and Carry' system was in line with the principle of removing the individual income constraint or cost of care on a person's decision of how much care to use when he most needs it.

2.2.1 The Theory of Insurance Demand

The theory is premised on the tenets that if people attach value to health and other items of consumption, and if utility is increasing in consumption but at a declining rate (diminishing marginal utility of consumption or income), it logically then follows that households will be willing to pay for insurance that covers all of their out of pocket spending on amount that exceeds the expected average value of that spending. By implication, granted there is an insurance arrangement that can make insurance available at a minimum premium equal to the expected value of medical spending, people or households will prefer to obtain that insurance rather than face the risk of out- pocket payment of varying and potentially large amounts all other things being equal.

In most households in Ghana especially those in the rural areas, face serious challenges of buying health care in times of illness. The numerous stories of patients discharged and held in hostage in many hospitals and clinics in Ghana due to nonpayment of hospital bills are instances that beckoned for the introduction of health insurance until 2003.

According to Pauly (2004), some and probably many, households will over the period be relatively free from illness and therefore have low medical care demand and low potential out of pocket expenses. At the other extreme, the random nature of illness means that a small minority of households will have potentially high levels of medical care spending. That is, a few households will after the insurance have much above average medical spending and many households will have below-average spending. This proposition presumably

holds even if we are describing medical spending in developing countries which is quite low on average relative to developed countries.

Nevertheless, as stated by Pauly, spending still varies substantially around that lower mean; some people in developing countries make out of pocket payments which are large relative to their incomes and even large relative to the developed country mean. People buy insurance to cushion the financial blow of the cost of care they would have purchased in the absence of insurance (Nyman 1999). Assume for the present that the level of spending will be the same whether covered by insurance or not. By giving up moderate amounts of consumption in the lucky states in which no one in the household becomes seriously ill, people who buy insurance can avoid drastic cuts in present or future consumption of other things in the rarer but possible unlucky event of a serious illness that needs to be treated in a costly way. Nyman further argues that if a person attaches enough value to survival above and beyond any productivity effect he may be willing to pay the premium for health insurance which in effect buys this survival.

In short, Pauly emphasised that the strength of risk aversion determines consumers' willingness to pay a premium in excess of the fair premium. According to Nyman (1999) the willingness to pay premium in excess of the expected value of no-insurance spending can be high, much higher than what would attribute to risk aversion alone. In developed countries, judging from revealed preferences, consumers generally seem willing to pay the loading of 50 to 80 percent of expected benefits that are typical for individual insurance. There is little evidence on the strength of risk aversion in developing countries like Ghana per se. However, we can ask whether, for a given monetary amount of loss, risk aversion is related to wealth.

This discussion also has implications for the role of voluntary insurance in resource mobilization for medical care. New resources for health care are mobilized to the extent that insurance premiums exceed benefits paid out plus administrative costs. Any possible margin in excess of these two costs presumably can be made available for other purposes. But the theory says that there can be substantial utility gains even in the absence of any appreciable

margin. Moreover, resource mobilization for medical care is a goal for the economy as a whole only to the extent that use of those resources in providing health care is more valuable than their other uses (Tekorang, 2005).

2.2.2 Reasons for Insurance Demand

The Theory of insurance demand identifies low risk aversion, moral hazard, and adverse selection as the primary reasons for no or low insurance demand in competitive markets. Others include,namely:

1. Consumer information: If consumers have incomplete or incorrect information about the distribution of expected losses, demand for insurance at premiums insurers require may fail to materialize. The most obvious possibility here is that consumers may underestimate ex ante the chance of an illness with relatively expensive treatment. Such beliefs of the "it can't happen to me" variety do exist, and sometimes if the loss probability is in a low enough range, it may be rational for consumers to fail to obtain correct information. More generally, culturally conditioned beliefs about the future or even high interest rates can lead to a kind of myopia in which severe losses are not anticipated by consumers and therefore not insured.

If closing the gaps in knowledge seems in principle attractive; the first question is whether there exists or could exist adequate data to develop estimates of illness probabilities (defined not just by the existence of illness but by its severity or other proxies for effectiveness of treatment). "Better data is almost always better, but we do not want to overemphasize the importance of perfect knowledge; Consumers surely must develop some subjective estimate of illness probability, which they can then update in a Bayesian way if better information becomes available" (Pauly, 2004: 35). One of the obvious emerging issues of the NIBS in Ghana is the unavailability of accurate and adequate data. It is challenging to get appropriate information on the operation of the Schemes in the country. This phenomenon is seriously affecting the smooth implementation of the NIBS as an affordable means of health care delivery.

2. Distrust of insurers: It is alleged that consumers sometimes mistrust insurers when there has been a history of default. We do know that insurers of all types

with less financial stability are penalized in terms of lower premiums they can charge or smaller market shares. It is clear that some kind of structure that will reassure consumers who pay premiums that they can collect claims without excessive delay and bother is important in establishing a functioning insurance market. Setting up insurance under the auspices of other trusted social institutions, such as hospitals, labour unions, or trade associations, can help. There is no well-developed economic theory of trust (Pauly 2004). With reference to the above assertion, the NHIS can only succeed if the Schemes are able to instill trust and confidence in members in terms of their operation and dealings with clients. This trust will enhance wider coverage in terms of registration and renewal of membership**.**

3. Lack of competition: Given some demand for insurance on the part of a population, insurance will be demanded in a large quantity the lower the price (in the sense of administrative costs and profit make up). Even if insurers are non-profit, the absence of competition can lead to excessively high administrative costs. The possibility of market power cannot, however, be a reason for insurance to fail to emerge at all, since even a profit-maximizing monopoly must set a price low enough that it can sell some product (Pauly, 2004). The private health companies cannot favorably compete with the NHIS as a public/social intervention with an affordable premium level. Private health insurance companies are competed off by the NHIS.

2.3. SOME CONCEPTS AND PRINCIPLES OF HEALTH INSURANCE

Under the conceptual framework the researcher attempts to discuss and review some concepts in health insurance, type of health insurance such as private insurance social/mutual insurance and group insurance, health insurance and poverty reduction.

Health insurance is a private or public system of protection against the losses owing to medical expenses (NHIA, 2008). It is based on the principle of pooling of risk, and therefore, the redistribution of financial resources from the segment of a community that does not incur high health care cost to those

segments of the community that do. The objective of health insurance is to cover future risks of ill health (NHIA, 2008). People purchase insurance because they prefer the certainty of paying a small premium to the risk of getting sick and paying a large medical bill. Additional health care that consumers purchase because they have insurance is not worth the cost of producing it. Therefore, economists have promoted policies (copayments and managed care) to reduce consumption of this additional, seemingly low-value care (Nyman 1999). Inferring from Nyman minimum and affordable premium will be a motivation for people to enroll on to the National Health Insurance.

Health insurance is insurance that pays for medical expenses. It is sometimes used more broadly to include insurance covering disability or long-term nursing or custodial care needs. It may be provided through a government sponsored social insurance program, or from private insurance companies. It may be purchased on a group basis (for example, by a firm to cover its employees) or purchased by individual consumers. In each case, the covered groups or individuals pay premiums or taxes to help protect themselves from high or unexpected healthcare expenses. Similar benefits paying for medical expenses may also be provided through social welfare programs funded by the government.

By estimating the overall risk of healthcare expenses, a routine finance structure (such as a monthly premium or annual tax) can be developed, ensuring that money is available to pay for the healthcare benefits specified in the insurance agreement. The benefit is administered by a central organization such as a government agency, private business, or not-for-profit entity.

Health insurance is an integral part of a viable national system of cost recovery because it provides people with a mechanism for pooling resources against the risk of inability to afford the cost of medical care as well as against the risk of a financial ruin due to excessive medical expenses (Mwabu et al., 1998). Deducing from this, health insurance is a proposed mechanism for financing health care at both the individual and national levels. Hence the introduction of the NHIS in Ghana is in the right direction.

It can be defined as a way to distribute the financial risk associated with the variation of individuals' health care expenditures by pooling costs overtime (pre-payment) and over different individuals. It differs from out-of-pocket payments which do not pool risks or pre pay health care cost (OECD 2004). Ghana's choice of for the insurance as indicated earlier was due to the inability of the Government to meet its medical expenditures.

2.3.l Types of Health Insurance

Heath insurance may be applied to a limited or comprehensive range of medical services and may provide for full or partial payment of the costs of specific services. Benefits may consist of the right to certain medical services or reimbursement of the insured for medical expenses. A large variety of insurance schemes are therefore possible.

2.3.1.1 Group Insurance

Often the private insurance made available in voluntary insurance markets in developed countries takes the form of group insurance. Insurance is arranged for some group of buyers, who then may have only one insurance plan or at most choose from a small set of plans, rather than having insurance purchased by each individual according to what the individual prefers. Group insurance removes individual budget constraints and reduces or eliminates the influence of cost of care on patients' decisions of how much care to use (Bryk and Rauden Bush 1992).

Most commonly the group is based on employment at a particular firm, but it may also be based on membership in a labour union, in some other nongovernmental organization, or even on residence in a community.

Theories suggest several reasons that demand for insurance is sometimes channelled through a group.

- First, there are often tax advantages for insurance purchased in this way (usually by excluding some portion of the premium labelled the employer payment from taxation).
- Second, even in the absence of subsidy, group purchase can reduce insurer administrative costs, especially costs incurred for selling and billing.
- Finally, another reason sometimes suggested as to why group insurance is socially desirable (even if not necessarily desirable to all consumers) is that it pools risk across people with different levels of observable expected expense (based on age or the presence of chronic illness) to a greater extent than does individual insurance.

With insurance, it is the average income of the group and a fraction that the group is collectively willing to spend on medical care that determines the health budget not the income of the particular patient being treated (Genzen, 2000)

Traded off against these advantages (relative to individual insurance) are the need to settle for the insurance policy or small set of policies chosen by the group, and frequently considerably lock-in to the group especially for those who come to be high risks .. In addition, the risk pooling advantage may not be that strong, both because employers who provide insurance as part of total compensation do seem to vary worker wages inversely (other things being equal) with some characteristics related to higher risk (like age) and because individual insurance in unregulated competitive markets typically provides protection against the onset of high risk through guaranteed renewability protection (Pauly, 2004).

The least well-known aspect of group insurance is the "group demand" for insurance. When groups contain people with different insurance demands, what determines what is actually chosen by or for the group? Possible designees for the role of decision maker are the average worker, the marginal worker; the worker with the most political influence in the group, and the uninformed employer. According to Pauly (2004), group insurance purchases

do often match characteristics of workers: groups with higher income workers with larger families choose more generous insurance coverage. Moreover, workers move across groups based in part on the insurance offered. Finally, more heterogeneous groups are more likely to offer multiple insurance options than those where all workers are similar in demand characteristics. On the other hand, unionization does seem to be associated with higher insurance demand, given worker characteristics.

2.3.1.2 Private Health Insurance

Private health insurance is coverage by a health plan provided through an employer or union or purchased by an individual from a private health insurance company. The U.S census Bureau and Household Economic Statistic Division (2008) identified the following as types of private health insurance.

- Employment-based plans: Employment-based health insurance is coverage offered through one's own employment or a relative's. It may be offered by an employer or by a union.
- Own Employment-based plans: Own employment-based health insurance is coverage offered through one's own employment and only the policyholder is covered by the plan.
- Direct-purchase plans: Direct-purchase health insurance is coverage though a plan purchased by an individual from a private company.

Ghana National Health Insurance Act (2003), (Act 650) has made provision to assess and accredit private individuals and health institutions or companies as private health insurance companies. However the establishment and growth of private individual and companies as a private health insurance schemes is not prominent in Ghana, the National Health Insurance has overshadowed the growth of private health insurance companies. The private health companies cannot favorably compete with the NHIS as a public/social intervention with an affordable premium level.

2.3.2 Health Insurance and Poverty Reduction

The UNDP, Human Development Report defines the concept as follows "Poverty is multi-faceted and multi-dimensional. It is much more than material deprivation, reflected in low incomes, but also reflects poor health, education, deprivation in knowledge and communication, inability to exercise human and political rights and the absence of dignity, confidence and self respect" (UNDP, Human Development Report, 1997,p 26). Looking at poverty in the Ghanaian context, the Ghana Poverty Reduction Strategy I (2003-2005) document also defines poverty as "unacceptable physiological and social deprivation". It states that poverty may be caused by or exacerbated by many factors including low capacities through lack of education, vocational skills, entrepreneurial abilities, poor health and poor quality of life.

With specific references to the poverty situation in the country, the Ghana Poverty Reduction Strategy (GPRS I) document states that there are significant differences in the spatial distribution of poverty in the country adding that five out of the ten regions had more than 40% of their population living in poverty in 1999.The document using the income measure as a yardstick says poverty levels are highest in the three northern savannah regions (the Upper East, Upper West and Northern Regions), ranging between 69% and 88%.The document identified nine out of ten people in the Upper East Region, eight out of ten people in the Upper West Region and seven out of ten people in the Northern Region as poor. The document noted that urban areas in the northern savannah also experienced significant increases in poverty levels during the period, concluding that overall poverty across these three administrative regions is largely a rural phenomenon, a case of the poor getting poorer and an indication that policy measures to alleviate poverty could not have taken hold in this region of the country. The highest incidence of extreme poverty was also found to exist in the rural savannah and with the Upper West, Upper East and Central Regions equally showing the highest levels of consumption poverty. The document did not only identify the three northern regions to be synonymous with poverty. It added that reductions in extreme poverty have occurred noticeably in rural forest belt (covering parts of Brong Ahafo, Western, Ashanti regions) and moderately in the rural coastal

(covering parts of Eastern, Central and Volta regions) and that despite these reductions, the levels of poverty in Brong Ahafo, Volta and Eastern remain high falling marginally from 18% in 1991/92 to 17.3% in 1998/1999.

According to the quarterly magazine of the NHIA, Poverty Reduction Strategy (PRS) of every country includes health sector components because poverty is both a consequence and a cause of ill health. Ill health, malnutrition, and high fertility are often reasons why households end up in poverty, or sink further into it if they are already poor (NHIA, 2008).

The illness of a household breadwinner and the consequent loss of income can undermine a poor household's ability to cope financially. Out-of-pocket payments for health services - especially hospital care - can make the difference between a household being poor or not. Also, poor countries and poor people suffer from a multiplicity of deprivations which translate into levels of ill health that far exceed the population average (MOH, 2004)

Most obviously, they lack the financial resources to pay for health services, food, clean water, good sanitation, and the other key inputs to producing good health. It is not just lack of income that causes the high levels of ill health among poor people, however: the health facilities serving them are often dilapidated, inaccessible, inadequately stocked with basic medicines, and run by poorly trained staff (NHIA, 2008).

Furthermore, the poor are also disadvantaged by a lack of knowledge about prevention and when to seek health care. They also tend to live in communities that have weak institutions and have social norms that are not conducive to good health. In short, poor people are caught in a vicious cycle: their poverty breeds ill health; and this in turn conspires to keep them poor (NHIA, 2008).

Governments can do much to improve the health of their populations, and especially of the poor. They can mitigate the effects of low income on health and other key goods and services, through, for example, health insurance, fee-waivers, and targeted food subsidies.

Also by improving the health of their populations, governments can reduce income poverty. They can also reduce income poverty indirectly, by reducing the impact of ill health on household living standards; for example, by modifying health financing arrangements to ensure that people do not face large out-of-pocket payments when they fall ill. This sometimes called the financial protection goal of health systems; it is clearly a secondary goal to that of improving health, but is nonetheless an important one. An important health financing mechanism that is usually used to reduce the impact of ill health on household is health insurance (NHIA, 2008).

A comparative study on the impact of social health protection in South Africa, Senegal and Kenya, undertaken jointly by the ILO, WHO and Organisation for Economic Co-operation and Development (OECD) and presented at the Berlin Conference, illustrates the link between social health protection and poverty. In all three countries, the social health protection deficit concerns particularly households with low or no income, informal economy workers, women and rural households. Many of these people are pushed below the poverty line or into deepened poverty due to health care costs (W.H.O N0.2, 2006).

In their fight against social exclusion and poverty, the ILO and its partners focus on social health insurance. Besides tax-funded health care as it exists for formal economy workers and their families, social health insurance is the other major concept when it comes to health protection. The latter include informal economy workers and their families as well as the poor. Members of such a scheme contribute according to their financial ability, rather than according to their current health condition. Financial resources are pooled and benefit all members of the system in case of illness.

The National Health Insurance in Ghana is pro-poor. Under the NHIS, the rich subsidises for the poor, the healthy subsidises for the sick and the economically active pays for children, the aged and the indigents. The pro-poorness of the NHIS is manifest in the categorization of premium to reflect the individual socio- economic background (NHIS, ACT 650)

2.3.3 Quality Health Care

Yeboah (2003) defines quality of care as "a set of acts carried out for the patients that meet the requirements of the best evidence available at the time in the particular setting and location". The quality Management Handbook (1996) defines quality care "as the ability to meet customers (user) expectation and provide satisfaction at the minimum possible cost". The Author defines quality of care as "everything the health care organisation undertakes to fulfil the expectation and ultimate satisfaction of the user, the payer, the service provider and the employer at the minimum cost".

Yeboah(2003), identifies quality care factors and their respective measurement to the user as outlined in the table below;

Quality Factor	It's Measurement to the User
Working hours	Convenient opening and closing
Human relations	Mutual respect and treating the user in the a humane manner
Diagnosis	Health personel should appear to have time for diagnosis. Can the user know the result of the diagnosis?
Drug	Does the facility have drugs prescribed? ls the drug dosage well explained to the user?
Time	Is the total amount of time spent at the facility reasonable and acceptable?
Confidentiality	Are the medical records of the user kept
Cost	Is the cost of treatment/services affordable or reasonable?

Source: Yeboah (2003)

The National Health Insurance Act (Act 650) sees quality health care as a formal set of activities to review and ensure the healthcare services satisfy members of health insurance.

Section 68 of the NHIS Act highlighted determinants that will ensure quality in the NHIS including accreditation, and the programmes service providers will put in place to enhance quality health care services to the people. Some of the quality measures instated by the NHIS Act include;

- The quality of health care services delivered is of reasonably good quality and high standard

- The quality of health care services is of standards that are uniform throughout the country
- The use of medical technology and equipment are consistent with actual need and standards of medical practices
- Medical procedures and administration of drugs are appropriate, necessary and comply with accepted medical practice and ethics.
- Drugs medication used for the provision of health care in the country are those included in the NHIS drugs list of the Ministry of Health.

Furthermore, to ensure that quality health care is rendered to members, the scheme provides that, all providers and institutions must meet a minimum set of accreditation requirements before they can provide services to members of the scheme. The scheme has also developed a tariff regime, drug list and a standard treatment protocol to ensure quality healthcare delivery and sustainability of the scheme.

- Accreditation is an assessment both internal and external peer assessment process used by health care organizations to accurately or the DMHIS determine performance level of health facilities in relation to established standards and to implement ways to continuously improve them. It is a status that shows the public that a health facility has met and is maintaining a high level of quality that has been set by an accrediting agency.
- Tariff System: This explains the billing system under the national health insurance scheme in Ghana. The amount of money health providers charge on various treatments for members of the NHIS.
- Diagnosis: It involves the process of identifying diseases, understanding where the disease came from or the causes, how it works and the best way to cure it. The diagnosis determines the nature of the treatment and is thus related to the billing system. That is what is being paid for the cure/ treatment meted out.

2.3.4.1 Brief Overview of National Health Insurance in Ghana

Health insurance started in Ghana on a pilot basis in some parts of the Country since 1981. The first of its kind was started in Nkronza by Dr. Bossman. Other piloted areas includes, West Gonja Hospital in 1993, Saboba/Chereponi in 2003 and Damango Hospital in 1992 (Wujangi 2008). These schemes did not take any national dimension. The membership, management, and beneficiaries of the schemes were focused on the residents of the respective catchment areas. The first National and most comprehensive health insurance scheme is the NHIS established in 2003.

The National Health Insurance Scheme has been designed to find a lasting affordable and efficient solution to the nagging problem of healthcare financing. The National Health Insurance Scheme was introduced in 2003 by the National Health Insurance Act, 2003 (Act 650) with the view to providing financial access for the residents of Ghana, especially the poor and the vulnerable to quality basic health care. (Act 650) sets out three types of health insurance schemes that may be established and operated in Ghana. These include;

1. District mutual health insurance schemes
2. Private commercial health insurance schemes
3. Private mutual health insurance schemes

For the purpose of this study, attention was focused on the mutual health insurance schemes. According to the Act (Act 650) a District Mutual Health Insurance Scheme can be established and become operational if it has a minimum membership of 25,000 and minimum security of two hundred Ghana Cedis (GH200) and above all is licensed by the National Health Insurance Authority (NHIA). There are one hundred and forty five licensed DMHIS under the NHIS. The diagram below illustrates the organisation of the scheme.

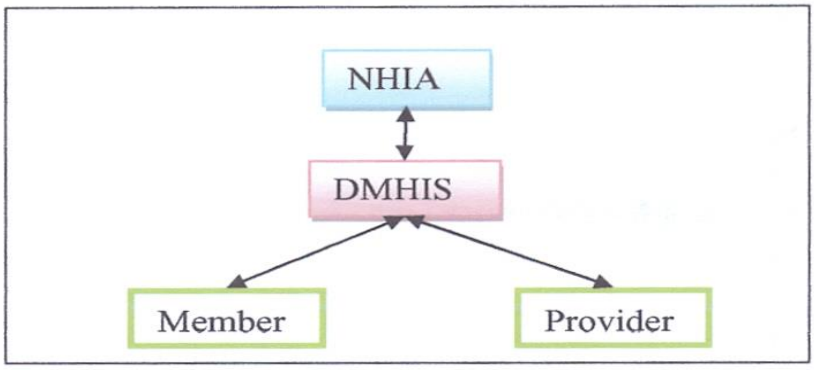

Figure 2.2 Organization of the NHIS

Source: (NHIS, ACT 650)

Each of the DMHIS has a District Health Insurance Assembly (DHIA) comprising a chairman or secretaries of the Community Health Insurance Committees of the various communities in the district. The DHIA is expected to provide policy direction to the scheme's operations, put in place a constitution and appoint Board of Directors of the scheme. The board of directors is responsible for the enforcement of the constitution, approval of budget, rendering operational and financial accounts to the DHIA and appointing management staff for the scheme. Each defined community or electoral area (in the case of Metropolis) has a health insurance committee that has a chairman, secretary, publicity coordinator, contribution collector and one other member. This committee is responsible for the initiation and identification of the core poor for validation by the political district assembly and/or the National Health Insurance Authority. It also supervises the stratification of residents into socio-economic groupings based on ability to pay and collection of contributions. The diagram below indicates a comprehensive structure of DMHIS (NHIS, LI 1809)

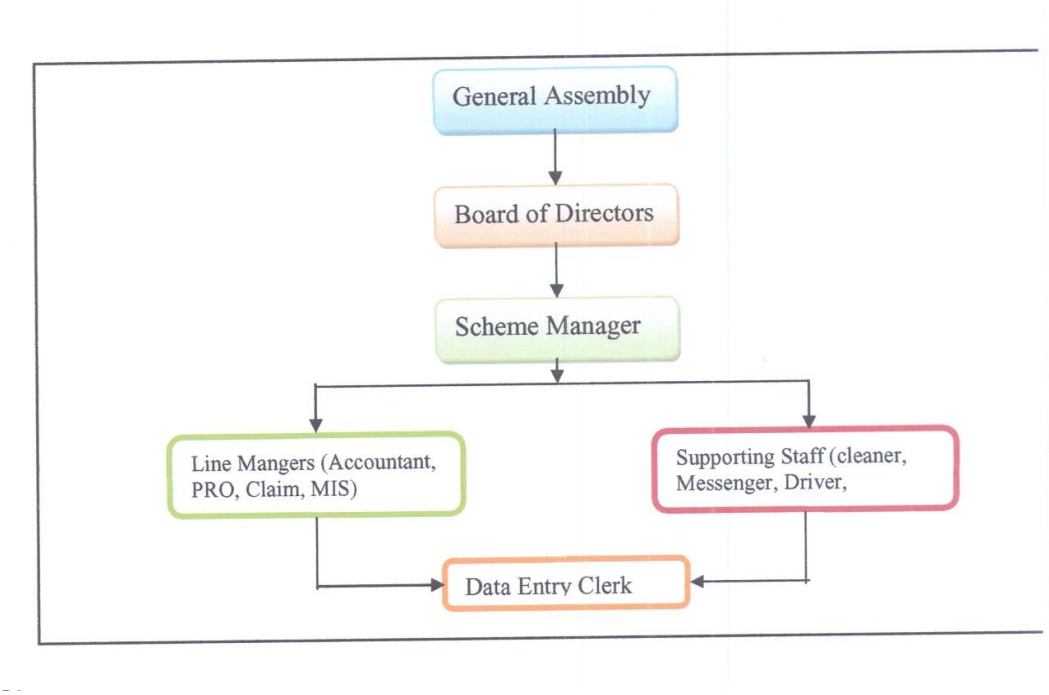

Figure 2.3: The Structure of the DMBIS

Source (NHIS, LI, 1809)

2.3.4.2 Principles of NHIS/DMHIS

The major philosophical underpinning of the NHIS is the pooling of resources and spreading of risk. There is strength in numbers. The National Health Insurance in Ghana is also pro-poor. Under the NHIS, the rich subsidises for poor, the healthy subsidises for the sick and the economically active pays for children, the aged and the indigents. The pro-poorness of the NHIS is manifest in the categorization of premium to reflect the individual socio- economic background. According to NHIS Regulation (NHIS, LI, 1809) some basic principles are espoused under the scheme to illustrate the thinking behind the NHIS in Ghana. These include;

- • **Autonomy:** The Act enjoins all DMHIS to be independent from external pressures. They should be free to set up own rules, regulated and responsibilities with approval of members. This will allow for quick decision making in terms of setting premiums/dues, payment of bills and dealing with complaints.

- **Solidarity/Mutuality**: Solidarity and mutuality of the NHIS is seen in the expression of empathy with the more disadvantaged without expectations of a direct obligation from the recipient at the time of giving. This should not be confused with charity. Both the giver and receiver are bound together in an equal relationship. Contributors are the same for every one or according to income level but utilization is according to need only.
- **Democratic Participation**: All members of the scheme enjoy freedom of association without any form of discrimination on the grounds of ethnicity, religion, gender or political affiliation. There should be equal rights and responsibilities for members in decision-making. The use of Non-technical language will enable all persons participate meaningfully in all aspect of the scheme.
- **Transparency and Accountability**: The Act stipulates that there should be Transparency and Accountability in the operation and management of the schemes. Mechanisms are put in place to check cheating, fraud and embezzlement. There should be proper records keeping on income and expenditure. Accounts should be audited on regular basis. This will enhance mutual trust between members and management.
- **Equity:** This indicates that every member has access to the minimum benefit package of health care irrespective of members' socioeconomic background and have equal opportunity to join a health insurance scheme of his/her choice. This means health insurance should be at the doorstep of every resident in Ghana.
- **Risk- Equalization**: This underpins that the scheme would ensure that care needs and mortality patterns serve as the basis for allocating financial resources to members in respect of geographical areas. The cost of care varies depending on the disease burden in the geographical areas. It stands to reason that the higher the poverty levels the heavier the disease burden.
- **Cross-Subsidization**: The above principle reflects one's ability to pay. The magnitude of payment is base on the level of income. Thus, the rich cross- subsidize the poor and the vulnerable, the healthy cross-

subsidize the sick and the economically active adults would cross-subsidize the children.

- **Efficiency and Sustainability:** This has to do with the problem associated with the collection of contributions since most of the potential contributors are in the informal sector of the economy. The NHIS has adopted the existing informal traditional systems of community contributions that must be effective to prevent revenue leakage. There is also the problem of how fast the system will be able to reimburse service providers since they depend very much on internally generated funding to supplement government regular budget. The solution to this is the use of internally generated funds to fill the gap as a revolving fund. This is essentially about how well the schemes are managed in the area of risk management and fraud control (preventing moral hazards). Thus, the NHIS will develop the human resource capacity and systems and policies that will ensure sustainability of the scheme in the country.
- **Community or Subscriber Ownership:** The scheme is designed to promote community participation leading to ownership which a sure way of enhancing sustainability. This also brings to bear the client perspective of quality of care on the delivery process.
- **Partnership:** The various schemes are to be in partnership with government since as a pro-poor scheme, government will be required to provide central funds to bridge the gap that may result from the expected contribution level and the actual contributions as well as outright payment of contribution on behalf of the poor, children under 18years and the aged.
- **Quality Care:** The operation of the DMHIS is to ensure that quality health service is not sacrificed on the premise of wholesale health care. The scheme is designed to provide value for money for benefactors

2.4 CATEGORIZATION OF PREMIUM

The vision of the NHIS of ensuring equity in health care delivery is manifested in the membership premiums and other contributions. In taking

accounts of the varying socio-economic conditions of all people resident in Ghana, contributions to the schemes are based on contributor's background. Therefore, those working in the formal sector make an automatic contribution to the scheme in the forum of 2.5% deducted from their SSNIT fund contribution while the premium for those in the informal sector is graduated according to their assessed income level. Furthermore, identified vulnerable members of the population are exempted from paying the premiums. The exempt groups include children below 18 years and the elderly over the age of 70. (NHIS, LI, 1809)

Table 2.2 Categorization of premium

Name of Group	Class	Who they are	Minimum contribution annually
Core	A	Unemployed adults who do not receive any identifiable and constant support from elsewhere for survival	Free
Very Poor	B	Adults who are unemployed	7.20
Poor	c	Adults who are employed but who receive low returns for their efforts and are unable to meet their basic needs	7.20
Middle Income	D	Adults who are employed and able to meet their basic needs	18.00
Rich	E	Adults who are able to meet their basic needs and some of their wants	48.00
Very Rich	F	Adults who are able to meet their basic needs and most of their wants	48.00

Source: NHIS LI, 1809

2.5 OPERATIONAL DEFINITION OF TERMS

The following terms are frequently used in the document by the Researcher and to avoid doubt the meaning of these terms are operationalised in the text as;

Health Insurance Community

A health insurance community refers to any group of people (adults) who live in the same geographical area and who register and vote at a specifically predetermined polling station or stations. Each health insurance community has a Community Health Insurance Committee (CHIC).

Health Service Providers

This refers to both health facilities and pharmacy shops, chemical/drug stores that offer health services to members

Health Facilities

In this assessment, health facilities refer to hospitals, health centres, clinics, maternity Homes that provide health care services to members

Valid ID Cards (Valid Membership)

Valid Identification cards refer to all membership cards, chits, and acknowledgement letters which allow people to access healthcare at the expense of the NHIS. Valid membership refers to all people who can create cost on the scheme ,that is, access health care 'free' at any accredited health facility.

Total Membership of the Scheme

This refers to valid Identification cards plus Identification cards that have expired but have not exceeded one year.

Client/members

This refers to people who possess a valid identification card and can lay claim on health services at any accredited service provider under the NHIS.

CHAPTER THREE

PROFILE OF THE STUDY AREA

3.1.1 Location and Size

Lawra District is one of the nine Districts that make up the Upper West Region. It lies in the north western corner of the Upper West Region in Ghana between Long. 2°25 Wand 2°45W and Lat. 10°20 and 11°00. It is bounded to East and south by the Lambussie-Karni and Jirapa District respectively and to the North and West by the Republic of Burkina Faso. The total area of the District is put at 1051.2 square km. This constitutes about 5.7% of the Region's total land area, which is estimated at 18,476 square km (LDMIDP, 2007)

3.1.2 Topography and Drainage

The District is gently rolling with a few hills ranging between 180 and 300M above sea level. It is drained by the main river - the Black Volta, to the west making a boundary between the district and the Republic of Burkina Faso. The Black Volta has several tributaries in the district; notable amongst them are the Kamba/Dangbang, Newer, Duodaa and Kokoligu-baa. This has implication for immigration and income of households and subsequent medium and long run influence on access to health care. The existence of these water bodies promotes water born diseases such as guinea worm and bilharzias and other related ailments which affects both the individual and district health expenditures. These river bodies are also fertile grounds for the breeding of mosquitoes and tsetse flies which are the causes of malaria (the leading cause of death in the District) and river blindness respectively (LDMTDP, 2007)

3.1.3 Vegetation and Climate

The District lies within the Guinea Savannah Zone which is characterized by short grasses and few woody plants. Common trees in the District consist of drought and fire resistant trees such as baobab, dawadawa, shea trees and

acacia. The vegetation is very congenial for livestock production, which contributes significantly to household incomes in the District.

The greatest influence on the vegetation is the prolonged dry season. During this period, the grass becomes dry and the subsequent bush burning leaves the area patched and mostly bare of vegetation. Consequently, the torrential early rains cause soil erosion. Bush burning reduces the vegetative cover and adversely affects rainfall. Transpiration is reduced considerably and this affects average annual rainfall totals. These are challenges of agriculture resulting in poor harvest of farmers which impact on household income and their ability to access health care.

The climate of the district is tropical continental type with the mean annual temperature ranging between 27°C to 36°C. The period between February and April is the hottest. Between April and October, the Tropical Maritime air mass blows over the area which gives the only wet season in the year. The rainfall pattern leads to the migration of the youth, a factor associated with the underdevelopment of the human resource base of the district. The vegetation and the climate as described presents health challenges to the people in the district. For instance, the prolonged dry season comes with severe dry winds (harmattan), a highly unfavourable condition with its associated health hazards. The District mostly is bedevilled with the catastrophic and deadly Cerebro Spinal Meningitis (CSM) during the dry season which becomes extremely hot between February and April.

3.1.4 Health Care

Malaria continues to be the main cause of 0 P D attendance followed by U R T I and skin diseases. Total malaria cases increased in 2005 over 2004 by 2 %. Skin disease, acute eye infection, pneumonia, Hypertension and diarrhoea have been shifting their positions over the years but more regular among the top 10 causes of 0 PD attendances. However, the sum total of the ten causes of 0.P.D attendance percentage coverage and of all causes recorded dropped by 1%in2004 (76.1%to75%) (DHMT, Lawra, 2006)

The reduction is attributed to the fact that conditions seen as lesser condition in terms of numbers are now increasing in numbers or emergence of new disease not common in the district. The table 3.1 explains the Ten top causes of OPD attendance in the district from 2002-2005.

Table 3.1 Ten Top Causes of OPD Attendance

2002			2003			2004			2005		
DISEASE	Cases	%	DISEASE	Cases	%	DISEASE	Cases	%	DISEASE	Cases	%
Malaria	27,006	48.5	Malaria	20,911	48	Malaria	23,811	46%	Malaria	24024	48
URTI	5,225	9.4	URTI	3,357	8	URTI	3,804	7%	URTI	3439	7
Skin disease	2,949	5.3	Skin Diseases and Ulcers	2,577	6	Acute Eye Infection	2,602	5%	skin Diseases and Ulcers	2809	6
Acute Eye Infection	2,924	5.2	Acute Eye Infection	2,134	5	Skin Diseases and Ulcers	2,570	5%	Hypertension	1494	3
Pneumonia	1,275	2.3	Hypertension	1,118	3	Pneumonia	1,709	3%	Pneumonia	1465	3
Hypertension	1,171	2.1	Urinary Tract Infection	1,002	2	Hypertension	1,423	3%	Acute Eye Infection	999	2
Diarrhoea	774	1.4	Pneumonia	850	2	Anaemia	907	2%	Anaemia	948	2
Gastro Intest. Disord.	763	1.4	Diarrhoea Diseases	701	2	Urinary Tract Infection	903	2%	Diarrhoea Diseases	890	2
Anaemia	730	1.3	Anaemia	640	1	Diarrhoea Diseases	728	1%	Urinary Tract Infection	735	1
Urinary Tract Infection	648	1.2	Hernia	611	1	Wound	720	1%	Hernia	659	1
All other diseases	12232	21.96	All other cases	9,422	22	All other diseases	12,402	24%	All other Conditions	12633	25
Total	55,697	100	Total Cases	43,323	100	Total Cases	51,579	100%	Total New Cases	50095	10

SOURCE: DHMT, LAWRA

Table 3.2 Top Ten Causes of Deaths

No.	2002 Deaths					2003 Deaths				
	Disease Condition	M	F	Total	%	Disease Condition	M	F	Total	%
1	Malaria	33	24	**57**	18%	Malaria	32	33	**65**	25
2	Pneumonia	20	14	**34**	11%	Anaemia	19	15	**34**	13
3	Anaemia	20	14	**34**	11%	Pneumonia	10	5	**15**	6%
4	Meningitis	18	12	**30**	10%	Hepatitis	10	4	**14**	5%
5	AIDS	8	9	**17**	5%	AIDS	3	4	**7**	3%
6	Hepatitis	10	6	**16**	5%	Convulsion	6	1	**7**	3%
7	Septicaemia	5	11	**16**	5%	Other diarrhea	3	3	**6**	2%
8	Convulsion	6	5	**11**	4%	Meningitis	0	5	**5**	2%
9	Typhoid	4	5	**9**	3%	Gastro Enteritis	3	1	**4**	2%
10	Asthma / Bronchitis / URTI	5	2	**7**	2%	Cellulites / Abscess	1	3	**4**	2%
	All other Deaths	55	36	**81**	26%	All other Deaths	41	30	**101**	39
	Total Deaths	**184**	**138**	**312**	100%	**Total Deaths**	**128**	**104**	**262**	10

SOURCE: GHS-Lawra (2006)

No.	2004 Deaths						2005 Deaths					
	Disease Condition	**M**	**F**	**Total**	**PMR**	**CFR**	**Disease Condition**	**M**	**F**	**Total**	**PMR**	**C**
1	Malaria	**44**	**34**	78	29%	2%	Malaria	47	33	80	30%	2
2	Anaemia	**21**	**9**	30	11%	3%	Pneumonia	14	6	20	7%	3
3	Hepatitis	**11**	**10**	21	8%	15%	Hepatitis	14	4	18	7%	1
4	Pneumonia	**13**	**8**	21	8%	3%	Anaemia	11	6	17	6%	2
5	Meningitis	**8**	**2**	10	4%	3%	Heart Failure	4	3	7	3%	2
6	Septicaemia	7	**2**	9	3%	20%	Cerebro Vascular	3	2	5	2%	7
7	Other Diarrhoeal	**4**	**4**	8	3%	6%	AIDS	4	1	5	2%	7
8	Snake Bite	**2**	**4**	6	2%	7%	Accidents	5	0	5	2%	3
9	AIDS	**5**	**0**	5	2%	8%	Asthma / Bronchitis / URT1	3	2	5	2%	2
10	Asthma / Bronchitis / URT1	**3**	**2**	5	2%	1%	Meningitis	3	1	4	1%	3
	All other Deaths	64	35	**79**	29%	31%	All other Deaths	63	38	101	38%	2
	Total Deaths	**162**	**110**	**272**	100 %	**100 %**	TOTAL	171	96	267	100 %	2

SOURCE: DHMT, Lawra (2006)

3.2 RESEARCH METHODOLOGY

This section covers the research methods and tools that were used to gather and analyze the data. For better understanding, these tools and methods are outlined as follows; research methods, sampling methods, data collection tools and techniques and data analysis tools and the techniques applied.

3.2.1 Research Design

Research design is an important first step in planning a research project. It is a decision making procedure that provides a tentative outline for the project. Design is the planning that lays the basis for the making of every object or system. In this design the researcher will use both quantitative and qualitative methods. Both designs are said to be systematic. Broadly speaking, quantitative research is thought to be objective whereas qualitative research often involves a subjective element. The quantitative design will help the researcher analyze and interpret quantitative data and still remain objective.

The qualitative design on the other hand aims to gather an in-depth understanding of human behavior and the reasons that govern such behavior. The qualitative method investigates the "why" and "how" of decision making, not just what, where, and when. Qualitative research is a broad approach to study social phenomena. Its various genres are naturalistic, interpretive and increasingly critical and they draw multiple methods of inquiry (Marshall et al 2006). According to Mason (2005) qualitative research is grounded in a philosophical position which is broadly interpretive. It is concerned with how the social world is interpreted, understood, experience produced or constituted. From the above assertion the researcher will also employ qualitative analysis to underscore what people have to say about the DMHIS, how they feel, and how it fits or improves their health condition

3.2.2 Study Variables

The study variables were carved out from the main objectives that the study sought to achieve. The variables considered here are the NHIS and access to

quality health care delivery. In measuring the effectiveness and efficiency of the NHIS in delivery accessible affordable health care to the people, the following indicators namely; time spent at the facilities, availability of health professionals, access to drugs of the poor and financial access or affordability of services were considered.

3.2.3 Sources of Data

Data for the study was collected from both primary and secondary. That of the primary data was sourced from respondents using interviews; focus group discussions and the administration of questionnaire. Data from secondary sources was gotten from journals, newspapers, policy documents and legislative instruments.

According to Twumasi (2001), using various suitable methods to collect data will help the researcher to evaluate his data source and to detect inconsistent answers. It also allows triangulation. That of the primary data was sourced from respondents using a structured questionnaire in interviews Service providers, Medical staff, Scheme members and staffs of the scheme were interviewed. The District Directorate of Health was also contacted and interviewed. Interviews allow the researcher to clarify ambiguous answers and when appropriate, seek follow-up information (Leedy and Ormrod, 2001). Focus Group discussions were employed in some of the communities to gather information from community members.

The main sources of secondary data included the 2007-2011 policy directives and Programme of work of the Ministry of Health, The National Health Insurance Act, (2003) Act 650, and the operational guidelines on the NHIS, the Growth and Poverty Reduction strategy document 2006-2009, The Demand for Health Insurance: The insights from Theory and Voluntary Markets in Less Developed Countries among other sources.

3.2.4 Target population

The target population for the survey included service providers, Medical staff, Scheme members and staff of the scheme etc. Focus Group Discussions was employed in some of the communities to gather information from community members. The District Directorate of Health was contacted and interviewed

3.2.5 Sampling and Sample Size

Deflem (1998), states that sampling refers to the systematic selection of a limited number of elements (persons, objects or events) out of a theoretically specified population of elements, from which information will be collected. He added that the selection is systematic so that bias can be avoided.

A combination of both probability and non-probability sampling techniques were used to obtain the information from respondents. Purposive technique as a non-probability method was used to source information from top health workers, the district health officials, the DHIS staff and management. Twumasi (2001) points out that purposive sampling enables the researcher to select respondents who can answer the research question to be included in the sample.

Sample size

Fisher, et al (1998), categorically stated that when the population of an area is greater than 10,000, the desired sample size is calculated by;

$$n=\frac{z^2 pq}{d^2}$$

Hence, the calculated estimated sample size of respondents that was contacted with the use of the stated instruments was 264. Nevertheless, 10% was added to the desired number as a safety measure against non-response. See detail calculation in appendix 2.

3.2.5.1 Selection of Health Facilities and Communities

There are eighteen (18) health facilities providing health care services in the District under the Health Insurance Scheme. Eight of these health facilities representing about forty percent (44.4%) was randomly selected and interviewed. The selection was however guided by the geographical distribution of health facilities and their levels. Secondly the respondents were selected from these communities where the health facilities are located. The community members were randomly selected from 30% of the daily attendance to the health facilities. The households of those sampled were located and all registered members in that household interviewed including that individual.

Sampling proportionality could not be used to assign sample size to the selected communities because data on the registered members in respect of the various communities was not available at the Scheme level. Hence equal numbers of 33 were allocated to the selected communities.

Table 3.3 Sample size allocation by community

6.

Communities	Sample size
Nandom	33
Babile	33
Lawra	33
Kokoligu	33
Basellbe	33
Ko	33
Ketuo	33
Ermon	33

Source, Field Survey, November 2009

3.2.6 Survey Instruments and Data Collection

The main instruments used for the study were semi structured questionnaires where informant interviews were conducted. This tool has the advantage of allowing respondents to a wide range of opinions and encourages them to

express their views on the health care delivery under the NHIS. These instruments were made available to those who particularly can read and respond whilst interview guides were designed and used to obtain information from those who cannot read and write such as the members of the community. Interview guides were also administered to key health officials. The key respondents in the study include the manager of DHMIS, District Director of Health Services, and the Medical Superintendent of the two Hospitals, Administrators, Medical Assistants, the in-charge of clinics and health centres and some nurses

3.2. 7 Data Quality Assurance

To ensure quality of the data, persons who assisted in the administration of the data collection instruments were taken through basic skills, tips of interviewing and also the tools used to conduct the interview successfully. A second interview, in some cases was conducted to cross check the validity of responses. In addition figures collected were verified from key informants and major stakeholders in the health sector and at the scheme level to ascertain their authenticity.

3.2.8 Data Analysis and Presentation

The field data was checked for accuracy and completeness and the questionnaires numbered serially, edited, coded and fed into the computer. The Statistical Package for Social Scientists (SPSS) and Microsoft Excel software were employed for data manipulation to help the researcher draw meaning out of the data to come out with information to inform the public. Both descriptive and inferential statistical techniques were used. Percentages, frequency tables and cross tabulations was employed to describe the behaviour of individual respondents, that is, members of the NHIS, and the socioeconomic conditions of the communities.

CHAPTER FOUR
DATA PRESENTATION AND ANALYSIS

The data gathered from the field is presented and analyzed in this chapter. The highlights of the chapter includes; the socio- demographic characteristics of respondents, data analysis on membership of to the NHIS which is segregated into membership of indigents, women and children in relation to physical access to health care under the NHIS. The chapter further discussed the operation of the Lawra Mutual Health Insurance (LDMHIS) in delivering health care to the people. Under this, it examined the system of accreditation, periodic inspection, the tariff system and average time it takes the Scheme to reimburse claims to service providers. Quality variables and indicators such as access to drugs, time spend at facilities, attitude of health professions, financial access and availability of health professionals were also analyzed. The chapter concludes with discussions on the health risk seeking behavior of members.

4.l SOCIO-DEMOGRAPHIC CHARACTERISTICS OF RESPONDENT

4.1.l Age Distribution of Respondents

The individuals who constitute the respondents were two hundred and sixty four (264). This comprises 21.97 percent of those within the age range of 1-18, 67.05 percent of persons between the ages of 19 - 69 (active working population) and 10.98 percent of persons from 70 years and above.

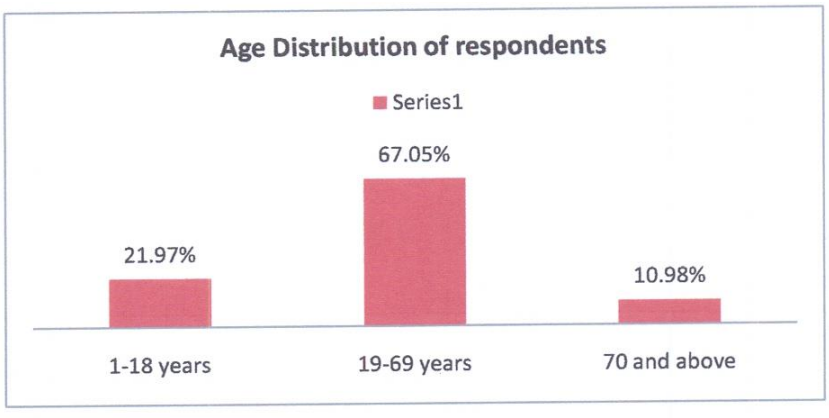

Figure 4.1 Age Distribution of Respondents
Source: Field Survey November 2009

The age structure of respondents depicts that the employable category of the population has registered with the NHIS more than any group of people. Could this be attributed to the question of affordability? Getzen (2000) argued that the purpose of insurance is to remove the individual income or budget constraint, and to reduce or eliminate the influence of cost to health care. An insurance arrangement according to him should make insurance available at a minimum premium. Getzen's arguments suggest that, with insurance we should not expect significant income effects on the utilization of health care among all categories of people. It means that the premium to health insurance as a social protection measure should be affordable to all. The study indicates 67.05 percent represent people between the ages of 19and 65, and 21.97 percent for children that is the ages bracket of 1-18 while the aged represents a small percentage of 10.98.

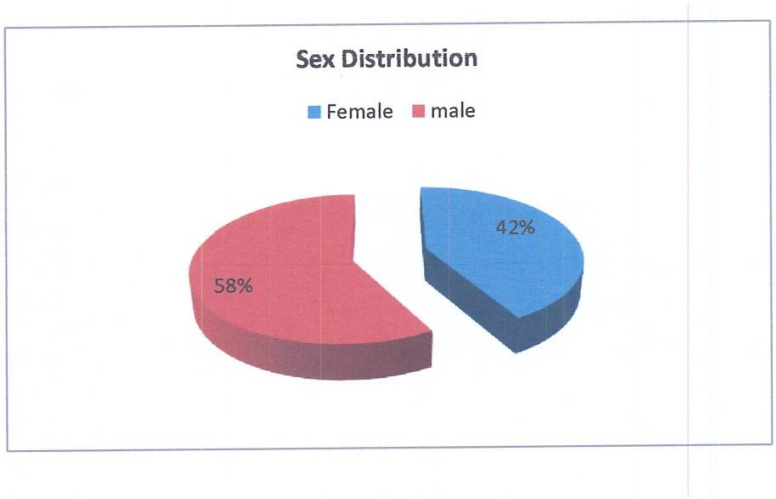

Figure 4.2 Sex Distributions of Respondents

Source: Field Survey November 2009

In terms of sex distribution 42 percent represents female while 58 percent of the number were male. The respondents' population was skewed in favour of the male counterpart as indicated in the figure 4.2. This was so because households' heads are dominated by male and before one could have access to any members of the house; it must be done through the house hold head. The NHIS was introduced to cater for the health needs of the poor. Women are

often considered among the core poor in Ghana. By implication those mostly targeted under the NHIS are women and children, the marginalised group. The sample size however shows that out of the total number of 264, 111 representing 42 % are women while 58 % are male. The sex of respondents indicates that, more male have registered and are benefiting from the NHIS. From the age structure, the employable category of the population has registered with the NHIS more than any group of people. And if more male have registered with the scheme than female, then male are gainfully employed and could afford the minimum premium for the registration under the NHIS. Data was however not available at the Scheme level to show the sex ratio of beneficiaries to the NHIS.

4.1.2 Educational Status of Respondents

In response to a question as to whether respondents have ever attended school, 32.19 percent indicated they have never attended school while 67.81 percent have ever attended school. Among those who attended school 21.21 percent reached the Junior High Level; 8. 71 at the primary school level; 10.98 percent at Senior High Level while 4.18 percent attained tertiary education. The rest are; G.C.E.O' level 3.41 percent, Middle school 0.76 percent, Night school 0.38 percent, and pre-school 5.30 percent respectively as shown in the figure below. It is believed that, the more educated a person is the more likely it is for that individual to be able to afford and utilize health services.

Table 4.1 Educational Status of Respondents

Educational status	Frequency	Percentage
G.C.E .O' Level	9	3.41
Junior High School	56	21.21
Middle School	2	0.76
Night School	1	0.38
Pre- School	14	5.30
Primary School	23	8.71
Senior High School	29	10.98
Tertiary School	11	4.18
Vocational/Technical School	34	12.88
None	85	32.19
Total	264	100

Source: Field survey November 2009

4.1.3 Occupational Status of Respondents.

Majority of the respondents (43.8) were farmers, while 21.2 percent said they are not working as indicated in the table 4.2. However these people were found to be persons who are literate and are not engaged in formal employment but are involved in fanning activities. The study revealed that 10.4 percent were found to be in the formal sector employment while 10.8 percent indicated they were engaged in trading. Those found in brewing, dress making, artisanship, hair dressing and other petty businesses were between 0.8 to 1.5 percent of respondents. It is perceived persons engaged in farming especially food crop farmers are more likely to suffer poverty and incapable of taking care of their health needs than those in the formal sector as well as those in businesses and trading. Thus to study sought to identify the occupation of clients in the NHIS

Table 4.2 Occupational Statuses of Respondents

Occupation	Frequency	Percentage
Agro Processing	2	0.8
Brewer	3	1.2
Building and Carpentry	2	0.8
Business	4	1.5
Construction	1	0.4
Craft	2	0.8
Artisanship	4	1.5
Dress Making	2	0.8
Driving	2	0.8
Farming	114	43.8
Formal Sector	27	10.4
Hair Dressing	2	0.8
Other	2	0.8
Student	8	3.1
Trading	28	10.8
Welding and Painting	2	0.8
Not Working	57	22
Total	**264**	**100**

Source: Field Survey, November 2009

4.2 .1 Physical Access to Quality Health Care

The NHIS was mainly introduced to ensure equitable and universal access to quality health care for all Ghanaians. Access as understood here means the ability to have and use health services when one is in need. The relevant question that should be asked is whether citizens do have access to health services as campaigned under the NHIS. In view of the above, the operation of the NHIS is assessed in terms of total membership of women, men, children, persons with disabilities and availability of health facilities in communities and health professionals.

4.2.2 Total Membership of the NHIS

The total subscription to the Lawra DMHIS was 78,851 as of 2009. The rate of increase has been steady. The Lawra DMHIS just like other scheme started operations officially in 2005 with a membership of 7, 856, increased to 30, 162 in 2006, 56,181in2007 and 72,251in2008 (LDMHIS 2009)

Discussion with the Scheme Manager indicated that the low subscription to the scheme at the start of 2005 was as a result of the uncertainties, fears and political upheaval that characterized the introduction of the NHIS as a national policy. It should be noted that, the start of every policy is always faced with implementation challenges. Thus, the Lawra District Mutual Scheme was not an exception

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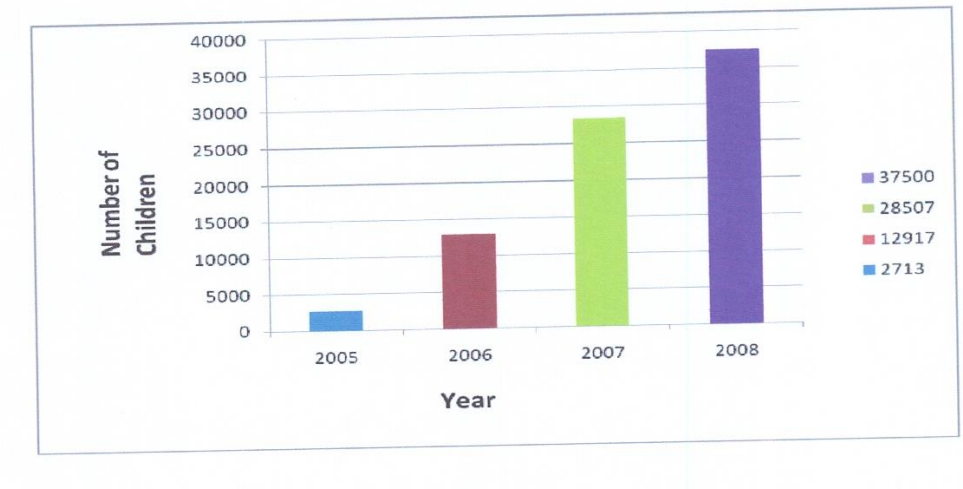

Figure 4.3 Growth of Subscription by years

Source: LDMHIS 2009

From figure 4.3 the subscription rate of member to the Scheme has been progressive. With a total registration of 7856 members in 2005, the membership short up to 78951 in 2008, an increase of over 900 percent. According to the Scheme Manager, this came about as a result of strategies put in place by the Scheme to educate the citizenry of Lawra to see the NHIS as an affordable means to their health care needs. He added that the registration rate further increased when people began to access health care from the health facilities without out-of- pocket payment. According to Nyman (1999) people

buy insurance to cushion the financial blow of the cost of care they would have purchased in the absence of insurance. People are convinced to register with the Insurance Scheme because in Nyman view they have attached enough value to survival above and beyond any productivity effect and are willing to pay the premium for health insurance which in effect buys this survival.

4.2.3 Valid Membenhip of the Scheme

The valid member to the DMHIS is an active member, one who can use the ID card to lay claim on health services in any health facility within the District and now any part of the country. The study indicates a wide gap between total membership and valid membership. The implication is that not all those who have registered with the scheme can actually access health care services. To examine access relative to those who can utilize health care, the situation is not palatable under the Lawra District Scheme. Based on the estimated population of the District in 2009, quite a large number of the population does not have access to health care services under the LDMHIS.

Table 4.3 Disparities between Total and Valid Membership of the Scheme

Year	Total	Valid	Invalid Not renewed	Percentage of invalid
2005	7,856	7,208	648	8.2
2006	30,162	21,415	5,747	19.0
2007	56,181	44,311	11,870	21.1
2008	72,251	63,250	9,001	12.4
2009	78851	67312	11539	14.6

Source: LDMHIS 2009

In 2009, out of a total membership of 78,851, 67,312 were active or valid members who can actually benefit from the package of DMHIS leaving a big backlog of 11,539 representing 14.6 percent of people who had expressed the intention or had made moves to benefit but could not have access to health services under the scheme due to the inability to renew their ID cards. The bad situation becomes worse if we consider the valid membership vis-a-vis the

total projected population of 101,995 in 2009. Over 38,745 representing 37.98 percent in the Lawra District do not have access to health care under the scheme. The invalid membership trend since 2005 as indicated in table 4.3 is not enviable at all. The trend kept dwindling, in 2005 the percentage of clients who could not renewed their cards was 8.2 percent, shot up to 19 percent in 2006 and further increased to 21.1 percent in 2007. There was a percentage decrease from the previous year figure to 12.4 percent in 2008 and again assumed an increasing trend in 2009. The Scheme Manager indicated that, the increased non - renewal rate came about as a result of ineffective functioning of Community Health Insurance Committee (CHICs) due to inadequate motivation to these committee. The Manager further explained that, the only compensation to these committees is the commission they received from each registration done. In the case of renewal the committees receive no commission hence there is no motivation for them to pursue members to renew their cards.

4.2.4 Membership Expiration and Renewal

Until the one time premium payment is instituted, members hold the registration ID card for duration of twelve months. After the 12 months, one must renew his/her membership. A member whose card has expired and has not been renewed cannot utilize health care under the scheme and one who fails to renew his/her membership for a year, will lose the membership status. He/she becomes a member again after paying and staying through the waiting period. In view of this, it is significant for schemes to track membership expiration and renewal as this explains the value placed on the scheme. The higher the rate of renewal the better for the scheme, as that will enhance sustainability. The picture as indicated in the table above shows that the LDMHIS will be under serious sustenance threats if measures are not adapted to change the negative renewal trend of membership cards.

The non-renewal of membership to the Scheme by some members could be attributed to what Pauly (2004) described as 'distrust of insurers'. He explain that, the availability of a structure or procedure that will reassure customers

who pay premium that they can collect claims without excessive delay and bother is important in establishing a functioning insurance market. However, the general opinion of members the operation of the Scheme and Service Providers as discussed in a later chapter is not satisfactory. Access to health care under the Scheme is Characterized several hours been wasted due to long queues, inadequate of health professionals and essentials drugs and negative attitude of health professionals among others; hence the reluctance of some member to renew their membership after expiration.

4.2.5 Membership of Marginalised and Vulnerable Groups.

The pro-poor policy of the NHIS can only be measured in terms of how accessible it is to the socially excluded and marginalised groups. Those often associated with extreme poverty in Ghana are women, Persons with Disability (PWD) and children. However, the study revealed that there is no data on the number of women and PWDs who have enrolled by the Lawra Mutual Health Insurance Scheme. In the prevailing circumstances, it is difficult to say whether the scheme is providing health care to the poor in the District. These categories of people have not been carefully targeted in that there is no data on their membership to the scheme.

On the other hand, children constitute one of the categories of members considered to benefit health care under the NHIS free. Hence, children who are 18years and below are registered "free" provided their parents have themselves registered. In the Lawra District, membership of children to the scheme is growing steadily. Once again, the data available on the enrolment of children was not disaggregated in terms of number of girls and boys. An attempt was made to record the number of boys enrolled every year since 2005. Unfortunately, there was no data for the girls. However, a deduction from the data of children and data for boys, one can give a fair estimate of the number of girls enrolled.

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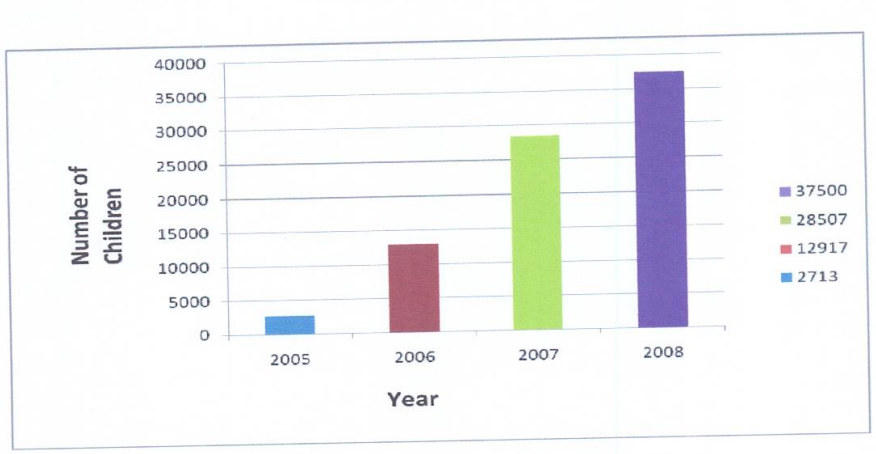

Figure 4.4 Growth Rate of Children

Source: LDMIHS 2009

From the table, out of the registered members of 7,856, 2713 representing 34.5% were children. In 2008, out of the total membership of 72251, 37500 representing 51.9% were children. This gives a bright picture in terms of the number of children who are benefiting from health care under the scheme in the District. Again, data was not disaggregated in respect of gender of children who have enrolled to access health care under the NHIS.

4.2.6 Membership of Indigents

For the purpose of ensuring that one socio-economic background does not be a barrier to health care delivery, the NHIS categorizes the society into core poor, very poor, poor, middle income, rich and very rich. The core poor are the extremely poor and who can afford the minimum premium. As such, these categories of people are identified and registered free under the NHIS using a means test provided in the NHI Regulation 2004 (LI 1809). Data for indigents under the scheme was woefully inadequate.

4.3 OPERATION OF THE SCHEME IN DELIVERING QUALITY HEALTH CARE.

Quality health care is a challenging thing to measure. It is understood by many people differently. Some see quality in terms of the ability to meet customer's expectation; others measure it in terms of how health personnel should appear to have time for diagnosis while others view it in relation to the time spent at the facility reasonable and acceptable. For the purpose of this study, quality care was been assessed within the context of accreditation, tariff regime, availability of health resources relative to members of the NHIS and the entire population.

Accreditation

The Accreditation system has been designed to effectively promote delivery of quality services in the various sectors and facilities to the sick. The underpinning principle of the accreditation process is to educate health facilities and personnel to improve in quality health care delivery.

As per the NHI Regulation (LI 1809), facilities must be assessed before they are accredited to provide health care under the scheme. The assessment of any facility was based on three key standards. The first standard considers the structure, equipment, staff and operations of the facility in health care delivery. The second standard looks at medical economic standards. This measures the delivery of medical care services as against adequacy of care delivered, test, treatment and outcomes. The medical Economic standard is also used to quantify services rendered as basis for the payment of claims to service providers. The third standard is Quality Assurance which seeks to give in-depth investigation of medical practices in order to indicate the quality of medical care. This is measured in terms of achievement in the reduction of morbidity and mortality rates.

The survey indicates that only Lawra hospital out of the eight facilities that were interviewed has been given accreditation. The rest of the seven that are providing health services under the scheme have not been assessed nor accredited. The implication is that these standards set for facilities may be compromised. One cannot actually determine whether these facilities meet the standards and are qualified to deliver health care to clients under the DMHIS.

Inspection of Service

Closely related to the accreditation process of health facilities is periodic inspection to ensure that health care providers put in place quality assurance programmes to ensure:

- The quality of health care services delivered are of reasonable quality and standard
- The basic health care services are uniform throughout the country
- Medical procedures and the administration of drugs are appropriate, necessary and comply with accepted medical practice and ethics and;
- Drugs and medication used for the provision of health care in the country are those included in the National Health Insurance Drug List of the Ministry of Health.

In view of this, a service provider or health facility will not be permitted to operate under the scheme if the facility has not been inspected and approved to be of standard.

The study indicated that only two representing 75 percent of the facilities have not been inspected. The study also tried to find out the impact of the accreditation and inspection.

Table 4.4 Impact of accreditation on service providers

Impact	Frequency	Percent
1. Providers render effective services	4	50
2. Performance of provider is monitored	3	37.5
3. Provider acquire proper equipments	4	50
4. Adequate attention and sufficient medicine are given	4	50
5. Increased workload and reduced attention	6	75
6. Facilities are stressed due to increasing attendance	5	62.5
7. Quantity and quality of drugs are reduced	6	75

Source: Field Survey November 2009

The submission made by respondents were mixed and pointed to both negative and positive perspectives. Four (4) out of the eight respondents representing *50* percent indicates that accreditation provides an opportunity for health providers to render effective health services and acquire proper equipment. Coincidentally, the same number and percentage did concede that accreditation and the NHIS enable the scheme to acquire proper equipment, while 3 of the providers representing 37.5 percent indicated that accreditation affords the opportunity to monitor the performance of facilities providing health care under the NHIS.

What was more negative was that 75 percent of the respondents alluded to the fact that accreditation over stressed facilities due to increase in attendance to health facilities. In the same negative perspective 75 percent asserted that there is delay in reimbursement of claims culminating in the reduction in the quality and quantity of medicine. In addition 5 of the service providers representing 62.5 percent claimed accreditation has increased the pressure and workload on service providers thereby reducing the attention of health personnel give to patients.

4.3.1 Tariff System

The tariff system can either negatively or positively impact on quality health care delivery. All essential medicines/drugs that are covered by the scheme are listed and assigned prices to guide the billing process of service providers. The current tariff system indicates both direct and indirect cost of providing the various services to patients based on patient's diagnostic related groups and level of care. Accredited service providers are mandated to procure drugs and medicine and also pre-finance other expenses in treating members of the scheme who attend the facilities. Based on this, these facilities will now submit for reimbursement. To this end, the research sought the opinion of the scheme and some service providers on the effects of the tariff system on quality health care delivery especially on availability of drugs. The results are presented on the table 4.5 below.

Table 4.5 Impact of Tariff System on quantity and quality of drug/medicine

Impact	Frequency	Percent
Inability to purchase sufficient drugs due to delay in payment	6	75
Inability to buy enough drugs	2	25
Compelled sometimes to buy drugs on credit at higher cost	3	37.5
Unable to buy effective drugs	4	50
Tariff for some drugs lower than market prices	5	62.5

Source: Field Survey November 2009

Out of the eight providers that were sampled for the study, six representing 75 percent subscribed that they are not able to purchase sufficient drugs due to delay in the payment of claims; 50 percent of valid responses indicated that they are unable to buy effective drugs hence they go in for what they can afford Related to this is that tariffs for some drugs are lower than the market price of those same drugs and 62.5 percent attested to this. Only 2 out of seven facilities representing 25 percent indicated that sufficient drugs could not be purchased because of assured payment system.

4.3.2 Average length of Time scheme takes to reimburse claims to Providers

Regulation 38 of the National Health Insurance Regulations 2004 (L.I 1809) spells out clearly the period of time within which claims submitted to MHIS for payment by service providers should be paid. The L.I. provides for one month (4 weeks) within which re-imbursement must be made service providers. Presently one of the major challenges the scheme face is delay in payment of claims. This study assessed' the average length of reimbursement.

Table: 4.6 Average length of time it takes the scheme to reimburse Service Providers

Length of time	Frequency	Percent
One month	0	0
Two months	0	0
Three months	5	62.5
Four months	2	25
Five months	1	12.5
Six months	0	0
Total	8	100

Source: Field Survey November 2009

9.

The table above indicates that none of the providers consulted was ever reimbursed within the stipulated four weeks duration. Five of the service providers consulted representing 62.5 percent claimed for the last twelve months; they were reimbursed after three months. 25 percent indicated they were reimbursed only after four months while 1 of the service providers consulted representing 12.5 percent said it had reimbursement in the fifth month. This delay according to the service providers poses financial challenge making it difficult for them to procure the essential drugs and equipment.

4.3.3 Opinions of members on the operations of the LDMHIS and service providers in Quality Healthcare delivery

Quality health care is a difficult thing to measure. It means different things to different people. For Some people, getting quality health care means seeing the doctor right away, being treated courteously by the doctor's staff, or having the doctor spend a lot of time with them. These things undoubtedly are important to everyone. However, some people think that clinical quality of care is even more important. In the view of Yeboah (2003), quality of care is a set of acts carried out for patients that meet their satisfaction or expectation. By implication the ability of health facilities to meet customers' expectation or satisfaction is seen as quality care. The researcher in line with this sought the opinion of members on the operations of the Lawra Mutual Health Insurance

Scheme (LDMHIS) and service providers in delivering health care in the District with respect of some quality standards.

The indicators that were measured against members' opinion include; attitude of health professionals, availability of trained health professional, access to essential drugs and time spend at health facilities among others.

10.

Table: 4.7 Members' opinion on service providers 'operations

Indicator	Level of rating	Frequency	Percent
Willingness to help clients and provide prompt services (attitude)	Very satisfactory	109	41.28
	Satisfactory	97	35.74
	Unsatisfactory	24	9.09
	Vey unsatisfactory	34	12.87
Successful treatment of ailments	Very satisfactory	130	49.24
	Satisfactory	113	42.88
	Unsatisfactory	9	3.40
	Vey unsatisfactory	12	4.54
Availability of trained and experienced health professionals	Very satisfactory	24	9.09
	Satisfactory	55	20.83
	Unsatisfactory	87	32.95
	Vey unsatisfactory	98	37.12
Access to essential drugs	Very satisfactory	18	6.81
	Satisfactory	86	32.57
	Unsatisfactory	87	32.95
	Vey unsatisfactory	71	26.89
Facilities were clean	Very satisfactory	96	36.36
	Satisfactory	129	48.86
	Unsatisfactory	26	9.84
	Vey unsatisfactory	13	4.92
Long waiting time	Strongly agree	109	41.29
	Agree	89	33.71
	Strongly Disagree	19	7.19
	Disagree	47	17.80

Source: Field Survey November 2009

The general opinion of members on quality health delivery under the Scheme is not satisfactory. There is the general expression from members that the number of health professional at the health facilities is woefully inadequate to cater for the large numbers of attendance to health facilities in recent times as a result of the NHIS. There is also the general outcry of non availability of essential drugs at the health facilities. When members were consulted, they indicated that most at time patients do not get the prescribed drugs at the pharmacies in the health facilities and are directed to accredited drugs stores which in most cases the story is same. In the circumstance, the patient is left with no option than to buy the medicine from other drug stores at the current market price.

4.3.3.1 Opinions of Respondents on Waiting Time

The event of the health insurance has come with increasing numbers of attendance to health facilities but not without challenges. When members were consulted on the time they wait before health services is received, about 41.29 strongly agree there long waiting time (see table4.7). While 33.71 agreed that time is wasted a lot before one receives attention at the facilities. Table 4. 7 indicated 7 .19 strongly disagree that the picture on long waiting time is a challenge while 17. 80 percent as indicated in the table above disagree that one has to wait for a long time before he is attended to at health centers.

4.3.3.2 Opinions on Access of Drugs

When the opinion of members, the direct beneficiaries was sought on access to drugs 6.8 percent subscribed that the situation is very satisfactory, 32.57 percent as shown in Table 4. 7 perceived that it is satisfactory while an equally large percentage endorsed that access to drugs is unsatisfactory. Table 4.7 equally indicated that 26.89 percent felt access to drugs is very unsatisfactory.

4.3.3.3 Opinions of Respondents on Treatment

The ultimate outcome of a patient attendance to hospital is to get treated. Thus the survey found it relevant to seek the views of members to determine whether treatment is guaranteed under the NHIS. Table 4. 7 indicated that 49.24 percent of the members consulted felt that treatment is very satisfactory when they attend to a service provider; whilst 42.88 percent sees treatment satisfactory; 3.40 percent perceived it as unsatisfactory while 4.54 percent of respondent subscribed that treatment is very unsatisfactory. This shows a positive result about the operations and services of health facilities.

4.3.3.4 Opinions on Attitude of Health Professional

A positive attitude of health staff toward patients is one fast way of healing. A good attitude of health staff puts confidence in patients and re-assures them of recovery from their predicament. It is in the light of this, the survey tried to find out the attitude of health staff in delivery health care under the NHIS. Table 4.7 depicts that 41.28 percent of members consulted perceived the attitude of health professionals as very satisfactory while 35.74 percent subscribed that the attitude of health staff is satisfactory. However, 9.09 percent underscored that health staff have unsatisfactorily negative attitude while 12.87 percent alluded to fact that the negative attitude of health is very unsatisfactory.

4.4 FINANCIAL ACCESS

The goal of the NHIS is to address the problem of financial barriers to health care access; hence the research tried to seek the opinion of respondents on financial access and other operational challenges that might impede quality health care delivery under the NHIS. Yeboah (2003) see cost of treatment and services as a quality measure. He says "quality care is the ability to meet customers' expectation at the minimum possible cost". The aim is to ascertain from members of the scheme, if cost is still a barrier to the access of health care and the results are presented in the table below. Table 4.8 shows that 5.30 percent indicated that ability to pay transport is very satisfactory while 23.86 percent consulted said it is unsatisfactory. On the other hand, 52.27

percent of those consulted perceived the ability to pay for transport as unsatisfactory and 18.56 percent consulted, thinks ability to pay for transport is very unsatisfactory.

Table: 4.8 Opinion of members on Financial Access

Financial Access	Level of rating	Frequency	Percent
Ability to pay for transport if any	Very satisfactory	14	5.30
	Satisfactory	63	23.86
	Unsatisfactory	138	52.27
	Vey unsatisfactory	49	18.56
Ability to pay for premium	Very satisfactory	117	44.31
	Satisfactory	56	21.21
	Unsatisfactory	88	33.33
	Vey unsatisfactory	11	4.16
Ability to pay renewal fees	Very satisfactory	117	44.31
	Satisfactory	46	17.42
	Unsatisfactory	89	33.71
	Vey unsatisfactory	12	4.54
Ability to pay for drugs	Very satisfactory	77	29.16
	Satisfactory	97	36.74
	Unsatisfactory	56	21.21
	Vey unsatisfactory	34	12.87

Source: Field Study, November 2009

11.

On the issue of ability to pay for premium, 44.31 percent perceived it as very satisfactory while 21.21 said it is satisfactory. As shown in Table 4.8, 33.33 percent on the contrary endorsed that the ability to pay premium as unsatisfactory and 4.16 went for the ability to pay as very unsatisfactory. Ability to pay for drugs was also considered as an indicator. Table 4.8 depicts that 29.16 percent considered this as very unsatisfactory; and 36. 7 4 percent saw it as satisfactory while, 21.21 percent and 12.87 percent conceded the ability to pay for drugs as unsatisfactory and very unsatisfactory respectively.

4.5 HEALTH SEEKING BEHAVIOUR OF MEMBERS

A positive health seeking behavior of clients will make NHIS achieve its objectives of providing quality health care to people (core poor) at affordable cost. A good attitude of clients in seeking health care will enhance their health status and make NHIS beneficial and sustainable.

It is in this regard the study tried to find out how frequent members of the NHIS seek health care at health facilities.

Table 4.9 Number of Consultation with Service Provider in the last twelve months

Times	Frequency	Percentage
Once	60	22.73
Twice	41	15.53
Thrice	27	10.23
Four times	16	6.06
Five times	17	6.44
Six times	24	9.09
Seven times	19	7.19
Eight &above	15	5.68
None	45	17.05
TOTAL	**264**	**100**

Source: Field Survey November 2009

The table above shows that, among members who consulted health provider(s) within the last 12 months, 22.73 percent said they visited service providers once, 15.53 indicated they attended health facility twice, while as high as 17 .05 percent never attended a service provider in the last twelve months. As table 4.9 indicated, those who attended to a health facilities four times, five times, six times, seven times and above eight times were 6.06, 6.44, 9.09, 7.19 and 5.68 percent respectively. For those who never attended a service provider, when asked how they seek healing when they are sick, the response was that they patronized the services of herbalist or buy drugs from chemical shop. They are involved in self-medication.

4.6 PATRONAGE OF SERVICE TYPE

Closely related to how frequent members seek health care at facilities is the type of facilities that are patronized.

Among members who had consulted health providers within the last 12 months; 80 percent had attended hospital. Figure 4.5 indicated that 12.3 percent had consulted clinic, while 2.3 percent had consulted health centres. As depicted in Figure 4.5, 1.6 percent consulted herbalist while 3.8 percent did not attend any of the above service providers. Though this is a positive phenomenon, it poses a threat on sustenance in that it has huge financial implication

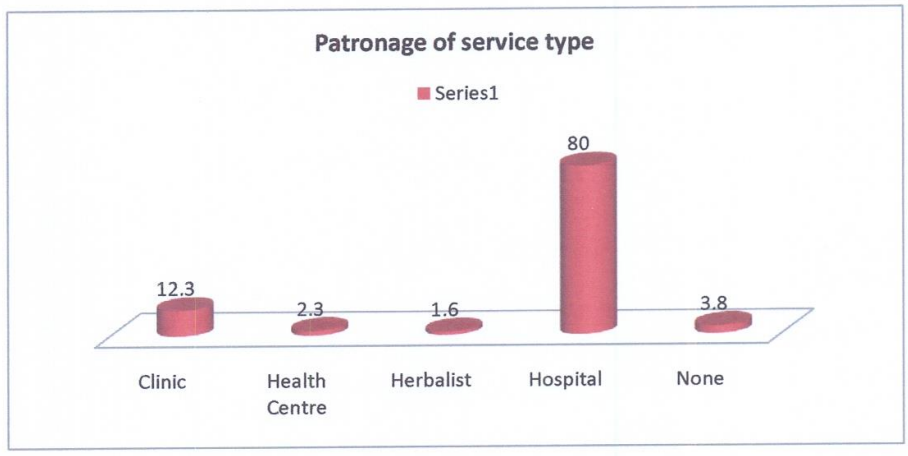

Figure 4.5 Respondents' Patronage of Service Type

Source: Field Survey November 2009

4.7 HUMAN RESOURCE CAPACITY

One major dimension of access to quality health care and probably the most is the relationship between the volume and type of existing service and the number of clients and the types of their needs. This refers to the adequacy of the supply of physicians, dentists and other health professionals. Human resources are a strategic capital in any organisation especially in service and health organisations where the various clinical, managerial, technical and

other personnel are a principal input, making it possible for most health inventions to be performed. The quality of health services, their efficiency, accessibility and viability depend primarily on the performance of those who deliver them. For these reasons, the study sought to assess the human resource capacity of the health facilities in the district relative to the population and membership of the NHIS. The health human resources in this study include medical Doctors, medical Assistants, and Registered Nurses (both general and community and midwives).

The study revealed that the health professional situation has not improved and even worsened in most of the facilities interviewed

Table 4.10 Growth Trends of Health Professionals in the District

Year	Population of Doctors	Population of Nurses	Pharmacy	Registered members
2005	2	99	2	7,856
2006	2	11	2	30,162
2007	2	160	2	56,181
2008	2	123	2	72,251
2009	2	134	2	78,851

Source: GHS LAWRA, 2009

The study revealed that between 2008 and 2009, the Lawra District had only two medical doctors. With an estimated population of l02, 186, the people doctor ratio is 1:51,093. A doctor patient ratio stood at 1:48,729. In 2005, a doctor client ratio was 1:3,928, increased to 1:15,081 in 2006 and eventually rose to 1:36,126 and 1:39,426 in 2008 and 2009 respectively. The story of a nurse to member ratio was not different. In 2005, the nurse client ratio of l: 80, increased to 1:272 in 2006. While the figure stood at 1:351 in 2007, the figure rose to 1:587 in 2008 and further increased from l: 588 in 2009 as indicated in the table above. Out of seven (7) facilities consulted, only three representing 42.8% had a medical assistant each. These three medical assistants are in the two public hospitals and one in one of the seven health centres.

Table 4.11 Health Professionals to Patient Ratio

Year	Doctor/Patient	Midwife/Patient	Pharmacist/Patient	Nurse/Patient
2003	1:29,400	1:90	1:29,400	1:676
2004	1:33,161	1:88	1:33,161	1:713
2005	1:31,006	1:76	1:31,006	1:626
2006	1:30,063	1:61	1:30,063	1:541
2007	1:41,661	1:84	1:41,093	1:521
2008	1:51,093	1:91	1:51,093	1:831
2009	1:48,729	1:91	1:48,729	1:728

Source: GHS LAWRA, 2009

The available statistics on health professionals poses an alarming situation in the District. With a midwife ratio of 1:91 in 2009, the attainment of the Millennium Development Goals (MDGs) three (3) on maternal mortality which precipitated the implementation of free maternal health care will be an illusion in view of the inadequacy of midwives in the health facilities to assist delivery. In addition, the achievement of the avowed goal of the NHIS in providing quality and accessible health care will be a mirage in the Lawra District if the health professional situation still continues to dwindle.

Table 4.12 Health Professionals to registered members Ratio

Year	Doctor/Member Ratio	Nurse/Member Ratio	Pharmacist/Member Ratio
2005	1:3,928	1:80	1:3,928
2006	1:15,081	1:272	1:15,081
2007	1:28,091	1:351	1:28,091
2008	1:36,126	1:587	1:36,126
2009	1:39,426	1:588	1:39,426

Source: GHS LAWRA, 2009

4.8 MAJOR ABUSES ON THE OPERATION OF THE NHIS

There have been some reported abuses of the scheme by some members and service providers. When service providers were asked about some of these abuses, their opinions are illustrated on the table below.

Table: 4.13 Service Providers' Opinion on Major Abuses of the Scheme

Major Abuse	Level of rating	Frequency	Percent
Frequent attendance	Strongly agree	5	62.5
	Agree	3	37.5
	Strongly agree	0	0
	Disagree	0	0
Transportation of relatives and friends symptoms to facilities for treatment	Strongly agree	4	50.0
	Agree	3	37.5
	Strongly agree	0	0
	Disagree	1	12.5
Over billing by some service providers	Strongly agree	1	12.5
	Agree	4	50.0
	Strongly agree	0	0
	Disagree	2	25
Irrational prescription by health professionals	Strongly agree	3	37.5
	Agree	3	37.5
	Strongly agree	0	0
	Disagree	2	25.0
Movement from one health facility to another with the same condition without taking time to follow prescribed medication	Strongly agree	5	62.5
	Agree	2	25.0
	Strongly agree	0	0
	Disagree	1	12.5

Source: Field Survey November 2009

Frequent attendance to health facilities was identified as a major abuse. All the facilities consulted endorsed that frequent attendance is a major challenge thereby putting undue pressure on equipment and staff alike. The study showed that *62.5* percent strongly agreed and 37.5 percent agreed to this phenomenon. Table 4.12 depicted that 50 percent of respondents strongly considered the transportation of symptoms of relatives and friends to health

facilities as another major abuse while 37.5 percent agreed. However, only 12.5 percent disagreed with the situation. Irrational prescription by some service providers was also seen as a major abuse; about 37.5 percent of respondents strongly agreed and agreed this as an abuse. Over billing by providers was regarded as a major abuse; about 62.5 of respondents strongly agreed to the assertion while 25 percent agreed; only 12.5 however disagreed.

4.9 SUMMARY OF DATA ANALYSIS

The purpose of Health Insurance is to remove the individual budget constraint, and to reduce or eliminate the influence of cost of care on patients and physicians' decisions of how much care to use. By implication, an insurance arrangement that can make insurance available at a minimum premium equal to the expected value of medical spending, people or households will prefer to obtain that insurance rather than face the risk of out-pocket payment of varying and potentially large amounts all other things being equal. The Data analysis concludes that people in the Lawra District are convinced by the underlying principle of the Health Insurance. This is reflected in the high numbers of people who have registered with the Scheme since its inception in 2005. However operational challenges prevent all these registered members from having actual access to health care under the NHIS.

The literature further explicates that, the National Health Insurance in Ghana is pro-poor. Under the NHIS, the rich subsidises for the poor, the healthy subsidises for the sick and the economically active pays for children, the aged and the indigents. The National Health Insurance Scheme has been designed to find a lasting affordable and efficient solution to the nagging problem of healthcare financing. It was introduced in 2003 with the view to providing financial access for the residents of Ghana, especially the poor and the vulnerable to quality basic health care. However the analysis of the LDMHIS indicates that the very poor are not carefully targeted to benefit health care under the NHIS. The NHIS lacks well designed strategies to enroll the

marginalized and vulnerable groups to access health care under the NHIS. This is evidenced in the LDMHIS where there is no data about the number of indigents and women who have registered with the Scheme. With the operation of the LDMHIS, financial barrier to health care has been reduced considerable, however many still face financial challenges in trying to access health care under the NHIS. Both registered members and service providers are still faced with financial challenges under the NHIS.

CHAPTER FIVE
MAJOR FINDINGS, CONCLUSIONS, AND RECOMMENDATIONS

5.1 MAIN FINDINGS

This chapter discusses the major findings of the study. It discusses access to health care delivery under the NHIS. The operational challenges of NHIS as well as the service providers are also explained in this chapter. The highlights among others include the impact of accreditation and tariff system on quality health care delivery. The human resource situation in relation to health delivery in the District as well the health risk seeking behavior of members of the Scheme is discussed. The chapter is concluded by drawing some conclusions and making recommendation for the consideration of stakeholders such as NHIA, Ghana Health Service, Ministry of Health, Ghana Medical Association and the Lawra District Mutual Health Insurance among others.

5.1.1 Access

There is high acceptance of the National Health Insurance as an alternative to affordable and accessible health care delivery in the Lawra District. This is evidenced in the registration of about 78,851 representing 78.1 % of the total population of the District in 2009. There has been a steady increase since 2005, with a start figure of 7 ,856 of registered members, the figure increased to 72,251 in 2008 and subsequently increased to 78,851 in 2009. Even though, the membership of Lawra District Mutual Health Insurance has grown steadily, real access of members has been dwindling. In 2005, out of the total number of 7 ,856 registered members, about 648 members representing 8.2% did have access to health care through the NHIS because they did have valid ID Card which could be used to lay claim for health care under the NHIS.

In 2007, 21.1 % could not access health care under the NHIS because they had invalid card. Again in 2009, about 14.6% could not lay claim to health care delivery because they failed to renew their membership cards. Access of indigents and women to health care was difficult to determine because data was not disaggregated. The scheme could not provide figures for women and

girl membership as well as membership of persons with disabilities (PWDs). There was no conscious measure or strategy at the Scheme level to carefully target these categories of people often regarded as the vulnerable and the marginalized.

5.1.2 Operational Challenges

According to the study 85.7% of health facilities that are currently providing services under the LDMHIS were not given accreditation and 71.4% claimed that since they started rendering health services under the NHIS, the facilities have never been inspected. They therefore did not know the body responsible for the inspection and accreditation of the health facilities but however thought that it was the responsibility of the LDMHIS. This means the scheme did not know the quality of health care these facilities could provide and whether the safety of its members was guaranteed in the hands of such facilities.

It was revealed from the analysis that71.4% of the facilities enrolled to deliver services under the scheme subscribed to the assertion that facilities are over stressed to increasing attendance. In addition, 85.7% of facilities alluded that quantity and quality of drugs are reduced and workload increased and subsequently reducing attention personnel give to patients.

However, 57.14% of facilities which enrolled to offer health services were positive of quality health care delivery under the NHIS. They had believed it affords the facilities an opportunity to give adequate attention and sufficient medicine to members, render effective services and acquire proper equipments.

Tariff regime is one of the operational challenges both at the scheme level and more particularly at the facilities level. The study revealed that 85.7% of facilities interviewed perceived the current tariff system to be inappropriate in that, they are unable to procure sufficient drugs due to delay in payment . The study concluded that 71.4% cited reasons such as high market prices of drugs and medicine as compared to their tariffs, subsequent purchase of drugs on

credit which result in high prices and the inability of facilities to acquire sufficient medicines due to delay in claims re-imbursement as negative impact of the tariff system on the quantity and quality of drugs. When the opinion of clients on access to drugs was sought, the picture painted endorsed the position of the health facilities. About 58.1 % argued that the availability or access of drugs was quite serious whiles 6.5% and 2.3% subscribed that the situation is serious and very serious respectively.

5.1.3 Human Resource Situation

The Doctor to people ratio in the District was 1:51,093 whiles a doctor to member ratio stood at 1:39,426 which is far below national average of 1:13,000 and WHO standard of 1:5000. In the case of midwife to patient ratio the figure was also 1:91 while a pharmacist to patient stood at 1:48,729 in the District in 2009 which is also below the national figure of one pharmacist to 13,373 the same year. The implication is that, health professionals in the District are overburden than their counterparts elsewhere in the Country. The intense pressure on them due to heavy workload is disincentive and can motivate them to vacate the District if their efforts are not adequately compensated for. It therefore behoves on the District Health Management Team, the District Assembly, the Ghana Health Service, and the Government to strategize and come out with motivation packages not only to retain the few health professionals in rural districts like Lawra, but also attract many more to augment health professional situation in the District. It is only when this is done; we can realize the value of the NHIS as an affordable means of delivering quality health care to the rural poor in the District.

The available statistics indicates that whiles the membership of the NHIS was increasing at a faster space; the growth of health professionals was highly insignificant and in some cases remained same. In some situations, there was a serious reduction in the numbers of the health personnel making a bad situation worse for the few health professionals. The associated repercussion is long queues and waiting times for patients and intent pressure and workload for health professionals.

5.1.4 Health Risk Seeking Behavior

The study discovered that 23.07% attended hospital once and 17.30% never attended any service provider in the last twelve months. It was realized that 1.4% of members of the NHIS did seek the services of a herbalist. When the researcher inquired to know why they attend to a herbalist in time of illness, they indicated that herbs treat them better than the orthodox medicine besides it is faster to access. However, it was positive to note that 80% of the people consulted seek health services in a hospital and about 12.3% patronised the services of clinics. This is a positive development; the implication is that people are becoming increasingly aware of the need to seek health care services in health facilities. The affordable cost of treatment at the facilities is one of the motivating factors. A key challenge among registered members is the inability of members to renew their ID cards. In 2009 for instance total of 11539 members representing 14.9 percent of total membership could not renew their ID cards. This has serious financial implication on the scheme and will subsequently affect its sustainability. Secondly members also deny themselves of health care services under the scheme in the event of ill health. In addition the scheme is being abused by some members.

The most prominent abuses include frequent attendance by members, and transportation of other peoples' symptoms to facilities for treatment. A practice where symptoms of diseases of people who are non-members of the scheme are taken to health facilities by members to collect medicine for them. This could collapse the scheme and poses some health hazards to people in our communities.

5.1.5 Responsiveness of the LDMHIS to Quality Health Care Delivery in the District

The study also sought the views of respondents on what they think will be done to make the LDMHIS more effective and responsive to quality health care delivery in the Lawra District. Among some of the opinion shared are enumerated and discussed below.

Respondents felt the Community Health Insurance Committee should be made more effective in reaching out to members of the Scheme. They can be made effective by instituting an attractive incentive package which will motivate them to do their work with dedication devoid of laxity. The payment package on the basis of commission from the registration members serves as a disincentive to committee members who are charged to support the operation of the NHIS at the community level.

Still related to the work of the committee, respondents lamented so much about the apparent lack of knowledge about the basic registration, and renewal rules and principles resulting in non-renewal of huge numbers. Respondents therefore called for education of these committee members to make them effective. Respondents were also worried over the duration of time spent in the health facilities before one receive treatment, and felt that the situation needs to be improved. Respondents observed that the long queues at facilities are due to the inadequacy of health professional and suggested effort should be made to post more health professional to the Lawra District to help reduce the pressure on the few at health centres.

When the views of respondents on what can be done to solve the inadequacy of drugs, members of the Scheme reflected that more drug stores and pharmacy shops should be identified and accredited to support the facilities. Service providers on the other hand felt that if reimbursed of claims is done within the stipulated time, facilities will be resourced enough to procure drugs and essential equipment.

5.2 CONCLUSION

The study reveals that, 78 percent of the population has been covered by the NHIS. However about 63 percent have access to health care delivery under scheme. Data is not disaggregated on membership which is very important in providing management insights into the categories of membership. Delay in the issuance of membership ID cards to prospective members and reimbursement of claims to service providers were found to be the major

challenges to the effective operation of the scheme. The health human resource capacity of the district is inadequate as a result patients have to wait for long time at health facilities for consultation. The ratio of health professional to people in the district is unacceptably high.

In general, health facility attendance has increased in all health facilities and members of the NHIS tend to report early to health facilities for treatment. The scheme is being abused by some members and some providers. The most prominent abuses include frequent attendance by members, transportation of other peoples' symptoms to facilities and irrational prescriptions by providers especially the private ones.

Most service providers and DHMIS consider the current tariff regime to be inappropriate because for them the market prices of the drugs and medicines are higher than some of the tariffs. This according to them is largely contributing to the ability of service providers to procure essentials.

Given the objective of the NHIS in Ghana which is to eliminate the Cash and Carry system, vigorous education is required to whip up the enthusiasm of people to subscribe to and renew their membership. Without improvement in the quality of healthcare, many people would continue to remain uninsured. For there will be no value for money and the value people place on the scheme determines to some extent their willingness to subscribe to it. The achievement of the goals and objectives of the NHIS would be a mirage if efforts are not made to ensure that every Ghanaian and indeed, resident of Ghana especially the vulnerable and marginalised in the Ghanaian society subscribes to the NHIS.

5.3 RECOMMENDATIONS

The findings of this study call for the following actions to be taken to improve the rate of subscription to the NHIS especially of the poor and vulnerable, the sustainability of the NHIS and the quality of health care provided by accredited service providers.

i. Education on the NHIS for all key stakeholders especially service providers and the general public should be invigorated. This is because, the NHIS in Ghana has four key stakeholders (the NHIC/NHIA, the DMHIS, the Service Providers and the Members) whose understanding and active participation is critical for its effective implementation and sustainability. Civil society organizations should be encouraged to assist in the sensitization of communities on the scheme. Communication networks such as community radios, FM stations, TV stations and some religious and social gatherings could be used to increase stakeholder awareness on the operations of the scheme.

ii. The Community Health Insurance Committees (CHICs) should be operationalised and made to effectively sensitize and mobilize community support for the scheme especially in the area of renewal of expired ID cards. If members in particular, can identify themselves with their schemes by collectively controlling the funds and possessing some decision-making power, they consider the scheme to be theirs and do not unnecessarily use health care services. High participation rates among the target population will contribute to financial sustainability and minimal abuse of the Scheme due to general acceptance.

iii. There is the need for DMHIS to disaggregate their membership especially into women, men, Persons with Disability, boys, girls and indigents. Additionally, mutual health insurance schemes should find innovative ways to track membership expiration and renewals as a way to assessing the actual status and value of the scheme to members

iv. In view of the importance of quality service strategic measures should be adapted to ensure early re-imbursement to facilitate the acquisition of medicines and medical equipment for improved service delivery. Shortage of drugs and other supplies, rudeness health personnel, dirty health facilities or poor security should be addressed. Quality improvement should be considered as a necessary precondition for successful implementation of the NHIS because if people feel that they will get no

"value for money" at health facilities, they would be unwilling to pay premiums.

v. Related to claims reimbursement which is critical to ensuring quality service delivery, the Ministry of Finance and Economic Planning which is responsible for the mobilization of funds from the National Health Insurance Levy for the NHIA should find a way of transferring these funds to the NHIA on monthly basis. The NHIA by law is permitted to invest part of its funds to generate complementary income and if the funds are transferred regularly and monthly, the NHIA would be able to not only pay providers regularly but also invest excess. The practice where funds are transferred to the NHIA to re-reimburse providers when it is under pressure would not enhance the effectiveness and sustainability of the scheme.

vi. The Lawra District Mutual Health Insurance (LDMHIS) should collaborate with the NHIA to have all the service providers in the District inspected and accredited. There should also be periodic inspection to ensure that service providers meet quality standards. The main function of the inspection process of accreditation should be educational. The inspection should be conducted in the presence of responsible parties at the hospital, and problem areas should be identified and discussed. The aim of the inspection process should be to uncover problem areas and work out corrections to the problems. Additionally, district level health stakeholders should be involved in the inspection of health facilities in the district.

vii. The health human resource situation in the district is alarming. The various health professionals to people, client or patients ratios are unacceptably high in the District. There is therefore the need for the Ministry of Health in collaboration with the Ghana Health Service and Ghana Medical Association (GMA) to improve and institutionalize an incentive package for health professionals who accept postings to rural communities. This package should be far reaching and attractive to make the part-time jobs (Locum) their colleagues in the cities do unattractive.

viii. Even though the study has been quite comprehensive, none the less was it exhaustive. The Researcher due to some genuine constraints and limitations could not answer all the relevant questions pertaining to quality health and the NHIS in the Lawra District and do hereby make the following recommendations for further investigation

- A major underpinning principle of the NHIS was that, it should be propoor, but the study could not assess the pro-poorness of the NHIS. Thus it could be beneficial to assess the extent to which the NHIS is pro-poor in operations.
- My work also dealt with registered members <>If the Scheme. What about the proportion of the population that has not been registered with the Scheme. What reasons could account for their non-enrolment to the NHIS.
- It could also be relevant to investigate the Socio- cultural factors affecting health care delivery in the Lawra District inspite of the NHIS.

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APPENDIX 1: QUESTIONAIRE TO ACCREDITED FACILITIES

The NHIS was implemented as an alternative financing mechanism to the "Cash and Carry" system of health care financing which was introduced in Ghana in the 1980s. It was established as a response to the declining rate of health care utilization in Ghana especially for the poor under the cash and carry system. The aim is to ensure that every resident of Ghana has equitable universal access to quality healthcare package. This research is aimed at assessing the impact of accreditation, tariff regime and the diagnostic related groupings on quality of health care delivery under the NHIS. Any information provided will remain confidential and be treated as such

Indicator 1: Accreditation of health facilities and quality of health care

1. In which year was this facility accredited to provide services to members of the NHIS?

Actual year .....

2. Was this facility assessed before it was accredited? a. Yes b. No

If No, skip to Q5.

3. If yes, what were the things they considered before granting the accreditation? (Please check all that apply)

1. Quality of health professionals [ ]
2. Existence and Quality of equipment [ ]
3. Physical infrastructure [ ]
4. Existence of internal quality control measures [ ]
5. Availability of ambulance services [ ]
6. Attitude of patients towards patients [ ]
7. Others

.....
.....

4. If your facility was assessed for accreditation, who did the assessment?

1. The National Health Insurance Authority
2. The District Mutual Health Insurance Scheme
3. The District Assembly
4. The District Health Directorate
5. Other (specify).....

Skip to Q7

5. If no, why was this health facility not assessed before accreditation?

1. It is the only health facility in this area
2. The facility is a public/government own and therefore no need for assessment
3. The scheme knows we render quality health services
4. Others.....
.....

6. If this health facility was not assessed, what are requirements for accreditation? (Check all that apply)

1. The facility should have well trained health professionals [ ]
2. Existence of quality equipment [ ]
3. Clean and spacious physical infrastructure [ ]
4. Existence of internal quality control measures [ ]
5. Availability of ambulance services [ ]
6. Attitude of patients towards patients [ ]
7. Others

.....
.....

7. The table below seeks to collect data on health professional situation in this health facility. We would therefore be glad if you could provide the following information to help as assess the effects of the NHIS on health facilities.

Table 1.1 Health Professionals in accredited health care facility up to August 2009

Health Professionals	2003	2004	2005	2006	2007	2008	2009
1. Total No. of health professions							
2. No. of Medical Doctors							
3. No. of Medical Assistance							
4. No. of Registered Nurses							
5. No. of Midwives							
6. No. of Auxiliary Nurses							
7. Others							

8. In your view, what are the goals/objectives of accreditation? (Please check all that apply)

1. To protect public safety [ ]
2. To ensure an acceptable level of quality among service providers [ ]
3. To stimulate ongoing improvements in quality [ ]
4. To provide more objective and less politicized measures of performance [ ]
5. To reduce variations in quality of services [ ]
6. To facilitate portability of membership [ ]

7. Others
(specify).....
.....

9. How does the accreditation system impact on quality of health care services? ? (Please check all that apply)

1. Providers render effective services otherwise they lose accreditation [ ]
2. Scheme is able to monitor performance of the service providers [ ]
3. Providers acquire proper equipment for better rating [ ]
4. Adequate attention and sufficient medicine are given to members [ ]
5. Increase workload of personnel and reduce level of attention [ ]
6. Facilities are stressed up due to increasing attendance [ ]
7. Quantity and quality of drugs are reduced because of untimely payment of claims [ ]
8. Others.....
.....

10. Has this facility been assessed by the scheme after accreditation? 1. Yes 2. No

If No, skip to Q14

11. If yes, how many times has it been assessed?

a. Once b. Twice c. Thrice d. Four times e. Five times f Six times g. Other (specify .....

12. What were the findings of the assessment?

.....
.....

13. Can the current system of accreditation guarantee quality health care delivery?

a. Yes b. No

14. Give reason(s) for your answer to Q13.

.....
.....

15. If your answer to Q13 is No, suggest ways of improving the situation.

.....
.....

Indicator 2: Tariff system under the scheme and quality of health care

16. On the average, how long does it take the scheme to reimburse claims you submit to it?

1. One month 2. Two months 3. Three months 4. Four months 5. Other (specify).....

17. By the Legislative Instrument, how long should it take the scheme to reimburse providers?

1. One month 2. Two months 3. Three months 4. Four months 5. Other (specify).....

18. Does the scheme make advance payment on submitted claims to service providers?
a. Yes b. No
If No, skip to Q22.

19. If yes, what percentage of submitted claims is paid in advance?
1. 10% 2. 20%3. 30% 4. 40% 5. 50% 6. Other (Specify).....
20. Is the percentage paid in advance adequate to ensure smooth operation? a. Yes b. No

21. Give reason(s) for your answer to Q 20.
.....
.....
.....
22. If the answer to Q20 is No, how does that affect quality service delivery?
.....
.....
.....
23. In general, how does the current tariff system impact on:
23a. The quantity and quality of drugs/medicine the facility can purchase? (Check all that apply)

1. We are unable to purchase sufficient drugs due to delay in payment [ ]
2. We are able to purchase enough drugs because payment is assured [ ]
3. We are compelled sometimes to buy drugs on credit at higher cost [ ]
4. We are unable to buy some effective drugs because they are not in the drug list [ ]
5. The tariff for some drugs is lower than their market prices and therefore we cannot prescribe or buy them [ ]
6. Other.....
.....

23b. The efficacy/kinds of drugs/medicine that are prescribed for patients under the scheme? (Check all that apply**)**

1. We do not prescribe some drugs which are effective because they are not in the drug list [ ]
2. Some of the effective drugs that are in the drug list cannot be prescribed because they are more expensive in the market [ ]
3. All effective drugs can be prescribed under the scheme [ ]
4. Others.....
.....

23c. The admission of or attention given to members of the scheme?
(Check all that apply)

1. Members receive adequate attention because payment is assured [ ]
2. Members spend longer waiting time because of long documentation process and large numbers [ ]
3. Most members are treated at outpatient department because of the large attendance [ ]
4. Inpatient care is given to members because payment is guaranteed [ ]
5. Most members are not admitted because payment is not immediate [ ]
6. Others……

23d. Equipment the facility can acquire to facilitate work? (Check all that apply)

1. More and effective equipment are purchased because revenue of the facility has been increased[ ]
2. Attendance has increased but equipment remain the same [ ]
3. Equipment of all accredited health facility have been upgraded [ ]
4. Others……

23e. Human resources situation of this health facility? (Check all that apply)

1. More health professionals have been trained and posted to this facility [ ]
2. Staffing situation has not improved [ ]
3. Staffing situation has even worsen [ ]
4. Existing staff have not been trained on health insurance [ ]
5. Others……

24. Do you think the current tariff system is appropriate?

a. Yes b. No

25. Give reason(s) for your answer to Q 24.

……
……
……

26. If the current tariff system is not appropriate, what do you suggest should be done to make it appropriate?

……
……

Indicator 3: Diagnosis under the scheme and quality of health services

27. What is your opinion about the NHIS requirement that health facilities should not do multiple diagnoses on a patient?

……
……

28. What are your recommendations for improvement in diagnosis?

.....
.....

29. What are the major abuses of the scheme? (Check all that apply)

1. Frequent attendance [ ]
2. Transportation of symptoms of relatives and friends to health facilities [ ]
3. Over billing by some service providers [ ]
4. Irrational prescription [ ]
5. Others.....
   .....

30. What should be done to reduce the abuses on the scheme?

.....
.....

31. The table below contains some health indicators. We would be glad if you could provide the situation for those quality indicators in this facility to help us assess the trend of those indicators with the implementation of the NHIS.

Table 1.2 Health quality indicators

Quality Indicators	Sub-indicators	2002	2003	2004	2005	2006	2007	2008
Outpatient Attendance	Members							
	Non-members							
Inpatient Attendance	Members							
	Non-members							
Average length of admission of patients	Members							
	Non-members							
Mortality Rate	Maternal							
	Infant							
Five most common causes of admission								
Ten common causes of outpatient								

attendance							

QUESTIONAIRE TO DHMT

The NHIS was implemented as an alternative financing mechanism to the "Cash and Carry" system of health care financing which was introduced in Ghana in the 1980s. It was established as a response to the declining rate of health care utilization in Ghana especially for the poor under the cash and carry system. The aim is to ensure that every resident of Ghana has equitable universal access to quality healthcare package.

This research is aimed at assessing the impact of accreditation, tariff regime and the diagnostic related groupings on quality of health care delivery under the NHIS.

Any information provided will remain confidential and will only be used for official reporting in aggregated form. Thank you for accepting to participate in this assessment.

1. What is the current mortality situation in this district?

.....

.....

2. What are the major challenges of the scheme in this district?

.....

.....

3. Recommend ways to overcome these challenges

.....

.....4. Who determines the tariffs of the scheme and service providers?

1. The National Health Insurance Authority only
2. The National Health Insurance Authority in consultation of the schemes and health facilities
3. The mutual health insurance schemes and the health facilities only
4. The Ministry of Health
5. Others
   (specify).....
   .....

5. How do you see the tariff regime of the scheme?

.....

.....

6. What role does your office play in the implementation of the scheme in this district?

.....

.....

The table below seeks to collect data on the health facilities and professionals in this district. We would therefore be glad if you could provide the following information to help us assess the impact of the NHIS.

Table 1.1 Human Resource Situations in the District

Indicators	2004	2005	2006	2007	2008	2009
Health facilities (public & private)						
No. of Medical Doctors						
No. of Medical Assistants						
No. of Registered Nurses						
No. of midwives						
Auxiliary nurses						
Other health workers						

QUESTIONAIRE TO THE SCHEME

This assessment is aimed at finding out the extent to which the NHIS has achieved its objective of removing financial barriers to health care for especially the poor by profiling a sample of members of the scheme. Since policy implementation is a process, policy reviews are important to achieving the desire objectives. Any information provided will remain confidential and will only be used for official reporting in aggregated form. Thank you for accepting to participate in this assessment.

General Information on the National Health Insurance Scheme

1. Year of establishment of scheme.....

2. The table below shows the status and categories of people who have subscribed to the NHIS. We would be glad if you could provide the following information for your district to help in assessing how accessible the NHIS is to different groups of people in society.

Table 1.1 Categorization of membership of Mutual Health Insurance Schemes

Indicators	2004	2005	2006	2007	2008
No. of Members with valid ID cards					
Total Membership					
Membership of women					
Membership of men					
Membership of PWDs					
No. of Children under 18					
No. of girls under 18					
No. of boys under 18					
No. of indigents					
No. of Expired cards					
No. of Renewed cards					

Note:

3. The table below takes stock of service providers that are accredited to the National Health Insurance Scheme and their locations. We would be pleased if

you could provide the following information for your district to help us assess how access to health service providers influence membership of the NHIS.

Table 1.2 Service Providers accredited to the scheme and their location

Service Providers	Total number	No. Currently providing services to members	Location
Public hospitals			
Private hospitals			
Quasi public hospitals			
Health centres			
Clinics			
Maternity Home			
Pharmacy shops			
Chemical store			
Drug store			

Accreditation, tariff regime and diagnostic related grouping under the scheme.

5. How does the scheme accredit service providers? *(Check all that apply)*

1. Issue and receive completed application forms from interested service providers [ ]
2. Verify compliance with the requirement and authenticity of submitted documents [ ]
3. Send completed application forms with fees and required documents to NHIA [ ]
4. Inspect the facility [ ]
5. Submit verification and inspection report to the NHIA within sixty days after receipt of application by the NHIA [ ]
6. Within ninety days of receipt of application, the Authority makes decision and inform applicant [ ]
7. Accreditation is granted if applicant satisfies all the requirements [ ]
8. Others.....

6. What are some of the requirements for accreditation? *(Check all that apply)*

1. The facility should have well trained health professionals [ ]
2. Existence of quality equipment [ ]
3. Clean and spacious physical infrastructure [ ]
4. Existence of internal quality control measures [ ]
5. Availability of ambulance services [ ]
6. Attitude of patients towards patients [ ]

7. Others
   .....
   .....

7. Why should service providers be accredited? *(Check all that apply)*

1. To protect public safety [ ]
2. To ensure an acceptable level of quality among service providers [ ]
3. To stimulate ongoing improvements in quality [ ]
4. To provide more objective and less politicized measures of performance [ ]
5. To reduce variations in quality of services [ ]
6. To facilitate portability of membership [ ]
7. Others
   (specify).....
   .....

8. How appropriate is the current accreditation practice of the scheme?

1. Very appropriate
2. Appropriate
3. Very Inappropriate
4. Inappropriate
5. Don't know

9. Please give reason(s) to your answer in Q 8.

.....
.....

10. Suggest ways of improving the current accreditation practices of the scheme if you considered it inappropriate?

.....
.....

11. How do service providers bill the scheme for services rendered to members? *(Tick all that apply)*

1. The health care facility and the attending health professional the claim form (form 4) [ ]
2. Submit the clinical records of patients as attachment to the relevant forms [ ]
3. The forms are signed by both the attending medical practitioner and the patient in the case of admission [ ]
4. Completed forms are filed within sixty days from the day of discharge of patient [ ]
5. Others
   .....
   .....

12. How many times have the tariffs been reviewed since the establishment of this scheme?

a. Once b. Twice c. Thrice d. Four times e. Five times f. Others (specify).....

13. Who determines the tariffs to be paid to health facilities?

1. The National Health Insurance Authority only
2. The National Health Insurance Authority in consultation of the schemes and health facilities
3. The mutual health insurance schemes and the health facilities only
4. The Ministry of Health in consultation with the pharmacy council

5. Others
(specify).....
.....

14. Is the current tariff regime appropriate to ensure quality health delivery and scheme sustainability?

a. Yes b. No

15. Give reason(s) for your answer in Q14.

.....
.....

16. If your answer to Q14 is No, what do you suggest should be done to improve the situation?

.....
.....

17. Are health facilities complying with the diagnosis standards under the scheme?

a. Yes b. No

18. If no, what are some of the challenges posed to the scheme as a result of non-compliance?

.....
.....

19. How can these challenges be overcome?

.....
.....

20. Do you have any group of people within the district whose premiums are paid by the assembly?

a. Yes b. No

21. If yes, who are/is these groups of people? (Check all that apply)

1. People with Disability [ ]
2. Persons living with HIV/AIDS [ ]
3. Widows [ ]
4. Orphans [ ]
5. Street Children [ ]
6. Others
(specify).....
.....

7. How long have you been paying for them?
.....

h. What is/are the reason(s) for paying for group(s)?
.....
.....

QUESTIONAIRES TO MEMBERS

This research is aimed at finding out the extent to which the NHIS has achieved its objective of removing financial barriers to health care for especially the poor by profiling a sample of members of the scheme.

Individual Registered Members

(1). Sex: a. Male [ ] b. Female [ ]

(2). Age: a. 1 – 18yrs [ ] b. 19 – 25yrs [ ] c. 26 – 36yrs [ ]
d. 36 – 45yrs [ ] e. 46 – 55yrs [ ] f. 56 – 65yrs [ ]
g. 66 – 70yrs [ ] h. Above 70yrs [ ]

(3). Marital status: a. Married [ ] b. Not married [ ] c. Divorced [ ]
e. Separated [ ] f. Other.....

(4). Number of children: a. 1 – 5 [ ] b. 6 – 10 [ ] c. 11 – 15 [ ]
d. 16 – 20 [ ] e. Above 20 [ ]

(5). Religion: a. Christian [ ] b. Muslim [ ] c. Traditionalist [ ]
d. None [ ] e. Other (specify).....

EDUCATIONAL LELEVL 0F MEMBERS

(6). Can you read and write in any language?
a. Yes [ ] b. No [ ]

(7). If yes, in which language can you read and write?
.....

(8). Have you ever attended school?
a. Yes [ ] b. No [ ]

(9). If yes, what is the highest level completed?

1. Pre-school [ ]
2. Primary school [ ]
3. Junior high school [ ]
4. Senior high school [ ]
5. Vocational/technical/agric training [ ]
6. Pre-tertiary (teacher, nurses etc training) [ ]
7. Tertiary [ ]
8. Others
(specify).....
.....

ECONOMIC ACTIVITIES OF MEMBERS

(10). what kind of work are you doing?

1. Formal sector employee [ ]
2. Farming [ ]
3. Craft and artisanship [ ]
4. Trading [ ]
5. Agro-processing activities [ ]
6. Not working [ ]
7. Other.....
   .....

11. If you are a farmer, which area of farming are you engaged in?

1. Cocoa farming [ ]
2. Livestock farming [ ]
3. Fish mongering/farming [ ]
4. Food crop farming [ ]
5. Other.....
   .....

(12). How long have you been engaged in that work?

.....

(13). On the average, how much income do you earn monthly?

a. GH¢5 to GH¢10 [ ] b. GH¢10 – GH¢50 [ ] c. GH¢50 – GH¢100 [ ]
d. GH¢100 – GH¢200 [ ] e. GH¢200 – GH¢300 [ ] f. GH¢300+ [ ]

(14). On the average, how much income do you spend monthly?

a. GH¢5 to GH¢10 [ ] b. GH¢10 – GH¢50 [ ] c. GH¢50 – GH¢100 [ ]
d. GH¢100 – GH¢200 [ ] e. GH¢200 – GH¢300 [ ] f. GH¢300+ [ ]

(15). On the average, how much income do you spend monthly on health?

a. GH¢5 to GH¢10 [ ] b. GH¢10 – GH¢50 [ ] c. GH¢50 – GH¢100 [ ]
d. GH¢100 – GH¢200 [ ] e. GH¢200 – GH¢300 [ ] f. GH¢300+ [ ]

HEALTH UTILIZATION OF MEMBERS

(16). How many times did you consult a health provider in the last twelve months?

a. Once [ ] b. Twice [ ] c. Thrice [ ] d. Four times [ ]
e. Five times [ ] f. None [ ] h. Other.....

(17). If you consulted a health provider, specify the type of provider.

a. Hospital [ ] b. Clinic [ ] c. Health centre [ ] d. Traditional herbalist [ ] e. Spiritual healer [ ] f. Other.....

(18). Did you encounter any problems at the time of the visit to the service provider?

a. Yes [ ] b. No [ ]

(19). If yes, rank the under listed problems in the scale of 1-4 as indicated below

a. very satisfactory b. satisfactory c. unsatisfactory d. very unsatisfactory+

1. Facilities were not clean [ ]
2. Long waiting time [ ]
3. No trained health professionals [ ]
4. Too expensive [ ]
5. No drugs available [ ]
6. Treatment was unsuccessful [ ]
7. Poor attitude of staff [ ]
8. Other.....
.....

INDIVIDUAL ASSETS OF MEMBERS

(20). How many head of cattle and other large livestock do you currently?

a. 1 – 5 [ ] b. 6 – 10 [ ] c. 11 – 15 [ ] d. 16 – 20 [ ]
e. 21 – 25 [ ]f. 26 – 30 [ ] g. None [ ] h. Other (specify).....

(21). How many sheep, goats and other medium size animals do you currently owned ?

a. 1 – 5 [ ] b. 6 – 10 [ ] c. 11 – 15 [ ] d. 16 – 20 [ ]
e. 21 – 25 [ ] f. 26 – 30 [ ] g. None [ ] h. Other (specify).....

22. Do you own any of the following? Include only items that are in working condition.

a) House	[Y]	[N]
b) Land	[Y]	[N]
c) Electric iron	[Y]	[N]
d) Refrigerator	[Y]	[N]
e) Television set	[Y]	[N]
f) Video deck	[Y]	[N]
g) Cassette player/Radio	[Y]	[N]
h) Stereo system	[Y]	[N]
i) Personal Computer	[Y]	[N]
j) Telephone fixed line	[Y]	[N]
k) Mobile Phone	[Y]	[N]
l) Mattress or bed	[Y]	[N]
m) Watch or clock	[Y]	[N]
n) Sewing machine	[Y]	[N]
o) Electric/gas stove	[Y]	[N]
p) Kerosene stove	[Y]	[N]
q) Electric fan	[Y]	[N]
r) Furniture	[Y]	[N]
s) Bicycle	[Y]	[N]
t) Motorcycle	[Y]	[N]
u) Vehicle (car, tractor etc)	[Y]	[N]

v) Generator [Y] [N]
w) Canoe/boat [Y] [N]
x) Solar

APPENDIX 2: DETERMINATION OF SAMPLE SIZE

Sample size

When the population of an area is less than 10,000, Fisher, Laing, Stoeckel and Townsend (1998), categorically stated that the desired sample size is calculated by

$$n_f = \frac{n}{1 + \frac{n}{N}}$$, where

n_f = the desired sample size (when population is less than 10,000),

n = the desired sample size (when population is greater than 10,000),

N = the estimate of the population size

But to determine n_f, n would have to be calculated. According Fisher et al, when the population is greater than 10,000 the sample size is determined by:

$$n = \frac{z^2 pq}{d^2}$$

Where:

n= the desired sample size (when the population is greater than 10,000)

z= the standard normal deviation, usually set at 1.96 (or more simply 2.0) which corresponds to 95 percent confidence level

p= the proportion in the target population estimated to have particular characteristics

q=1.0-p

d= degree of accuracy desired, usually set at 0.05 or occasionally at 0.02

Since the Lawra District Mutual Scheme has a total 78,001 registered members representing 78.1% of the total population in the District then the sample size will be determined by

$$n = \frac{(1.96)^2 (0.78) (0.22)}{0.05^2}$$

$$= 264$$