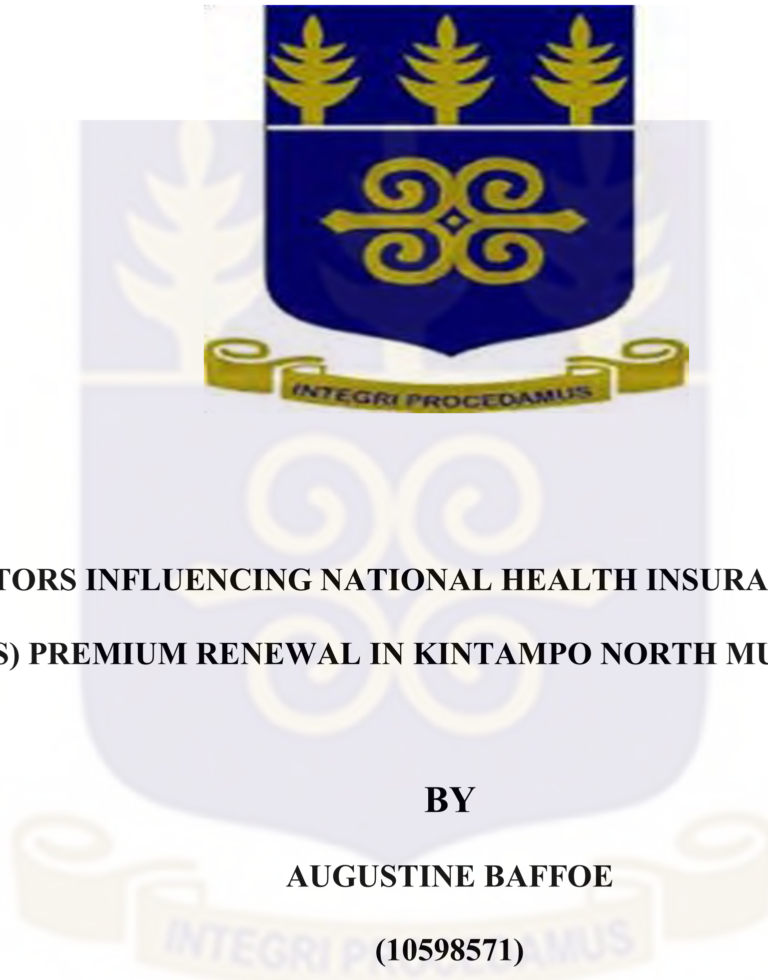
University of Ghana http://ugspace.ug.edu.gh

SCHOOL OF PUBLIC HEALTH

COLLEGE OF HEALTH SCIENCES

UNIVERSITY OF GHANA

LEGON



FACTORS INFLUENCING NATIONAL HEALTH INSURANCE SCHEME (NHIS) PREMIUM RENEWAL IN KINTAMPO NORTH MUNICIPALITY.

BY

AUGUSTINE BAFFOE

(10598571)

A DISSERTATION SUBMITTED TO THE SCHOOL OF PUBLIC HEALTH, UNIVERSITY OF GHANA IN PARTIAL FULLFILMENT FOR THE AWARD OF MASTER OF PUBLIC (MPH) DEGREE

JULY, 2017

University of Ghana http://ugspace.ug.edu.gh

DECLARATION

I declare that this work is the result of my own effort, and it has not been submitted either in part or whole for any other degree elsewhere. Except for the specific references which have been duly acknowledged.

SIGNATURE……………………………… DATE……………………………….....

AUGUSTINE BAFFOE

(STUDENT)

SIGNATURE……………………………… DATE………………………

PROF. COL. EDWIN AFARI (RTD)

(SUPERVISOR)

University of Ghana http://ugspace.ug.edu.gh

DEDICATION

To my lovely wife, Ms. Patricia Busi and children Eugenia Nyamekye Baffoe and Eugene Nyamekye Baffoe.

University of Ghana http://ugspace.ug.edu.gh

ACKNOWLEDGEMENT

I am very grateful to the almighty God for his divine mercies and guidance that have seen me through a successful completion of this course. I also express my warm appreciation to Prof. Col. Edwin Afari (RTD), Dr. Ernest Asiedu and Dr. Ameme Donne who in spite of their busy schedules took time to read through this document and offered very expedient recommendations for the realization of this final document.

I am also very grateful to all the staff of the School of Public Health, Legon especially the Epidemiology and Disease Control Department for their shared contributions which made me to complete this course and dissertation. I am again, very grateful to Mr. Emmanuel Ofori of College of Health Kintampo who encouraged me to start and finish this course. My sincere gratitude also goes to the Kintampo North Municipal Health Insurance Scheme's manager and the entire staff of the Kintampo North Municipal Health Insurance Scheme for granting me the permission to conduct this study in the district and their support in providing me with the needed information.

University of Ghana http://ugspace.ug.edu.gh

ABSTRACT

Background: To remove the financial hitches to access to health care services and to guarantee equitable access to quality services especially by the poor and vulnerable, the government of Ghana passed the National Health Insurance Law, 2003 (Act 650) and the National Health Insurance Regulations, 2004(L.I 1809 (Government of Ghana (GoG), 2004). The study seeks to determine factors influencing the National Health Insurance Scheme renewal.

Aim: The objective of the study was to assess factors influencing NHIS premium renewal among individuals 18 years and above in Kintampo North Municipality.

Method: Descriptive cross-sectional studies will be used to conduct a study in Kintampo North Municipality with a sample size of 308. A multi-staged sampling technique was used in this study. Simple random sampling technique was used to randomly select three sub-districts out of the six sub-districts. Only participants who gave consent to participate in the study were interviewed.

Results: Only 24.9% of the total NHIS registrants in Kintampo north Municipality had renewed their NHIS premiums. Most of the respondents (63%) had not renewed their NHIS premiums and cited high cost of NHIS premiums as the main obstacle. A high proportion (87.0%) of the respondents who had renewed their NHIS premiums, did so at the district offices.

Conclusion: Majority of respondents who had not renewed their NHIS premiums cited high cost of premium, poor quality of health care and long queues at hospital OPD as barriers to NHIS premium renewal.

University of Ghana http://ugspace.ug.edu.gh

TABLE OF CONTENTS

DECLARATION ii

DEDICATION iii

ACKNOWLEDGEMENT....... iv

ABSTRACT....... v

TABLE OF CONTENTS vi

LIST OF TABLES viii

LIST OF FIGURES ix

LIST OF ACRONYMS x

DEFINITION OF TERMS.......xi

CHAPTER ONE 1

INTRODUCTION....... 1

1.1 Background 1

1.1 Problem Statement 4

1.2 Conceptual Frame work 6

1.3 Justification of the study 9

1.4 Objectives of the study....... 10

1.4.1: Main Objective....... 10

1.4.2: Specific Objectives 10

CHAPTER TWO 11

REVIEW OF RELATED LITERATURE....... 11

2.1: Ghana's National Health Insurance Scheme....... 11

2.2: National Health Insurance Scheme in Kenya 14

2.3: National Health Insurance in Germany....... 15

2.4: NHIS enrolment and Renewal 17

2.5: NHIS related factors that influence subscriber's decision to renew NHIS 19

2.6: Health facility related factors that influence NHIS renewal 23

2.7: Individual related factors to NHIS renewal 27

CHAPTER THREE 32

METHODS....... 32

3.1: Study Design....... 32

3.2: Study Area 32

University of Ghana http://ugspace.ug.edu.gh

3.2.2: Population size 32

3.2.4: Health Insurance Scheme in Kintampo Municipality 33

3.2.6: Climate 36

3.2.7: Vegetation 36

3.2.7: Traditional set up 36

3.2.8: Values and taboos 37

3.2.9: Agriculture 37

3.3: Variables of the Study 38

3.3.1: Dependent Variable 38

3.3.2: Independent Variables 38

3.4: Study Population 41

3.4.1: Inclusion criteria 41

3.4.2: Exclusion criteria 41

3.5: Sample Size Determination 41

3.6: Sampling Method 42

3.7: Data Collection Method and Tool 43

3.8: Data Management and Analysis 43

CHAPTER FOUR 46

RESULTS 46

CHAPTER FIVE 58

DISCUSSION 58

CHAPTER SIX 62

CONCLUSIONS AND RECOMMENDATION 62

6.1 CONCLUSIONS 62

6.2 RECOMMENDATIONS 62

REFERENCES 63

APPENDIX A 66

Consent Form for Participation in the study 66

APPENDIX B 70

INTERVIEW GUIDE 70

RECORDS REVIEW CHECKLIST 74

University of Ghana http://ugspace.ug.edu.gh

LIST OF TABLES

Table 1: Factors that influence NHIS premium renewal 38

Table 2: NHIS related factors and how they were measured 39

Table 3: Health facility related factors influencing NHIS renewal and how they were 39

Table 4: Individual related factors influencing NHIS renewal and how they were 40

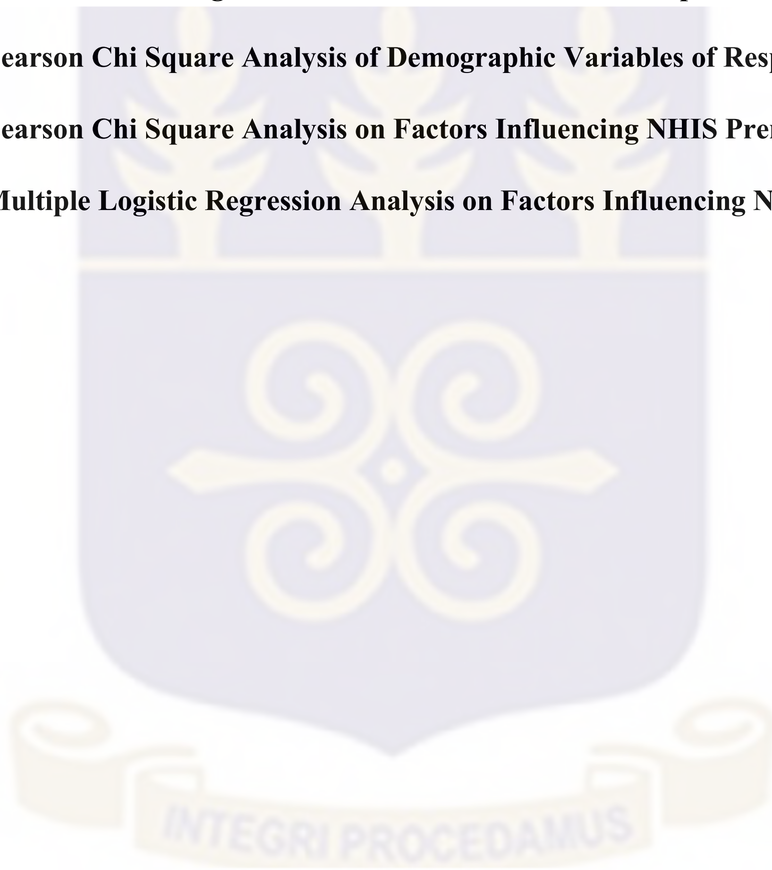
Table 5: Distribution of NHIS Premium Renewals in Kintampo North Municipality 47

Table 6: Factors influencing NHIS Premium Renewal in Kintampo North Municipality ... 53

Table 7: Pearson Chi Square Analysis of Demographic Variables of Respondents 55

Table 8: Pearson Chi Square Analysis on Factors Influencing NHIS Premium 56

Table 9: Multiple Logistic Regression Analysis on Factors Influencing NHIS Premium 57



University of Ghana http://ugspace.ug.edu.gh

LIST OF FIGURES

Figure 1: Conceptual frame work on factors influencing NHIS renewal 6

Figure 2: The map of Kintampo North Municipality 35

Figure 3: Proportions of NHIS Registrations and Renewals in Kintampo North 46

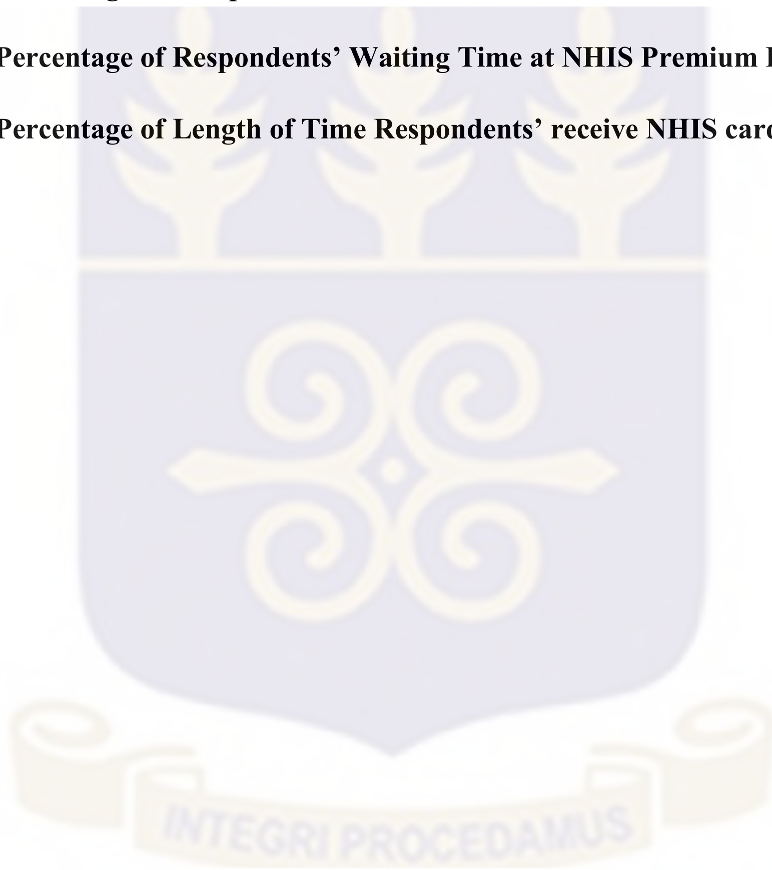
Figure 4: The Proportion of NHIS Premium Renewals in Kintampo North Municipality .. 48

Figure 5: Respondents Reasons for not Renewing NHIS Premium 49

Figure 6: Percentages of Respondents Sources of NHIS Premium Renewal 50

Figure 7: Percentage of Respondents' Waiting Time at NHIS Premium Renewal Centers . 51

Figure 8: Percentage of Length of Time Respondents' receive NHIS cards after Renewal .. 52



University of Ghana http://ugspace.ug.edu.gh

LIST OF ACRONYMS

CBHFA	Community-Based Health Financing Authority
CBHI	Community-Based Health Insurance
CHPS	Community-based Health Planning and Services
DOTs	Daily Observation Treatment
GDHS	Ghana Demographic and Health Survey
GLSS	Ghana Living Standard Survey
GOG	Government of Ghana
GSS	Ghana Statistical Service
HIV	Human Immuno-deficiency Virus
ID	Identity Card
KNMHIS	Kintampo North Municipal Health Insurance Scheme
LEAP	Livelihood Empowerment Against Poverty
NDPC	National Development Planning Commission
NHIA	National Health Insurance Authority
NHIF	National Health Insurance Fund
NHIS	National Health Insurance Scheme
NPP	New Patriotic Party
SCB	Social Code Book
USD	United States Dollars
WHO	World Health Organization

University of Ghana http://ugspace.ug.edu.gh

DEFINITION OF TERMS

Term	Definition
Premium	Fees paid to the insurer every year that keeps the insurance coverage fully active. This is followed by formal re-registration process.
NHIS Renewal	When the insured has paid all fees to the insurer at an interval and has gone through all the formal re-registration processes.
Active NHIS Subscriber	Any NHIS subscriber who have renewed his or her NHIS premium and can access health service with his or her NHIS card.
Health related factors	Factors that influence NHIS subscriber's decision to access a health facility for health care and which intern influence his or her decision to renew insurance premiums.

University of Ghana http://ugspace.ug.edu.gh

CHAPTER ONE

INTRODUCTION

1.1 Background

Health of any country relies on its capacity to perform functions of stewardship, generation and allocation of resources, and service provision and its financing. This is not the case in the developing countries where, most individuals, particularly the poor and the disadvantaged, are required to take care of their hospital bills when they are sick. These vulnerable people are not possible to be members of any pre-financed NHIS, and have limited entree to any subsidized health services. There is also an indication that prepayment in the form of health insurance is the best form of income generation, while 'cash and carry' payment seems to be reverting and often hampers access to quality health care. In most developing countries, the vulnerable is often hurt twice – everyone have to pay a bigger amount of money through taxes or NHIS, whether they utilize health care services or not. (WHO, 2000).

Indication from many healthcare institutions demonstrate that risk-pooling through NHIS leads to greater funding equality. The proficiency and success with which these purposes and roles are achieved determine the scope to which the health care institutions realizes its internal objectives. Despite the efforts achieved by health services in different sectors of a country's economy, health care continues to be inadequate for the poor and other vulnerable groups. These difficulties include high maternal mortality, low life expectancy, high morbidity and mortality of preventable health problems such as diarrhea (Ghana Demographic and Health Survey, 2008).

University of Ghana http://ugspace.ug.edu.gh

The government of Ghana passed the National Health Insurance Law, 2003 (Act 650) and the National Health Insurance Regulations, 2004(L.I 1809) which was intended to obliterating the "Cash and Carry" system at the verge of health care service in Ghana and to take away the financial difficulties to accessing health care services. It was also meant to guarantee equitable access to quality health services especially by the poor and vulnerable, (Government of Ghana (GoG), 2004).

The scheme has a core mandate of focusing on the needs of the most vulnerable individuals in the society and at the same time provide social health protection based on the principles of equity, risk allotment, subsidization, reinsurance, community participation and ownership, value for money, good leadership and transparency in the health care service. NHIS coverage is high in the most poor communities in Ghana, where there is high poverty rate, high levels of illiteracy and limited health care facilities, and where the requirements of pregnant women and other vulnerable groups such as the elderly may not be met (NHIA, 2010). Health financing is a mechanism that makes funding available to ensure that all individuals have access to effective health care systems. (Orem & Zikusooka, 2010).

According to Boateng & Awunyor-vitor (2013), respondents made decisions on joining and renewing their NHIS based on the apparent benefits of the scheme. It is also indicated that persons' perceptions about National Health Insurance Scheme has a positive role to play in influencing one's decision to renew his or her insurance. National Health Insurance Scheme however, has a health-user exemption policy which speculate that certain categories of patients and other vulnerable groups who genuinely cannot pay for health care services are exempted from paying.

University of Ghana http://ugspace.ug.edu.gh

Again, the socio-economic status of Ghana has a direct relationship on its health care situation; the better the economic indicators, the better the health care conditions. (Bour, 2004).

A study conducted in Ghana, revealed that 88% of urban residents with high incomes levels agreed to renew their NHIS premiums as compared to only 57% of their counterparts in the rural communities (WHO, 2010). Another study also revealed that subscriber's level of renewal in urban communities is 10% higher than the rural settings (NDPC, 2009).

University of Ghana http://ugspace.ug.edu.gh

1.1 Problem Statement

It is estimated that, millions of people are faced with high healthcare costs every year due to direct payments for healthcare. More million people are also compelled into poverty due to out-of-pocket health care payments (Kusi, Enemark, Hansen, & Asante, 2015)

National Health Insurance Scheme in Ghana has only 40% of the national population as its active membership compared with the scheme's objective to achieve an active membership rate of 60% by the end of 2015 (NHIS, 2015; Alhassan, Nketia-Amponsah & Arhinful, 2016). Brong Ahafo Regional Health Insurance Scheme recorded renewal rate of 13% in 2013, 14.5% in 2014 and dropped to 12% in 2015 (NHIS, 2016).

There have been a constantly low NHIS membership renewal in the Kintampo North Municipality from 2013 to 2015. In 2013, 24.4% of the expected NHIS registrants renewed their memberships. This reduced to 17.8% in 2014 and slightly increased to 24.9% in 2015. These figures are far below that of Municipality target of 54% by the end of 2015. Some of the contributory factors to the low NHIS renewal rate as revealed by other studies elsewhere include: Poverty, high service cost, long distance traveled, long waiting times at health facilities, inadequate drugs and lack of medical personnel. (Buor, 2008; Blanchet Osei-Akoto, 2012). Other factors include poor subscribers' renewal processes and bureaucratic registration process and long waiting time at NHIS registration centers (Atinga, Abiiro, & Kuganab-Lem, 2015).

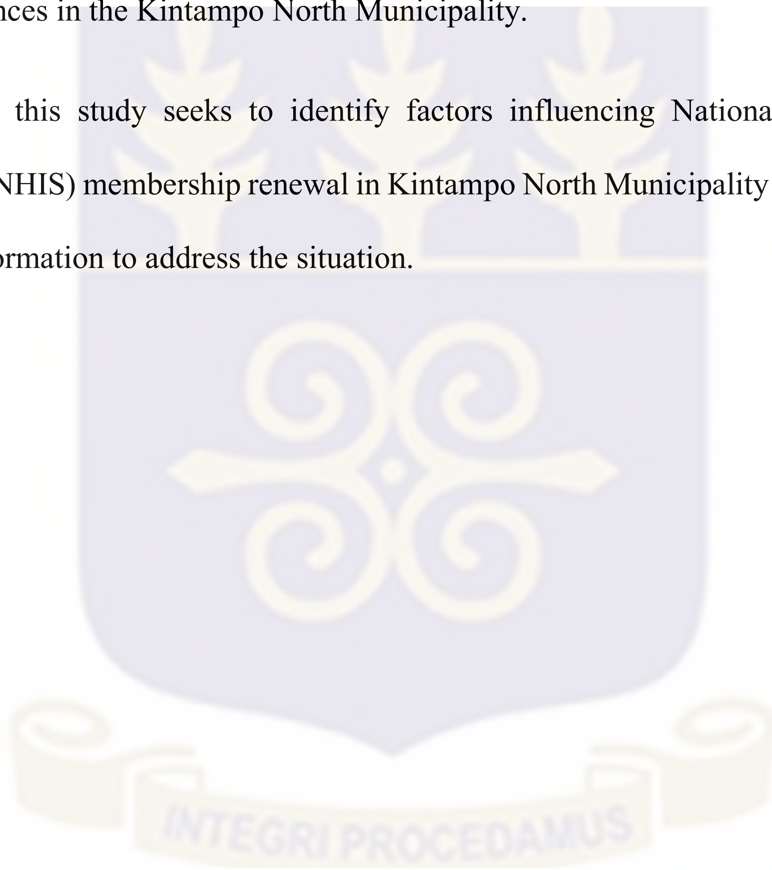
Despite the interventions put in place by National Health Insurance Authority to increase NHIS renewal rate such as "door to door" NHIS renewal exercise in communities and institutions like the University of Ghana School Of Public Health and others; NHIS renewal

University of Ghana http://ugspace.ug.edu.gh

education on Televisions and radios, NHIS renewal rate still remains low in Ghana, especially Kintampo North Municipality (NHIS, 2016).

If factors contributing to the low NHS renewal rates in the Kintampo North Municipality are not known, the NHIS renewal rate will continue to be low, and the proportion of the population particularly the poor who will not have access to quality health care will increase. This will lead to high morbidity, mortality with the related socio-economic consequences in the Kintampo North Municipality.

Therefore this study seeks to identify factors influencing National Health Insurance Scheme (NHIS) membership renewal in Kintampo North Municipality to provide evidence based information to address the situation.



University of Ghana http://ugspace.ug.edu.gh

1.2 Conceptual Frame work

NHIS renewal is determined by numerous contextual factors. The factors of interest in this study have been shown in the conceptual framework (Figure 1). The framework attempts to explain the influence of various factors influencing NHIS renewal in Kintampo North Municipality. The proposed framework on factors influencing NHIS renewal are categorized into: NHIS related factors, health facility related factors and individual related factors.

Figure 1: Conceptual frame work on factors influencing NHIS renewal

These factors act by themselves independently, collectively, and interact differently to impact on NHIS renewal.

University of Ghana http://ugspace.ug.edu.gh

A better understanding of how these factors interrelate would be useful in the development of appropriate policy interventions that will contribute to the better understanding of the factors influencing individual decision to renew their NHIS premium. Individuals' decision to renew NHIS is heavily reliance on contributory factors such as poverty, service cost, distance traveled and waiting times, inadequate drugs, lack of medical personnel, loss of trust to the scheme, and lack of access to renewal centers (Buor, 2008).

National Health Insurance Scheme related factors is one of the independent variables that can influence NHIS renewal. These include high cost of premium, limited number of renewal centers, renewal interval not conducive and long queues at renewal centers. To enroll or subscribe in health insurance program, paying premiums are required. The collective premiums comprise the funds upon which the insurance scheme depend on in order to reimburse subscribers who use insured health care services. Lack of money to pay for the premium is the major obstacle why some people do not enroll in NHIS or renew their subscription. Payment scheduling can also contribute to the problems. (Morestin, & Valéry-Ridde, 2009). Sometimes the subscriber may be willing to renew their NHIS subscriptions but the accessibility and availability of the renewal centers become a problem. The NHIS has their district offices as fixed renewal points but occasionally run outreach renewal services to communities. It may be too worrisome in a situation where an NHIS subscriber has to travel to the district office to renew NHIS cards. The consequence is that he or she may decide not renew the card at all. Another NHIS related factor has to do with long queues at registration centers.

University of Ghana http://ugspace.ug.edu.gh

Subscribers sometimes spend a long period of time at the renewal centers just to renew their cards; others after renewal, takes extra weeks or months before the cards are made available to them for subscription, depending on where the renewal was done.

The last NHIS related factor considered in this study was the NHIS renewal interval. NHIS in Ghana has been designed for subscribers to pay a premium which is subject to annual renewal. Most farming communities in Ghana experience a prime harvest in the midyear and are compelled to save the little income for NHIS renewal at the end of the year assuming they subscribed to the scheme at the beginning of the year coupled with their financial constraints of having to take care of their families. This also could also affect NHIS renewal.

Health care service delivery to NHIS subscribers can also be contributory factor to NHIS renewal. Since its commencement, the country's public and private health facilities have experience constant upward surge in patient numbers and a considerable dwindling in deaths (Buor, 2008). These may contribute to the following problems: long client waiting time, poor staff attitude and limited drug list for NHIS subscribers. Clients with NHIS cards are subjected to multiple processes at Out Patient Department before they consult a physician. This results in long waiting time at the health facility as compared to non-insurers. This obstacle may influence the insurers not to renew their NHIS card when they expired. Staff attitude sometimes becomes a problem to some NHIS subscribers in an attempt to explain the processes and procedures of health care delivery to NHIS card bearers. Some of these processes has to do with the type of health condition and medications covered under the scheme. Some subscribers see this as discriminatory and therefore may decide not to renew their insurance.

University of Ghana http://ugspace.ug.edu.gh

The last factor to be consider in this study is the individual factors. These factors are pertaining to individual or a group perceptions and how they see the performance of the scheme. These include educational level, religion, ethnicity, marital status, trust to the scheme, age and sex. The possession of one or more these factors influence one's health seeking behaviour. Females are likely to renew their NHIS because they are vulnerable both biological and social context as compared to their male counterpart. In the same vain, married men are also likely to renew their insurance because of the additional responsibilities of having to take care of their families. Children and the aged are more likely to renew their cards, because they are exempted from paying renewal fees. One's educational level may depict his or her understanding on the importance of NHIS; possibly the higher one's educational level, the higher one's understanding on the importance of NHIS. Not much relationships have been identify in many studies between one's religion and ethnicity and NHIS renewal. However, this study is intended to find out if any relationship do exist in the study area.

1.3 Justification of the study

It is hoped that the findings of the study would be of much assistance to the National Health Insurance Authority (NHIA) in the following ways: it would help NHIS policy makers to determine some of the factors influencing low renewal of NHIS subscription. It will also promote the development of an effective educational programs to create awareness on the NHIS. It will finally contribute to literature and serve as a reference material for other researchers for further studies.

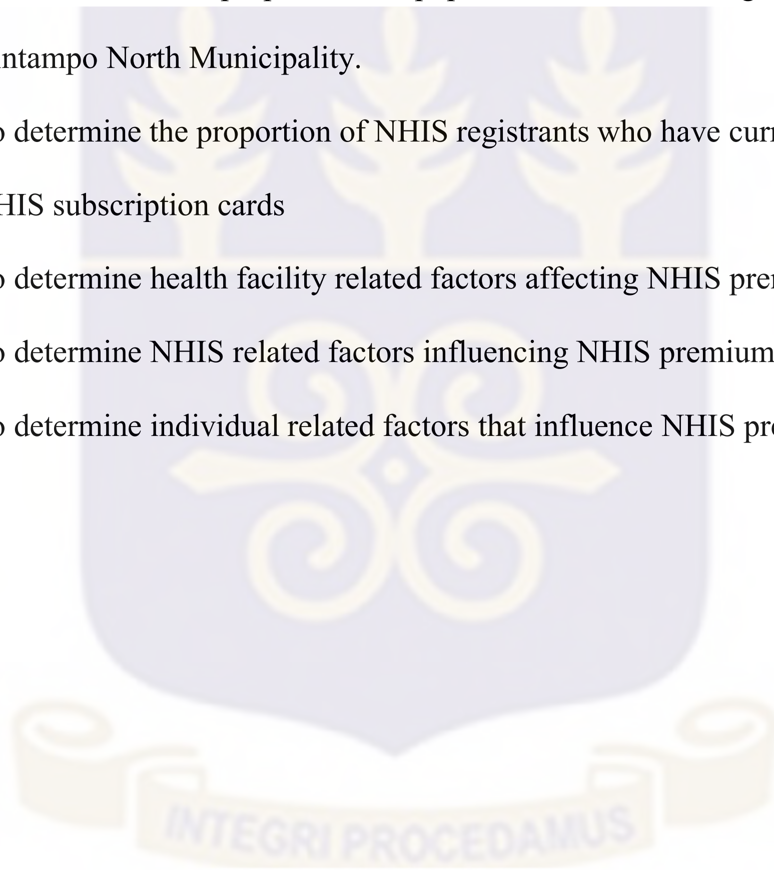
University of Ghana http://ugspace.ug.edu.gh

1.4 Objectives of the study

1.4.1: Main Objective

To determine factors influencing National Health Insurance Scheme (NHIS) premium renewal in Kintampo North Municipality.

1.4.2: Specific Objectives



1. To determine the proportion of population who have registered for NHIS in Kintampo North Municipality.
2. To determine the proportion of NHIS registrants who have currently renewed their NHIS subscription cards
3. To determine health facility related factors affecting NHIS premium renewal.
4. To determine NHIS related factors influencing NHIS premium renewal
5. To determine individual related factors that influence NHIS premium renewal.

University of Ghana http://ugspace.ug.edu.gh

CHAPTER TWO

REVIEW OF RELATED LITERATURE

2.1: Ghana's National Health Insurance Scheme

The improvement, the headway and plan of the NHIS has been precipitated by a number of factors which emanated from both internal to Ghana and from international world. Ghana's strategy of the 'cash and carry' system at some years past had become more detested, and this had not gone ignored by politicians. In the 2000 general elections, the New Patriotic Party (NPP), which was later elected to power, assured the citizenry to obliterate the cash and carry system and develop a more comprehensive health system that is affordable and accessible to all persons. The stipulated objective of the new government was to achieve 50 to 60 per cent of the population covered by a national health insurance scheme within 10 years of the execution of the national health insurance, with an ultimate goal of ensuring universal health insurance coverage (Cichon et al. 2003). Since its commencement, the country's public and private health facilities have experience constant upward surge in patient numbers and a considerable dwindling in deaths (Buor, 2008).

Different forms of NHIS premiums exist under the Ghana's NHIS. Contributors are categorized according to their levels of income. The category a contributor may fall in will indicate a precise premium to be paid. This was prescribed due to the socio-economic differences among contributors. This is also to ensure that all persons are capable of affording for their own health care and that no person is coerced to remain in the "Cash and Carry system. This means that contributions to be paid vary from one district to the other as even the disease condition is also not the same in all the districts (NHIS, 2009).

University of Ghana http://ugspace.ug.edu.gh

The same report stipulated that in order to ensure that all persons make some contribution to the scheme, a 2.5% Health Insurance Levy on some selected goods and services in Ghana was passed into law so that the revenue collected could be saved in the National Health Insurance Fund to subsidize fully paid contributions to the Health Insurance Schemes.

Apoya and Marriott (2011) argued that NHIS ID card holders probably represent no more than 18 per cent of the entire Ghanaian population. The report further argues that the NHIA has wrought the data in order to realize inflated figures. This was seen in two ways: firstly, they measure coverage against 2004 population figures, thereby failing to account for population increase; secondly, ID card figures have purported to been inflated by using an accumulated figure of the number of persons who own an ID card rather than considering the number of people who are in possession of a valid ID card at any stipulated time. This is a clear indication that those individuals who once acquire ID cards, but no longer active, are still considered as NHIS ID card holders.

According to NHIS report in 2013, one of the objectives of the Medium Term Strategic Plan 2011-2014 of the National Health Insurance Authority (NHIA) was to ensure an increase in NHIS coverage among the poor and other vulnerable groups under the Scheme. The NHIA organized various strategies and medium to identifying the poor and other vulnerable groups for exemption, as part of the scheme's efforts to meeting these objectives. The current Legislative Instrument (LI 1809) in Ghana qualifies one to be indigent, when the person is NOT having any recognizable income source, must be unemployed and must NOT have any place of resident.

University of Ghana http://ugspace.ug.edu.gh

This criteria makes it very problematic to identify persons who are poor and vulnerable for exclusion under the scheme. However, in 2011, the NHIA in partnership with the Department of Social Welfare decided to engage beneficiaries of the Livelihood Empowerment Against Poverty (LEAP) unto the scheme. The small number of LEAP beneficiaries together with this rigorous test' for the identification of indigents, has therefore resulted in the low enrollment of indigent unto the Scheme. This therefore required the need to employ secure inventive mechanisms that will increase the enrollment of the poor and vulnerable persons unto the Scheme. The proxies used to target and enroll potential beneficiaries onto the NHIS in 2013 include beneficiaries of the LEAP, orphans, children who are blind, deaf and dump, individuals with Mental retardation, Individuals benefiting financial support agencies such as the District Assemblies and other non-governmental institutions due to poverty. Others include mothers who have given birth to twins and triplets and are in need of financial support, Individuals infected with HIV/AIDS who are also poor, Tuberculosis (TB) infected Persons and are on Tb medication. Again Prisoners in very poor living conditions, children benefiting from the free uniforms and those benefiting from the government school feeding policy

The sources of finance to the National Health Insurance Fund are provided under section 41 of the Act as follows:

- *National Health Insurance Levy (NHIL);*
- *2.5 percentage points of each person's 18.5% contribution to SSNIT pension fund;*
- *Such moneys that may be allocated to the Fund by Parliament;*
- *Grants, donation, gifts and any other voluntary contributions made to the fund,*

University of Ghana http://ugspace.ug.edu.gh

- *Money that accrues to the Fund from investments made by the Authority*
- *Fees charged by the Authority in the performance of its functions;*
- *Contributions made by members of the Scheme; and*
- *Moneys accrued under section 198 of the Insurance Act, 2006 (Act 724).*

2.2: National Health Insurance Scheme in Kenya

Health insurance in Kenya is operated through three health scheme programs: Public Health Insurance, Private Insurance Firms and Community-based Health Insurance (CBHI) organizations. Private health insurance is mainly patronized by the middle and higher-income groups. Community-based health insurance on the other hand was established in 1999 and was comparatively new in Kenya; as a result, it has a limited coverage. The other insurance scheme is the Community-Based Health Financing Association (KCBHFA). As at 2005, there were 38 CBHF schemes, with 100,510 subscribers who accounted for a total of 470, 550 insured beneficiaries. This is insignificant as it only accounted for 1.2% of the total Kenyan population.

Kenya has one public health insurance scheme, the National Health Insurance Fund (NHIF). This is the non-for-profit organization created by the Kenya Act of Parliament in 1966 as a department in the Ministry of Health. NHIF was intended to provide accessible health insurance for salary public and private sector employees earning a monthly salary of Ksh 1,000. Since its commencement, the NHIF has been subjected to several variations over the years to include more benefits, target households of informal sector, and to establish outpatient care (Carrin &Chris, 2005)

University of Ghana http://ugspace.ug.edu.gh

Jacobs, et al., 2012 also reviewed the Kenya Health Insurance Scheme, and came up with following explanation. In 1998, relevant laws were abolished and replaced by the NHIF Act No. 9 of 1998. This resulted in the Fund being transformed into an independent State Corporation, managed by a Board of Management. Membership to NHIF is according to households and the insurance unit, which comprises the entire family and dependent relatives. The number of spouses is limited to one, with the exception to the number of children and other dependents. It is only those who work in the household that contribute to the scheme. In families where two (or more) members are working and receiving salaries, they all have to pay contributions to the NHIF. Privilege to health care services takes into cognizance all dependent household members. Children under 18 years becomes an automatic beneficiary of the NHIF through their parents' membership. Children over 18 years must indicate their dependency through schooling certificates. The scheme faced a major challenge of integrating the growing informal sector and addition of the poor. The National health insurance is mostly limited to urban communities, where the private formal sector is concentrated, with outpatient and preventive services currently excluded.

Even though the NHIF Act mandates the fund to outpatient care, coverage to non-hospital health benefits is yet to be implemented. These challenges were likely to be a reason for informal sector workers not willing to enroll in NHIF since outpatient service alone might not be adequate for their health care needs.

2.3: **National Health Insurance in Germany**

A Comparative Study of Four European Countries conducted by Jacobs & Goddard in 2000 reviewed briefly the National Health Insurance Scheme in Germany and considered their

University of Ghana http://ugspace.ug.edu.gh

system as the one which is operated at different levels. The first level is the federal level. In this level, subjects of equity, comprehensiveness and the principles for providing and financing social services are regulated. They have a Social Code Book (SGB) which regulates all statutory social insurance schemes, but fall within the authority of different ministries. The Social Code Book comprise various regulated statutory insurance schemes in the new eastern states since 1991, with the exception of certain temporary regulations. The Social Code Book controls the following concerns: compulsory and voluntary membership in sickness funds, composition of the sickness funds' benefit package, discussions between sickness funds and providers (most particularly physicians' association), organizational structure of sickness funds and their interrelations, and financing mechanisms. The code also regulates medical review boards, data collection, storage, use and its protection.

Another level of NHIS regulation in Germany is the state level. Here, the state governments are liable for maintaining hospital infrastructure through hospital-based financing mechanism which are paid to ownership of the hospitals according to the state's priorities. However, it is unclear whether the states are liable for maintenance and repairs of building and other projects. Most states refused to pay for these funds since 1993 and this called for the introduction of second Statutory Health Insurance Restructuring Act, which is a yearly uniform premium to be paid by all insured people and which is geared towards the restoration and maintenance of hospitals. This annual fee was however abolished in 1998.

The last level is the corporatist level. In this mechanism, corporatist institutions have a pivotal position within the statutory health insurance system. Their responsibility is to raise contributions from members, negotiating prices, and quality assurance measures with

University of Ghana http://ugspace.ug.edu.gh

providers for their members. Benefits covered by the scheme are usually accessible to all insured members without prior permission from the funds (except in the case of rehabilitative care and short-term nursing care). As a universal rule, the coverage of the services which can be reimbursed through the sickness funds and the financing mechanisms are firmly regulated legally, but this is mainly done through negotiations between providers and sickness funds.

2.4: **NHIS enrolment and Renewal**

Individual's access to health insurance is anticipated to have a constructive effect in improving access to healthcare services in Ghana and compromise financial risk protection to vulnerable households. Ghana initiated the implementation of a National Health Insurance Scheme (NHIS) in 2004 as a mechanism to ensure equitable access to fundamental healthcare for all citizens. After a decade of its execution, national coverage is just 40% of the national population (Kusi, Enemark, Hansen, & Asante, 2015). The result of this study shows that 66% of uninsured households and 70% of inactive insured households could not pay for full insurance for their members.

The study also indicated that NHIS enrolment in all family members would contribute to 5.9% and 2.0% of household non-food expenditure or overall expenses.

World Health Organization (WHO) member states espoused a resolution, which encourages countries to advance sustainable and equitable health financing systems proficient of achieving universal coverage. It defined universal coverage as securing access for all to appropriate promotive, preventive, curative and rehabilitative services at an affordable cost. Most under-developed countries have embarked on health financing

University of Ghana http://ugspace.ug.edu.gh

reforms which has equity as part of their guiding principles. Wider health system issues need to be tackled as part of a design process in order to achieve equity in health financing and access to the NHIS. In order to ensure equitable access to health care, improving availability of human and material resources and addressing disparities in distribution should be paramount (Orem & Zikusooka, 2010). The primary policy objective for the National Health Insurance Scheme (NHIS), as indicated in the Ghana National health Insurance Policy Framework 2004:

> "*Within the next five years, every resident of Ghana shall belong to a health insurance scheme that adequately covers him or her against the need to pay out of pocket at the point of service use in order to obtain access to a defined package of acceptable quality of health service"* (NHIS, 2004).

A comprehensive deduction can be made from Health Insurance in Kenya which is stipulated to be very low and encompasses both mandatory and voluntary insurance schemes. Only about 10% of Kenyans have health insurance.

This was observed, as the health insurance coverage was higher among the urban population (19.7%), compared to the rural population (7.4%) (Chuma, & Okungu, 2011).

Adei, Amankwah, & Sarfo-Mireku, (2015) revealed these findings in their study conducted in Sekyere south district in the Ashanti Region of Ghana, that almost 73.9% of heads of household interviewed had registered under the NHIS in the Sekyere South District. Out of these numbers 25.5% had not renewed their cards. The survey findings attributed this to the fact that the renewal processes took too long a time and that they spent an extra health care cost while waiting for their NHIS cards to be renewed.

University of Ghana http://ugspace.ug.edu.gh

Study results by Atinga, Abiiro, & Kuganab-Lem, (2015) showed that the proportion of NHIS non-renewal increased from 6.8% in 2008 to 34.8% in 2012.

2.5: **NHIS related factors that influence subscriber's decision to renew NHIS**

To enroll or subscribe in health insurance program, paying premiums are required. The collective premiums comprise the funds upon which the insurance scheme depend on in order to reimburse subscribers who use insured health care services. Yet, lack of money to pay for the premium is the major obstacle why some people do not enroll in NHIS or renew their subscription. Payment scheduling can also contribute to the problems. It is again suggested that annual premium payments could be spread throughout the year instead of a lump sum; where most individuals find it difficult pay. (Morestin, & Valéry-Ridde, 2009)

A study conducted by Atinga, Abiiro, & Kuganab-Lem, (2015) indicated that, NHIS provider factors emanating from the organization and management of health insurance schemes can serve as motivation or demotivation to individual enrolment and subscription retention. These factors include characteristics such as premium cost, subscribers' renewal processes and bureaucratic registration process which can result in membership withdrawal from NHIS. The study results again showed that the proportion of non-renewal increased from 6.8% in 2008 to 34.8% in 2012. The main reason for dropping out was due to unaffordability of the premium, occurrence of rare illnesses that were not captured under the scheme, limited benefits to the scheme and poor quality of health care service.

A study conducted by Kusi, Enemark, Hansen, & Asante, 2015 revealed a common characteristic among Lower and Middle Income Countries experiencing low enrolment in voluntary health insurance schemes.

University of Ghana http://ugspace.ug.edu.gh

The study ascribed these menace to several contributory factors including inadequate subscriber information, lack of understanding of how NHIS works and the intended financial security package to subscribers. They also attributed this problem to lack of trust in insurers, supposed pitiable quality of health care services to its members, poverty, exorbitant premium charges, unfavourable timing required for the payment of premiums, institutional rigors, and lack of formal education. They further observed that most of challenges to the use and retention of NHIS in Ghana can be linked to the problems of affordability of premium and registration fee (i.e. NHIS contributions).

Another study conducted by Boateng & Awunyor-vitor, in 2013 produced a report that shows that most (38%) of respondents found it very difficult to identify the location of the NHIS office. The study further indicated that high individual perception related to difficulties in locating NHIS office is the potential tool that may discourage NHIS subscribers from renewing their premiums.

Again, majority (30%) of the respondents considered the opening hours of the scheme's office to be uncomfortable. The Convenience of NHIS card collection was identified to have statistically significant Correlation with respondents' decision to either renew their NHIS cards or not. Respondents who had not renew their insurance premiums attributed their status to poor quality of health care service at various facilities, financial difficulties to renew insurance premium and the degree of experience to other sources of health care. The study therefore concluded that inability to meet the expectation of clients about quality of health care services at the individual health facilities can influence their decisions not to renew their insurance premiums.

University of Ghana http://ugspace.ug.edu.gh

A cross sectional study conducted by Aryeetey *et al*. (2010) in Ghana using sample population of 13, 867 individuals, comprise an average age of 25 years with the mean monthly individual income of GH ¢ 43.70. The study indicated that this amount constitute thrice of what is needed to renew NHIS membership. The study considered this as a very difficult situation as most individuals especially the poor and other vulnerable people required an amount of GH ¢ 14.00 to renew NHIS premiums annually with an extra registration fee of GH ¢ 3.00. Individual's inability to afford NHIS premiums was cited as one of the main reasons for not enrolling (72%) and not renewing premiums (61%).

Schultz, (2016) also conducted a study that pointed out that the legislation for NHIS (Act 650) in Ghana specifies how insurance premiums should be categorized among the people with different socio-economic status. The survey evidence again that NHIS premiums are slightly higher for urban dwellers as compared to rural residents, and recorded a lower rate in the Northern region.

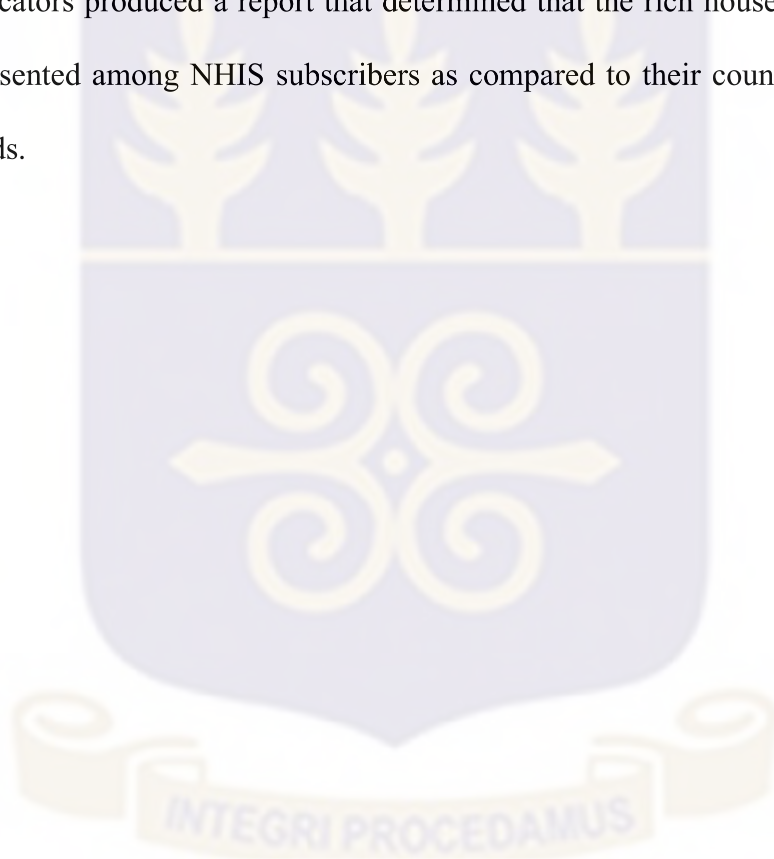
He considered distance from individual residence to the NHIS office to be another obstacle to enrolment. The study result suggested that access may be enhanced if more NHIS registration offices are provided in sparingly populated districts with good public transportation system in order to reduce travelling cost.

Again, another study by Defourny, & Failon 2008, revealed that periodicity of the payment of premiums seems to influence individual decision to enroll and renew NHIS premium. Certainly, it seems that the compulsion to pay for the NHIS subscription fee and/or the annual membership premiums renewals creates an important obstacle among individuals with large family size.

University of Ghana http://ugspace.ug.edu.gh

Most households expressed their willingness to spread the NHIS premium payments throughout the year. This becomes more critical because of future variation of income. Therefore, payments during the harvest period seems to be more appropriate.

Wiesmann & Jütting (2000) measures the standard of living of households by taking into consideration three separate indicators which include households' income, their yearly expenditures and the opinion of wealthy people in comparison to other poor villagers. The three indicators produced a report that determined that the rich households are markedly less represented among NHIS subscribers as compared to their counterparts in the poor households.



University of Ghana http://ugspace.ug.edu.gh

2.6: Health facility related factors that influence NHIS renewal

The National Health Insurance Scheme's policy package provides a comprehensive package that covers a broader scope of outpatient services with their corresponding drugs and laboratory investigations. Other services include inpatient care, treatment of cervical and breast cancers, basic oral health care services, eye care services, maternal care services, and all other emergency conditions (NHIS, 2009). Despite this package, insured people still report paying for services which hitherto should have been covered under the insurance package, such as consultation fees, laboratory charges, and drugs procured at the health facility. This trend is a clear indication that proposes that the NHIS does not totally protect its members from "Out of Pocket" payment at the point of health care service. As compared with the uninsured individuals, insured people rather pay extra more charges for services not captured by the health insurance. These items include informal care, payments to service providers that are not sanctioned, and purchase of prescribed drugs outside the health facility. This clearly stipulates that the exorbitant charges spent on informal health care by the insured individuals obviously suggest that insured people may indeed pay more than the uninsured. (Nguye, Rajkotia & Wang, 2011)

It has been established that majority of the poor in developing countries live in rural areas. Sometimes health facilities are instituted but they remain less functional due to absence or limited health workers or medicines, and inadequate financial allocation to run the new health facilities. With the provision of this scenario, an individual may consider a health facility as unavailable, which could probably impact their responses. (Pariyo et al, 2009)

University of Ghana http://ugspace.ug.edu.gh

According to Blanchet, Fink, & Osei-Akoto, 2012, NHIS policy in Ghana does not cover some very costly medical interventions such as certain surgeries, cancer treatments (other than breast and cervical cancer), organ transplants, and dialysis; unimportant services include beautifying surgery; and some high profile items such as HIV antiretroviral drugs.

A research conducted by Ibiwoye & Adeleke, 2008 on whether NHIS promote access to health care, revealed that about 60% of respondents agree to the fact that they are faced with a lot of challenges with their health care providers. A substantially higher proportion (37.8%) attributed the challenges to long queues at health facilities while some (19%) were not comfortable with the way they are received by health workers. A high percentage of 18.1% put the blame on poor treatment at health facilities. The poor staff attitude resulted in about 42.3% of respondent's intention to change their health facilities as compared with 11.5% who decided to resort to self-medication.

The 2008 Citizens' `Assessment report to obtained individual views on NHIS in terms of providing affordable healthcare for all and how the scheme can be improved, a nationwide representative of 1,988 households, comprising 8,644 respondents, and an additional 920 patients discharged from healthcare facilities were interviewed. The report indicates that being an NHIS card bearer enhances one's chance of seeing high-quality health care professionals such as doctors and physician assistants as compared to consultations at drugstores and other traditional providers (NDPC, 2009). The study further indicated that people who have registered with NHIS and are active members visit healthcare facilities with sickness more often than those who have not subscribed to the NHIS. Again, the report positively stipulated that majority of the insured households were very satisfied with the performance and operations of the scheme.

University of Ghana http://ugspace.ug.edu.gh

According Bour, in 2004, extents of distance to services, which include travel time, waiting time, appointment time with a doctor, nature and means of transport, and cost, have effects on accessibility and utilization of health care. Distance, on the other hand has an opposite association with health service utilization. The poor road nature in rural communities during the rainy season increase transport costs. He further said that most health facilities are generally instituted in the urban districts. Even few rural areas served with hospital facilities, lack specialist services.

A study conducted by Parito et al, 2009 stipulates that poor geographical access to health facilities could a major impediment for seeking health care services. Although they cited distance as an avenue for not seeking health care, it was decreased by 43% among the rural dwellers.

A study conducted in Ghana by Ferry et al, 2012 found that eliminating user fees for deliveries has the direct positive impact to narrow the equity gap for the deliveries at health facilities. Additional expense such as transportation cost still remained very crucial and provide a signal that only the rich are more probable to deliver in a health facility relative to their poorer complements. They further revealed that unapproved fees, transportation expenses, or other likely lost income for family members may contribute to the remaining inequities. The study further on cited an example, in relation to a research conducted in the Tanzania which stipulated that, on average, the cost of deliveries at a government health nearly 4.20 USD. Although there were fee exemption for obstetric care, approximately half of the cost of deliveries of Government health facilities can directly be linked to the unapproved fee charges and transportation expenses.

University of Ghana http://ugspace.ug.edu.gh

These expenses have the capacity to influence low health care utilization by clients who have been captured under the category of fee-exemption. This can further go a long way to worsen the economic difficulties of the poor and other vulnerable groups as compared to the other wealthy patients who seek medical services from the same health facility.

A study conducted by Thiede et al. (2007), to research into the problems aimed to study aberrant of health care funding and the spreading of health services assistances in Ghana, Tanzania and South Africa, revealed that all the three countries' public and private hospitals and other health care facilities with up-to-date and innovative technology are indeed situated in bigger towns. This makes accessibility more challenging for the poor and other vulnerable groups who are located in isolated places. These disadvantaged group of people are more likely to use nearer health facilities instituted in sub-districts where access to health workers and other medical supplies are inefficient.

A study conducted by Adei, Amankwah, & Sarfo-Mireku, (2015) showed that among the individuals who are preferred to pay for health care cost when they visit health facility to seek health care, more than 24% attributed their refusal to renew their NHIS premiums to long waiting time at health facilities. They explained that formerly they spent comparatively shorter hours (less than 3 hours) at the health facility but after the inception of the NHIS, time spent at health facilities has gone beyond 3 hours

A survey conducted by Nii Nuetey Noi, (2012) in Ghana came out with findings on whether respondents prefer the cash and carry system to the NHIS. Most respondents (88%) agree to the fact that the NHIS is for the poor and the vulnerable in society.

University of Ghana http://ugspace.ug.edu.gh

They were also of the view that the poor and other disadvantaged in the society may not be able to pay for health care but have the ability to pay their premiums once in a year and then benefit from it all year. Seventy-one percent of the respondents complained that health care provider deliberately ignore NHIS card holders to attend to NHIS non-subscribers who are ready to pay for health care.

2.7: Individual related factors to NHIS renewal

The Ghana Demographic Health Survey in 2008 indicates that NHIS coverage for women within age category of 15 to 49 years stood up to 39% and 29% of the men in an age category between 15 to 49 years (GSS, 2009). According to the study conducted by Ghana Living Standards Survey (GLSS) 6 in 2012 indicated that 71% of females and 64% of males have registered for the NHIS (Ghana Statistical Service, 2012). A study conducted by Ahuja in 2004 stipulated a weak relationship between enrolment in health insurance scheme and individual assessment of health. It came out that women who consider their own health status as "poor" is slightly more likely to subscribe to the NHIS as compared to women who also considered their health status as “good” and “fair”. He described age as the best indicator for NHIS enrolment. Twenty five percent of women aged 30 years and above have enrolled in NHIS with no exception to women over the age of 60 years with the percentage of 45%. The study again indicated that, women with active NHIS card are considered to be more educated and older as compared to women with no NHIS subscription. He included that wealthier Ghanaians are presently have the capacity to pay for NHIS premiums as compared to poorer Ghanaians, which is in agreement with the NHIS policy statement that states that payment of premiums vary by one’s income.

University of Ghana http://ugspace.ug.edu.gh

According to Boateng & Awunyor-vitor, (2013) the likelihood of women to renew their health insurance is significantly more as compared to their male counterparts. This was attributed to the fact that women are more susceptible in society in terms of health care financing and therefore tend to subscribe to health insurance for maximum risk sharing. The reasons were again linked to the fact that Women are care-givers for children and other vulnerable groups in the community, tied with their state of vulnerability and physiological make up; are more likely to register for national health insurance scheme as compared to their male counterparts. Results from this survey also reported the impact of one's marital status on decision to register for insurance scheme and or to renew their health insurance premiums.

A study conducted by Adei, Amankwah, & Sarfo Mireku, 2015 in Sekyere south district of Ashanti Region in Ghana revealed the following results: the participation rate of NHIS for males was 41% to 59% in favour of the females. This could be ascribed to the possibility that, by gender, women are faced with more health problems and may be most critical in subscribing to NHIS to ensure financial risk sharing as compared to their male counterparts. The study further observed that out of the 379 heads of household interviewed, 68.9% at least had their education up to the basic education level. In terms of respondent's educational level by gender, it was realized that 59.7% male respondents and 40.3% female respondents could make an informed decision because they could read and understand English language.

Study conducted by (Wanja & Pongpanich, 2012) showed no substantial differences in the demographic characteristics between the insured and non-insured respondents.

University of Ghana http://ugspace.ug.edu.gh

Some distinguished differences were in the household characteristics, as households in the moderate and higher income groups (33.3%) tend to enrolled in NHIS than the non-insured (23.3%). Women enrolment in the Scheme was considered to be high (61.9%) in comparison to insured men (38.1%). The number of NHIS subscribers were seen to be higher among the married (73.8%) as compared to the unmarried (26.2%). The study further revealed that the majority (65%) of the insured individuals who had one or no child, tend not to subscribe to the scheme relative to 61% of respondents who had given birth to five children or more who said that they have joined the scheme so that they could do away with out-of-pocket payments whenever they are sick. These results clearly indicate that enrolment to the health insurance scheme was related to a perceived health care financial risk sharing.

A study carried out by Dong et al. (2003) in Burkina Faso indicates that men are willing and capable to pay to subscribe to NHIS more as compared to women due to the fact that women have on average lower education and income levels and the fact that women don't take decision in households. Older people on the other hand would be willing to pay less than younger people for a mutual health insurance because they are financially incapable to pay.

A study conducted by Boateng & Awunyor-vitor, 2013 in Ghana revealed that subscribers aged below forty years, were significantly indicated to report rare health condition and attribute this as a reason for dropout. On the other hand, subscribers fifty years and above did attribute dropout to service quality. It was again found that report of rare health conditions to health facilities played a significant role for NHIS subscriber's dropout by those who are not married.

University of Ghana http://ugspace.ug.edu.gh

The findings continued to indicate that non-renewal of the NHIS premiums increased as the year of the NHIS operations increase. They further reported to have considered this finding to be disturbing as this inhibits the attainment of universal health coverage proposed by the scheme. They therefore considered the pattern of non-renewal of NHIS premiums as the key factor that affects the scheme's effort in attaining the active membership to at least 50% of the population in Ghana.

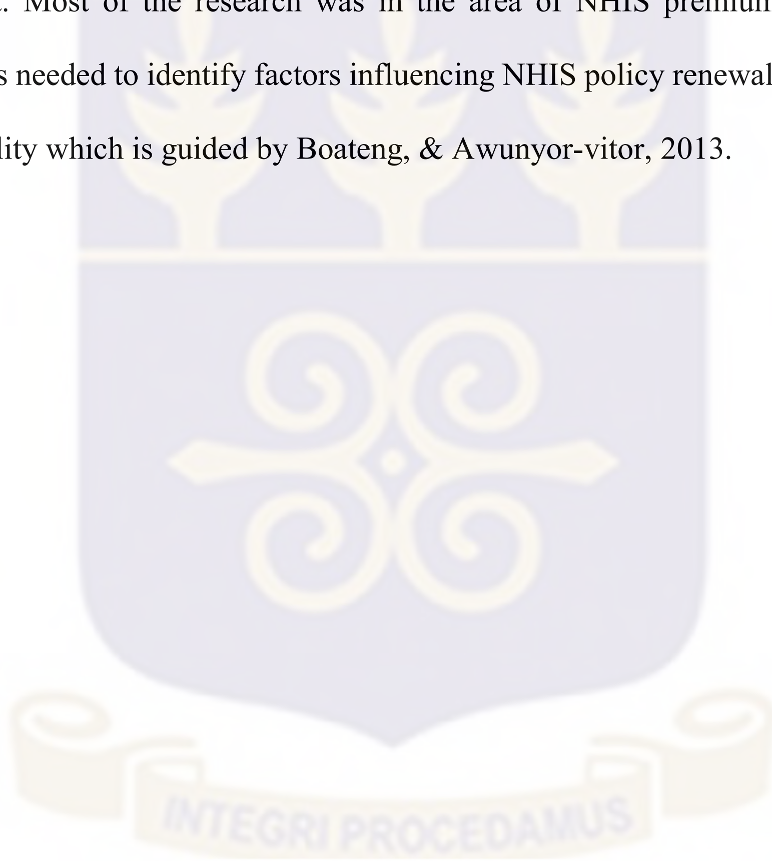
In conclusion, the reviewed literatures provided a number of knowledge gaps on the NHIS premium renewal in Ghana. Notable among them include lack of understanding of how NHIS works and the intended financial security package to subscribers. Others include the reasons why the number of NHIS subscribers are higher among the married as compared to the unmarried and finally, why individuals who have subscribed to the NHIS may decide not to renew their NHIS cards a year thereafter. Another important NHIS sustainability threat discussed in the literature is poor quality of health care services in NHIS-accredited facilities, lack of money to pay for the premium, obstacles in subscribers' renewal processes and bureaucratic registration process.

These were some of the knowledge gaps that informed this study and which I also recommend to future researchers. The reviewed literature again considered various study methods. Some of these methods were seen as beneficial while others also brought up some limitations to their respective studies. For example, a study conducted by Morestin & Ridde, 2009 on how the poor can be better integrated into health insurance in Africa, used systematic review of records from 1988 – 2008. Though this method was able to identify the proportion of respondents who were not able to renew their NHIS premiums, it could not identify some of the contributory factors that led to those actions.

University of Ghana http://ugspace.ug.edu.gh

Again, Boateng, & Awunyor-vitor, 2013 conducted a study on evaluation of NHIS policy holders' perceptions and factors influencing policy renewal in the Volta region using cross sectional studies. The study method gave all the individuals in the study area an equal chance to be part of the study and also gave the researcher an opportunity to probe for further responses from the participants.

There has been research conducted on NHIS including factors influencing NHIS enrolment. Most of the research was in the area of NHIS premium renewal. More of research is needed to identify factors influencing NHIS policy renewal in Kintampo North Municipality which is guided by Boateng, & Awunyor-vitor, 2013.



University of Ghana http://ugspace.ug.edu.gh

CHAPTER THREE

METHODS

3.1: Study Design

A cross-sectional study was used to collect data on proportion of individuals who have registered for NHIS and proportion NHIS subscribers who have renewed their premium. The design was also used to collect data on NHIS provider factors, health facility related factors and individual factors that influence NHIS premium renewal. A questionnaire was developed to collect data on factors influencing NHIS premium renewal. Data was analyzed to determine the factors influencing NHIS renewal.

3.2: Study Area

3.2.2: Population size

Kintampo Municipality has a total population of 95,480 comprising 47,302 (49.6%) male and 48,178 (50.4%) female (GSS 2014). It is projected that the Kintampo North Municipality has a population density of 21.75 persons per every square kilometre. The total number of people aged between 15 years and 99 years sum up to 54,974.

Kintampo Municipality is found between latitudes 8º45'N and 7º45'N and Longitudes 1º20'W and 2°1'E. It has five other districts it shares boundaries with, include Central Gonja District to the North; Bole District to the West; East Gonja District to the North-East, Kintampo South District to the South; and Pru District to the South- East. The Municipality has a surface area of about 5,108km². When it comes to location, the Municipality is decisively located at the Centre of Ghana and serves as a waiting point for most travelers from the northern and southern parts of the country.

University of Ghana http://ugspace.ug.edu.gh

3.2.3: Health Facilities

The Kintampo North Municipal has only one (1) Hospital, two (2) Health Centers, two (2) Rural Clinics, nineteen (19) CHPS compound and one (1) Maternity Home. These facilities are anticipated to provide health care service to a population of 95,480 comprising 47,302 (49.6%) male and 48,178 (50.4%) female with a total land surface area of 5,108sq km. One Nurse is expected to provide health care to 4,781 Patients. The Municipality has a population growth rate at 2.6%.

3.2.4: Health Insurance Scheme in Kintampo Municipality

The Kintampo Municipal Health Insurance Scheme (KMHIS) is one of the well-established District-wide Health Insurance Schemes in the Brong Ahafo Region of Ghana. The Scheme came into force in 2004 in retort to the Government's exertion to make healthcare services affordable and accessible to all residents of Ghana. The Scheme held its first General Assembly on the 7th October 2004, to publicize and enforce its constitution and Bye-Laws, and took the advantage to appoint its Board of Directors and used the opportunity to set NHIS Premium and Registration fees. In 2004, though the district was divided in Kintampo North and Kintampo South, the Scheme's activity were managed together until 1st March, 2006, when the Scheme was split to take care of the north and the south. The Scheme has registered with the Registrar General Department as a Company Limited by guarantee as mandated by the Act (Act 650) and the Legislative Instrument (LI1809). It has appropriately obtained certificates which include the certificate of incorporation and the certificate to Commence Business with registration number G15, 574. As indicated in the National Health Insurance Policy Guideline, the Scheme has an engrained structure. These

University of Ghana http://ugspace.ug.edu.gh

structures comprise the General Assembly, the Board of Directors, Management Staff and Community Committees. The General Assembly is the highest decision making body of the Scheme. The General Assembly is the representatives of all registered clients in each community in the Municipality. The Scheme is governed by fifteen (15) - member Board of Directors. They were automatic members of the General Assembly. (KMHIS, 2010). According to KMHIS report in 2015, the scheme has made a total enrolment of 66,017 out of expected number of 95,480 individuals. Total NHIS renewals in the municipality stood at 24.4% of total enrolment.

3.2.5: Relief and drainage

The Kintampo North Municipality is situated within the Volta Basin and the Southern Plateau physiographic regions. It is consist of a simple but undulating and packed land surface which has an overall altitude ranges from 60-150m above sea level. The southern Volta plateau which dwells in the southern part of the Municipality is categorized by series of ridges. These features made the Municipal gifted with a lot of water bodies. The famous water bodies comprise the Fra, Urukwain, and the Nyamba rivers. Others include Oyoko, Pumpum and Tanfi. These water bodies have their sources from the west part of the Municipality which join the Black Volta at Buipe. The municipality is also gifted with two water falls which include the Fular Falls on the Oyoko River and the Kintampo water falls on the Pumpum River.

Figure 2: The map of Kintampo North Municipality

University of Ghana http://ugspace.ug.edu.gh

3.2.6: Climate

The Municipality is challenged with the Savannah sort of climate, which is the adapted form of the Tropical Continental or the Wet-Semi Equatorial type of climate. This is entirely because of the reason being that the Municipality is in the transitional Zone. The average yearly rainfall falls between 1,400mm-1,800mm and this happens in two different seasons; the rainy season and the dry season.

3.2.7: Vegetation

The Municipality falls under the Interior Wooding Savannah or Tree Savannah. Due to its transitional nature, the area does not completely display typical savannah conditions. The savannah in this Municipality is heavily wooded. It is thought that the transitional zone was once forested and that the savannah conditions recently dominant have been the end result of human's activities. The presence of "fringe forest" located along the banks of major rivers and streams are minimal.

3.2.7: Traditional set up

The Kintampo North Municipal has two main traditional paramount systems, which include the Nkoranzamanhene and the Momanhene. Each of these paramountcies has divisional chiefs under them. The Mo traditional council has 19 sub chiefs and Nkoranza has over 30 sub chiefs. The ethnic composition of the Municipal is broadly heterogeneous with the Mos and Nkoranzas being the custodians of the land. There are however, other large proportion of northern tribes coupled with other tribes such as Akan tribes, Ewes, Gas and others.

University of Ghana http://ugspace.ug.edu.gh

The Municipality celebrate Festivals include the Yam festival by the Mos, Nkyefie festival of the Bonos, Damba festival of the Dagombas and Gonjas, Munufie festival by the Nkoranzas. The Krubi festival by the Wangara settlers in Kintampo.

3.2.8: Values and taboos

Taboo systems in the Kintampo Municipal vary from one tribe to another. They are important because of its socioeconomic implication. The Mos has a believe that anyone who farms on Friday will invoke himself certain calamities; the Bonos also have Tuesday as sacred day, anyone who goes to farm on this day will suffer the wrath of the earth gods. The Mos also believe that an individual who sets fire to the bush around Old Longoro (the traditional headquarters) will die unless he or she appease. Another taboo is that any black goat that gets to the Mo Land is slaughtered to pacify the gods.

3.2.9: Agriculture

Farming is the principal occupation in the Kintampo North Municipal. Majority of the population are involved in agriculture and its associated activities. Yam is the major food stuff in the municipality and comprises the major income every community can boast of. Other farmers also engaged in growing Maize, Cowpea, Cassava, Rice, Plantain, Groundnut and Beans. Cashew and Mango are the main cash crops which have potentially increase the incomes of farmers in the area

University of Ghana http://ugspace.ug.edu.gh

3.3: Variables of the Study

3.3.1: Dependent Variable

The dependent variable of interest was NHIS premium renewal

3.3.2: Independent Variables

The independent variables of interest collected were varied and grouped into three categories included in Table 1

Table 1: Factors that influence NHIS premium renewal

NHIS related factors	Health facility factors	Individual factors
Cost of NHIS Premium	Client waiting time.	Religion
NHIS Premium Renewal Interval	Staff attitude.	Educational level
Number of renewal centers	Drug list limited to few health conditions.	Marital status
Long queues at Renewal centers		Ethnicity
		Trust to the NHIS
		Sex
		Age

University of Ghana http://ugspace.ug.edu.gh

Table 2: NHIS related factors and how they were measured

Variable	Operational Definition	Scale of Measurement	Source of data
NHIS related factors:			
Cost of NHIS premium	The NHIS subscription fee.	Discrete	Interview
NHIS renewal centers	Number of renewal centers in the community	Discrete	Interview/record review
NHIS renewal interval	Period required to renew NHIS	Continuous	Interview/record review
Queues at renewal centers	Waiting time at NHIS renewal sessions	Discrete	Interview

Table 3: Health facility related factors influencing NHIS renewal and how they were measured

Variable	Operational Definition	Scale of Measurement	Source of data
Client waiting time	Maximum number of hours NHIS subscriber spend at health facilities	Continuous/ discrete in hours	Interview
Attitude of staff	Staff behaviour towards patients with NHIS at health facilities	Ordinal(binary) Good attitude Bad attitude	Interview
Drug list indicated for health conditions under NHIS	Health conditions captured to be reimburse under NHIS	Discrete	Interview/record review

University of Ghana http://ugspace.ug.edu.gh

Table 4: Individual related factors influencing NHIS renewal and how they were measured

Variable	Operational Definition	Scale of Measurement	Source of data
Age	Age of respondent at last birthday	Continuous-discrete in years	Interview
Sex	Biological make-up	Nominal Male female	Interview/ observation
Educational level	Respondent formal highest education attained	Ordinal None Primary Secondary Tertiary	Interview
Employment status	Occupation of respondents	Nominal Employed Unemployed	Interview
Marital Status	Respondent's legal marital status	Nominal Married Single Not married	Interview

University of Ghana http://ugspace.ug.edu.gh

3.4: Study Population

The study population comprised individuals 18 years and above who had registered for NHIS in Kintampo North Municipality and had consented to take part of the study.

3.4.1: Inclusion criteria

Individuals 18 years and above who had registered for NHIS in Kintampo North Municipality and had consented to take part of the study

3.4.2: Exclusion criteria

Individuals 18 years and above who were very sick, mentally retarded, and deaf (because of difficulty in sign communication) at the time of data collection.

3.5: Sample Size Determination

The sample size of the study was determined by adopting a sample size calculation formula for a cross sectional study for infinite population.

$$n = \frac{Z^2 p (1-p)}{d^2}$$

Where:

n = sample size,

Z = Z statistic for a level of confidence: 1.96

P = expected prevalence or proportion: 0.24

d = precision: 5% margin of error (d=0.05)

University of Ghana http://ugspace.ug.edu.gh

According to the Kintampo North Municipal Health Insurance Scheme (2015), subscribers who renewed their NHIS premiums in the Kintampo North Municipality was 24%.

According to Ghana Statistical Service Report in 2014, the total population for individuals aged between 15 years and 99 years in Kintampo North Municipality stood at 54,974. Considering these assumptions, the actual sample size for the study was calculated using the formula:

$$n= \frac{1.96^2 \times 0.24\ (1-0.24)}{0.05^2} = 280$$

Accounting for 10% non-response rate, the total sample was estimated to be 308 (280 + 28). The 10% non-response rate was projected because some respondents considered this study as a political discourse and may not be willing to participate.

3.6: Sampling Method

A multi-staged sampling technique was used in this study. Kintampo Municipality has six sub-districts. The various sub-districts were zoned into clusters; each sub-district represented a cluster. Simple random sampling technique was used to randomly select three clusters out of six clusters. In each selected sub-district, two communities were selected randomly and the eligible target population living in households of these communities were interviewed by consent using simple random sampling technique.

In the selected community, the various houses were randomly selected based on the available house numbering system. One household was randomly selected in each house visited and eligible respondents were selected by checking their NHIS subscription cards.

University of Ghana http://ugspace.ug.edu.gh

In a situation where there were more than one eligible person in a household, one of them was randomly selected by simple balloting. The same method was used in all the sub-districts visited

3.7: Data Collection Method and Tool

The respondent was interviewed using a structured questionnaire. The individual items on the Questionnaire were designed to capture information on individual characteristics, the proportion of population who have registered for NHIS and subscribers who have renewed their NHIS. The same tool and design was used to collect information on NHIS provider factors and health facility related factors influencing NHIS premium renewal.

A checklist was used to review records at the Kintampo North Municipal Health Insurance Scheme's office. The questions were constructed in English language and translated into Twi language during the administration process by data collectors. The tool was pretested among 25 eligible individuals in the Kintampo South District. Any uncertainty was corrected to depict the objectives of the study and ensured that accurate information was provided by participants. One day training was organized for data collectors on how to collect the data.

3.8: Data Management and Analysis

Descriptive Statistics – Descriptive data analysis was done using frequencies and 2*2 cross tabulation. Univariate analysis of categorical variables were expressed in the form of frequencies, proportions and percentages. Pearson Chi Square analysis was done for all the

University of Ghana http://ugspace.ug.edu.gh

factors. The variables which were significant as well as those proven to be in literature on the factors influencing NHIS renewal were put into a Multiple Logistic Regression model and run to detect significant determinants. This analysis was done using odds ratio and their corresponding 95% CI to assess association between selected independent variables and NHIS premium renewal.

3.9: Ethical Consideration

Ethical approval was sought from the Ethics Review Committee of the Ghana Health Service. Permission was also sought from the Kintampo Municipal Health Directorate and Municipal NHIS manager.

The study was to determine factors influencing NHIS policy renewal among individuals 18 years and above. Informed consent was obtained from respondents and confidentiality was assured before the study. They were fully informed about the purpose, procedures, risks and benefits of participating in the study. For participants who could not read the consent form, it was read and explained to them in the presence of an impartial witness. Participants who agreed to be part of the study were asked to sign or thumbprint the consent form as an indication of their willingness to participate. All the information obtained from this study were kept confidential and used for the purpose indicated for the study.

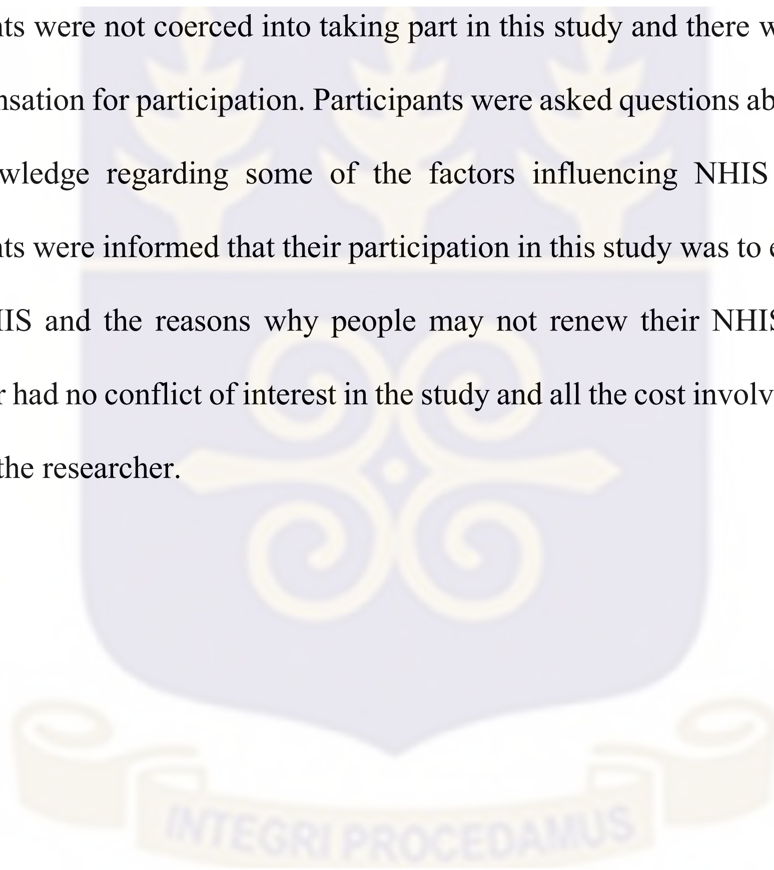
The information was securely stored without the names of the participants in a file which is accessible only to the research team. Each name was assigned an ID code and was kept confidential. The results of the study was disseminated in such a way that no information was linked to the identity of a particular participant.

University of Ghana http://ugspace.ug.edu.gh

Extraction of data from the NHIS registers was done by the principal investigator. There were no risk involved in participating in this study. The participants were however informed of possible minor discomfort in answering certain questions for which they may chose even not to answer.

Participants were informed that participation in this study was voluntary and they may withdraw at any time from the study without attracting any penalty.

Participants were not coerced into taking part in this study and there was no direct benefit or compensation for participation. Participants were asked questions about themselves, and their knowledge regarding some of the factors influencing NHIS premium renewal. Participants were informed that their participation in this study was to enable them to learn about NHIS and the reasons why people may not renew their NHIS membership. The researcher had no conflict of interest in the study and all the cost involved in the study were borne by the researcher.



University of Ghana http://ugspace.ug.edu.gh

CHAPTER FOUR

RESULTS

Chapter four presents the results of the study. This comprises demographic characteristics of respondents as well as factors influencing NHIS premium renewal. Tables and figures have been used to present the results in the form of frequencies and percentages. Statistical analysis in the form of Pearson chi square and multiple logistic regression were also conducted and the results presented in this chapter.

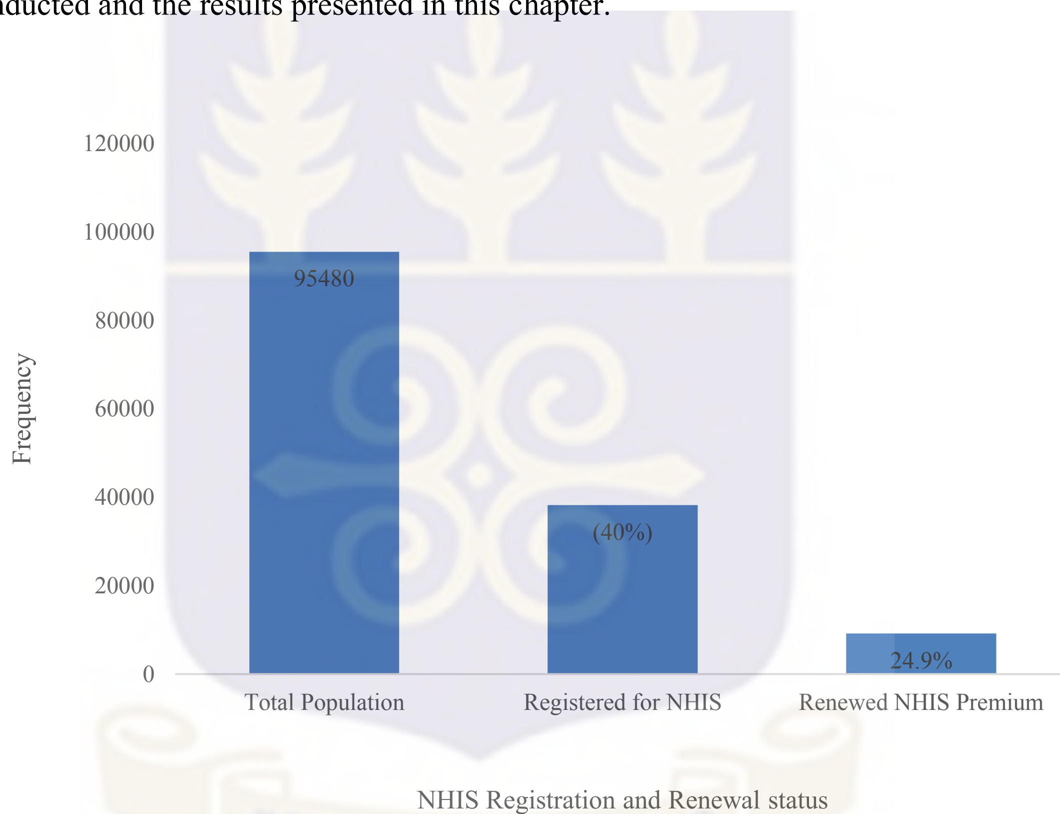


Figure 3: Proportions of NHIS Registrations and Renewals in Kintampo North Municipality in 2016.

Figure 3 shows that 40% of the targeted population in Kintampo north municipality have registered for NHIS as at 2016; 24.9% of the NHIS registrants have renewed their NHIS premiums. The Municipality could not meet its target of 54% as far as NHIS enrolment and renewal are concerned as indicated in figure 3.

University of Ghana http://ugspace.ug.edu.gh

Table 5: Distribution of NHIS Premium Renewals in Kintampo North Municipality

Variable	Number of Respondents N=308 (%)	Number with NHIS premium renewed n=115 (%)
Age of Respondents (Years)		
18-28	120(38.9)	30(26.1)
29-39	109(35.4)	48(41.7)
40-50	45(14.6)	21(18.3)
51-61	21(6.8)	9(7.8)
>61	13(4.2)	7(6.1)
Sex of Respondents		
Male	121(39.3)	39(33.9)
Female	187(60.7)	76(66.1)
Marital Status of Respondents		
Single	130(42.2)	41(26.5)
Married	158(51.3)	67(58.3)
Divorced	15(4.9)	5(4.3)
Widow/widower	5(1.6)	2(1.7)
Religion of Respondents		
Christian	198(64.3)	84(73.0)
Muslim	96(31.2)	27(23.5)
African Traditional Religion	12(3.9)	4(3.5)
Others	2(0.7)	0(0.0)
Occupational Status of Respondents		
Farming	46(14.9)	15(13.0)
Trading	124(40.3)	45(39.1)
Student	60(19.5)	25(21.7)
Professional	50(16.2)	20(17.4)
Unemployed	28(9.1)	10(8.7)
Respondents ethnicity		
Akan	143(46.4)	65(56.5)
Mo	70(22.7)	21(18.3)
Gonja	45(14.6)	10(8.7)
Others	50(16.2)	19(16.5)

Table 5 indicates that most of the respondents (38.9%) were within the age group of 18 to 28 years. The higher number of participants (60.7%) were females.

Married and Christians represented 51.3% and 64.3% respectively of the sample as shown in Table 5. Respondents who are married represented 58.3% of the total NHIS premium renewals in the sample as indicated in table 5. The greatest percentage of the sample

University of Ghana http://ugspace.ug.edu.gh

(40.3%) were traders, with few (9.1%) unemployed. Akans were the ethnic majority representing 46.4% of the sample.

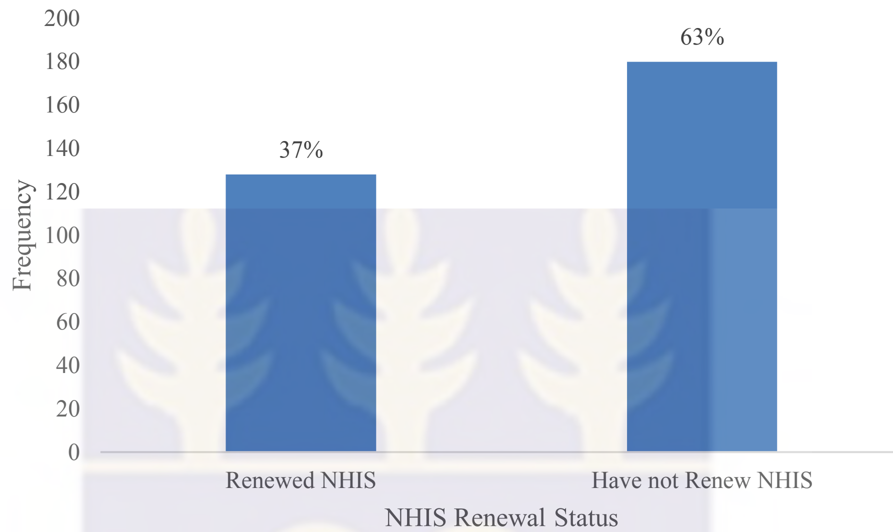


Figure 4: The Proportion of NHIS Premium Renewals in Kintampo North Municipality

Figure 4 showed that majority of the sample, representing 63% had not renewed their NHIS premiums. Thirty seven percentage of those who have registered for NHIS have renewed their NHIS premiums.

University of Ghana http://ugspace.ug.edu.gh

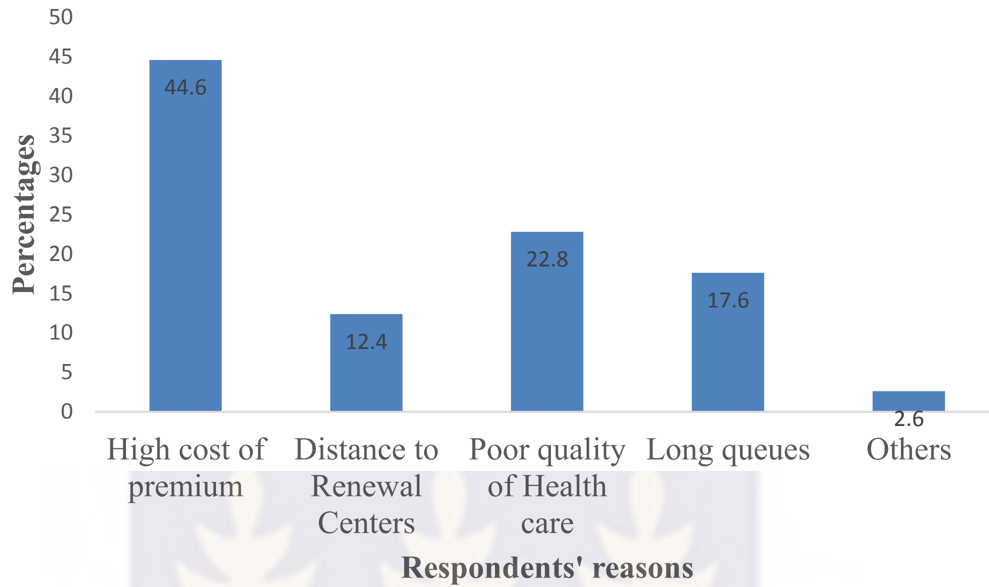


Figure 5: Respondents Reasons for not Renewing NHIS Premium

Most of the respondents (44.6%) who have not renewed their NHIS premiums indicated high cost of NHIS premiums as an obstacle to renewing their NHIS premiums as shown in figure 5. Few of the respondents (12.4%), also cited long distance to renewal centers as a reason why they have not renewed their NHIS premiums.

University of Ghana http://ugspace.ug.edu.gh

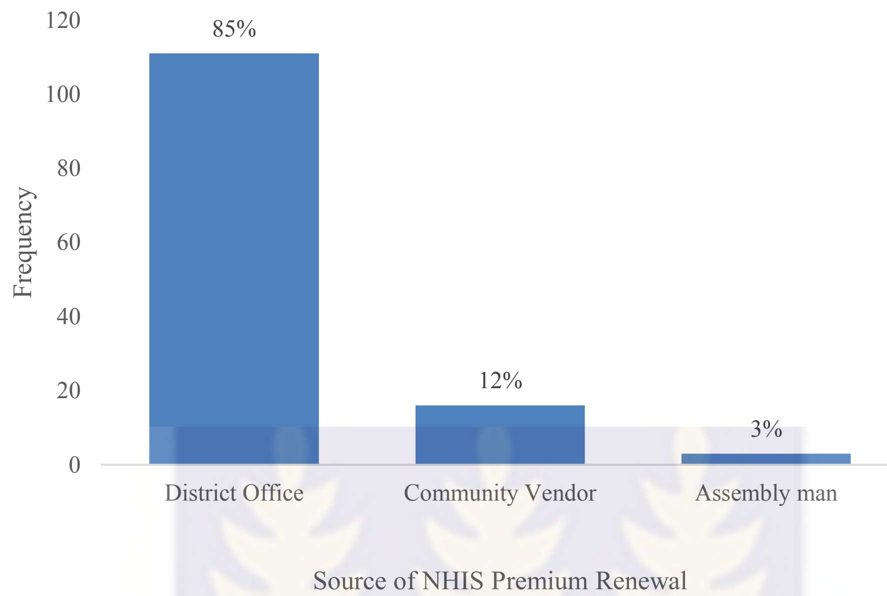


Figure 6: Percentages of Respondents Sources of NHIS Premium Renewal

Among the respondents who had renewed their NHIS Premiums, high percentage (87%) indicated District NHIS office as their source of NHIS premium renewal while only 1% of the sample cited Assembly man/woman as their source of NHIS premium renewal, as revealed in figure 6.

University of Ghana http://ugspace.ug.edu.gh

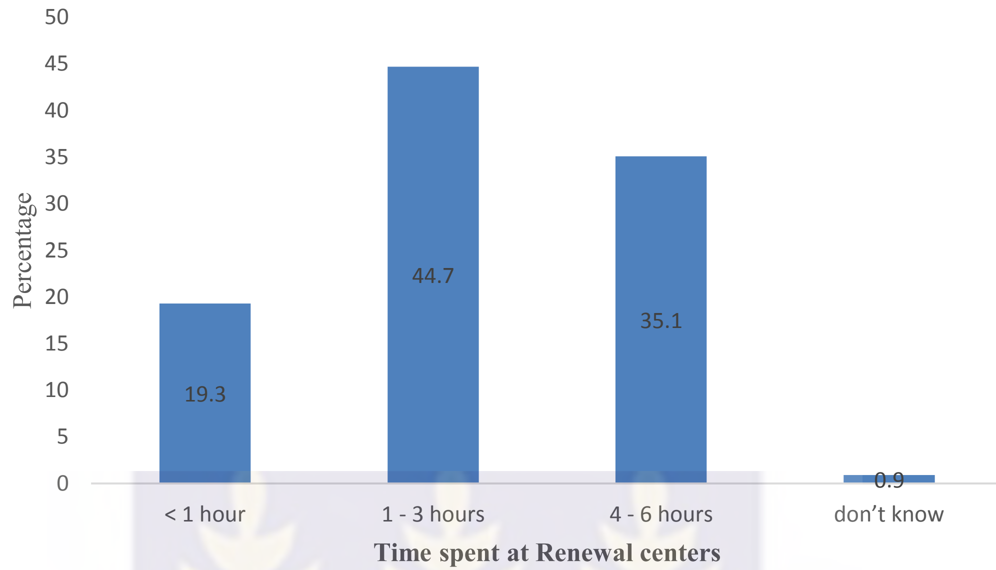


Figure 7: Percentage of Respondents' Waiting Time at NHIS Premium Renewal Centers

Figure 7 revealed the length of time NHIS subscribers spent when they are renewing their NHIS premiums at renewal centers. Most of the respondents (44.7%) said they spent 1 – 3 hours of their time at the renewal centers when renewing their NHIS premiums. Few (0.9%) could not tell the length of time they spent at the renewal centers.

University of Ghana http://ugspace.ug.edu.gh

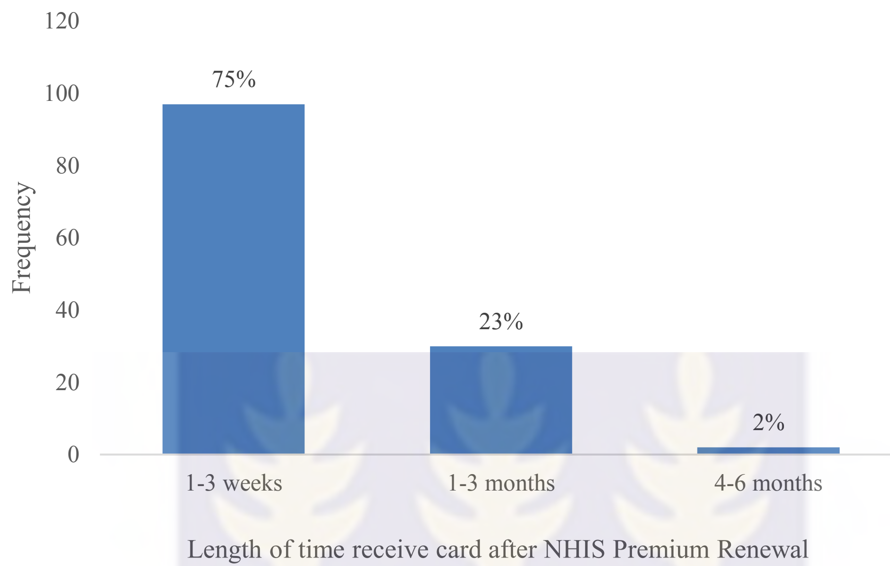


Figure 8: Percentage of Length of Time Respondents' receive NHIS cards after Renewal

Majority of the respondents (75%) indicated they received their NHIS subscription cards within 1 – 3 weeks after NHIS premiums renewal, with the exception few (1.8%) who said they receive NHIS subscription card within 4 – 6 months after renewal as shown in figure 8.

University of Ghana http://ugspace.ug.edu.gh

Table 6: Factors influencing NHIS Premium Renewal in Kintampo North Municipality continued.

Variable	Number of respondents N=308 (%)	Number with NHIS premium renewed n=115 (%)
Ever seek care with NHIS Card		
Yes	270 (87.7)	109 (94.8)
No	38 (12.3)	6(5.2)
If no, why?		
I used card as an ID card	23(7.5)	4(3.5)
To ensure full insurance of my children	5(1.6)	0(0.0)
It is required by my employer	2(0.6)	0(0.0)
Others	8(2.6)	2(1.7)
Not Applicable	270(87.7)	109(94.8)
Waiting time at health facility with NHIS card		
Less than one hour	33(10.7)	11(9.6)
1-3 hours	174(56.5)	69(60.0)
4-6 hours	47(15.3)	20(17.4)
> 6hours	16(5.2)	9(7.8)
Not Applicable	38(12.3)	6(5.2)
Required health care to NHIS subscribers		
Yes	168(54.5)	76(66.1)
No	102(33.1)	33(28.7)
Not Applicable	38(12.3)	6((5.2)
Respondents reasons for Poor care		
Long queues at OPD for NHIS card bearers	25(8.1)	8(7.0)
Inadequate drug dispensed	65(21.1)	22(19.1
Inadequate resources at health facilities	12(3.9)	3(2.6)
Not Applicable	206(66.9)	82(71.3)
Respondents intention to renew NHIS Premium		
Yes	285(92.5)	111(96.5)
No	23(7.5)	4(3.5)
Preference to 'cash and carry' system		
Yes	64(20.8)	19(16.5)
No	244(79.2)	96(16.5)
Reasons for 'Cash and Carry' system		
Quality health care to non-insurers	43(14.0)	15(13.1)
Non-insurers spend limited time at hospital	14(4.6)	2(1.7)
It reduces pressure on the health facility	6(1.9)	2(1.7)
I don't know	1(0.3)	0(0.0)
Not Applicable	244(79.2)	96(83.5)

University of Ghana http://ugspace.ug.edu.gh

Most of the respondents 270(87.7%) have ever sought health care with their NHIS subscription cards as shown in table 6. Majority of the sample 109(94.8%) among respondents who have ever sought health care with their NHIS subscription cards, have renewed their NHIS premiums. Respondents who had never seek health care with their NHIS cards, said they registered for the NHIS in order to use the card as an Identity Card (7.5%). Others 2(0.6%) registered because it was a requirements by their employers. Most of the respondents 174(56.5%) spent 1 -3 hours at the health facility when seeking health care with NHIs card. Sixty percentage of these have renewed their NHIS premiums. Majority of the respondents 168(54.5%) also revealed that they receive the required health care at health facility when seeking health care with NHIS subscription card. Some 65(21.1%) said they don't receive quality health care at health facility when they sought health care with their health insurance cards and gave their reasons to inadequate drugs dispensed. Most of the respondents 285(92.5%) who had intention to renew NHIS premium in the future, 111 (6.5%) of them had renewed their NHIS premium as shown in table 6. Majority of the respondents244 (79.2%) did not prefer the" cash and carry" system, while 43(14%) of the respondents who prefer the "cash and carry" system said non-insurers receive poor quality of health care.

University of Ghana http://ugspace.ug.edu.gh

Table 7: Pearson Chi Square Analysis of Demographic Variables of Respondents

Variables	NHIS Renewal Status Total(N=308)		Chi Square	P-value
	No	Yes		
Age (Years)			**19.0669**	**0.001**
18 – 28	88(73.3%)	32(26.7%)		
29 – 39	52(47.7%)	57(52.3%)		
40 – 50	24(53.3)	21(46.7%)		
51 – 61	11(52.3%)	10(47.6%)		
>61	5(38.5%)	8(61.5%)		
Sex			**2.9750**	**0.085**
Male	78(64.5%)	43(35.6%)		
Female	102(54.5%)	85(45.5%)		
Marital Status			**7.3505**	**0.062**
Single	82(51.9%)	76(48.1%)		
Married	87(66.9%)	43(33.9%)		
Divorced	9(60%)	6(40%)		
Widow/ widower	2(40.0%)	3(60%)		
Religion			**7.5379**	**0.040**
Christian	105(53.0%)	93(47.0%)		
Muslim	65(67.7%)	31(32.3%)		
Traditional Rel.	8(66.7%)	4(33.3%)		
Others	2(100%)	0(0.0%)		
Occupation			**5.7717**	**0.217**
Farming	23(46.0%)	27(45%)		
Trading	78(62.9%)	46(37.1%)		
Student	33(55%)	27(45%)		
Professionals	30(66.7%)	15(33.3%)		
Unemployed	16(57.1%)	12(42.9%)		
Ethnicity			**12.2022**	**0.007**
Akan	74(51.8%)	69(48.3%)		
Mo	47(68.1%)	22(31.9%)		
Gonja	25(50%)	25(50%)		
Others	34(75.6%)	11(24.4%)		

There is an association between respondents' age and NHIS premium renewal as indicated in table 7 (p = 0.001). Respondent's ethnicity and religious affiliation are associated with NHIS premiums renewal (p = 0.007 and 0.040 respectively)

University of Ghana http://ugspace.ug.edu.gh

Table 8: Pearson Chi Square Analysis on Factors Influencing NHIS Premium Renewal in Kintampo North Municipality.

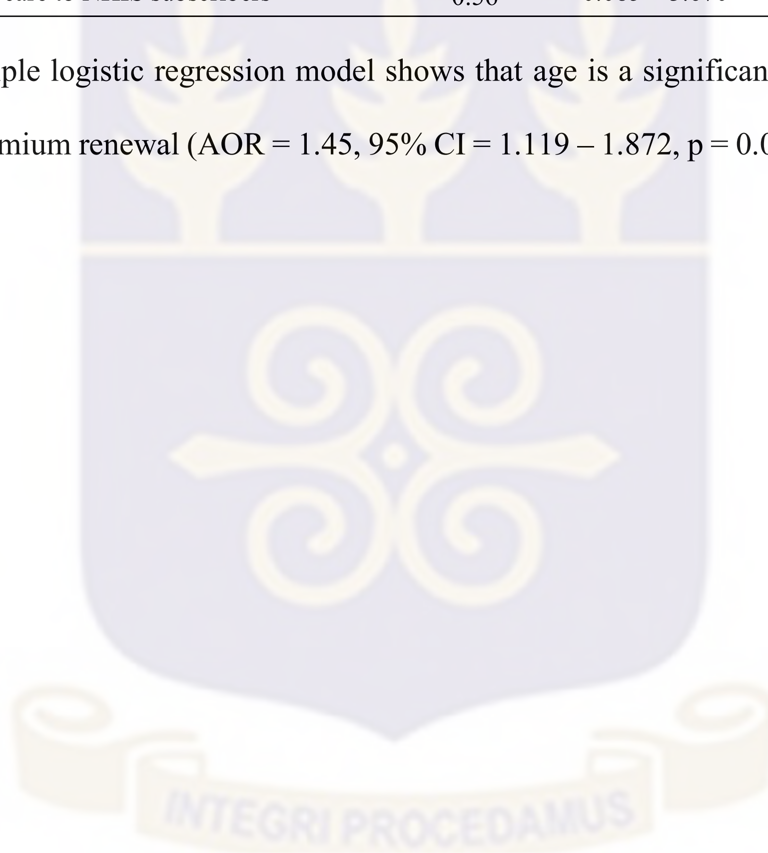
Variables	NHIS Renewal Status		Chi Square	P-value
	No	Yes		
Ever seek care with NHIS card			**12.6603**	**<0.001**
Yes	148(55.0%)	121(45.0%)		
No	32(86.1%)	6(13.9%)		
Required care to NHIS Subscribers			**5.5728**	**0.018**
Yes	84(49.4%)	86(50.6%)		
No	66(64.1%)	37(35.9%)		
Respondents reasons for poor care			**2.2552**	**0.324**
Long queues at OPD	19(80%)	7(20%)		
Inadequate drugs	42(62.5%)	23(37.5%)		
Inadequate resources	7(60.0%)	5(40.0%)		
Intend to renew NHIS premium			**7.4226**	**0.006**
Yes	19(86.4%)	3(13.6%)		
No	161(56.7%)	123(43.3%)		
Preference to 'cash and carry' system			**3.1336**	**0.077**
Yes	42(68.9%)	19(31.1%)		
No	137(56.4%)	106(43.6%)		
Reasons for 'cash and carry' system			**3.4969**	**0.321**
poor care to insurers	27(67.5%)	13(32.5%)		
Spend limited time at hospital	12(92.3%)	1(7.7%)		
Reduces pressure on health facilities	5(71.4%)	2(28.6%)		
I don't know	1(100%)	0(0.0%)		

The Pearson Chi square analysis in table 8 shows that quality of health care to NHIS subscribers is more likely to influence NHIS premium renewal (P = 0.018). Respondents' who have ever sought health care with NHIS cards are more likely to renew their NHIS premiums (P = <0.001)

University of Ghana http://ugspace.ug.edu.gh

Table 9: Multiple Logistic Regression Analysis on Factors Influencing NHIS Premium Renewal.

Variable	Adjusted Odds Ratio	95% confidence interval	p-value
Age	1.45	1.119 – 1.872	0.005
Marital status	1.05	0.684 – 1.623	0.812
Religion	0.56	0.361 – 0.877	0.011
Ethnicity	1.00	0.806 – 1.257	0.952
Time spent at Renewal centers	0.56	0.150 – 2.096	0.390
Time to receive card after renewal	1.32	0.157 – 11.089	0.797
Waiting time at hospital with NHIS card	2.28	0.459 – 11.328	0.313
Quality of care to NHIS subscribers	0.56	0.085 – 3.670	0.043



The multiple logistic regression model shows that age is a significant determinant of the NHIS premium renewal (AOR = 1.45, 95% CI = 1.119 – 1.872, p = 0.005as shown in table 9.

University of Ghana http://ugspace.ug.edu.gh

CHAPTER FIVE

DISCUSSION

The study sought to assess factors influencing NHIS premium renewal in Kintampo North Municipality. The review of the records of the Kintampo North Municipal Health Insurance Scheme revealed that 40% of the target population have registered under NHIS. Among those who have registered for NHIS, 24.9% of them have renewed their NHIS premiums. This means that the Kintampo North Municipality has a problem with NHIS premium renewal and therefore the need to bridge this gap. This is in contradiction with a study conducted by Adei, Amankwa & Sarfo-Mireku, (2015) which revealed that 73.9% of the Sekyere South District in the Ashanti Region have registered under NHIS. This finding is also consistent with study results by Atinga, Abiiro & Kuganab-Lem, (2015) which showed that the proportion of NHIS non-renewals increased from 6.8% in 2008 to 34.8% in 2012. Most of the respondents in the study were females, representing 60.7%. The sex orientation of the respondents has no influence on NHIS premium renewal in the study area. This finding is contrary to studies conducted by Boateng & Awunyor-Vitor, (2013); Adei, Amankwa & Sarfo-Mireku, (2015) which revealed that the likelihood of women to renew their NHIS premium is significantly more as compared to their male counterpart. These studies attributed these findings to the fact that women are more susceptible in society in terms of health care financing and therefore tend to subscribe to NHIS for maximum risk sharing. The study results also contradict with the results of a study conducted by Dong et al, (2003) in Burkina Faso which indicated that men are willing to subscribe and renew NHIS premium as compared to women due to the fact that women have on average lower income level. The reasons for the difference between this study's findings and that of Dong

University of Ghana http://ugspace.ug.edu.gh

et al, 2003 and Boateng & Awunyor-Vitor, (2013); Adei, Amankwa & Sarfo-Mireku, (2015) could be due to fact that most women in the study area are economically active and capable of paying for NHIS premiums. Respondents' age is also a significant determinant of NHIS premium renewal. The study showed that individuals in age category of 18 to 39 years were more likely to enroll and renew their NHIS premiums. This is because they belong to the economic active age group who can afford to pay for NHIS premiums. Majority of the respondents were married, representing 51.3%. There is a significant association between marriage and NHIS premium renewal. This finding is in line with Boateng & Awunyor-Vitor, (2013) which stipulated that women who are married are likely to renew their NHIS premiums because of the fact that women are caregivers for children and other vulnerable groups in the society. Professionals represent 16.3% of the respondents. There is a significant statistical association between being a professional and NHIS premium renewal. This is in agreement with a report from the Living Standard Survey, (2012) which indicated that Ghanaians with reliable source of income have the capacity to pay for NHIS premiums. This is also consistent with the NHIS Policy Statement, (2012) which stated that payment of NHIS premiums vary by one's income.

The study revealed that 63.0% (180) of the respondents have not renewed their NHIS premiums. This is contrary to the results of a study conducted by Adei, Amankwa & Sarfo-Mireku, (2015) in Sekyere-South District of Ashanti Region which stated that 25.5% of the respondents have not renewed their NHIS cards. Most of the respondents (44.6%) who have not renewed their NHIS premium said high cost of NHIS premiums is an obstacle. This finding is consistent with a study conducted by Morrestin & Valiery, (2009); Atinga, Abiiro & Kuganab-Lem, (2015) which said that lack of money to pay for NHIS premiums

University of Ghana http://ugspace.ug.edu.gh

is the major obstacle why some people do not enroll in NHIS or renew their NHIS subscriptions. Among the respondents who had renewed their NHIS premiums, a high proportion (87.0%) renewed their NHIS premiums at the district office. This could be one of the factors to low NHIS premium renewal as some of the respondents (17.6%) who had not renewed their NHIS premiums said the distance from their communities to the district offices is too far. This results is similar to a study conducted by Boateng & Awunyor-Vitor, (2013) that showed that most (38.0%) of the respondents found it difficult to get to the NHIS renewal centers. Most of the respondents (44.7%) spend on average 1 – 3 hours at NHIS renewal centers when renewing NHIS premiums. This is in line with a study conducted by Atinga, Abiiro & Kuganab-Lem, (2015) which stated that NHIS subscribers' renewal processes and bureaucratic registration process can result in membership withdrawal from NHIS.

Other reasons why some respondents had not renewed their NHIS premiums included poor quality of health care to NHIS subscriber, and long queues at Outpatient Department (OPD) for NHIS card bearers. These findings are in line with a study conducted by Kusi, Enemark, Hansen & Asante, (2015) which indicated that supposed pitiable quality of health care to NHIS subscribers is the common characteristic among Lower and Middle Income Countries experiencing lower enrolment and renewal in NHIS. It is also consistent with Boateng & Awunyor-Vitor, (2013) who indicated that respondents who did not renew their NHIS premiums said poor service to NHIS subscribers at various health facilities is the major impediment.

Majority of the respondent (87.7%) had ever sought health care with NHIS subscription cards. Respondents' decision not seek health care with NHIS subscription cards is a

University of Ghana http://ugspace.ug.edu.gh

significant determinant of NHIS premium renewal as most of the respondents (56.5%) who seek health care with NHIS cards normally spend 1 – 3 hours at the health facility. The number of respondents (33.1%) who said they did not receive quality health care at health facilities when seeking health care, is a significant determinant of NHIS premuim renewal. This finding agrees with Blanchet, Fink, & Osei-Akoto, (2012) which stated that NHIS policy in Ghana does not cover some very costly medical interventions such as certain surgeries, cancer treatments (other than breast and cervical cancer), organ transplants, and dialysis; unimportant services include beautifying surgery; and some high profile items such as HIV antiretroviral drugs. It is also in line with Ibiwoye & Adeleke, (2008) on whether NHIS promote access to health care. The study revealed that a substantially higher proportion (37.8%) attributed poor quality of health care to long queues at health facilities.

Multiple logistic regression analysis revealed that age, and religion were factors that showed statistical significant association with NHIS premium renewal. A year increase in respondent age increase the odds of NHIS premium renewal by 1.4. This is consistent with a study conducted by Ahuja, 2004 which showed that active NHIS card holders are considered to be older in age as compared to those with inactive NHIS cards.

Further research on whether the NHIS accredited health facilities are well resourced to provide quality health care to NHIS subscribers in Kintampo North Municipality is needed to contribute to additional evidence on the factors influencing NHIS premium renewal.

University of Ghana http://ugspace.ug.edu.gh

CHAPTER SIX

CONCLUSIONS AND RECOMMENDATION

6.1 CONCLUSIONS

Findings of the study revealed that age is one of the demographic factors that was found to be statistically significant determinant of NHIS premium renewal. The findings of the study also showed that the majority of respondents have not renewed their NHIS premiums, and cited high cost of premium, poor quality of health care and long queues at hospital OPD as barriers to NHIS premium renewal. Most of the respondents who have renewed their NHIS premium did so at the NHIS district office.

6.2 RECOMMENDATIONS

1. The Kintampo-North Municipal Health Insurance Scheme should intensify their health education campaign to target the various groups in the community such as religious bodies, and economically active age groups, on the importance of NHIS.
2. The Kintampo-North Municipal Health Insurance Scheme should establish more renewal centers in order to improve access to NHIS premium renewal services.
3. The District Health Directorate should provide the required facilities and human resource to the NHIS accredited health facilities in the Municipality.

University of Ghana http://ugspace.ug.edu.gh

REFERENCES

Adei, D., Amankwah, E., & Sarfo-Mireku, I.., (2015). An Assessment of the National Health Insurance Scheme in the Sekyere South District, Ghana. *Current Research Journal of Social Sciences 7(*3): 67-80.

Alhassan, R. K., Nketiah-Amponsah, E., Arhinful, D. K., (2016). A Review of the National Health Insurance Scheme in Ghana: What Are the Sustainability Threats and Prospects? *Plos One. 5(2):* 92 - 142

Apoya, P., & Marriott, A., (2011). "Achieving a Shared Goal: Free Universal Health Care in Ghana." Retrieved 10th October, 2016 from: http://www.oxfam.org/en/policy/achieving-shared-goal-ghana-healthcare

Aryeetey, G.C., C., Jehu-Appiah, E., Spaan, B., Agyepong, I., (2010). Identification of poor households for premium exemptions in Ghana's National Health Insurance Scheme: Empirical analysis of three strategies. *Tropical Medicine International Health 15*(15) 44-52

Atinga, R. A., Abotisem, G.,A., & Kuganab-Lem, R. B. (2015). Factors influencing the decision to drop out of health insurance enrolment among urban slum dwellers in Ghana. *Tropical Medicine and International Health. 20*(3) 312–321 doi:10.1111/tmi.12433.

Blanchet, N.J., Fink, G., & Osei-Akoto, I., (2012). The effect of Ghana's National Health Insurance Scheme on Health Care Utilization. *Ghana Medical Journal. 46*(2)76-82.

Boateng, D., & Awunyor-vitor, D., (2013) Health insurance in Ghana: evaluation of policy holders' perceptions and factors influencing policy renewal in the Volta region. *International Journal for Equity in Health, 12(*50) 52 – 96. Retrieved 21st September, 2016 from: http://www.equityhealthj.com/content/12/1/50

Buor, D., (2004). *Accessibility and utilisation of health services in Ghana*. Universiteit Maastricht.

Buor, D., (2008). Analyzing the socio-spatial inequities in the access of health services in sub-Saharan Africa: Interrogating geographical imbalances in the uptake of health care. *Paper presented at the meeting of College of Art and Social Sciences,* KNUST, Kumasi.

Carrin, G., & Chris, J. (2005). Social health insurance: Key factors affecting the transition towards universal coverage. *International Social Security Review, 58*(1).

Chuma, J., & Okungu, V., (2011) Viewing the Kenyan health system through an equity lens: implications for universal coverage. *International Journal for Equity in Health. 10*(22).

University of Ghana http://ugspace.ug.edu.gh

Defourny, J., & Failon, J., (2008) Community-Based Health Insurance Schemes in Sub-Saharan Africa: Which Factors Really Influence Enrolment? *Working Paper*. University of Liege, Belgium Centre for Social Economy.

Dong, H., Kouyate, B., Snow, R., Mugisha, F., Sauerborn, R., (2003). Gender's effect on willingness-to-pay for community-based insurance in Burkina Faso. *Health Policy, 64* (2) 153-162.

Ferry, G.A., Dickson, S.R., Mbaruka, G., Freedman, L.P., & Kruk, M.E., (2012). Equity of inpatient health care in rural Tanzania: population-and facility-based survey. *International Journal for Equity in Health. 11(9):* 21-53.

Ghana Statistical Service, (2014). 2010 population and housing census. *District Analytical report*. Kintampo North District. 15- 50

Ghana Statistical Service, (2012). Ghana Living Standards Survey Round 6 (GLSS 6), *Main Report*, Accra, Ghana. Ghana Statistical Service & ICF Macro, (2008). *Ghana Demographic and Health Survey (GDHS)* Accra, Ghana, Calverton, Maryland, USA

Government of Ghana, (2004).*National Health Insurance Regulations*, 2004 (L.I. 1809). Accra.

Ibiwoye, A., & Adeleke, I. A., (2008). Does national health insurance promote access to health care? Evidence from Nigeria. *Issues and Practice. 33*(2), 228- 261

Jacobs, B. I.; Maryam , B., ;Annear, P. L., & Wim , V., (2012). Addressing access barriers to health services:an analytical framework for selectingappropriate interventions in low- income Asian countries. *Health Policy and Planning, 27(*1*)*, 288–300.

Jacobs, R., & Goddard, M., (2000). The Role of the Insurer in the Health Care System: A Comparative Study of Four European Countries. *Centre for health economics*, 65 – 132

Kusi, A., Enemark, U., Hansen, K.S.& Asante, A.F., (2015). Refusal to enroll in Ghana's National Health Insurance Scheme: is affordability the problem? *International Journal for Equity in Health. 14*(2) 86-151. DOI: 10.1186/s12939-014-0130-2

Kintampo Municipal Mutual Health Insurance Scheme (2010*): The Profile of the Scheme 2010*. Unpublished.

University of Ghana http://ugspace.ug.edu.gh

Morestin, F., & Ridde, V., (2009). How can the poor be better integrated into health insurance programs in Africa? An overview of possible strategies. *Policy Brief. University of Montreal. 92 - 119*

NDPC (National Development Planning Commission) 2009. *2008 Citizens' Assessment of the National Health Insurance Scheme*. Accra.

National Health Insurance Scheme. (2009). *Annual Report*. Retrieved 12th September 2016, from: http://www.nhisannualreport.gov.gh

National Health Insurance Scheme. (2013). *Annual Report*. Retrieved 25th September 2016, from: http://www.nhisannualreport.gov.gh

National Health Insurance Scheme. (2009). *Annual Report*. Retrieved 10th October 2016, from: http://www.nhisannualreport.gov.gh

Nii Nuetey, Noi, E., (2012). Comparative study of the experiences of NHIS subscribers and non-subscribers in accessing health care in the Ga South Municipality of Ghana. *Dissertation Submitted to the University of Ghana.* Retrieved on 8th September, 2016 from http://ugspace.ug.edu.gh

Nguyen, H.T., Rajkotia,Y., Wang,H., (2011). The financial protection effect of Ghana National Health Insurance Scheme: evidence from a study in two rural districts. *International Journal for Equity in Health. 10*(4). 98 – 152

Orem, J. N., & Zikusooka, C.M., (2010). Health Financing Reform in Uganda: How equitable is proposed National Health Insurance Scheme? *International Journal for Equity in Health. 9 (23).* 121 -180

Pariyo, G., W., Ekirapa-Kiracho, E., Okui1, O., Rahman, M. H., Peterson, S., Bishai, D.M., Lucas, M., & Peters, D. H., (2009). Changes in utilization of health services among poor and rural residents in Uganda: are reforms benefitting the poor? *International Journal for Equity in Health.* **8**(39) doi:10.1186/1475-9276-8-39

Wanji, M.J., & Pangpanich, S., (2012). Access to health care: the role of a community based health insurance in Kenya. *PanAfrica Medical Journal 12(*35). Doi: 10.11604/pamj.2012.12.35.1704

WHO, (2010). *Obstacle in the process of establishing a sustainable National Health Insurance Scheme.* A technical Brief for Policy-Makers, Ghana.

Wiesmann, D., & Jütting, J. (2000). The Emerging Movement of Community Based Health Insurance in Sub-Saharan Africa: Experiences and Lessons Learned. *Africa Spectrum, 35*(2), 193-210. Retrieved 15th October 2016 from http://www.jstor.org/stable/40174841

University of Ghana http://ugspace.ug.edu.gh

APPENDIX A

Consent Form for Participation in the study

Study Title: Factors influencing NHIS renewal in Kintampo North Municipality, Brong Ahafo Region

Principal Investigator: Augustine Baffoe

Address: School of Public Heath, University of Ghana, Legon

Greetings, my name is ………………………………………..and I am conducting this interview on behalf of Augustine Baffoe, an MPH student of School of Public Health (University of Ghana).

The number of NHIS registrants who do not renew their NHIS has increased over the past couple of years and this is a concern to health authorities in Ghana as well as in Kintampo North Municipality.

This study seeks to determine factors influencing NHIS renewal. You are being invited to participate in the study because I understand you know the importance of your health, especially quality of health care in health facilities.

I would like you to be part of my study. If you agree to participate in this study, I would ask you a few questions centered on factors influencing NHIS renewal. This will take about 30 minutes of your time. If you agree to participate, you be among the respondents who will also be participating in the study in this community in the Kintampo North Municipality. Participating in this study is entirely voluntary. You have the right to refuse to participate and this will not affect your rights in anyway, especially to your healthcare.

University of Ghana http://ugspace.ug.edu.gh

You are also at liberty to withdraw from this study at any stage of your participation. I would like to see you participate to the end.

There are no direct benefits or risks in participating. You will not be paid or compensated for your participation. However, the information the study will come out with, will help us to understand the factors influencing NHIS renewal in Kintampo North municipality and the entire Brong Ahafo Region as a whole. The questions are not very sensitive. However, you may feel uncomfortable answering some of them and you can choose not to answer them.

All the information collected from you will be treated strictly confidential and will be used for the intended purpose only. You will not be identified by name in any dissemination of reports or publications resulting from this study.

The Ghana Health Service Ethics Review Committee has reviewed and given approval for this study to be conducted

Do you have any questions for clarifications?

However, If you have any further questions regarding this study, which I could not satisfy you with the appropriate answer, you may contact Augustine Baffoe on telephone number: 0242640152 and e-mail address: abaffoe311@gmail.com , Prof. Col.Edwin A. Afari (Rtd), (Supervisor) Ghana Field Epidemiology and Laboratory Training Programme (GFELTP) School of Public Health on Tel. 0208131828 or e-mail: afariea@yahoo.co.uk and Hannah Frimpong, Ghana Health Service Ethics review Committee on Tel. 0507041223 or email: ghserc@gmail.com.

University of Ghana http://ugspace.ug.edu.gh

Participant Consent

I have been adequately informed about the purpose, procedure, potential risks and benefits of this study. I have had the opportunity to ask questions and have been provided answers to my satisfaction. I know that I can refuse to participate in this study without any loss of benefit for which I would be entitled. I understand that even if I agree or as I have agreed, I can withdraw my consent at any time without losing any benefits or services to which I am entitled. I also understand that the information collected will be treated confidentially and will be used only for the purpose informed. Finally findings/results may assist us in policy development as regards to NHIS renewal.

I freely agree to participate in this study.

ID of participant……………………………………..

Signature or Right Thumb Print of Participant ………………………………………

Date…………………………………….

University of Ghana http://ugspace.ug.edu.gh

If participant cannot read the form themselves, a witness must sign here:

WITNESS

I was present while the benefits, risks and procedures were read to and /or interpreted to the understanding of the volunteer. All questions will be answered and the volunteer will agree to take part in the research.

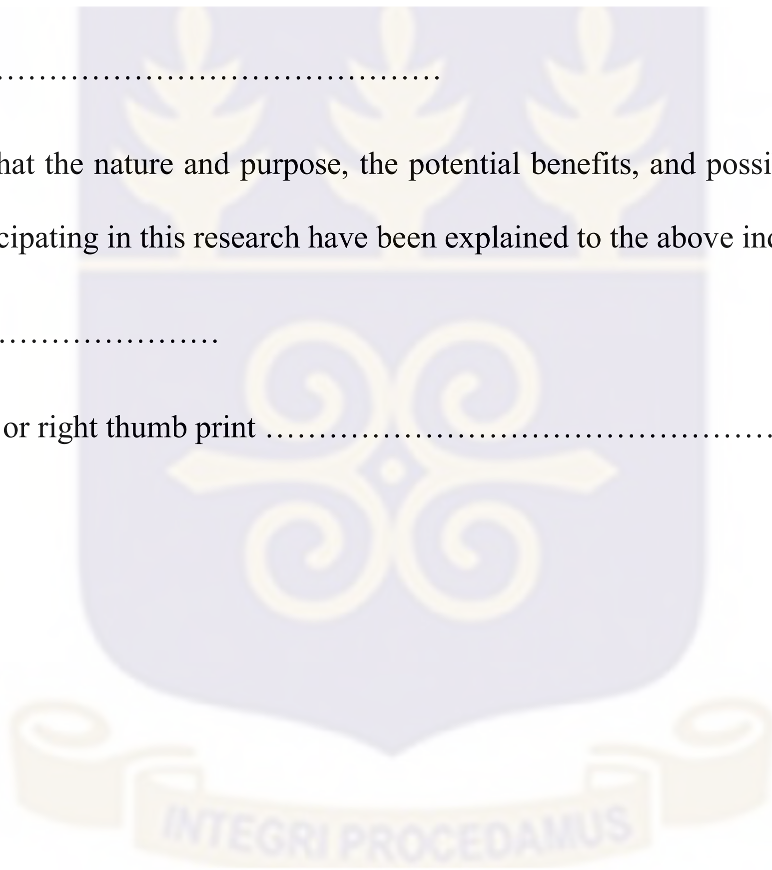
Date………………………………………

Signature……………………………………

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

Date………………………

Signature or right thumb print …………………………………………….



University of Ghana http://ugspace.ug.edu.gh

APPENDIX B

FACTORS INFLUENCING NATIONAL HEALTH INSURANCE SCHEME (NHIS) RENEWAL IN KINTAMPO NORTH MUNICIPALITY OF BRONG AHAFO REGION

INTERVIEW GUIDE

SN	ITEM/QUESTION	RESPONSE/ CODE
	SECTION A: SOCIO-DEMOGRAPHIC CHARACTERISTICS	
1	**Age of respondents (in years)**	**( )**
2	**Sex**	**Male ( ) ………………….1** **Female ( ) ………………….2**
3	**Marital status**	**Single ( ) …………………..1** **Married ( ) ………………….2** **Divorced ( ) ………………....3** **Widow/widower ( ) ……………..4**
5	**Religion**	**Christian ( ) ……………………………..1** **Muslim ( ) ……………………………...2** **African Traditional Belief ( ) …………..3** **Others (specify) ( )……………………...4**
6	**Occupation**	**Farming ( )……………………….1** **Trading ( ) ……………………….2** **Student ( )……………………….3** **Professional ( )………………….4** **Unemployed ( )………………...5**
7.	**Ethnicity**	**Akans ( ) …………………..1** **Mos ( ) …………………….2** **Gonjas ( )………………….3** **Others (specify) ( ) ………...4**

University of Ghana http://ugspace.ug.edu.gh

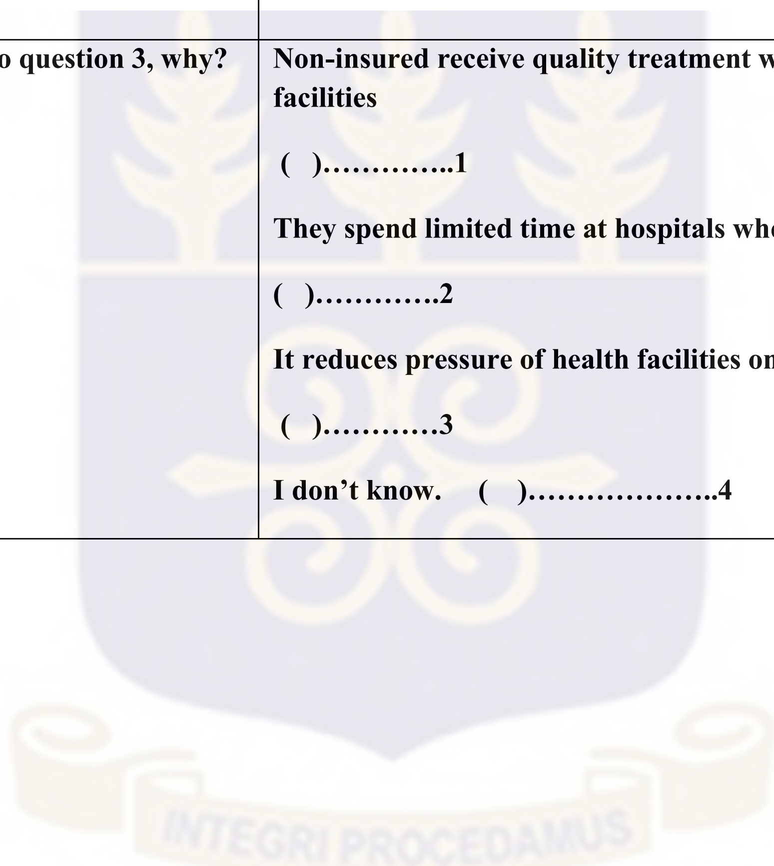
	SECTION B: RESPONDENDS NHIS RENEWAL STATUS	
1	**Have you renewed your NHIS?**	**Yes ( ) ……………… 1** **No ( )………………..2**
2	**If no to question 1 why?**	**High cost of NHIS renewal fees ( )……………………………1** **Distance to renewal centers is far ( )…………………………..2** **Poor quality of health care to NHIS subscribers ( )…………3** **Long queues at health facilities for NHIS card bearers ( )…4** **Others (specify) ………………………………………………........5**
3	**If yes to question 1, where did you renew your NHIS card? if no, move to Section D, question 1**	**District NHIS office ( )………………..1** **Community vendor ( )………………..2** **Assembly man or woman ( ) ……………….3** **I don't know ( ) ……………....4**
	SECTION C: NHIS PROVIDER RELATED FACTORS	
1	**What is the maximum length of time do you normally spend at the renewal centers when renewing your NHIS?**	**Less than 1 hour ( ) …………………1** **1 – 3 hours ( ) ………………………2** **4 – 6 hours ( )………………………..3** **I don't know ( )……………………...4**
2	**How long does it take to receive your NHIS card from NHIS provider after renewal?**	**1 – 3 weeks ( )…………… 1** **1 – 3 months ( ) ……………2** **4 – 6 months ( ) …………....3** **>6 months ( )……………4**

University of Ghana http://ugspace.ug.edu.gh

	SECTION D: HEALTH CARE PROVIDER FACTORS	
1	**Have you ever seek health care with your NHIS card when you're sick?**	**Yes ( )…………1** **No ( )…………2**
2	**If No to question 1, why did you registered?** **If yes to question 1, answer question 3 to 5**	**Because I used the card as an identity card ( )………………1** **My subscription is required to ensure full insurance of my children ( )...........2** **Because it is required by my employer ( )…………………3** **Others (specify) ( )……………………………………….....4**
3	**How long do you normally wait at health facility when seeking health care with your NHIS card?**	**Less than 1 hour ( ) …………………1** **1 – 3 hours ( ) ………………………..2** **4 – 6 hours ( )………………………3** **>6 hours ( )…………………………4**
4	**Do NHIS accredited health facilities provide the required health care when you seek health care with your NHIS card?**	**Yes ( ) ……………………1** **No ( )……………………2**
5	**If no to question 4, what is your reason?**	**Long queue at OPD for clients with NHIS card ( )…………1** **Drug lists limited to few health conditions ( )……………2** **More clients compete for limited facility resources ( )………3** **Others (specify) ( )……………………………….……………4**
	INDIVIDUAL RELATED FACTOR	
1	**Do you intend to renew your NHIS policy in the future?**	**Yes ( ) ………………1** **No ( )………………2**

University of Ghana http://ugspace.ug.edu.gh

2	**If no to question 1, what is your major reason for not renewing your NHIS**	**I don't fall sick ( )……………….1** **Because I seek health care from spiritual homes which require no NHIS ( ) ………2** **Because I resort to self-medication when I'm sick ( ) ……3** **I have lost trust in the NHIS ( )……………………………4** **Others (Specify) ( )……………………………………...5**
3	**Do you prefer the 'cash and carry' system to the NHIS?**	**Yes ( ) ………………1** **No ( )……………….2**
4	**If yes to question 3, why?**	**Non-insured receive quality treatment when seeking care at health facilities** **( )…………..1** **They spend limited time at hospitals when they seek health care** **( )…………2** **It reduces pressure of health facilities on health care delivery** **( )…………3** **I don't know. ( )……………….4**



University of Ghana http://ugspace.ug.edu.gh

RECORDS REVIEW CHECKLIST

My name is Augustine Baffoe, a student from the University Of Ghana School Of Public Health, pursuing Master of Public Health. In order to be properly assess factors influencing NHIS renewal in Kintampo North Municipality, review of your records is required. This information will be considered as highly confidential as possible and will not be disclosed to anyone except for the purpose of academic work.

The principal investigator after consent from the management of Kintampo North Municipal Health Insurance Scheme, will review the Kintampo North Municipal Health Insurance Scheme reports and then fill the following space accordingly:

Year	**Total NHIS Registrants**	**Total NHIS renewal**	**Percentage NHIS renewal**
2016			