THE IMPACT OF NATIONAL HEALTH INSUHANCE SCHEME ON HEALTH DELIVERY IN BRONG AHAFO REGION: A CASE STUDY ON JAMAN NORTH.

BY

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DEDICATION

I wish to thank the Almighty God for bringing me this far. I also thank father and mother who planted my feet on the track of education.

This work is finally dedicated to my sweetheart Mrs. Obediaba Martha Mensah for her moral and financial support towards my education.

CERTIFICATION

I hereby declare that this submission is my own work towards the Commonwealth Executive Masters in Business administration degree and that, as far as I know , it contains no material previously published by another person nor material which has been accepted for the award of any other degree, except where due acknowledgement has been made in the text.

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ABSTRACT

To address the problem of financial difficulties facing individual in accessing health care services, the government in 2001, initiated a National Health Insurance Scheme (NHIS) as a humane approach to financing health care in Ghana. To achieve the goal of the National Insurance Schemes, the Jaman North health insurance scheme (JNHIS) started in 2002 to implement the policies of the NHIA. Four different questionnaires were designed for insured, noninsured, Health service providers and health insurance scheme and subscriber exits interviews, as well as focus group discussion were the instrument used to collect data. The data was analyzed using tables, percentages, graphs, and statistical programme for the Social science (SPSS) The convenient sampling and the accidental methods were used which were all non-probabilistic sample strategy. The objectives of the study were to assess whether or not the introduction of NHIS as a new policy has engendered positive or negative outcomes in delivery of health service, to collect data on the enrollment category of Jaman North Health Insurance Scheme and its impact on delivery of health service, to determine the utilization rate of Health service for both insured and non insured on disease incidence, to suggest recommendations. The findings from the study were that people, especially vulnerable and marginalized were getting access to health care in the District and utilization of health service has increased over the years. In conclusion health insurance has been beneficial to the people in the by helping them to meet their health needs. It was recommended that, efficient monitoring systems should be put in place to check utilization of health service to prevent abuses.

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ABBREVIATIONS

CHPS - Community Based Health Planning and Services

DHMT - District Health Management Teams

FGD - Focus Group Discussion

G.E.S - Ghana Education Service

GHS - Ghana Health Service

GDRG - Ghana Diagnostic Related Grouping

INSURED - A person registered with the Health Insurance Scheme

IPD - Inpatient Department

LI - Legislative Instrument

MOH - Ministry of Health

NHI - National Health Insurance

NHIA - National Health Insurance Authority

NHIS - National Health Insurance Scheme

NON-INSURED - A person who has not registered with the Scheme

OPD - Out Patient Department

PREMIUM - Money paid by the informal sector and those who are not in the Exempt group.

UNICEF - United Nations International Children's Emergency Fund

USAID - United State Agency for International Development

WHO - World Health Organization

CHAPTER ONE

INTRODUCTION

1.1 Background to the study

In line with the Ghana Poverty Reduction Strategy (GPRS) the government has initiated a policy to deliver accessible, affordable and good quality health care to all Ghanaians especially the poor and the most vulnerable in society. It was estimated that, out of eighty percent of those who required health care at any given time, only twenty percent were able to access it. That is about 80% of people living in Ghana who needed health care could not afford to pay out-of-pocket at the point service use.(Ministry of Health ,2004) .This resulted in delays in seeking health care, non-compliance to treatment and other health related problems. Access to effective and affordable health services is a rarity in most developing countries. The problem, as the GTZ (2005) points out, is not only due to the poor health care services often found in rural areas, or the inadequate quality of care across most of these countries, but also to the high cost of obtaining these services. Invariably, the very poor are the most vulnerable, as they are less capable of recovering from the financial consequences of illness and tend to have higher health risk, since they usually have poor working and living conditions, with limited access to healthy food, clean water, and adequate sanitation (ILO, GTZ, WHO, 2006).

To address the problem of financial barrier to health care access, the government in 2001, initiated a National Health Insurance Scheme (NHIS) as a humane approach to financing health care. Through NHIS, it is believed that access to health care is made easier for those who need it. Nonetheless, access is a function of location of providers of service, cost of care and ability to pay, quality of care and social-cultural aspect of service provision. Financial barrier to health care is dependent on the payment mechanism that is put in place at the time

of use of service. Access to health care is defined as the percentage of people who take 30 minutes or less to reach a health facility based on their usual mode of travel. For the nation as a whole, 80 percent of urban residents have access compared to only 37 percent for rural residents. According to Cambridge International Dictionary, Health Insurance is an arrangement with a special company to which you pay money in exchange for that company paying most or all of you medical expenses.

1.2 Statement of the problem

Available studies suggest that the system, which came to be known as *cash and carry*, had disastrous results; health indicators plummeted as health care became less accessible (WHO, 2007; Oppong, 2001) and a subsequent decline of health care utilization. According to WHO (2007), life expectancy at birth was 45 years in 1970, increased to 49.2 years in the late 1980s but fell to 47 years by the late 1990s and early 2000s. The deteriorating health indicators were greeted with unanimous uproar—UNICEF, for one, called for *adjustment with a human face*, while the ILO advocated decent work arrangements under economic reform (Mensah, 2008). Similarly, the United Nations, the G8 countries, the African Union, and WHO joined the deafening chorus advocating increased funding for healthcare in Africa.

National Health insurance Schemes emerged as a solution to the crisis of health care funding in African countries. In fact, many African countries (e.g., Rwanda, Tanzania, Kenya, Nigeria) are experimenting with a variety of comprehensive, social health insurance schemes that combine private and public-funding arrangements in creative ways (Mensah and Oppong, 2007).

Indeed, there is evidence from a number of studies—including those of Van Doorslaer et al., (2006) in Asia; of Jutting (2004) in Senegal; of Schneider and Diop (2001) in Rwanda; and of

Criel and Kegels (1997) in Zaire—that catastrophic out of-pocket payments for health service could push entire households into poverty, and that membership in prepayment schemes is often associated with higher utilization of modern health care, in the form of outpatient visits or hospitalization/Inpatient).

The National Health Insurance Scheme (NHIS) as a socialized Mutual Health Insurance Scheme introduced in Ghana, provided a minimum benefit package, medicine list, and a tariff structure and exclusion list. Based on the epidemiology of disease in Ghana, a list was produced on the common diseases, procedures and operation that occur in Ghana and in accordance with National Health Insurance Authority regulation (NHIAR LI 1809, 2004). These packages covered about ninety five percent of common diseases affecting Ghanaians.

Comparatively, the package was attractive and more comprehensive, to the existing District Mutual Schemes in the nation including Jaman North which had relatively limited benefits including general admissions and outpatient up to GH¢15.00, dog bite, snake bite, and domestic accident and other gynecological emergency which involved surgical operations. The introduction of NHIS was advantageous to the people in the District because of the comprehensive package.

The fact is that people who are insured are more likely to seek preventive measure. People who are uninsured are less likely than those with insurance to seek preventive measures which result in poor health outcomes and higher health care cost.

delivery of health service appears to be determined by many factors such as health status, severity and condition of disease, level of education, distance, type of occupation, cost of health service, quality of health service, availability of heath facilities, gender and type of health insurance and others. The introduction of Health insurance has come to remove some of the above factors that seemed to be a hindrance to accessibility and utilization. There is the

need for a study and evaluation to establish a relation between access to health insurance and delivery of health service. If health insurance has come to remove financial barriers to accessibility of health delivery then what is follows? According to American Public Association in conjunction with Ghana health service research unit, 2008, Health insurance schemes are rapidly increasing in developing countries. Yet there is limited evidence on whether enrollment increases health delivery and ultimately health outcomes. Recognizing the potential of prepayment schemes to eliminate user fees and increase access to health care, Ghana enacted the National Health Insurance Act in 2003, mandating the establishment of district-level insurance schemes.

1.3 Research Objective

The general objective is to find out the effects of the introduction of health insurance on the delivery of health service within the Jaman North District.

1.3.1 The specific objectives are:

- To assess whether or not the introduction of NHIS as a new policy has engendered positive or negative outcomes in delivery of health Service
- To collect data on the enrollment category of the Jaman Norrth Health Insurance Scheme and its effects on delivery of health service
- To determine the delivery rate of Health service for both insured and non insured on disease incidence
- To suggest recommendations for improving the outcome of Health insurance in Ghana

1.3.2 Research questions

- What effects have the introduction of NHIS brought on delivery of health service in Ghana?
- What relationship does higher/lower enrollment Scheme have to do with delivery rates of health service in Jaman North and Ghana in general?
- What is the health delivery rate between insured and non-insured in the Jaman North?

1.4 Scope of the Study

This thesis will focus on the effects National Health Insurance Scheme has had on health care delivery at Jaman North District. This thesis will not focus on issues related to National Health Insurance Scheme or healthcare in general, but the relationship between the two. Jaman North District was selected for easy access to data and information.

1.5 Limitations

It is important to note the limitations of the study. The sample size which comes out of only one municipality in the nation with 230 districts may limit the generalization of the result. Secondly, finances limited the ability to reach large number of the targeted population especially those at rural areas.

1.6 Significance of the study

The examination of effects of the introduction of health insurance on delivery of health service is significant in several ways. The general consent is that there is as strong positive association between access to Health insurance and delivery of health service. The health

delivery behavior as a result of introduction of health insurance will help to determine whether the health needs of the people in the District have been met. Compared with the disease incidence over the years, the impact on health delivery pattern and other outcomes will help the local scheme predict the cost per head of OPD and IPD for Claims payment/bills .Based on the average and monthly utilization, the Scheme will be able to budget with precision how much to pay in a year. This will help the National Health Insurance Authority to assess the impact of health delivery patterns for any budgetary allocation and other health policies. More to this the enrollment as compared to the level of utilization as result of encounter per head will help scheme Managers to prepare financially to meet claims payments and also the enrollment category to determine premium charge.

1.7 Methodology

This thesis will use both primary and secondary data to achieve the stated objective, through questionnaires and interviews. The secondary data includes all relevant data that was cited in the thesis.

1.8 Organization of the study

The study is organized in five Chapters. Chapter One forms the introduction. It gives the background to the study, the problem statement, the study's objectives the research questions and the significance of the study as well as the limitations of the study. Chapter two is made up of the literature review on the impact of health delivery in the district. This chapter will also discuss summaries of recognized authorities and previous researches done on the problem under investigation. Therefore researches done, theories propounded and various approaches taken by other people on the study will be reviewed. Chapter Three is devoted to

description of the study area and the methodology adopted for the study. The Fourth chapter contains presentation and discussing of the study's findings, while the last chapter gives a summary of the findings as well as the conclusions and recommendations.

CHAPTER TWO

LITERATURE REVIEW

2.1 Introduction

Although there has been some publications and literature on the introduction of health insurance and its impact, there seems to be very little literature on the effects of the introduction of health Insurance on the impact of health delivery service in Ghana. This chapter discusses summaries of recognized authorities and previous researches done on the effects of the introduction of health insurance on the impact of health delivery service .The first part looks at, the development of Health insurance in Africa and Ghana as compared to two other African countries,(South Africa, Tanzania), description of Ghana National Health Insurance Scheme, administration of Ghana Health Insurance ,principles of a viable Health insurance and overview of Ghana health system and health insurance. The other side looks at the nature and definitions of the impact of health delivery service, approaches to the impact of health delivery service and theories of the impact of health delivery service.

2.2 Types of Health Insurance Schemes

The Act 650 and the LI 1809 define types of Health Insurance Schemes namely, Social –type Health Insurance and Private Commercial Health insurance schemes operational in Ghana. There are two types of the Social -type which are District Mutual Health Insurance Schemes and Private Mutual Health Insurance Scheme.

All these types of health insurance shall have governing boards which shall be responsible for the direction of policies of the schemes .They shall be registered under the Companies code, Act 1973 as either limited by guarantee or Liability. There is no restriction on the number and the type of scheme that one can join.

2.2.1 The District Mutual Health Insurance Scheme

The District Mutual Health Insurance Scheme (DMHIS) is a fusion of two concepts, the traditional Social Health organization for the formal sector and the traditional Mutual health organizations for the informal sector with a district focus. Thus the District Mutual Health Insurance Schemes will incorporate members from both the formal and informal sector of the economy. It is a decentralized system with ownership belonging to the members who have contributed their required contribution. It is social in character because it is no-for –profit.

The DMHIS has been designed to ensure transparency, build subscribers confidence and in particular bring insurance to the door steps of residents. However, it will be in partnership with the government in that the DMHIS will receive subsidy from government in the form of risk equalization and reinsurance for catastrophic events.

2.2.2 Private Mutual Health Insurance Scheme

This is the type that may be established and operated by any group of people as private Health Insurance Scheme .This shall not necessarily have a district focus but may either be a community -based or occupational or faith- based. It is also social in character but will not receive subsidy from the government.

2.2.3 Private Commercial Health Insurance Scheme

The Private Commercial Health insurance refers to Health Insurance that is operated for profit based on market principles. Premiums are based on the calculated risk of particular groups and individuals who subscribe to it. Thus, those with higher risk pay more premiums. Commonly, the ownership of the private commercial type resides with a company and stake holders and the stocks of the company can be traded on the market as any company. The private commercial insurance Companies will play the role of offering the minimum benefit

package and supplementary insurance plans as an add-on for those who so desire and can afford to pay.

The DMHIS schemes shall be governed by Board of Directors responsible for the enforcement of the constitution of the Schemes approval of budget render operational and financial accounts and appoint Management staff.

2.2.4 Evolution of Health Insurance in African Countries

Formal health insurance Schemes emerged only recently in African countries. Historically, Africans relied on informal, kinship, and other communal networks and associations for mutual support and solidarity during illness, bereavement, and other contingencies. At independence formal health care systems in African countries favored privileged elites and urban residents because they were intended to serve the Europeans and their immediate dependents and employees. Independent African countries extended the reach of their formal health care systems with sizeable investments in health care, training indigenous health personnel, and strategies to redress the inequalities of the colonial era. In fact, most African countries embraced the primary healthcare strategy outlined at the historic *Alma Ata Conference* in 1978 that emphasized community-based care and resolved that comprehensive health care was a basic right of citizens and a responsibility of government. Thus, most countries provided 'free' and publicly-funded health care with virtually no out-of-pocket payments. These efforts were quite successful in increasing not only the numbers of health professionals employed in the public sector and the health care infrastructure, but also extended care to areas and populations previously without access. In Tanzania, for example, the government succeeded in expanding access to health care nationwide to the extent that by 1977 more than three-quarters of Tanzanians lived within 5 km of a health care facility

(Yudkin, 1999). Amidst rapid population growth and economic decline, such free universal health care systems quickly became unsustainable (Criel, 1998).

During the OPEC oil crisis of the 1970s most African governments were compelled to reduce their budget allocations to social services, including health. The worsening economic circumstances of the 1980s compounded the problems and forced most African countries to seek financial assistance, in the form of loans and grants, from international financial institutions such as the World Bank and the IMF. As a major funding conditionality, these governments were required to switch from their socialist-based development policies toward open-market reforms under the Structural Adjustment Programs (Mensah, 2006). Removal of government subsidies and imposition of user-fees for social services such as education and health care became common requirements by the early 1990s (Mensah, 2008a and 2008b). Suddenly, out-of-pocket payment for health care services, which used to be the exception in the early post-independence years in Africa, became the rule (Mwabu, 2008; Vandemoortele et al., 1997)

2.3 Health Insurance Development in Ghana

The independence of Ghana of Ghana in 1957 brought about; among others "free" health care for all its citizenry. This meant that there was no direct out-of-pocket payment at point of consumption of health care. Financing of health was, therefore, entirely through government tax revenue .With a decline in the economy, the sustainability of "free" health care became problematic given competing demands on the countries resources.

User fees were introduced in 1969 , when the first law, Hospital Fees Decree, 1969(NLCD360),enabling the collection of fees for health service was enacted .This was

followed in later years by a number of other laws, the Hospital Decree ,the 1969(Amendment) Act,1970 (Act 325) ,the Hospital Fees Act 1971,Act(387) and their resultant Legislative instrument particularly the Hospital Fees regulation 1985 (LI1313) thus mandated fees to be charged for consultation, laboratory and other diagnostic services ,medical surgical and dental services, medical examination and hospital accommodation. Drugs were to be charged to patients at full cost. The introduction of the user fee was noted to have resulted in decline in delivery of health services in the economy. 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 which was put in place was termed "Cash and Carry" .The implementation of the "Cash and Carry" compounded the health delivery problem by creating some financial access barrier to access health delivery. Government still recognizing the problem associated with the "Cash and Carry" thought of abolishing this out-of –pocket payment for health care at the point of service.

To offset the negative effects of the "Cash and Carry" system, especially its consequences on the poor ,the government commissioned various studies into alternatives, principally, insurance-based ones .Initially a lot of efforts were invested into investigating the feasibility of National health Insurance Scheme. Proposal to set up a National Health Insurance Scheme (NHIS) have in fact been around for long time. Since early 80s, various experts (Local and International) were contracted by Ministry of Health (MHO) to study and make recommendations for setting up and running a National Health Insurance Scheme organization. The International Labour organization (ILO), World health Organization (WHO), European Union and London School of Hygine and Tropical Hygiene all visited and provided technical advice at the request of the Ministry. In 1997, the NHIS pilot project was formally launched in the Eastern region intended to cover for districts. New

Juaben,Suhun/Kraboa/Coaltar,South Birim and South Kwahu.The objective were stated in the Presidential sectional address (The president of the fourth republic of Ghana Flt Lt Jerry John Rawlings 1997) of that year as ….the national Health Insurance will contribute to resolving the cost o health delivery. This year a pilot Insurance Scheme will be implemented in Eastern region to test the work done so far. Its performance will be studied as well as the existing rural health Insurance Schemes ….. so that problems can be identified and eliminated before the implementation can be done on National scale ,,

The very first District-wide Mutual Health Insurance Scheme in the country is the Nkoranza Health Financing Scheme in the Brong Ahafo region, established in 1992 (Sabi, 2005; Heyen-Perschorn, 2005). The Scheme was started at a mission hospital in Nkoranza as an alternative means of financing healthcare to curtail out-of-pocket payments by clients, many of whom were poor and had difficulties making the payments to keep the hospital afloat. The success of the Nkoranza Scheme provided the impetus for the establishment of other such Schemes in Ghana.

2.4 Description of National Health Insurance Schemes in Ghana (NHI)

Upon assumption of office in 2000, the Government sought to replace the existing cash-and-carry system of healthcare payment with the incipient National Health Insurance Scheme (NHIS), following intense consultations with Ghana's international health development partners (e.g., WHO, DANIDA, DFID, and ILO) and relevant national agencies and NGOs. A Ministerial Task Force on Healthcare Financing was established in March of 2002 to conduct further studies and recommend an appropriate Scheme for Ghana. The Task Force's recommendations were submitted to parliament in 2003, culminating in the passing of the

National Health Insurance Act of 2003 (Act 650), and the official birth of the NHIS that same year.

The stated mission of Ghana's NHIS is "to ensure equitable universal access for all residents of Ghana to an acceptable quality of essential health services without out-of-pocket payment being required at the point of service use" (Ghana Ministry of Health, 2004a). *Act 650* identifies three major types of health insurance in the country. These include: *(a)* District-wide Mutual Health Insurance Schemes; *(b)* Private Mutual Health Insurance Schemes; and *(c)* Private Commercial Health Insurance Schemes. All these Schemes have to register with the government to be able to operate legally in the country. However, the government provides direct financial support only to the District-wide Mutual Health Insurance Schemes, as part of its ongoing Poverty Reduction Strategy. In fact, the NHIS is structured around the District-wide Mutual Health Insurance Schemes as the dominant form, with minor variations to accommodate special variations.

2.5 Administration of National Health Insurance in Ghana

Ghana's NHIS is regulated by the National Health Insurance Council (NHIC), headquartered in Accra. Regional and District offices of the NHIC have been set up to decentralize the operations of the Scheme. The Council manages the National Health Insurance Fund (NHIF) through the collection, investment, disbursement, and administration of the Scheme. The Council also undertakes the licensing, regulation, and accreditation of healthcare providers. By the end of 2007, the NHIS had accredited 800 private healthcare providers in addition to government health facilities (Ghana Ministry of Health, 2008). It is expected that this system of accreditation will eventually raise standards and quality of health care throughout the country for both insured and uninsured citizens. At the District level, there are Health Insurance Assemblies which comprise all members of the respective District Schemes in

good standing. The District Schemes are governed by Board of Trustees and Scheme Managers. The management teams at the various districts usually include an Administrator, Accountant, Publicity and Marketing Manager, Claims Managers, Accountant, Data Control Manager, and Data Entry Clerk (Ghana Ministry of Health, 2004; Sabi, 2005).

2.5.1 Premium and benefits package

NHIS premiums are generally based on clients' ability to pay. District Health Insurance Committees identify and categorize residents into four main social groups—viz., the core poor or the indigent; the poor and very poor; the middle class; and the rich and very rich—and vary their respective contributions accordingly . The *core poor* (or the indigent), together with people who are 70, or more, years of age, or former Social Security and National Insurance Trust (SSNIT) contributors who already are in retirement, are exempted from paying any premiums. While premiums vary slightly from District to District, generally members pay no less than GH¢7.2 (US$8.00[i]), per annum. For members in the formal sector, 2.5% of their contribution to SSNIT is deducted monthly as their health insurance premium.

Workers in the formal sector are automatic members of the NHIS, but they still have to register with their respective District Mutual Health Insurance Schemes. Those in the informal sector, as well as the self-employed, pay between GH¢7.2 and GH¢48.0 yearly, depending on their income. All contributors' premiums cover their children and dependents below age 18. Thus, NHIS registrations of children were linked to those of parents. Some schemes insist that both parents must be registered (except in single-parent households) before a child can be registered, while others only require the mother to be registered. Consequently, parents with larger families had better coverage since all their children were covered as well, but children whose parents were uninsured had no coverage. Stories of infants detained at health facilities due to their parents' inability to pay for the surgery that

delivered them, or that they needed as neonates, were widespread. Following intense public outcry, this coupling of parents' coverage with their children officially ended in September 2008 (Sulzbach, 2008).In 2004, the government introduced a 2.5% sales tax (i.e., Health Insurance Levy) on selected goods and services to fund the NHIS. Other notable sources of funding for the Scheme include money from the government's budget and donor contributions (Sabi, 2005).

The benefits package of the NHIS includes general out-patient services, in-patient services, oral health, eye care, emergencies and maternity care, such as prenatal care, normal delivery, and some complicated deliveries. Diseases covered include malaria, diarrhea, upper respiratory track infections, skin diseases, hypertension, asthma, diabetics etc. According to the Legislative Instrument which accompanied *Act 650,* about 95% of all common health problems in Ghana are covered (Ghana Ministry of Health, 2004a and 2004b)—how this estimate was ascertained is, however, difficult to establish. The government has a specified minimum benefit package to which all District-wide schemes should adhere. Some services, such as HIV antiretroviral therapy, hearing aids, dentures, and VIP accommodations are excluded from the health benefit package, either because they are considered too expensive, non-medical, or because there are alternative national arrangements for them.

2.5.2 Exclusion List, Ghana NHIS

These are services that will not be covered under the NHIS. Note that 'exclusion' is used loosely here, as insurance Schemes have the freedom to decide whether or not they will offer these services as additional benefits to their members. According to the Ghana Ministry of Health and NHIA (2003),the following are excluded from the service covered under NHIS.

- Rehabilitation other than physiotherapy

- Appliances and prostheses (optical aids, hearing aids, orthopedic aids, dentures etc)
- Cosmetic surgeries and aesthetic treatments.
- HIV retroviral drugs (symptomatic treatment of opportunistic infections and other AIDS related diseases will be covered).
- Assisted Reproduction (e.g., Artificial insemination) and gynecological hormone replacement therapy.
- Echocardiography
- Angiography
- Dialysis for chronic renal failure
- Organ transplantation
- All drugs that are not listed on the NHIS drug list
- Heart and Brain Surgery (other than those resulting from accidents and Cancer treatment (other than breast and cervical)
- Mortuary Services
- Diagnosis and treatment abroad
- Medical examination for purposes other than treatment in accredited health facilities (e.g., visa applications, education, institutional, driving license etc.
- VIP ward (Accommodation).

Source: Ghana Ministry of Health, *National Health Insures Policy*, 2003.

By the end of August 2007, 55% of the total national population had registered with the NHIS. The largest numbers of enrollees, in absolute term, were in the Brong Ahafo Region (1.4 million), the Eastern Region (1.2 million), and the Northern Region (1.0 million). Surprisingly, only 24.1% of Greater Accra's population had enrolled in the NHIS by August 2007. This reflects the growing number of transients, slum-dwellers, and rural-urban migrants

who have come from outside the region in pursuit of the ever-dwindling employment opportunities in Accra (the national capital) and its surroundings. Available data show that of the total number of Ghanaians enrolled by June 2007, some 7.4% were over 70 years of age; and 1.9% were indigents—all of whom are exempted from premium payments.(Global Development Network ,November,2009)

Undoubtedly, we cannot get a full picture of Ghana's NHIS and of its sustainability without some insight into its cost effectiveness and funding mechanisms in the context of health care financing in the country. Unfortunately, though, as in many African countries, it is highly difficult to obtain a comprehensive overview of the funding to Ghana's health sector, in general, and to the NHIS, in particular, due to the lack of a reliable data, which is in turn attributable to the fragmentations in funding sources, uses, and flows. Moreover, mismatches between the funding captured on-plan by the nation's "Program of Work," on-budget via its "Medium Term Expenditure Framework," and on-account through its "Financial Statement" have also undermined the reliability of data on health care financing in the country (Ministry of Health, 2008).

Also, while there has been some progress in the Health Care Budget Management Center's reporting of internally generated funds from out-of-pocket sources and from NHIS subsidies from the government, this is still incomplete and therefore unreliable for any meaningful analysis at the national level (Ministry of Health, 2008). Notwithstanding these data problems, we know from the 2006 National Budget that some 13% of Ghana's national expenditure of GH¢2.8 billion then was allocated to the health sector (Government of Ghana, 2006). Similarly, of the total planned national expenditure of GH¢3.9 billion slated for January to December of 2007, some 11.46 % was allocated to the health sector Government of Ghana, 2006). According to the Independent Review of the Health Sector Program of

Work for 2007, the total expenditure on health as a percentage of GDP stood at 4.4% in 2006, and the estimated per capita total expenditure on health was about US$25.4 the same year (Ministry of Health, 2008). Moreover, estimates from the Ministry of Health (2008) show that spending on the National Health Insurance Scheme, as a share of the nation's health care sector financing,

2.6 Policy Guidelines of National Health Insurance Schemes (NHIS)

Ghana has adopted the use of Health Insurance as one of the national fundamental systems for financing health service .This policy guided the enactment of the National Health Insurance Act 650(2003) and the LI 1809.The Act provides the legal frame to secure the provision of at least a standard health care package for all persons resident in the country through mutual and private health insurance schemes

The provision is articulated in the following main principles

- Health service will be provided through a prepaid mechanism that incorporates risk sharing and risk equalization and ensures equity.
- Regularly compulsory contribution will be made from population groups that have the means and ability to pay minimum premium
- Service comprised of standardized ,minimum benefit package of quality service
- Subsidy will be provided for poor and venerable who do not have the ability to pay

2.6 .1 Principles underlying the design of Health Insurance in Ghana.

Available statistics indicates that about 70 percent Ghanaian are in the non-formal sector of the economy. There are two main problems associated with this sector. The first one is the difficulty that may be encountered in collecting contribution. This means that tradition mechanism for organizing communal contributions needs to be examined and factored into

the design of the schemes. The second problem, which is critical one, is that, most people at least 40 percent are below the poverty line and as such may not be able to afford higher premium. Thus the Health Insurance Schemes have been designed with the aim to offer health care access to the poor and the vulnerable in society. Thus, the design would take into account the following principles risk equalization, cross-subsidization, solidarity, quality care, efficiency in premium collection and claims administration, community or subscriber ownership, partnership reinsurance, sustainability.

2.7 Determinants of viable Health Insurance Schemes

Before the introduction of Health Insurance in Ghana, Ghanaians like other people living in developing countries, Health insurance was for the upper class people. The poor could not afford such type of social protection. For most people living in poor developing countries ,illness still represents a permanent threat to their income earning capacity .Besides the direct cost for treatment and drugs, indirect cost for the labour force of the ill and the sick persons have to be shouldered by the household. Health insurance schemes are increasingly recognized factor as tool to the people for health care service of good quality and extreme underutilization of health service in several countries. It has been argued that Social Health Insurance may improve the access to health care of acceptable quality. Against this background, the centre for Development Research (ZEF-BONN TANZANIA 2008) in bulletin on world health organization in November 2008 analyzed within his research programme on social security systems in rural areas, the prospect and limitations of innovative health Insurance Schemes, conducted an empirical studies currently in Ethiopia, China, Ghana, India ,Senegal and Tanzania to estimate the demand for health care health Insurance and factors of successful health Insurance scheme. The following points summarizes the important findings on the determinants of a viable Health Insurance Scheme

- **Flexibility in Paying Procedure (premium).**

Flexibility here means that there should be various possibilities to adopt paying procedure to the local level requirements. This includes payments in bits and the role of the state the possibility for demand targeted subsidies. One other important determinant of willingness to join schemes is affordability of the premiums which often depends on the time of collection. Health insurance schemes target the marginalized in the society, the premium rates need to be affordable. It has been found out that health insurance schemes which target formal sector workers most of the time collect monthly contributions from members while in the informal sector collection of contributions is done during harvest season when cash incomes are regular. Because widespread absolute poverty is believed to restrict potential members from joining health insurance schemes, there should be flexibility in payment of premiums by the poor. It also implies that collection of premiums should be done during the seasons when cash incomes are highest (Development and Corporation, 2001).

- **Experience in Social Protection and Community Participation**

The interest of the people to set up community financing schemes (CF schemes) is to have the purpose of social protection. Community participation matters when it comes to the control of moral hazards behavior and cost. If members can identify themselves with their schemes because they control the funds and have decision –making power, they will tend less to unnecessary use of health delivery service

- **Existence of Viable Health care Provider and Quality Health Care**

The success or failure of Health Insurance Scheme is largely dependent on the existence of viable health care providers. For example hospitals that offers services to the insured. Decisions taken and activities by health care providers have an impact on the financial balances of the Schemes. For example in the case of NHIS in Ghana

the administration of the hospitals have recognized that their ultimate target group the poor, are not able to pay their fees but it is not possible to allow for general exception of fees for the poor. The type of services from health providers has a direct relation with the premium paid by insured clients since people compare the -value for money –to the service they receive to the services they receive to motivate them to register with a scheme. Desmet et al (1999) studies showed that quality of delivery equally plays an important role in the willingness to join a scheme. Quality of delivery defined in terms of rapid recovery, good health personnel, quality of drugs and attitude of health personnel, In 12 focus group discussions (FGDs) organized to evaluate the Meliando Scheme in Guinea with 137 persons, these very features were mentioned 383 times by participants as an important factor which determines to a large extent willingness to join a scheme**.** In Ghana quality of care to insured clients is questionable.

The attention now has been the NHIA's ability to pay providers promptly. In the operation manual of NHIA for example, three visits have been fixed when a patient is supposed to be completely healed. Desmet et al (1999) studies have also shown that in some settings it is not possible to set up viable insurance schemes and mobilize demand if the people feel that they cannot get the best health care services possible. The implication is that the benefit package should include basic services designed to take into account the health delivery needs and preferences of the target populations. Health facilities will also have to be well equipped to collect patient data for reimbursement. Experiences with exemption policy for under- five year old and aged being treated at the hospital for free have not been pleasant. There have been difficulties in reimbursement of monies and resources spent on this category of people to the health facilities.

- **Community and household characteristics and solidarity**

The demand for health Insurance is a crucial factor if the benefits expected from community financing schemes are to be realized. The demand of household health insurance depends not only on the quality of care offered, the premium and the benefit package, but also on the socio economic and cultural characteristics of household and communities. Widespread absolute poverty among potential members can be serious obstacle to the implementation of insurance. Community involvement can be exclusionary as well as inclusionary. In Senegal, it was found out that traditional solidarity in the community setting plays a major role in the success of a health insurance scheme. Jutting et al, (2001) realized that 15% of those studied became members of the scheme for the sake of solidarity.

- **Public Information on the Health Insurance Schemes.**

Most of the people in the informal sector and those in the rural areas are often unable to read and write therefore careful thought has to be given to what information the members need in other to be convinced. Jutting et al (2001) studies in the Thies Region of Senegal showed that 70% of members studied had become members of the insurance scheme because they had received clear and persuasive information about the benefits of becoming a member of the scheme. Public information can come in various forms as simple handouts, posters, video films and discussion groups. However, in most part of the continent where most people cannot read and write the use of handouts and posters may tend to give different interpretations to the message designed for the target population. In such an instance, focus group discussions may be more important to allow the target population to share their views on the scheme

2.8 Analytical Overview of Health System and Health Insurance in Ghana

The World Health Organization released a bulletin (World Health Organization 2008,McIntyre et al.2008), on analytic overview of health systems in Ghana, South Africa and the United Republic of Tanzania. Various features were reviewed on the health system and operation of health insurance. Below is the overview on the Health system in Ghana and the implementation of Health in Insurance in Ghana.

- **Revenue Collection Premium Payment**

The source of fund for health system in Ghana is significantly donor funding, accounting for about 20% of total health-care funding. The burden of domestic funding is on companies and households, but households ultimately bear the major burden. There are some exemptions from contributions (e.g. the lowest income group does not pay income tax and income less than eighty four Ghana cedis does not attract income tax) .In payment of premium in NHIS in Ghana children less than 18 years the aged are exempted from national health insurance contributions if both parents have paid their premiums, and the elderly aged more than 70 years do not have to pay user fees and health insurance Premium. Pregnant women as well do not pay premium and there is no fee for leprosy and TB treatment). User fee waivers apply to indigent people, but it has been difficult to clearly define and identify this group.

- **Contribution Mechanisms**

General tax revenue is generated from personal income tax (11%), company tax (15.4%), VAT (25.4%), petroleum tax (18.3%), import tax (16.5%), earmarked tax for national health insurance (5.1%) and a range of other taxes accounting for 8%.

Personal income tax is structured progressively with low-income earners being exempted and the marginal tax rate ranging from 5% for the lowest income taxpayers to 28% for the highest

income taxpayers.VAT is charge at 15% (10% for general government revenue, 2.5% as an earmarked tax for education and 2.5% as an

earmarked tax for health insurance).For NHI scheme the formal sector workers, a deduction of 2.5% is transferred to the NHI fund as part of their contribution to the Social Security and National Insurance Trust (SSNIT) fund. Theoretically, contributions by those outside the formal sector are supposed to be graduated according to income such that low-income groups pay a premium of 7.20 Ghanaian cedi (GH¢) or US$ 8 while those with the highest income pay a premium of GH¢ 48.00 or US$ 53. In reality, a flat premium payment of GH¢ 7.20 per annum is charged due to the difficulty of categorizing people into different socioeconomic groups.

- **Out-of-pocket payment:**

User fees are not differentiated according to income in Ghana. Before the introduction of the NHIS, majority of people paid out-of-pocket for their health care needs in public and private health facilities, pharmacies and traditional healers. Collecting organization taxes are collected by three main bodies in Ghana: The Internal Revenue Service collects personal and company income tax; the VAT secretariat collects domestic VAT, excise duties and part of the NHI levy. The Customs, Excise and Preventive Service collects import duties, import VAT, petroleum tax and part of the NHI levy. All of these taxes are then pooled by the Revenue Agency Governing Board of the Ministry of Finance and Economic Planning. Health insurance contributions are made by both formal and informal sector workers. Formal sector workers contribute via SSNIT, a body that manages retirement funds. These funds are sent to the DMHIS according to the number of formal workers/ SSNIT contributors that a scheme registers. Those outside the formal sector pay their contributions directly to their respective district mutual health insurance Scheme (DMHIS).

- **Risk pooling, coverage and composition of risk pools**

The NHI scheme has been implemented through a network of DMHISs. Each district has a scheme, with the larger districts (in metropolitan areas) having more than one. There are already 138 DMHISs in the country. By December 2007, 55% of the population was registered under the NHI scheme, although only 44% of the population had received their membership cards due to administrative problems. Although some of the poor have been enrolled in the NHI scheme through government subsidies, the majority of members are from higher income groups.

Even though legislation makes provision for setting up private insurance schemes, they cover less than 1% of the population. The majority of those not covered by NHI uses public sector health facilities and pay user fees and a small number pay out-of-pocket to access health services from the private sector.

- **Allocation mechanisms**

There is no risk-equalization between the individual DMHIS at present. The NHI scheme secretariat merely allocates funds to DMHISs based on the number of SSNIT registered members as well as indigent members that have been registered as well as the exempt group. Taxes are centrally collected and allocated to regional and district levels using a needs-based resource allocation formula.

- **Benefit package**

The benefit package of the NHIS is quite comprehensive, covering outpatient and inpatient services at accredited facilities, as well as the community-based health planning services. The benefit package is the same for all DMHISs. Those using publicly and user-fee funded

services also have access to a comprehensive range of services, which is primarily limited by the ability-to-pay user fees.

- **Provider payment mechanisms**

Public and some not-for-profit private (e.g. Christian Health Association of Ghana) facilities are allocated budgets and staff are paid salaries. The DMHISs pay providers on fee-for-service basis (FFS).Private for-profit practitioners are paid on a fee-for-service basis. There are no out-of-pocket payments for insured clients

2.9 Delivery of Health Services

Health care delivery is the use of health care services (http/Psychology. Wiki/health service delivery, November, 2010).This is affected by a large number of variables. Some of these are structural (eg are the facilities provided, where are they located in relationship to public transport etc), some are administrative (how easy is it to get referred, how efficiently are waiting lists managed etc), some are related to cost (how expensive is it to get an assessment and how expensive is subsequent treatment likely to be etc) as well as those related to people's health care delivery seeking behavior.There are indications that the *cash-and-carry* system has undermined access to, and utilization of health delivery services in the country. For instance, research shows that under the system, many low-income households in the country regularly postpone medical treatment, resort to self-treatment, or use traditional medicine provided by unregulated healers, spiritualist, and itinerant drug vendors (Oppong, 2001).

2.9.1 Determinants of Health Delivery Service

Delivery of health service appears to be determined by many factors such as health status, severity and condition of disease, level of education, distance, type of occupation, cost of health service, quality of health service, availability of heath facilities, gender and type of health insurance and others. The introduction of Health insurance has come to remove some of the above factors that seemed to be a hindrance to accessibility and health delivery. However there are varied reason and approaches to health service delivery.

2.9.2 Approaches to Health Delivery Services

Anderson (1973), in a study on health delivery service framework and review at the Department of Sociology and Anthropology at the University Of Purdue Lafayette India, reviewed two different approaches that have been used to study the delivery of health service. These are the socio cultural and socio demographic socio-psychological.

The Socio cultural Approach

The socio cultural perspective has viewed health service delivery as part of cultural complex and as such, related to other social institutions in a society or subculture. The organizational form that health care delivery assumes is highly dependent on the cultural setting such as religious, family, and economic institutions. Assumptions prevalent in society about the causes of diseases are probably the most important determinant of organization of hospitals and such explanations are intimately linked to religion .On the basis of data from 16 countries Glaser (1973), shows that the more widespread the religious belief in a society, that illness is due to natural events and can be reversed by human actions, the greater are the resource invested in hospitals, and the greater the utilization of hospitals. Even when cost barriers are eliminated, differences in health delivery among various groups within a population still

exist. For example, several studies have demonstrated social class-related differences in utilization of health services behavior even under prepaid system. Accordingly, the study reviewed that there is little to be gained by continuing to amass additional evidence of gross socio demographic differences in utilization behavior. Rather it is necessary, as Mechanic 1968, has pointed out, to develop models that explain how persons come to realize that they are ill and how they decide on a source of health delivery.

The Social-Psychological Approach

The social-psychological Approach addresses itself more directly to the high level of unmet medical needs in the population and suggests that important factors other than needs must affect as to whether or not to seek medical care. They outline three major factors in the patient's decision to seek help, his/her knowledge, belief, and attitude concerning his symptoms, his attitude and expectations regarding physicians and health service in general, and his/her definition of sickness and determination of the necessity for professional care.(Stoeckle 1970). Zola et al (1966) viewed the patient's behavior as being influenced by socialization patterns internalized from the normative values of a culture or subculture, Freison (1963) views the process of seeking medical care as involving a network of consultants called the lay referral structure that influences the individual behaviors. In studying illness behavior among the working class, Zola (1966) indentified five triggers or circumstances that resulted in the decision to seek medical care. The first circumstance was an interpersonal crisis that called attention to the patient's symptoms. The second termed social interferences occurred when systems began to interfere with value social activities. The third circumstance was sanctioning which occurred when significant others told him to seek such care .Additional persons sought care when they perceived a threat to their vocational or a vocational activities and when they are able to compare the nature and quality of the

symptoms currently experience with symptoms they or their friends had experience on an earlier occasions.

In examining social-psychological factors that affect the decision to consult a physician Kasl and Cobb (1973) distinguish three types of behavior .Health behavior involves action of the healthy person to stay well, illness behavior involves activities by person who is ill to define his condition and to seek a remedy, activity by an ill person to get well constitute sick role behavior.

CHAPTER THREE

METHODOLOGY

3.0 Introduction

This chapter gives a brief profile of the Jaman North District and its population to serve a background to the study. The methodology adopted in carrying out the study is also detailed out, namely the study design, study population; sampling procedure, source of data instruments and the data process and analysis.

3.1 Study population

The population of the study consisted of the staff of the health facilities ranging form the Clinics to the district hospital, the insured and non-insured clients and health service providers.

3.1.1 Sample frame

Category	Populations
Hospital	1
Chemical shops	4
Government Clinics	10
Insured	53,419
Non-insured	36,612
Municipal Health Directorate GHS	1
	1
Total	90,138

Source: Jaman North Health Directorate GHS/JamanNorth Health Insurance 2009.

3.2 Source of data

The study used both primary and secondary data. Primary data was gathered through field's survey to gather information's from doctors, nurses records departments of hospitals, midwives, Ghana health service records department health insurance Schemes and subscribers of the scheme as well as non-insured regarding the utilization level before and since the inception of health insurance Schemes in Jaman North and for that matter Ghana. This was done through the administration of questionnaires and interviews. Secondary data was gathered from books magazines, articles, schemes, hospital, clinic, internet and other related researches on the trend of health delivery.

3.3 Instruments

The primary data was gathered through the use of questionnaire which was administered to respondents on one-on-one basis. These were administered on the health workers from their records departments and other health workers.

Another type of question was administered on the management information and public relation departments regarding total enrolment category since the inception of health insurance Scheme in Jaman North. The Claims Department also filled questionnaire on the health delivery since the introduction of health insurance schemes. Patience/subscribers exit interview was conducted at all facilities health and clinics on schemes subscribers to ascertain how they benefit and the frequency of their visit to hospital.

3.4 The Sample Procedure/Technique

The questionnaires were administered on insured and non-insured. In order that fair representation could be obtained out of the accessible populations, all the health facilities in the District will be contacted. Respondents however were selected based on their profession

and area of specialization. The Convenient sampling method was employed in the selection. This non-probabilistic and perhaps the most common sampling strategy for qualitative research (Patton, 1990) .This method was used on the health workers and scheme staff. The method allowed the researcher to obtain his information from respondents who were readily available and willing to participate in the study. The other method used was the accidental sampling. Here the researcher visited all health facilities of the targeted population and interviewed patients ready to access health service.

3.4.1 Sample distribution

Category	Population	Sample Size
Hospital	1	**1**
Private clinics/ Maternity Homes	10	**6**
Government Clinics	10	**5**
Insured	53,419	**60**
Non-insured	36,612	**60**
Municipal Health Directorate GHS	1	**1**
Health Insurance Scheme	1	**1**
	90,138	**135**

Source: District Health Directorate GHS/Jaman North Health Insurance.

3.5 Data processing and analysis

The questionnaires were pre-coded before administration to facilitate easy tabulation and analysis .Responses were crossed checked on the field to ensure quality checked on the data. Responses were fed into a computer based programme, Statistical package for the Social Science (SPSS) for display and analysis. Figures frequencies percentages and tables and figures were used to make the necessary comparisons of the existing data. Data from the municipal Scheme and health service providers on utilization for both outpatients and

inpatients for both insured and non-insured were collected for analysis. The enrollment data for the period, from 2005 to 2009 from the Scheme was collected. More so the disease incidence from 2006 to 2009 was taken to make the necessary comparisons. (District Health Directorate GHS/Jaman North Health Insurance 2009)

3.6 Profile of the study area.

3.6.1 Brief Background of Jaman North District

Jaman North District is one of the nineteen administrative districts in the Brong Ahafo Region of Ghana with a total surface area of 129.9 square kilometres.It is located between latitudes 7 degrees 45'' N 8 Degree 05'' and longitudes 2 degrees 30'' N and 2 degrees 60''.

It is bounded on the South, by Jaman South district, Tain district to the Northeast. The district capital Sampais located approximately 105 kilometres west of the regional capital Sunyani. The District lies within semi – equatorial region having a mean annual rainfall ranging between 1200 mm -1780 mm. The District has its major raining season from April to June andminor in September to October. Relative humudities are relatively high between 70 to 80% during theraining season. There are two major types of vegetation namely semi – deciduous forest and savanna woodland. On account of the various environmentally unfriendly activities of humankind, the vegetation, is gradually turning into savannah grassland in some parts of the district. The estimated population based on the 2000 census with a growth rate of 3.3% is approximately 102,462 for the year 2010.

The inhabitants are mainly Bonos with about 52% of the entire District population. Nafana formed 38% of the entire District population. The other 10% is made up with Frafra Dagate who migrated from the Northern part of the country and settle there for farming.

3.6.2 Economic activity

The major occpation in the District is agriculture, which absorbs about 61.7% of the total labour force, 18 % with industrial sector and 35.5% are in the other sectors.

3.6.3 Background of Jaman NorthHealth Insurance Scheme

Health insurance started on pilot basis in the district on 21st September 2001 with the formation of Board of Directors and commencement of stake holders meeting. A Steering Committee was trained on the basic principles and concept of insurance and upon sensitization, durbars and educational programmes, the District office was officially launched on the 23th October 2001.Some of the people from the general assembly during the scheme's inaugural ceremony were confirmed into the District Insurance Board to provide policy direction for the implementation of the scheme and thus setting the pace for the establishment of the Health Insurance Scheme in the district. A total of 4523 members were registered for the year 2002/3 and 10468for 2004/5.This means that before the introduction of the National Health Insurance Schemes (NHI) in 2005, Jaman North had started her own community-based health insurance scheme 3 years earlier 2001. With the introduction of the NHIS, health insurance activities have been boosted in the district. The district is now fully implementing the national policies with full complement of staff at post.

The Jaman North District of the Brong-Ahafo Region of Ghana was created by the central Government in 2004 with Sampa as its capital. This means that the scheme started full operations before the creation of the District.

3.6.4 Economy

Jaman North District economy is characteristic of a rural economy with agriculture being the mainstay of the people. The sector employs 57.8 per cent of the working population with commerce/service and industry employing 37.6 per cent and 4.6 per cent respectively. Table 3.1 shows the occupational distribution in the district.

Table 3:1 Occupational distributions in Jaman North district

Occupation	Percentage of population
Agriculture	57.8%
Commerce/service	37.6%
Industry	4.6%
Total	100%

Source: Jaman North District Assembly, 2007

The dominant economic activity in the Jaman North district is agriculture. It employs about 58 percent of the working population. It constitutes the major source of household income in the district. Despite the fact that majority of the working population are engaged in the agriculture sector, most of them are peasant or subsistent farmers who produce to feed their families and sell some amounts of their output to purchase non-food household items. Its total area is 1,935km², constituting about 0.9 percent of the entire land of Ghana, which is 233,588km². The district's close proximity to Ghana's neighboring country, Cote d' Ivoire, is another remarkable feature which promotes economic and commercial activities between the district and Cote d' Ivoire. J District lies in the semi-equatorial climate zone, which occurs widely in the tropics. Abundant sunshine and rainfall yields a warm and humid weather. Patches of wooded savannah are found in the northern parts of the district. Notably, basically, the semi-deciduous forest is the dominant vegetation type, occupying about 80 per cent of the

entire middle stretch of the land, with isolated patches of wooded savanna in the northern and eastern corners of the district.

3.6.5 Climate and Vegetation

The rainfall is the double maxima type with mean annual rainfall ranging between 1200 mm - 1780 in May and June, the first rainy season; with the heaviest rainfall recorded in June. This is followed by a second rainfall season between September and October. A four month dry season this runs from December to March. During these periods, trees shed their leaves and appear brown. Cold and dry conditions brought about by the oppressive Hammattan winds from the north are also experienced during this period.

3.6.6 Population

The population of the Jaman North District according to the National Population Censuses conducted in 2000 was 102,462.Accordingly, this gives an annual growth rate of 3.3.However, the population growth rate is still higher than the national average of 2.7% and the regional growth rate of 2.5%.The population density based on the 2000 population census is 57 people per km^2 as compared to 80 people per km^2 for the nation. This implies that the capacity of the land to accommodate people in Jaman North District is high while land acquisition and ownership needed for development projects is quite encouraging. This also shows that there is less pressure on land and its availability for developers and investors.

3.6.7 Gender Distribution

In terms of gender distribution, the population of females was 51.9% while males constituted 48.1% as at 2000. Thus the district has a sex ratio of males to females is(approximately 1:1). About 40.4 percent of the population is in youthful age group (0-14 years) as compared to 6.8

percent of those aged 65 and above. The population within the labour force age bracket (15-64), which is economically active

Population constitutes 62.8 per cent. The overall age dependency ratio in the district on the averages is 1:0:89. This implies that every economically active population has less than a person to cater for in the district. However, it must be noted that some people in the economically active population are unemployed, under employed, students and housewives; hence the dependency ratio may be higher in actual fact.

3.6.8 Literacy Rate

The literacy rate in the District is averagely 54.8%. In terms of sex, literacy among males on the average is 74.6% while that of the females is 35.2%. Jaman North District is blessed with numerous educational institutions ranging from basic to tertiary schools. There are 55 Nurseries/Kindergartens; 55 Primary schools; 3 Junior High Schools and 4 Senior High/Technical Schools.

3.7 Health Service Facilities

The district's health service comprises eleven (11) Ghana Health Service clinics, one District hospital and 4 chemical shops. The Health Centre which is located at SumaAhenekro performs the second highest (level B) functions in the primary health care system and runs next to the District Hospital.

Table 3.2 Health service facilities and their locations

NAME/TYPE	LEVEL	OWNERSHIP	NUMBER	LOCATION
DISTRICT HOSPITAL(/GHS)	PRIMARY	GHS	1	SAMPA
GOVERNMENT CLINICS	PRIMARY	GOVERNMENT	10	NEARBY VILLAGES
CHEMICAL SHOPS	PRIMARY	PRIVATE	4	SAMPA

Source: Jaman North Health Insurance Scheme, 2009

3.8 Common Disease in the District

The district just like any other district in Ghana is affected by many common diseases .Below are the tables showing the ten causes of OPD attendance from 2005 to 2007.

Table 3.2.1 Top ten causes of OPD attendance

DISEASES	NUMBER OF CASES IN YEARS											
	PRE-INSURANCE PERIOD						INSURANCE PERIOD					
	2000	2001	2002	2003	2004	Total	2005	2006	2007	2008	2009	Total
Malaria	79,230	80,410	79,001	58,028	62,251	**358,920**	57,496	68,449	60,504	55,778	45,475	**286,702**
URTI	3,521	2,166	2,001	3,114	3,011	**13,813**	7,856	9,526	11,331	12,642	8,413	**49,768**
Gastro Enteritis	3,262	4,,482	6,993	5,821	4,811	**25,369**	4,881	6,410	3,650	2,999	2,090	**20,030**
Acute Eye Infection	1,286	1,620	501	1,281	2,001	**6,689**	3,411	4,987	2,167	7,690	4,629	**22,884**
Skin Diseases	679	773	692	902	1,120	**4,166**	2,662	4,449	1,680	1,581	1,284	**11,656**
Diarrhea	306	237	607	512	1,687	**3,349**	2,585	4,295	2,884	3,706	4,992	**18,462**
Home Accident	803	551	687	1,992	1,990	**5,933**	2,366	4,284	1,428	4,380	3,405	**15,863**
Rheumatism	605	1,407	1,662	2,307	2,110	**8,091**	2,243	3,584	3,260	1,039	8,661	**18,787**
Hypertension	497	741	1,840	1,901	1,971	**6,950**	1,744	2,174	3,142	7,111	4,290	**18,461**
Diabetes	65	107	65	64	61	**362**	159	188	136	347	105	**935**
Intestinal Worms	1,710	2,006	2,478	1,166	1,601	**8,961**	5,700	7,198	2,407	6,780	5,067	**27,152**

Jaman North Health Directorate/Jaman North Health Insurance Scheme 2009

3.8.2. Health service delivery

The table below shows the level of health delivery from 2000 to 2009 indicating the use of health service in the District.

3.9 Health service delivery 2000 to 2009

District Health Directorate, Sampa 2009

HEALTH SERVICE DELIVERY FROM 2000 TO 2009										
	PRE-INSURANCE PERIOD				**INSURANCE PERIOD**					
				YRS	**INSURED**		**NON-INSURED**			
Years	OPD	IPD	TOTAL	Years	OPD	IPD	OPD	IPD	SUB.	TOTAL
2000	98,250	7,007	105,257	2005	51,297	1,318	16,488	4,920	21,408	74,023
2001	148,402	6,638	155,040	2006	169,094	4,350	40,290	5,012	45,302	218,746
2002	149,280	6,250	155,530	2007	148,479	2,258	45,590	3,115	48,705	199,442
2003	159,620	6,130	165,750	2008	154,645	3,758	19,878	3,815	23,693	182,096
2004	160,501	7,304	167,805	2009	143,762	4,669	22,280	2,304	24,584	173,015
Total	**716,053**	**33,329**	**749,382**		**667,277**	**16,353**	**144,526**	**19,166**	**163,692**	**847,322**

3.10 Profile of Jaman North Health Insurance Scheme

The Jaman North District Mutual Health Insurance Scheme started operations on pilot basis in21st September 2001. The pilot Scheme operated up to July 2005. In the formative days in the year 2003 a stakeholders meeting in the various communities and sub –district was held. A steering committee was trained on the basic principles and concept of insurance. Some of the people from the General Assembly during the scheme's inaugural ceremony were confirmed into the District Insurance Board to provide policy direction for the implementation of the scheme and thus setting the pace for the establishment of the Health Insurance Scheme in the district. A total of 4521 members were registered for the year 2002/3 and 10531for 2004/5.This means that before the introduction of the National Health Insurance (NHIS) in 2005, Jaman North had started her own community-based health

insurance scheme 3year earlier 2001.With the introduction of the NHIS, health insurance activities had been boosted in the district. The district is now fully implementing the national policies with full complement of staff at post. The District's scheme was hooked to the National Health Insurance Scheme in August 2005. The scheme operates with Sampa Government Hospital and all the other accredited health facilities in the districts.

CHAPTER FOUR

DATA ANALYSIS AND DISCUSSION OF RESULTS

4.0 Introduction

This chapter presents the result of the study .Tables, diagrams graphs, diagrams and charts are used to help in the analysis. Socio- demographic data of respondents were taken to assist in the analysis of the result.

4.1 Socio-Demographic Characteristics of insured clients

The tables below presents the Socio-demographic characteristics of the sampled population, insured respondents in the form of age, gender, marital status, and religion, status and educational status

Table 4.1a Age

		Frequency	Percent
Valid	12-18	4	6.7
	19-70	54	90.0
	71-above	2	3.3
	Total	60	100.0

Source: Field work, 2010

Table 4.1b Gender

		Frequency	Percent
Valid	Male	17	28.3
	Female	43	71.7
	Total	60	100.0

Source: Field work, 2010

Table 4.1c Marital Status

		Frequency	Percent
Valid	Married	36	60.0
	Single	24	40.0
	Total	60	100.0

Source: Field work ,2010

Table 4.1d **Educational Background**

		Frequency	Percent
Valid	No Schooling	7	11.7
	Primary	18	30.0
	Secondary /JSS	5	8.3
	Tertiary	28	46.7
	Others	2	3.3
	Total	60	100.0

Source: Field work, 2010

Table 4.1e **Religion**

		Frequency	Percent
Valid	Christian	46	76.7
	Moslem	11	18.3
	Traditionalist	3	5.0
	Total	60	100.0

Source: Field work, 2010

The tables above from table 4.1a to 4.1e show the demo-graphic characteristic of respondents which cover age, gender, occupation, marital status, religion, and educational status. With respect to age, 6.7 percent were between the ages of 12 to 18, 90% were between the ages of 19 to 70 which formed the largest group and 3.3 percent represented the aged, those above 70 years. For the gender of the respondents, 17 % were males whiles 43% representing the larger

group were females. In a similar manner 36% were married and 24 were single. With regards to educational background, 11.7% had no formal education, 30% had up to primary level, and 8.3 % had up to JSS/Secondary.46.7 % forming the larger group had up to tertiary level. The others at least tasted education but could not tell the level they got to forming 3.3 three percent. Relating to religious background, 76.7 % among the insured clients were Christians representing the largest percentage whiles 8.3 % were Muslims and 5% percent were traditionalist.

4.2 Socio-Demographic Characteristics of Non-insured respondents

The tables below presents the Socio-demographic characteristics of the sampled population, non-insured respondents in the form of age, gender, marital status, and religion, status and educational status.

Table 4.2 a. Age

		Frequency	Percent
Valid	12-18	14	23.3
	19-70	40	66.7
	71-above	6	10.0
	Total	60	100.0

Source: Field work, 2010

Table 4.2 b. Gender

		Frequency	Percent
Valid	Male	22	36.7
	Female	38	63.3
	Total	60	100.0

Source: Field work, 2010

Table 4.2 c Marital Status

		Frequency	Percent
Valid	Married	21	35.0
	Single	31	51.7
	Divorce	8	13.3
	Total	60	100.0

Source: Field work

Table 4.2 d. Religion

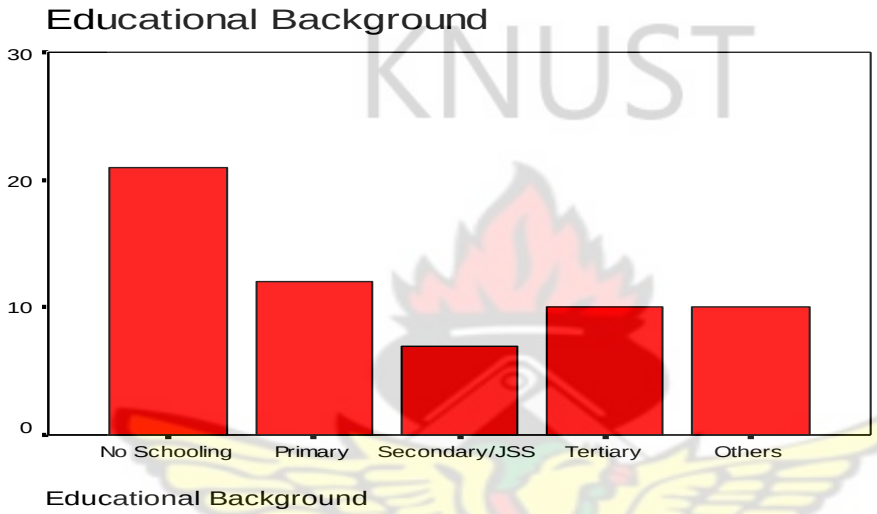
		Frequency	Percent
Valid	Christian	32	53.3
	Moslem	16	26.7
	Traditionalist	12	20.0
	Total	60	100.0

Source: Field work

The tables above from table 4.2a to 4.2. show the demo-graphic characteristic of respondents which cover age, gender, marital status, and religion, and educational status. With respect to age, 23.7 % were between the ages of 12 to 18, % 66.7 was between the ages of 19 to 70 which formed the largest group and 10% represented the aged, those above 70 years. For the gender of the non-insured, 17 % were males whiles 43% representing the larger group were females. In a similar manner 35% were married 51.7 were single and13.3 had been divorced. With regards to educational background, 35% forming the larger group had no formal education, 20% had up to primary level, and 11.7 % had up to Secondary.16.6% had up to tertiary level. The others at least tasted education but could not tell the level they got to forming 16.7 three percent as seen on figure 1.b below. Relating to religious background, 53.3 % among the non-insured clients were Christians representing the largest percentage whiles 26.7 % were Muslims and 20% percent were traditionalist. The educational status of

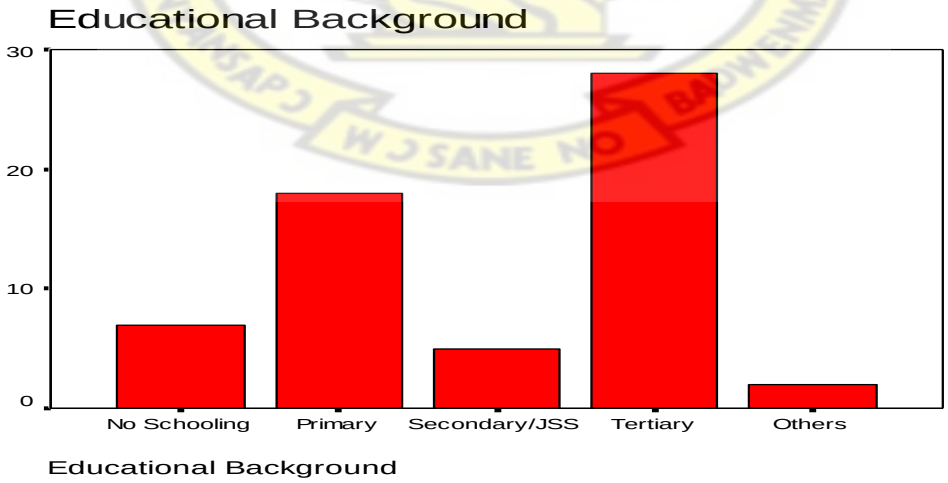
both insured and non insured reveals an inverse relationship between the level of education and the need to join a Scheme. While as people with secondary and tertiary education in the insured population represent higher percentages, those in the non-insured with no schooling and primary education form the higher percentages.

FIGURE 4.1 .Educational Background of Non-insured



Source: Field work, 2010

Figure 1b .Educational Background of insured



Source: Field work, 2010

As indicated above, 35 and 20 percents which form the larger percentages represent no schooling and primary education respectively but with the insured populace the higher percentages 46.7 and 30 percents form the greater percentage. This implies that education has a direct relation with the need and importance of joining Health insurance Scheme .People who have attained some level of education recognize the need to insure themselves as shown in figure 1b and 1b. This confirms the study in Senegal that members with better education and those with higher incomes were by contrast much more frequently represented. Jutting (2002) survey found out that enrollment was positively correlated with literacy, and income. On the other hand in Bangladesh, a scheme enrolled 80% of destitute, 46% poor, but only 20% of the middle class and 10% of the wealthiest class

4.2 Accredited Health facilities

The table below shows the accredited health facilities that provide health service to the people in the municipality. Table 4.4 explains the types, ownership, and location

Table 4.4 Accredited Health Facilities in the Municipality

NAME/TYPE	LEVEL	OWNERSHIP	NUMBER	LOCATION
District, Hospital (GHS)	PRIMARY	GHS	1	SAMPA
Government Clinics	PRIMARY	GOVERNMENT	10	VILLAGES
CHEMICAL SHOPS	PRIMARY	PRIVATE	4	SAMPA

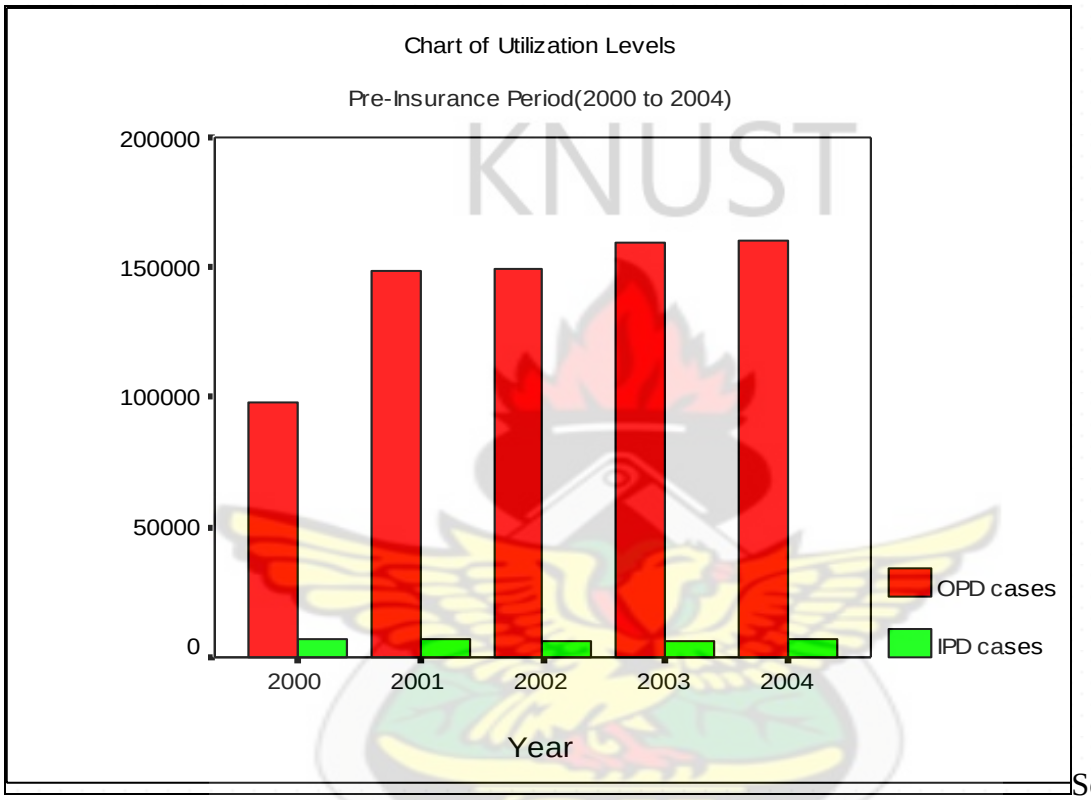
Source: Jaman North Health Insurance Scheme, 2009

The above represent Health facilities in the District that provide health care to the people. There are also Chemical Shops making health delivery accessible and easier.

4.3 Pre-insurance levels of Health Delivery in the District

Over the years and before the introduction of Health Insurance in Ghana, the health delivery service was greatly affected by financial barrier but the introduction of Health insurance has come to remove such barrier. The health delivery levels of patients before the introduction of health insurance has been assessed to compare to the Insurance period. The Figure below shows the rate of health delivery before the introduction of Health Insurance

Figure 4.2. Pre-insurance delivery Levels

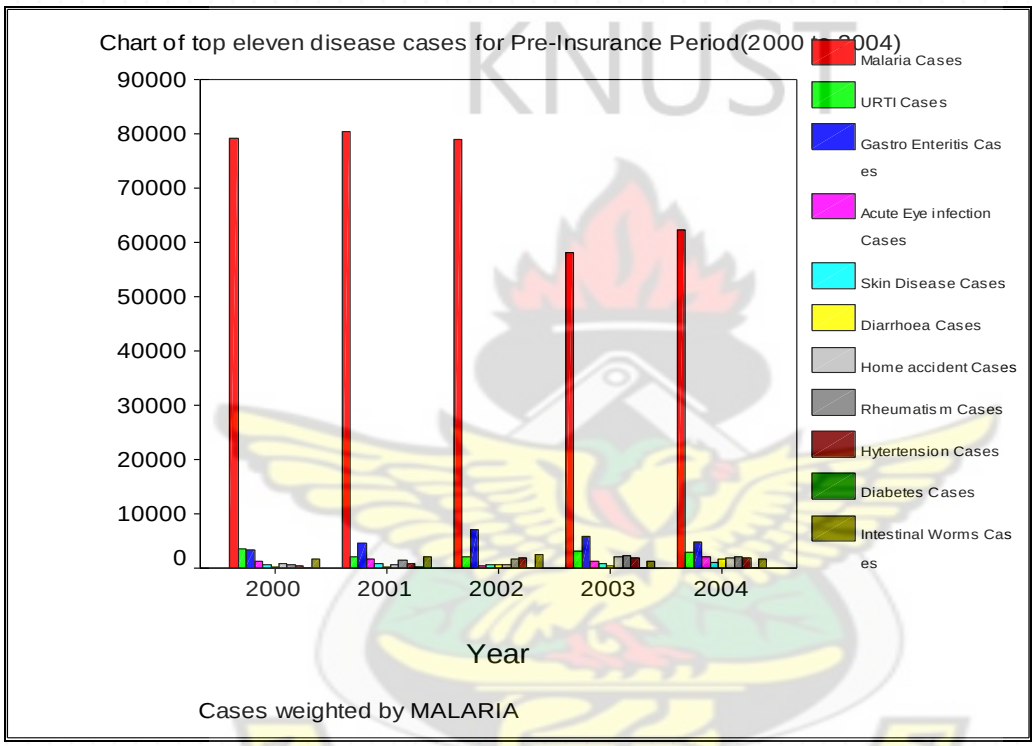


Source: Field study, 2010

It could be seen from the figure above that as OPD cases increases gradually IPD seemed to be stabilized over the years. Health services Providers were available at that time but patients could afford only one visit. From study conducted from both providers and patients indicted that the average attendance within an ill health episode was once. Out of the 12 providers interviewed, 10 of them representing 83.3% confirmed that, as well as 67.3 percent of the insured agreed that they could afford only one visit before the introduction of Health insurance. The reasons for one visit as the study revealed was cost of health service as 73.3 % of the insured clients attested to that fact. The result on this to disease incidence is seen in the

figure 3 below. It could be seen from the figure that malaria seemed to be featuring more prominently and stabilized from the first three years from 2000 reduces and stabilized over the last two years before the introduction of Health Insurance whiles others disease conditions did not show or were not reported frequently.

Figure4. 3. Disease incidence 2000 -2004



Source : Municipal Health directorate, Berekum.2005

4.4 Delivery Levels, Insurance Period

Before looking at heath delivery levels in the insurance period, it is imperative to look at the Schemes enrollment for the period so as to compare it to the rate of utilization and establish the relationship between schemes enrollment and health delivery service. This is seen on the table below.

Table 4.6 **ENROLLMENTS BY YEARS AND PERCENTAGE COVERAGE**

YEAR	TOTAL ENROLMENT	MUNICIPAL POPULATION	PERCENTAGE COVERAGE
2005	**68,594**	98,342	**62**
2006	**70,598**	98,342	**64**
2007	**50.301**	102,462	**45**
2008	**67,356**	102,462	**61**
2009	**58,219**	102,462	**53**

JAMAN NORTH HEALTH INSURANCE SCHEME 2009.

Registration over the years seems to be stabilized for the first two years of operation of the Health Insurance but dropped in 2007, continued to stabilize in 2008 and 2009.Experience have shown that ,renewal of membership has always become a problem especially when people register and do not benefit for the first two years. (Jaman North Health insurance Scheme, 2009).Although new people join the total enrolment, old members however refused to renew, and thus reducing the numbers unless vigorous education is embarked on to sensitizes them. Responses from providers show that there has been an increase in delivery of health service since the introduction of Health insurance. All the facilities interviewed confirmed this, representing 100% and attributed it to the introduction of health insurance in the District. The increase is for both OPD and IPD .The utilization by the insured client

however represent the greater percentage of the total health delivery over the years from 2005 to 2009.

4.5. Health outcome and delivery levels from 2000 -2009

Table. 4.7e .Comparison of delivery levels for first five years before Insurance and five years after introduction of Health Insurance.

PERCENTAGE INCREASE OVER THE YEARS,PRE-INSURANCE AND INSURANCE PERIOD

	PRE-INSURANCE PERIOD					**INSURANCE PERIOD**						
						INSURED		**NON-INSURED**				
YRS	OPD	IPD	TOTAL	%	YRS	OPD	IPD	OPD	IPD	SUB.	TOTAL	%
2000	98,250	7,007	105,257	0	2005	51,297	1,318	16,488	4,920	21,408	74,023	0
2001	148,402	6,638	155,040	47	2006	169,094	4,350	40,290	5,012	45,302	218,746	196
2002	149,280	6,250	155,530	0	2007	148,479	2,258	45,590	3,115	48,705	199,442	-9
2003	159,620	6,130	165,750	7	2008	154,645	3,758	19,878	3,815	23,693	182,096	-9
2004	160,501	7,304	167,805	1	2009	143,762	4,669	22,280	2,304	24,584	173,015	-5
Total	**716,053**	**33,329**	**749,382**	**55**		**667,277**	**16,353**	**144,526**	**19,166**	**163,692**	**847,322**	**173**

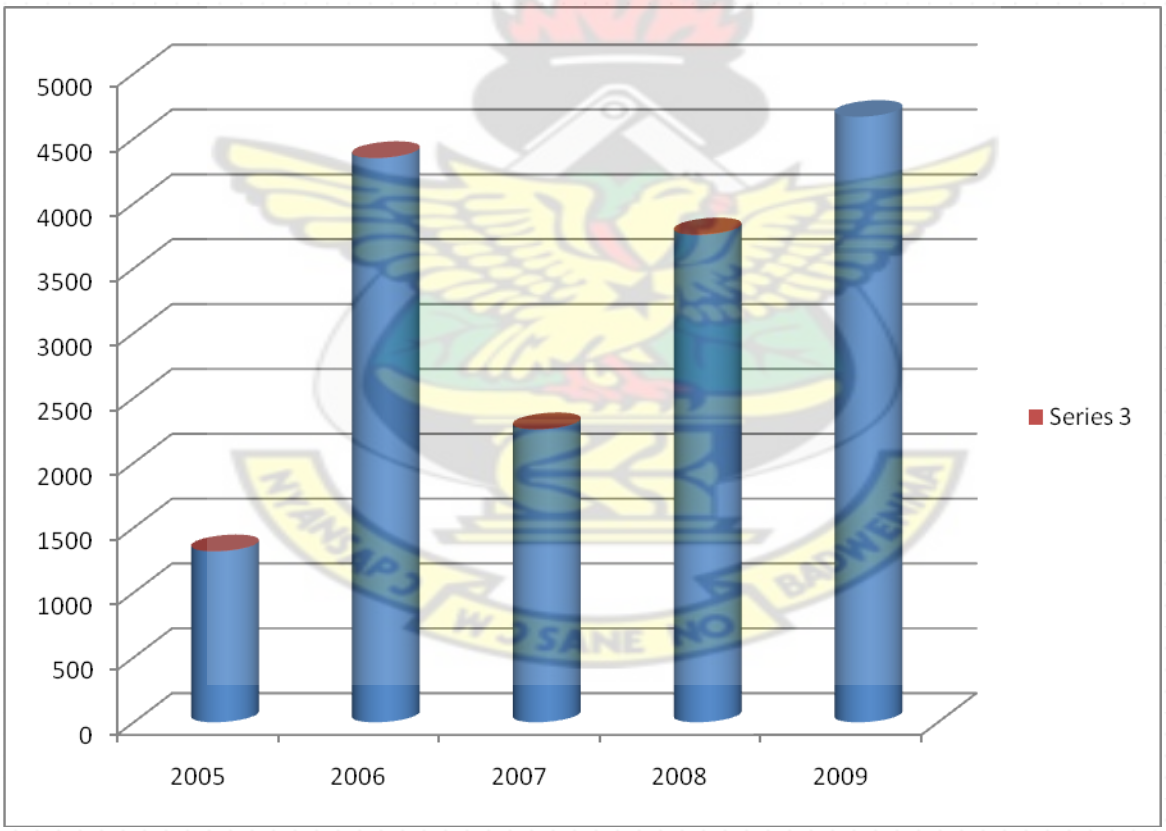
Source: **JAMAN NORTH HEALTH INSURANCE SCHEME,2009**

Table 4.7e compares the first 5 years before the introduction of health insurance from (2000 to 2004) to 5 years after the introduction of health insurance from (2005 to 2009). It could be seen from the table that the pre-insurance period saw an increase in delivery of health service but very minimal and insignificant but there is a significant change during the insurance period as we compare the two set of years. There are respective changes of 41%, 28%, 10 %, 3% but at a decreasing rate. There is however the algebraic sum of 82% over the two set of years showing an increase in health delivery during the insurance period.

More so, it is clear from table 4.7f that the first 5 years before the introduction of health insurance, the delivery of health service seemed to be stabilized from 2000 to 2004, with an algebraic sum of 55% whiles that of the health insurance period records decrease in terms of percentages but in any of the years, the is an increase in terms of numbers higher than that of the pre-insurance period, which has been influenced by the registration numbers of the Scheme. There is however an algebraic sum of 173% over the years of insurance period as compared to the pre-insurance period.

4.6. Inpatient and Output patient health delivery

Table 4.4 Inpatients health delivery for insured from 2005-2009

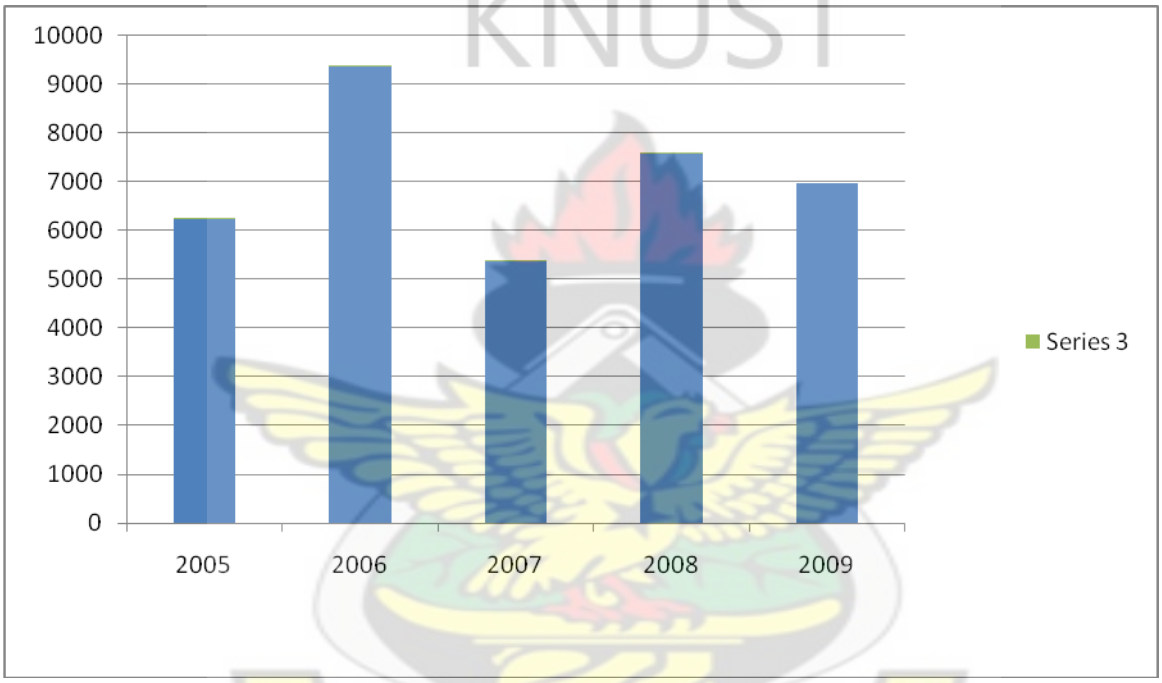


SOURCE : JAMAN NORTH HEALTH INSURANCE SCHEME 2010

Figure 4.4 shows and an upward health delivery for inpatints since the introduction of health insurance insurance.There was an increase of about 70 % one year after the introduction of

health insurance ,dropped by 22 % in 2007 but continued to show and increased to 40% and 60% in 2009.The increase has a lot to do with overral increased in health delivery over the years since insured clients cover about 80% of the total health delivery.

4.4.1 Inpatient health delivery levels, non insured

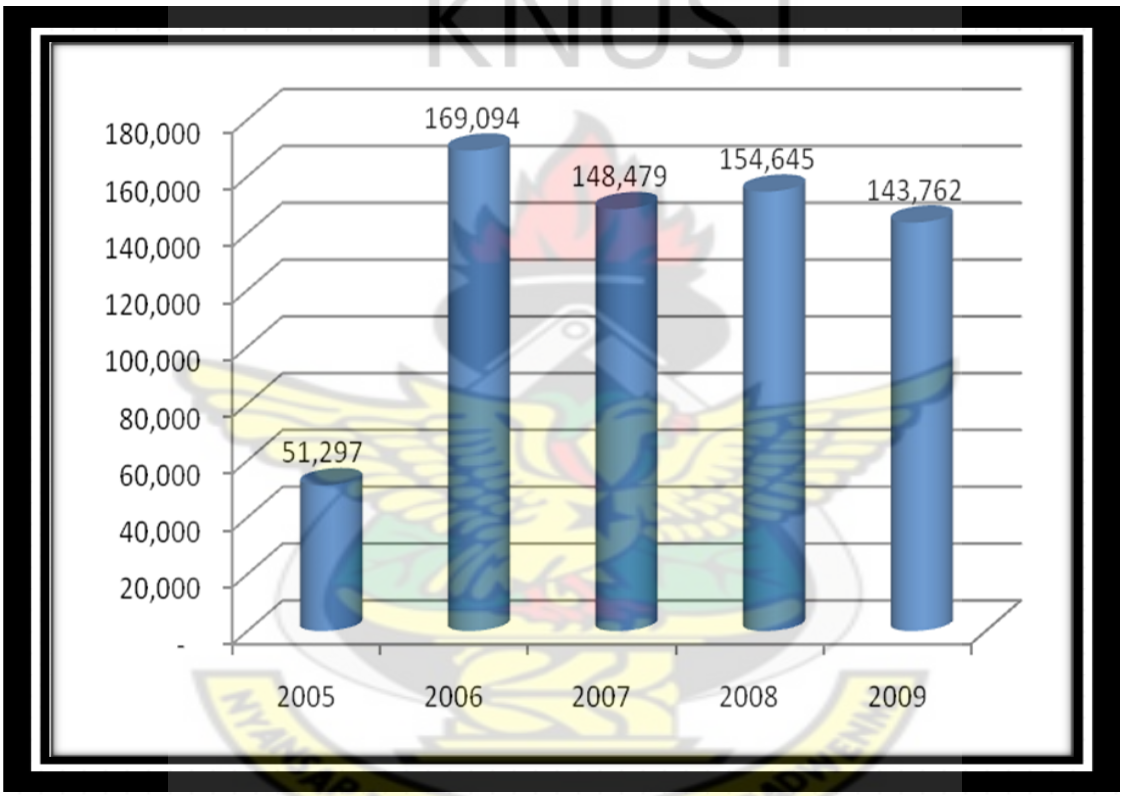


Source. District Health Directorate,2009

In a similar manner,the outpatients health delivery showed and upward levels from 2005 ,with about 68% but stablised over the years as indicated in figure 4.4c below.Insured clients have remained the determinant factor as far as delivery of health service is concerned, since the introduction of health insurance; the effects are seen on figure 4.4d below. There is an increase in delivery of health service of about 141,599 encounters from 2005 to 2006 representing 68% and seemed to be stabilized although

decreasing in terms of encounters, but at a decreasing rate. From 2006 to 2007 it decreased by 20,615 in 2008 and increased by 6,166 and decreased again by 10,883 in 2009.For out- patients for non insured, although there was an increase in health delivery from 2005 to 2007 but very insignificant as compared to the total delivery levels for the period. Non-insured had 24% 19% 23% 11% 13% out of the total delivery 2005, 2006,2007,2008,2009 respectively. This is seen on the figure 4.5 below.

Figure 4.5 Outpatient Health delivery levels for insured from 2005 2009



Years

Source District Health directorate Sampa

Figure 4.5.1 outpatient delivery levels for non-insured from 2005 -2009

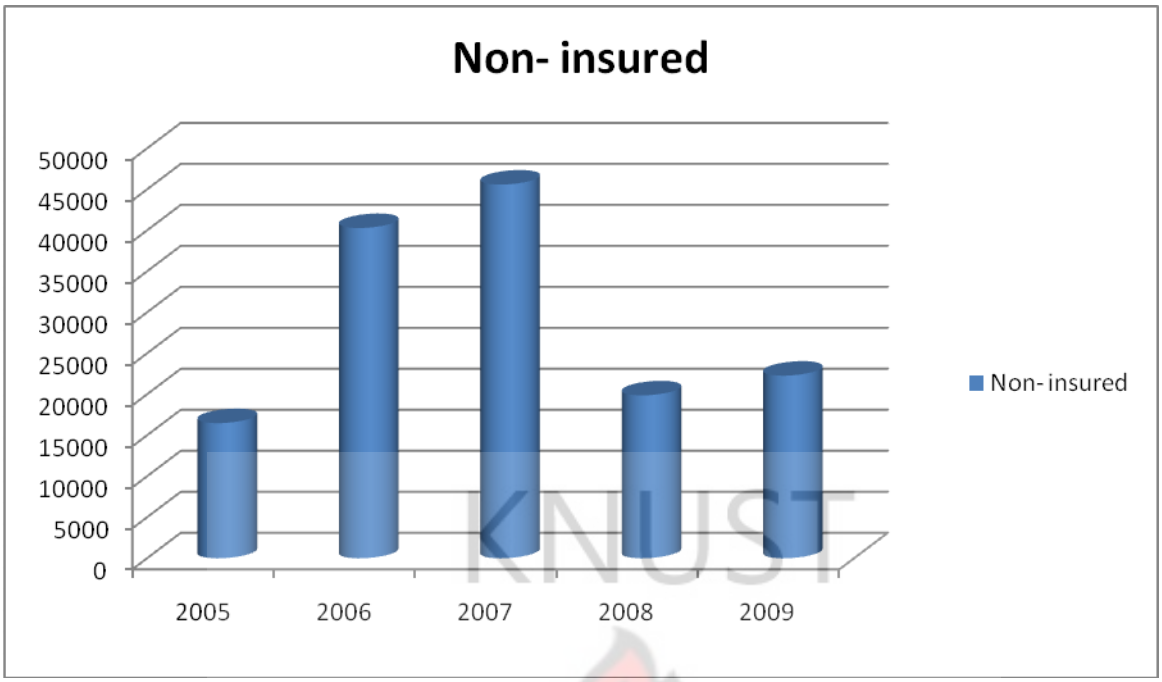
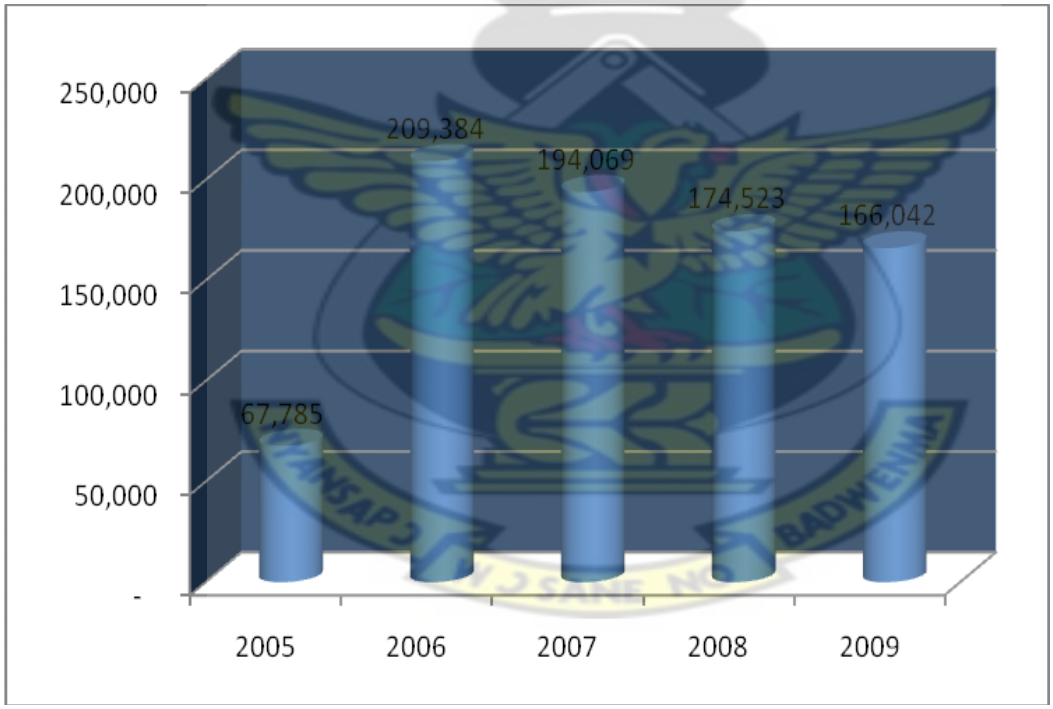


Figure 4.6 .Outpatients for both Insured and non-innsured from 2005 to 2009



Years

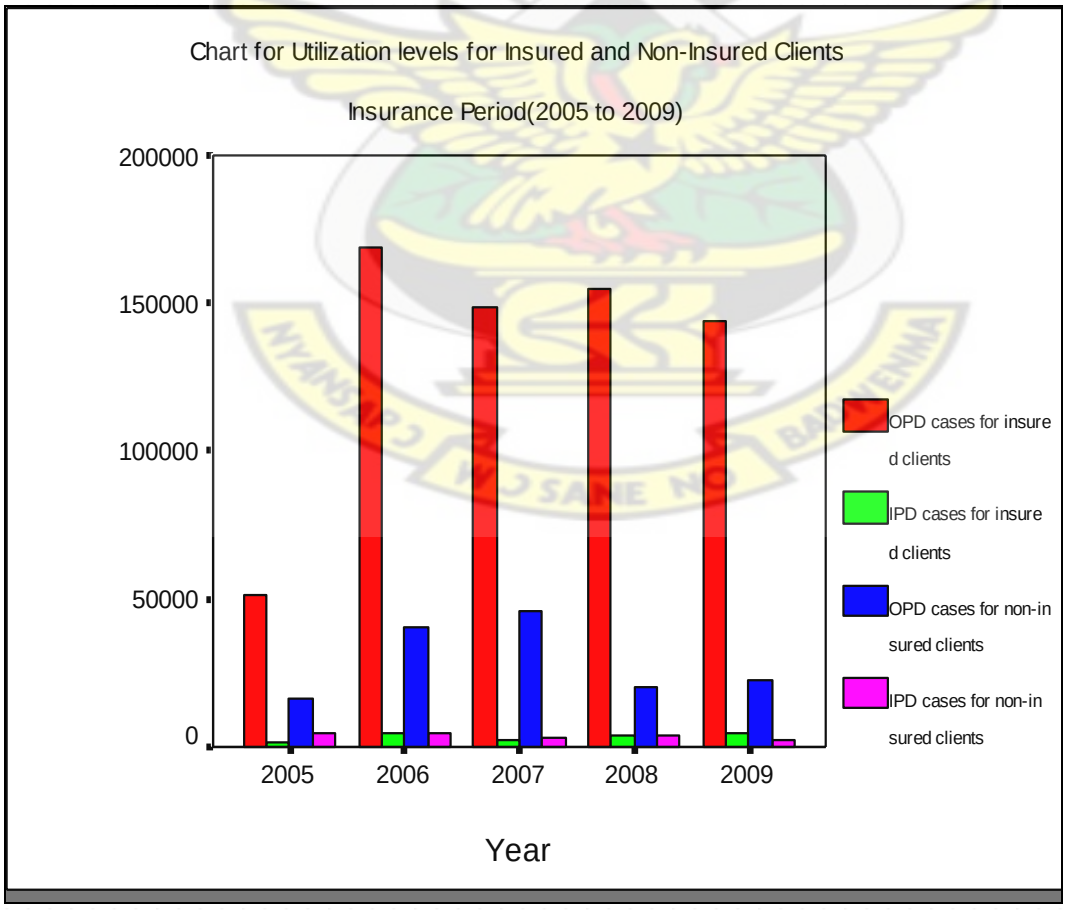
Source: District Health Directorate/ Jaman North Health Insurance Scheme, 2009

Regarding the health delivery levels for both insured and none insured, in almost all the years from 2005 to 2009, insured clients continue to dominate dictate the pace of health service utilization as seen in figure 4.4e below. This is typical about outpatient health delivery

levels, which stand out in all the years. Inpatients health delivery levels however showed an upward levels since ,the non –insured for the obvious reason cannot report sickness as early as possible hence wait until their condition become a bit complicated which will in most cases demand hospital admission.

4.5 Health delivery levels for both Insured and Non -Insured 2005 to 2009

Figure 4.7 Health delivery levels for insured and non- insured



Source: **Jaman North Health Insurance/Health Directorate Sampa 2009**

4.6 Total Scheme enrollment and health delivery over the years.

One significance relation is that, there is positive correlation between the total enrollment of the Scheme over the years and the rate of health delivery from 2005 to 2009.As could be seen from figure 4.5 below that, as Schemes enrollment of members progress the delivery of health service follows suits, on the other hand as enrollment decreases, health delivery decreases .The magnitude of change is larger in health delivery than that of the total enrolment over the years. It is clear from the figure below that in any of the years, as enrollment increases, health delivery increases but an increasing rate

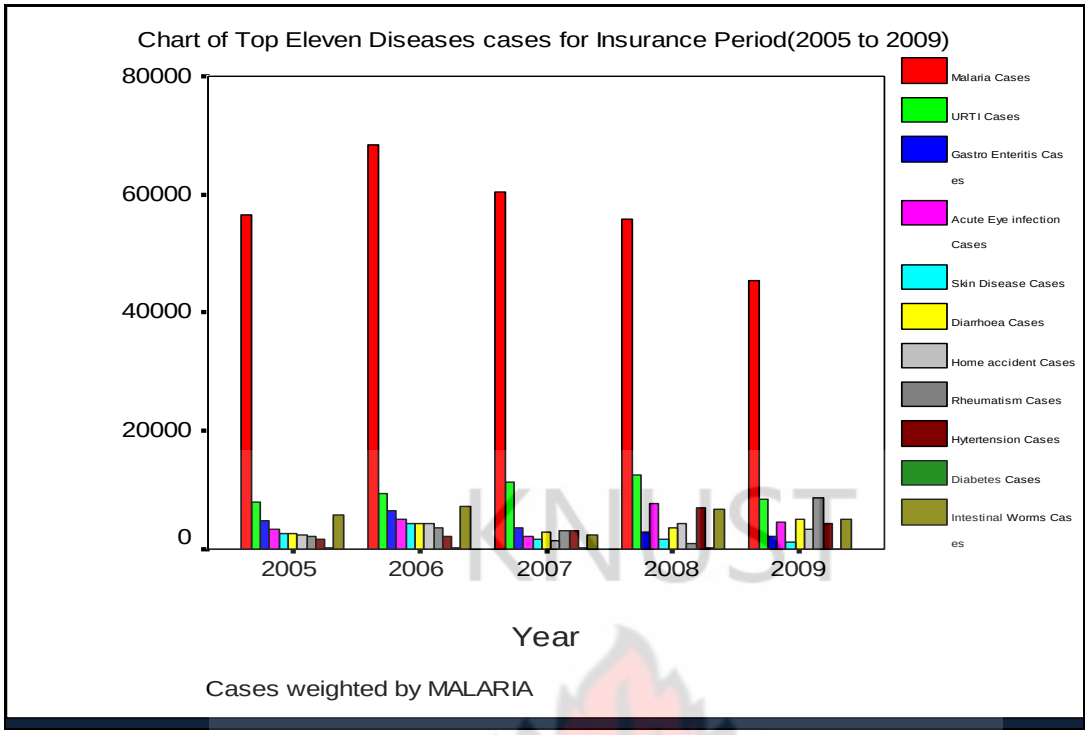
Figure 4.7 Schemes enrollment and health service delivery

4.7 Disease incidence during the insurance period.

Malaria continues to be the leading disease affecting people during the pre-insurance period and insurance period, there is one thing worth noting, that is, the increasing report of other disease conditions during insurance period as compared to the period before the introduction of health insurance. Some of these diseases that continue to show as result of health insurance as shown in the figure 4.6 below are URTI, Gastro Enteritis, intestinal worms, Hypertension, Skin diseases and others.

The implication is that, since the financial barrier to health service delivery has been removed, and all other diseases conditions that people kept in the house because of cost of health service were all reported during the insurance period. People who did know that they were having such problems reported unconsciously through the attempt to test the system.

Figure 4.8 Disease incidences 2005-2009.



Source: District Health Directorate/Jaman North Health Insurance

People started reporting these diseases which hitherto was being kept in the house and in most cases traditional methods were being used or people kept to themselves until they became complicated resulting in death .It is therefore not surprising that three years after the introduction of health insurance, other disease conditions became the cause of admission. It is quite clear that, as insured clients reported many other conditions including malaria, their health status improved and death rate of the insured reduced as compared to the non insured. This is seen in the table below 4.9 below with the insured having 23% as against 67% of non insured.

Table 4.9.Dealth rate of Insured and non- insured

Indicator	Insured	% of total	Non-insured	%of total	Total
OPD attendance	148,384	77	45590	23	194,051
Admissions	2258	42	3115	58	5415
Deaths	95	23	253	67	371

District Health Directorate, Sampa 2007

This is evidenced on the figure above where insured clients in all cases report disease conditions more frequently than that of the non-insured resulting in the reduction in inpatient cases for the insured and low death rate

4.8 Benefits of Health Insurance from providers and insured clients point of view.

Both insured and providers agreed in different opinions how insurance has helped the insured clients in terms of quality of health service, accessibility and improvement in the health status of people. In table 4.9 a below, 41.7 % of the health profession respondents said the health status since the introduction of health insurance has been excellent,33.3 % said very good,16.7% said good ,and 8.3% said on the average.

With regards to insured clients 93.3 percent said health insurance has been helpful as against 3.3 percent and another 3.3 was a missing item. Respondents were able to answer with precisions the specific areas that health insurance has helped them. As can be seen from the table below, 46.7% claimed they have regular access to health care hence able to utilize health service. As a result 23.3% said their health status has improved.16.7% agreed cost of health care has been lowered whiles 9.3 % agreed on the supply of free drugs.10% however could not state any specific benefit accepted that health insurance has been helpful.

CHAPTER FIVE

SUMMARY, CONCLUSION AND RECOMMENDATIONS

This chapter is divided into three parts. The first part looks at the summary of the study, the second part deals with the findings from the study .The third part presents some solutions to the issues raised in the study in the form of recommendations.

5.1. Summary

The study was undertaken to find out the effects of the introduction of National Health Insurance Scheme on the delivery of health services in Jaman North Sampa. With this in mind, four different types of questionnaires were designed for insured, non-insured, health facilities and Health insurance Schemes respectively. In all, one hundred and thirty five (135) respondents were interviewed and answered questionnaire from a population of one hundred and two thousand four hundred and twenty six (102, 426).Convenient and accidental sampling methods were used. Frequency distribution, simple percentages, tables, diagrams and figures were methods used for the analysis and interpretation of the data .SPSS statistical analysis was also used to analyze the data collected. Theories of health service utilization were also analyzed to give clearer understanding of health service utilization.

5.2.1 Scheme Enrollment Relating to Literacy and Health delivery service

It was found from the study that enrollment of schemes members correlate positively with literacy .It came out that people with secondary or higher education realize the need to insure themselves to get the benefits thereof. This confirms the study in Senegal that members with better education and those with higher incomes were by contrast much more frequently

represented. Jutting (2002) survey found out that enrollment was positively correlated with literacy, and income.

There was also a positive relation between Schemes enrollment and health delivery service. It was revealed that, in any of the years that enrollment of the scheme increased delivery of health service followed suit and vice versa. The magnitude of change in health delivery is however higher than that of enrollment. It means that as the scheme registers more members, the health delivery level increases. There is therefore the need for schemes to plan alongside with the trend of health delivery in relating to the cost of health service.

The study revealed that the introduction of health insurance has endangered positive effects on the delivery of health service. Insured clients could afford at least three (3) visits in an ill health episode within two weeks, thereby increasing health service delivery over the years for both inpatient and outpatient. Before the introduction of health insurance people could scarcely afford one visit as 83.3 percent of providers confirmed this and 67.3of insured clients responded in similar manner .The study brought to bear that, there was an increase in total utilization (health delivery) with an algebraic sum of 173% as the study compared five years before and after the introduction of health insurance as against 55% for pre-insurance period.

5.3. **Inpatient and Outpatient Health Delivery**

The study brought to light that, non insured are more frequently hospitalized as compared to insured client. This often lead to high motility rate among the non- insured. Higher Non-insured in all the years from 2005 to 2009 had greater percentage admitted with algebraic

sum of 54 % as against 46% for the insured. This confirms that that non-insured cannot report most of the minor ailments to hospital due to financial barrier resulting in complications thereby plunging into delay in attendance –complication of disease-hospitalization-high cost of health service-death.

Relatively, the fact that insured-clients report illness more frequently was unveiled buy the study. From the study, from 2005 to 2009, insured clients represented 76%, 81%, 77%, and 89% 87% respectively. There was an algebraic sum of 82%.This result in improved health status and low mortality rate among the insured.

5.4 Health Insurance and Disease Incidence

The study assessed the impact of the introduction of health insurance on the disease incidence in the District.

That the introduction of Health Insurance has had positive impact on the incidence of disease in the municipality. All the health facilities interviewed attested to this fact that health insurance has reduced disease prevalence in the municipality. The study unveiled that some other diseases were reported as a result of health insurance. Comparatively, other diseases such as URTI, Gastro Enteritis, intestinal worms, Skin diseases, eye infection diarrhea, rheumatism, and others. Chronic diseases such as Hypertension, diabetics and asthma, have all become more manageable since they can now report at least every month.

The study explored the benefits of health insurance from health service providers and insured clients and unveiled that providers agreed that there has been improved health status for insured clients.47.7% revealed that the health status of insured clients has been excellent, 33.3% said very good, 16.7% said good and 8.30% said average. On the part of insured

clients, 93.3 % said health insurance has been helpful. Insured clients agreed that the cost of health service has considerable reduced. According to them, they pay almost nothing for health service. Other benefits included access to health service, free drugs, and lower cost of health.

5.5 Findings from Approaches to Health Service Delivery

The study was partly based on some theories and approaches to health care delivery and the following came out.

It was found from the socio cultural approach (Anderson, 1973) as one of the approaches to health care utilization that health care delivery is highly dependent on the cultural setting such as religious, family, and economic institutions. Assumptions prevalent in society about the causes of diseases are probably the most important determinant of organization of hospitals and such explanations are intimately linked to religion .On the basis of data from 16 countries Glaser (1973), showed that the more widespread the religious believe in a society, that illness is due to natural events and can be reversed by human actions, the greater are the resource invested in hospitals, and the greater the visitation to the hospitals. Even when cost barriers are eliminated, differences in utilization among various groups within a population still exist. For example, several studies have demonstrated social class-related differences in utilization behavior even under prepaid system

Accordingly, the study reviewed that there is little to be gained by continuing to amass additional evidence of gross socio demographic differences in health delivery behavior. Rather it is necessary, as Mechanic (1968), has pointed out, to develop models that explain how persons come to realize that they are ill and how they decide on a source of care. Ghanaians are alleged to very religious and are likely to be affected by this and in

this district where religion is wide spread, could account for the increased in health delivery in addition to the removal of the cost barrier. The organization approach also brought to bare some intervention strategies, since it views health delivery behavior as being primarily determined by the structure of the health service system. Since health services are provided through a particular form of social organization it is assumed that the action of participants can be understood and modified through the incentive and reward system.

5.7 Findings from Theories of Health Care delivery

The study employed theories of health care delivery to study the trend and Patten of health delivery under FFS and capitation. The following were unveiled from the principal agency theory of health care delivery,(Schiner and Mathios 2006)

The theories brought to fore three players involved in the health delivery pattern which are a patient, a physician, and an insurance company. Patients, those patients who are assumed to be fully insured accept all the prescribed treatment their physician is willing to provide. The benefit function in a single episode is assumed to reach a maximum after which total benefits fall. The optimal delivery varies by patient within treatment type (e.g., severity of health problem, recuperative powers of the patient's general constitution and health). Total benefits to the patient are assumed to fall after because of the time cost of receiving treatment and possible negative consequences associated with a continued hospital stay or unnecessary procedures (e.g., unnecessary surgery). For simplicity it is assumed that benefit function is symmetric. This implies that extra health care is just as detrimental as the under provision of necessary care. So, the optimal level of health services for a person equals the mean health care delivery for the given procedure/diagnosis plus a random disturbance that has expected

value of zero and a variance. The quantity of medical service provided and consumed by patients represents initial health stock for patient.

The Principal agency theory revealed that Health Insurance Company may choose one of the following alternatives to contain cost write an incentive-compatible contract (capitation), or employ monitoring. Under monitoring it assumed that the physician perfectly observes the optimal level of services, and prescribes the amount of treatment. The insurance company only observes health delivery service. Complexity of the case, reflected by, does not affect a capitated physician but makes it difficult to monitor delivery effectively in the FFS environment. Because high complexity makes it expensive for the insurer to deduce the actual delivery provided. it affects the extent of moral hazard a physician may decide to engage in.

The NHIA introduced an ill health episode which requires that, a patients visit any facility three (3) times in two weeks when a patient is expected to be completely healed. This means that a patient has three encounters within two weeks. Since the visit has become more or less mandatory, there is the passivity that providers will coarse or input visit thereby swelling the utilization rates.

The study also revealed that Health insurance has increased documentation, patient waiting time and doctor-patient ration and has put stress on the resources of the hospitals.

That inpatients treatment has reduced considerable but as whether it has improved health status remains questionable. The fact is inpatient is bundled tariff hence duration of spell has as well reduced implying that patient don't spend enough time at the hospital and this is likely to affect their healing.

5.6 Conclusion

The study has brought to light many issues ranging from enrollment, accessibility, utilization and other health outcomes. This has unveiled the total benefits of health Insurance to the insured clients the operations of the Schemes and other challenges which need to be addressed by NHIA and the government.

5.8. Recommendation

The following recommendations are made based on the findings from the study

There should be well devised monitoring system to check and monitor the attendance of health service since providers have control and can dictate the pace of patient's visits to their advantage.

The ill health episode of three visits in two weeks should be revised. Since the tariff is rather per visit it means that, visit could also be once twice to merit it.

That intensive study should be done before the introduction of Capitation .The reason being that, health service providers Thus, under capitation, patient will receive a less than optimal amount of health care services, unless marginal cost to the physician is zero. Even Government health facilities will want to break even hence setting marginal revenue (MR) equals marginal cost (MC). Most of the health service facilities are private and to make profit their MR>MC. This likely to go against the patients and the schemes.

To minimize moral hazards and other abuses especially multiple visits, there should be electronic measures to monitor and track patients records and those who move from one facility to the other.

To achieve universal coverage for residents in Ghana and to achieve the purpose of establishing Health insurance schemes intensive education should be embarked on especially the illiterates to enroll in the health insurance.

NHIA/Scheme should consider enrolment levels and the various categories in their health budget since they have influence on health service delivery hence cost of medical bills.

All in all, Health Insurance has been beneficial to the people of Jaman North and Ghana as a whole; however, there are challenges which need to be addressed

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APPENDICES

Appendix "1" Questionnaire for Health facilities

KWAME NKRUMAH UNIVERSITY OF SCIENCE AND TECHNOLOGY (IDL)

(COMMONWEALTH EXECUTIVE MASTERS IN BUSINESS ADMINISTRATION)
CEMBA
QUESTIONNAIRE FOR HEALTH FACILITIES

This questionnaire aims at eliciting your views about the effects of the Introduction of Health Insurance on the Health delivery Service within Jaman North District. This is purely an academic exercise and in partial fulfillment of the requirement for the award of Executive Masters in Business administration by Kwame Nkrumah University of Science and Technology.

Please read each statement carefully and answer them as frankly as you can. Your responses will be accorded the utmost confidentiality they need. Your maximum cooperation is highly solicited.

Please tick where appropriate and supply information where necessary.

FACILITY DATA

1. NAME OF FACILITY ……

2. AREA OF SPECIALIZATION/LEVEL

……

TYPE OF FACILITY

HOSPITAL. ☐ MATERNITY HOME CLINIC ☐ HEALTH CENTRE ☐

3. LEVEL OF CARE

PRIMARY ☐ SECONDARY ☐ TERTIALLY ☐ OTHERS ☐

OPERATIONS AND DELIVERY RATES

4. How long have you been in the Health Service profession?

A.1 year ☐ B. 1-5years ☐ C.6-10 years D.11-15 years ☐

5. Do you see both insured and non-insured patients Yes ☐ No. ☐

6. How many hours do you work in a day ……

7. How many patients do you see in a day ……

8. What is the average attendance of an ill health episode within two weeks?

……

9. Before the introduction of Health Insurance what was the average attendance for patients within an ill health episode of two weeks. ……..

10. How many patients do you see in a day? …….

11. What is the state of utilization since the introduction of Health Insurance?

(A) An increase (b) { } A decrease { }

12. If there is an increase in delivery of health service which of the following do you think has accounted for it

(a) Introduction of health insurance { }
(b) Improvement in quality of health service { }
(c) Easy accessibility of health service { }
(d) Availability of health facilities { }
(e) Reduction in the cost of health care { }

(f) Others, specify ……..

13. If there has been a decrease which of the following has been the reasons

(a) Introduction of health insurance { }
(b) Reduction in quality of health service { }
(c) Poor accessibility of health service { }
(d) Inadequate health facilities { }
(e) Increased in the cost of health care { }

(f) Others specify ……

14. To what extent do you agree that Health Insurance has influenced the delivery of health service?

(a)Agree { } (b) strongly agree { } (c) { } disagree { } strongly Disagree { }

(15) Which of the following problems in your opinion has Health Insurance affected positively? (Tick as many as appropriate) Use the marks to score 10 % (very poor) 20 % (poor) 30 %(fair) 40% very fair 50% (average) 60% (Good) 70 (very Good) 80 and above (excellent)

(a) Accessibility of health service …….

(b) Utilization ……

(c) Documentation ……..

(d) Doctor patient ratio ……....

(e) Patients waiting time ……..

(f) Quality of health service ……

(g) Others (specify) ……

……

IMPACT OF HEALTH SERVICE ON HEALTH SERVICE DELIVERY

(16). Do you think the introduction of Health Insurance reduced disease prevalence in the Jaman North District?

Yes ( ) No ( )

(17) In your opinion do you think that the reduction in common diseases is as a result of the increase in health delivery?

Yes ( ) No ( )

(18) If yes, state the common diseases that the introduction of health insurance has helped to reduce its prevalence in the District?

Malaria ( )

URTI ( )

Arthritis ( )

Gastro Enteritis ( )

Acute Eye infection ( )

Skin disease ( )

Diarrhea ( )

HIV /AIDS ( )

Chronic disease ( )

Hypertension ( )

Diabetics ( )

Intestinal worms ( )

Home Accident ( )

18. From your point of view as a Service provider, what benefits do you think insured clients have gained?

1. Quality health Service ( )
2. Free drugs ( )
3. Lower cost of health care ( )
4. Improved health stats ( )
5. Others, specify ,,,

(19) What recommendations can you give for the improvement of Health Insurance Schemes in the Municipality/Ghana?

…………………………………………………………………………………………………

…………………………………………………………………………………………………

APPENDIX 1

DISEASE INCIDENCE FOR INSURED

Kindly fill he table below

2000-2009

TABLE 1. DISEASE INCIDENCE FOR INSURED

DISEASE	NUMBER OF CASES IN YEARS									
	2000	**2001**	**2002**	**2003**	**2004**	**2005**	**2006**	**2007**	**2008**	**2009**
Malaria										
URTI										
Gastro Enteritis										
Acute Eye infection										
Skin disease										
Diarrhea										

Home accident										
Rheumatism										
Hypertension										
Diabetes										
Intestinal worms										

HEALTH DELIVERY LEVELS FOR INSURED

YEAR		2005	2006	2007	2008	2009
CASES/ATTENDANCE	OPD					
	IPD					

HEALTH DELIVERY LEVELS FOR NON- INSURED

YEAR		2005	2006	2007	2008	2009
CASES/ATTENDANCE	OPD					

	IPD					

HEALTH DELIVERY LEVELS (PRE-INSURANCE)

YEAR		2000	20001	2002	2003	2004
CASES/ATTENDANCE	OPD					
	IPD					

Appendix "2" questionnaire for Health Insurance Schemes

KWAME NKRUMAH UNIVERSITY OF SCIENCE AND TECHNOLOGY

(COMMONWEALTH EXECUTIVE MASTERS IN BUSINESS ADMINISTRATION)
CEMBA
QUESTIONNAIRE FOR HEALTH INSURANCE SCHEMES

This questionnaire aims at eliciting your views about the effects of the Introduction of Health Insurance on the Health Delivery Service within Jaman North. This is purely an academic exercise and in partial fulfillment of the requirement for the award of Executive Masters in Business administration by Kwame Nkrumah University of Science and Technology.

Please read each statement carefully and answer them as frankly as you can. Your responses will be accorded the utmost confidentiality they need. Your maximum cooperation is highly solicited.

Please tick where appropriate and supply information where necessary.

A. SCHEME DATA

1. NAME OF SCHEME……

2. DATE OF COMMENCEMENT ……..

3. NUMBER OF STAFF ……

B.INFORMATION ON ACREEDITED HEALTH FACILITIES (PLEASE INDICATE THE NUMBERS)

PLEASE FILL THE TABLE BELOW ON THE HEALTH FACILITIES YOU HAVE ACREDITED

TABLE 1

NAME/TYPE	LEVEL OF CARE	OWNERSHIP	NUMBER	LOCATION
DISTRICT HOSPITAL (CHAG/GHS)				
GOVERNMENT CLINICS				
PRIVATE CLINICS				
MATERNITY HOMES				
PHARMACY				

CHEMICAL SHOPS				
LABORATORY CENTRES				

(5) Which of the following motivate people to register with the Scheme?

- Affordability of health service { }
- Easy Accessibility of health Service { }
- Quality of health service { }
- Others specify { }

INFORMATION ON ENROLLMENT DATA OF JAMAN NORTH HEALTH INSURANCE

6. Please fill the following tables on membership status2005 Benefit Year.

CATEGORIES	NEW MEMBERS	RENEWED MEMBERS
AGED		
INDIGENT		
INFORMAL		
PENSIONERS		
SSNIT CONTRIBUTORS		
UNDER 18		
TOTAL		

2006 Benefit Year

CATEGORIES	NEW MEMBERS	RENEWED MEMBERS
AGED		

INDIGENT		
INFORMAL		
PENSIONERS		
SSNIT CONTRIBUTORS		
UNDER 18		
TOTAL		

2007 Benefit Year

CATEGORIES	NEW MEMBERS	RENEWED MEMBERS
AGED		
INDIGENT		
INFORMAL		
PENSIONERS		
SSNIT CONTRIBUTORS		
UNDER 18		
TOTAL		

2008 Benefit Year

CATEGORIES	NEW MEMBERS	RENEWED MEMBERS
AGED		
INDIGENT		
INFORMAL		
PENSIONERS		
SSNIT CONTRIBUTORS		
UNDER 18		
TOTAL		

2009 Benefit Year

CATEGORIES	NEW MEMBERS	RENEWED MEMBERS
AGED		

INDIGENT		
INFORMAL		
PENSIONERS		
SSNIT CONTRIBUTORS		
UNDER 18		
TOTAL		

HEALTH DELIVERY LEVELS FOR INSURED

7. Please fill the following table on health delivery services from 2005 to 2009

HEALTH DELIVERY LEVELS FOR INSURED

YEAR		2005	2006	2007	2008	2009
CASES/ATTENDANCE	OPD					
	IPD					

HEALTH DELIVERY IN RELATING TO OPD AND IPD

(8) What was the monthly average attendance of insured clients relating to inpatients for the following years?

2005 ……..

2006 ……..

2007 ……

2008 ……

2009 ……

(9) What was the average attendance for the insured clients for OPD for the following years?

2005 ……

2006 ……..

2007 ……

2008 ……

2009 ……

(10) To what extent do you agree that delivery of health service has increased after the introduction of Health Insurance?

- Agree { }
- Strongly agree { }
- Disagree { }
- Strongly disagree { }

(11) If you strongly agree, which of the following do you think has contributed to the recent increase in health delivery in hospitals?

- The introduction of health insurance { }
- Improvement in quality of health service { }

- Availability of health facilities { }
- Reduction in Doctor Patient Ratio { }

(12) If you strongly disagree what do you think has been the reason for the decline in delivery of health service .state ……

……

……

(13) Do you have enough Health Service providers to meet the health needs of your insured subscribers?

Yes ( ) No ( )

(14) Do your clients complain on the delivery of health service from your providers?

Yes ( ) NO ( )

(15) What are some of the complaints that patients report in relation to delivery of health service?

……..

……

(16) What challenges do you face in assisting to provide service or make health service facilities available to your insured clients?

(17)What recommendations can you give for the improvement of Health service delivery in the District?

……

……

…… ……

Appendix "3" questionnaire for Health Insurance Clients

KWAME NKRUMAH UNIVERSITY OF SCIENCE AND TECHNOLOGY (IDL)

(COMMONWEALTH EXECUTIVE MASTERS IN BUSINESS ADMINISTRATION)
CEMBA
QUESTIONNAIRE FOR HEALTH INSURANCE CLIENTS

This questionnaire aims at eliciting your views about the effects of the Introduction of Health Insurance on the utilization of Health Delivery in JamanNorth. This is purely an academic exercise and in partial fulfillment of the requirement for the award of Executive Masters in Business administration by Kwame Nkrumah University of Science and Technology.

Please read each statement carefully and answer them as frankly as you can. Your responses will be accorded the utmost confidentiality they need. Your maximum cooperation is highly solicited.

Please tick where appropriate and supply information where necessary.

PERSONAL DATA

1. RESIDENCE ……

2. EDUCATIONAL BACKGROUND: (TICK)

NO SCHOOLING ☐ PRIMARY/JSS ☐ SECONDARY/SSS ☐

TERTIARY ☐ OTHERS ☐

AGE 12-18 ☐ 19-70 ☐ 70-above ☐

GENDER: Male ☐ Female ☐

MARITAL STATUS: Married ☐ Single ☐ Divorce ☐

RELIGION : Christian ☐ Moslem ☐ Traditionalist ☐

REASONS FOR JOINING A SCHEME

3. When did you join the scheme?

(a) A year ago { }

(b) Two years ago { }

(c) Three years { }

(e) four { }

(4) Why did you join the Scheme? { }

(a) To get access to Health Service { }

(b) For the scheme to pay my medical bills { }

(c) To visit Health facilities in case of sickness { }

(d) Because everybody joined { }

(e) Others (specify) ……

(5) Which type of Scheme are you a member

(a) District Mutual Health Insurance Scheme { }
(b) Private mutual Health Insurance Scheme { }
(c) Private Commercial Mutual Health Insurance Scheme { }
(d) Others …… { }

HEALTH DELIVERY LEVELS

(6) Do you report every sickness to Hospital /clinic to see a doctor /Nurse?

Yes { } No { }

(7) Do you agree that Health Insurance has influenced your regular attendance?

(a) Yes { } No { }

(8) If no what is the reason for the that

……

……..

9) How many times do you visit the hospital within two weeks during an ill health episode?
Once { } twice { } thrice { }

PRE-INSURANCEDELIVERY LEVELS

(10) Before the introduction of Health Insurance, how many visits could you afford to attend in an ill health episode of two weeks?

Once { } twice { } thrice { }

(11) Was there anything that made it difficult for you to attend hospital or see a Doctor before the introduction of health insurance?
Yes ( ) No ( )

(6) If yes, which of the following made it very difficult to for you to attend hospital/see a doctor before the introduction of heath health insurance?

- Non -availability of health facility ( )
- Cost of health service ( )
- Distance to facilities ( )
- Doctor patient ratio ( )
- Poor Quality of health service ( )
- Patient waiting time ( )
- Others ,specify

(7) In your opinion do you think that NHIS has been helpful to you?

Yes ( ) No ( )

(b) Give reason for your answer

……
……..

……..

……
(8) What benefit do you have from the NHIS?

(a) Access to health to regular health care ( )
(b) Free drugs ( )
(c) Lower cost of health care ( )
(d) Improved health status ( )
(e) Others, specify ……

(9) Have you regretted for being a member of a scheme?

Yes ( ) No ( )
If yes give reason for your answer

……

……..

(10) How do you grade Health Insurance on the following? Use the marks to score:
10 % (very poor) 20 % (poor) 30 %(fair) 40% very fair 50% (average) 60% (Good) 70 (very Good) 80 and above (excellent)

- Accessibility ……
- Payment of medical bills ……
- Utilization of health service ……
- Quality of health service ……
- Others ,specify

(11) Is there anything that you do not like about Health Insurance?

Yes ( ) No ( )

Give reasons for your answer

……

……

(12) What recommendation or suggestion do you have for improvement of the operation of health insurance?
……
……..
……

Thank You

Appendix "4" questionnaire for non-insured

KWAME NKRUMAH UNIVERSITY OF SCIENCE AND TECHNOLOGY

(COMMONWEALTH EXECUTIVE MASTERS IN BUSINESS ADMINISTRATION)
CEMBA
QUESTIONNARE FOR NON-INSURED

This questionnaire aims at eliciting your views about the effects of the Introduction of Health Insurance on Health Delivery Services within Jaman North. This is purely an academic exercise and in partial fulfillment of the requirement for the award of Executive Masters in Business administration by Kwame Nkrumah University of Science and Technology.

Please read each statement carefully and answer them as frankly as you can. Your responses will be accorded the utmost confidentiality they need. Your maximum cooperation is highly solicited.

Please tick where appropriate and supply information where necessary.

A. PERSONAL DATA

B. 1. RESIDENCE ……

2. EDUCATIONAL BACKGROUND: (TICK)

NO SCHOOLING ☐ PRIMARY/JSS ☐ SECONDARY/SSS ☐

TERTIARY ☐ OTHERS ☐

AGE 12-18 ☐ 19-70 ☐ 70-above

GENDER : Male ☐ Female ☐

MARITAL STATUS: Married ☐ Single ☐ ☐ Divorce

☐ ☐ ☐

RELIGION : Christian Moslem Traditionalist

REASONS FOR NOT JOINING A SCHEME

1. Are you aware of the existence of health insurance Schemes in Ghana?

   Yes ( ) NO ( )

(2.) Are you aware of the existence of health insurance Schemes in your community?
Yes ( ) NO ( )

(3) If yes which of the following has prevented you from joining a Scheme?

(a) Lack of money to register { }

(b) Low quality of health care for insured patients { }

(c) Long Patients waiting time for insured clients { }

(d) Low quality drugs for insured clients { }

(e) others (specify) ……

(4) Which of the following are you aware are functions of Health Insurance Schemes?

(a) Payment of medical bills for insured clients { }

(b) Provision of drugs to insured clients { }

(c) Registration of people { }

HEALTH DELIVERY LEVEL

(5) Do you report every sickness to Hospital /clinic to see a doctor /Nurse?

Yes { } No { }

(6) If No, do you agree that your non- insured status has influenced your irregular attendance?

(a)Agree ( ) (b) strongly agree ( ) (c) disagree ( ) (d) ( ) strongly disagree

(7) How many times do you visit the hospital within two weeks during an ill health episode?

Once { } twice { } thrice { }

PRE-INSURANCE HEALTH DELIVERY LEVELS

(8) Before the introduction of Health Insurance how many visits could you afford to attend in an ill health episode?

Once { } twice { } thrice { }

(9) Was there anything that made it easier for you to attend hospital or see a Doctor before the introduction of health insurance?

Yes ( ) No ( )

(10) If yes, which of the following made it very easier for you to attend hospital/see a doctor before the introduction of heath health insurance?

- availability of health facility ( )
- low Cost of health service ( )
- Short distance to facilities ( )
- low Doctor patient ratio ( )
- high Quality of health service ( )
- Short Patient waiting time ( )

AWARENESS OF BENEFITS FOR SUBSCRIBERS

(11) In your opinion do you think that NHIS is helpful?

Yes ( ) NO ( )

(12) What benefits are you aware that one can get from the NHIS?

(a) Access to health to regular health care ( )

(b) Free drugs ( )

(C)Lower cost of health care ( )

(d)Improved health status ( )

(e)Others (SPECIFY) ……

INTENTION TO JOIN A SCHEME

(13) Do you have any intention to become member of a Scheme?

Yes ( ) No ( )

(14) Is there anything that you do not like about health insurance?

Yes ( ) No ( )

Give reasons for your answer

……

……

……..

(14) What recommendation or suggestion do you have for improvement of the operation of health insurance?

……

……

……

Thank you