

**THE NATIONAL HEALTH INSURANCE SCHEME (NHIS) IN THE  
DORMAA MUNICIPALITY, GHANA: CHALLENGES OF  
ENROLLMENT AND SATISFACTION WITH THE CURRENT  
NATIONAL HEALTH SYSTEM**

**By**

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## LIST OF ABBREVIATIONS

CHPS	Community-Health Planning And Services
CIA	Central Intelligence Agency
CPP	Convention Peoples Party
DMA	Dormaa Municipal Assembly
DMO	Dormaa Municipal Office
EU	European Union
GDP	Gross Domestic Product
GHS	Ghana Health Service
GMA	Ghana Medical Association
HIPC	Highly Indebted Poor Country
HIV/AIDS	Human Immunodeficiency Virus/Acquired Immunodeficiency Syndrome
ILO	International Labor Organization
IMF	International Monetary Fund
LI	Legislative Instrument
MCH	Maternal And Child Health
MDG	Millennium Development Goal
MOH	Ministry Of Health
NPP	New Patriotic Party
OPD	Out-Patient Department
PNDC	Provisional National Defense Council
SAP	Structural Adjustment Program
SSNIT	Social Security And National Insurance Trust
THE	Total Health Expenditure
TUC	Trade Union Congress
UNICEF	United Nations Children's Fund
WB	World Bank
WHA	World Health Assembly
WHO	World Health Organization
WHR	World Health Report
UHC	Universal Health Coverage
URL	Uniform Resource Locator
VAT	Value Added Tax

## ABSTRACT

The National Health Insurance Scheme has not seen universal coverage a little over a decade now, despite efforts by the authorities' campaign as a convenient health care financing tool. This necessitated an investigation into the challenges in enrollment and satisfaction with the current national health system to determine the underlying factors affecting residents' participation in the scheme.

To this end, a descriptive and cross-sectional study design using three-stage sampling criteria was adopted for the study. A purposive and simple random sampling method was used in the sampling selection. Data was collected through self-administered and face-to-face interviews guided by a structured questionnaire between May and August, 2013; involving 300 members and non-members of the scheme and out of that, 270 (90%) was retrieved.

Chi square ( $\chi^2$ ) test of independence and logistic regression analysis were used to show the strength of association between the dependent and the independent variables. The  $\chi^2$  test shows a significant association between residents' decision to enroll, and gender, education, number of children, place of residence (rural and urban), employment and income. Findings revealed that females have a higher membership rate (60.5%) compared to males (39.5%). Also, people with tertiary education have a higher subscription (78%). The evidence of marital status discovered that, widowed have a higher membership rate (70%). Respondents with 2 children have a higher subscription level (69.4%). The majority of NHIS subscribers live in the rural communities (53.5%), over the urban dwellers (46.5%). The employees' analysis shows that apprenticeship

subscription is very higher (74.1%). High income results in high subscription (85.0%), but reduces when income increases (39.4%).

It was also discovered that people's ability to pay the premium is the major challenge of joining the scheme. Total satisfaction with the current health care provision is high, as it portrays 54.20% satisfied and 45.80% less satisfied. The results discovered that people who are satisfied with the current national health care system have subscription of 31.53% over 26.48% of non-subscribers. Satisfaction level shows a direct relationship with age.

The logistic regression showed that the availability and attitude of health personnel, drugs and quality of basic amenities have significant association with satisfaction with health care provision. In addition, residents expected the following improvements to guarantee sufficient coverage: premium reduction (16.30%), provision of quality health care (13.70%), easy access to health care services (12.13%) and all treatments and laboratory test must be covered (9.40%). All other factors also accounts for 48.47%.

Public education on the rights and privileges of patients must be a priority of the scheme. There must be an avenue to seek redress when patient rights are violated. This would help boost the community confidence in health care provision and a mechanism to ensure universal coverage.

## CHAPTER ONE

### INTRODUCTION

#### **1.1 Country Background**

Ghana is a Western African country. It shares borders with three Francophone countries and the Gulf of Guinea. Its boundary to the west is Côte D'Ivoire, Togo to the east, Burkina Faso to the north, and the Atlantic Ocean to the south. It has a total population of 24,658,823 (GSS, 2010). The Gross Domestic Product (GDP) wealth is 39.20 billion United States (US) dollars, and the GDP per capita is 402.26 US dollars. (World Bank, 2011).

The country's health indicators are above average within the sub-regional comparison. The life expectancy at birth is 63.5 years, which is the 2<sup>nd</sup> highest in the sub-region as shown in table 1.1. Other health indicators such as the under-five and maternal mortality, which are also essential factors in determining and understanding the general health sector performance is among the best in the region. However, this information has the potential to weaken the policy of providing free antenatal, delivery and postnatal care to support Millennium Development Goal (MDG) 5 aim of achieving a 75% reduction in maternal mortality rate between 1990 and 2015.

The country's population is very young as 36.5% are between 0-14 years old. The people between 15-64 years are 60% of the population, while 65 years and over constitute 3.6%. The proportion of people who live below the poverty line of 1.2 US dollars per day was 28.6 in 2006 (World Bank, 2011).

Almost seven out of ten, (68.8%), are employed. In absolute terms, about 9.15 million individuals are estimated to be employed in Ghana. Among the employed, two-thirds, (66.7%), are employed by the private sector (including those in the rural agricultural sector and in urban informal economies). The public sector currently employ less than a third, (28.5%), of the total workforce (GSS, 2008). The total expenditure on health as a percentage of GDP is 10.6%.

**Table 1.1 The general population health indicators in Ghana and other West African Countries (2011).**

INDICATORS COUNTRY	Life expectancy at birth (years)	Under 5 years mortality rate per 1,000 live births	Maternal mortality ratio per 100,000 live birth (interagency estimate)	Crude death rate per 1,000 population
Benin	57.5	90	350	10.6
Burkina Faso	55.5	102	300 (2010)	11.3
Cape Verde	72	22	79	6
Cote D'Ivoire	56.5	108	400	11.4
Gambia	58.2	75	360	9
<b>Ghana</b>	<b>63.5</b>	<b>72</b>	<b>350</b>	<b>31.79</b>
Guinea	55	101	800	12.2
Guinea-Bissau	50	129	790	15.1
Liberia	59	75	770	9.1
Mali	51.5	128	540	14.1
Niger	56	114	590	11.3
Nigeria	53	124	630	13.1
Senegal	61	60	370 (2010)	7.9
Sierra Leone	46.5	182	890 (2010)	16.3
Togo	56.5	96	370	10.9

Source: WHO, 2012 Global Health Observatory Data Repository (URL: <http://apps.who.int/gho/data/node.country.regionAFR?lang=en>) Accessed: 13/03/2014

Moreover, Ghana's national health care financing system is generally progressive and highly supported by the country's annual budget. The progressive nature of the health financing mechanism is driven largely by both direct and indirect taxes, which account for about 50% of health care funding. The 1992 constitution

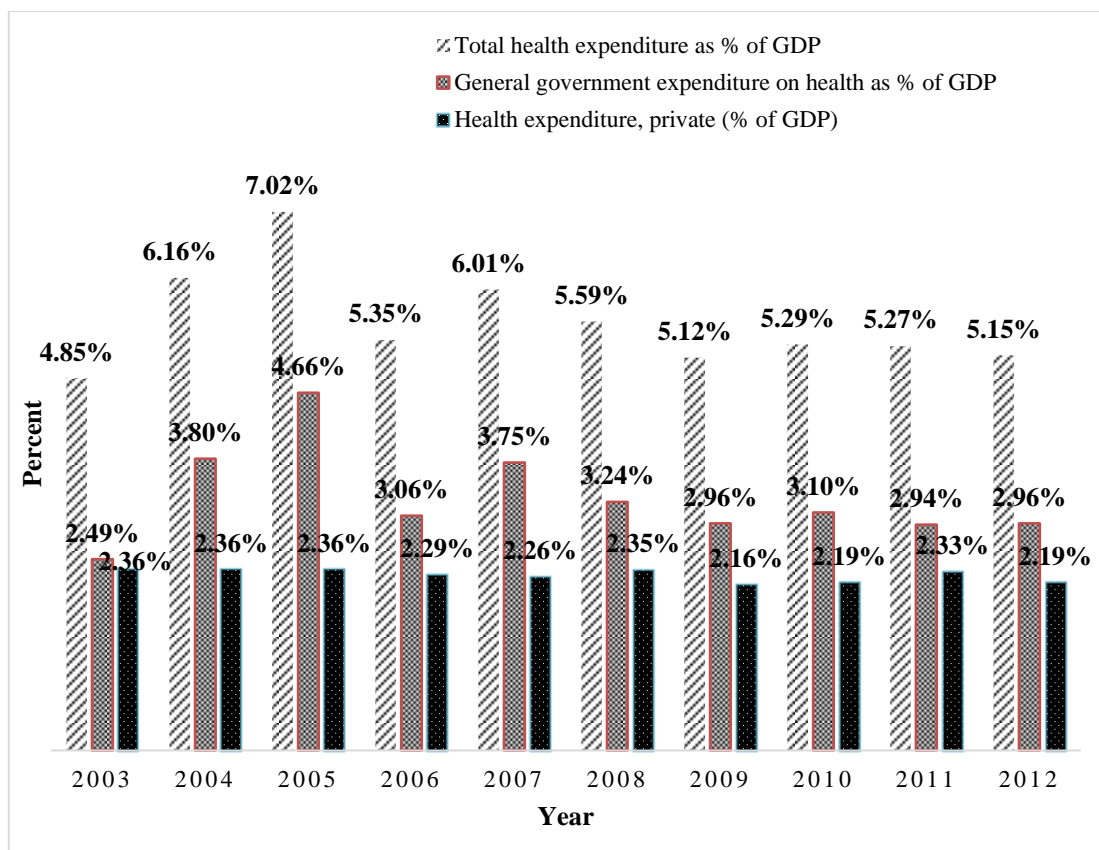
makes it mandatory for the government to provide health care protection for all citizens irrespective of their religion or geographic location. However, indicators such as the per capita expenditure and the general government spending on health as percentage of total expenditure on health, (table 1.1.2), does not fully represent such an important constitutional provision. This might be a reason why out of pocket payment represents the dominant source of health care financing, (66.3%) in 2012 fiscal year. It is expected that, with the introduction on the NHIS over a decade now, there must be a significant improvement, particularly, out of pocket payment to relieve any unforeseen financial burden in seeking medical care.

**Table 1.2 The general health expenditure in Ghana and other West African Countries (2011).**

INDICATORS COUNTRY	Gross national income per capita (Purchasing Power Parity international \$)	Total expenditure on health as % of gross domestic product	Per capita total expenditure on health (Purchasing Power Parity international \$)	General government expenditure on health as % of total government expenditure	General government expenditure on health as % of total expenditure on health	Out of pocket expenditure as % of private expenditure on health
Benin	1,550	4.6	74.5	53.3	10.5	91.2
Burkina Faso	1,490	6.5	81.2	50.3	12.8	73.5
Cape Verde	4,930	4.8	171.7	75.1	7.9	93.8
Cote D'Ivoire	1,920	6.8	119.9	26.6	6.8	87.6
Gambia	1,830	4.4	93.7	54	11.3	48.4
<b>Ghana</b>	<b>1,910</b>	<b>4.8</b>	<b>90</b>	<b>56.1</b>	<b>11.9</b>	<b>66.3</b>
Guinea	970	6	67.2	27.3	6.8	92.7
Guinea-Bissau	1,100	6.3	73.9	26.8	7.8	56.5
Liberia	580	19.5	112.4	31.6	18.9	25.8
Mali	1,140	6.8	73.2	45.4	12.2	99.6
Niger	760	5.3	39.3	55.1	11.1	83.8
Nigeria	2,450	5.3	139.4	36.7	7.5	95.4
Senegal	1,880	6	118.5	58.3	11.9	78.5
Sierra Leone	1,340	18.8	165.2	18	11.7	91.4
Togo	900	8	80.1	52.2	15.4	84.6

Source: WHO, 2012 Global Health Observatory Data Repository (URL: <http://apps.who.int/gho/data/node.country.regionAFR?lang=en>). Accessed: 13/03/2014

**Figure 1.1 Health Expenditure in Ghana (2003-2012)**



Sources: World Bank (url: <http://data.worldbank.org/indicator/SH.XPD.PRIV.ZS>), WHO National Health Accounts (URL: <http://apps.who.int/gho/data/node.country.regionAFR?lang=en>). Accessed: 23/05/2014

The private health care spending comprises direct payments (out-of-pocket expenditure) made by household, private insurance schemes, benevolent contributions, and all direct facility expenditure by private organizations of a particular nation (WB, n.d). The WHO national health accounts endorses the relative stagnation of general government expenditure on health since 2003, with the only exception being 2005. General health expenditure increased substantially in 2005 which could be related to the economic performance during that period. The statistics show that private expenditure on health account for 42.52% of total health expenditure in 2012 (figure 1). The overall ten years (2003-2012) health

expenditure show that private spending on health accounts for 40.94%, while government expenditure accounts for 59.06% of the GDP (figure 1). The continuing stagnation of government spending on health could be linked to the decline of donor support of general budget on health care in recent years. The donor funding fell from 28% in 1992 to 14.3% in 2008 with no assigned reason (Abekah-Nkrumah et al., 2009). It is believed that the government decision to adopt the Highly Indebted Poor Country (HIPC) in 2001 is the main architect of the decline in donor supports in the health sector. Savings made under this policy allows the government to invest in social interventions, including the health sector, with less reliance of donor supports. This is why with the introduction of NHIS was very important in two folds: a) to assure a more sustainable health financing scheme; and b) to relief government from borrowing to support the health sector budget.

## **1.2 Research Background**

The fundamental rights of mankind include the right to good health and an understanding of quality life and dignity. This was articulated in the preambles of WHO constitution in 1946 which states that “the enjoyment of the highest attainable standard of health is one of the fundamental rights of every human being without distinction of race, religion, political, economic and social condition”. Good health is the key to the sustainability of economic and social development, thereby lessening of poverty in society. Access to the required health care needs is essential and vital to maintain and improve health care.



Simultaneously, people need to be protected to avoid being pushed into poverty due to the costs of seeking health care (WHO, 2010). The health sector of every nation is very important especially developing country like Ghana that wants to develop her human resource base in a short moment of time. At the thirtieth World Health Assembly (WHA) in 1977, in resolution WHA30.43 stated that by the year 2000, all people in all countries should have a level of health that will permit them to lead a socially and economically productive life. This implies that the level of all people should be at least such that they are capable of working productively and participating actively in the social life of the community in which they live (WHO, 2000).

The increasing attention on the provision of basic health care informed several decision makers all over the world to devise a mechanism such as health insurance to realize this ambition. Health insurance could be provided by the central government (usually called social health insurance) or a privately owned entity. In some instances health insurance is purchased by a group of people in a community or an organization, and in some instances by an individual. In each case, the brain behind purchasing health insurance is to protect people against any financial restrictions that may arise on the account of any medical eventualities. Premiums are usually paid yearly to cater for beneficiaries' health related needs within a specific year.

Most developing countries in the 1980's introduced a cost recovery system via a user fee system which calls for health seekers to pay for their health expenses in reaction to severe economic constraints by government budget.

However, most research conducted to assess the impact of a user fee system on consumers drew the attention of policy makers to the adverse effect it has on the people who demand for health care particularly the vulnerable (WHO, 2003).

An alternative to health care financing usually allows beneficiaries to pay for their health care in advance to avoid direct payment at hospitals, especially the poor ones for not rely on borrowing or using a copayment mechanism when a medical service is accessed. In May 2005, the fifty-eighth World Health Assembly adopted a resolution (WHO, 2005) urging member states to consider using alternative mechanisms of resource mobilization including social health insurance. Health care financing based on either general tax revenue or social contributions has an objective of pooling risk in the society as a means of finding an easy way of ensuring that quality and affordable health care are made available for all (Atim, 1998). According to World Health Organization in 2003, tax funded health insurance system in developing countries would be difficult to implement because of weak tax system and compliance and low institutional capacity to collect taxes.

Ghana, mostly relies on international support for human and capital development (WHO, 2013). The slow pace of economic advancement and institutional limitations explains the need to take a robust measure to design a means to finance health care which becomes awkward and subject to important discussions.

### **1.3 The Concept of User Fee System**

Ghana, under the colonial administration, adopted a user fee system in all the government owned health facilities throughout the country. However, after independence in 1957, Dr. Kwame Nkrumah's Convention Peoples Party (CPP) took over the administration, abolished this system, and as replacement introduced a tax-funded health care system where individuals receive free medical care when they visit government-owned health facilities. Throughout this period, private medical facilities continue to remain out of pocket payment (Agyapong & Adjei, 2008).

After the Nkrumah's regime was shown an exit by then Armed Forces in the early morning hours of 24th February 1966, the country experienced serious economic crises. This was characterized by poor maintenance of hospital equipments and infrastructure, low salaries for staff, and illegal charges for patients (Oxfam et al., 2012). Because of this, government subsidies expected to be disbursed to various facilities to run smoothly were no longer forthcoming.

The World Bank and the International Monetary Fund (IMF) advised the government on potential economic repercussions and proposed a cost recovery system known as a Structural Adjustment Program (SAP) as an alternative to cut down government spending on public health facilities. This means that users of health services must find means of paying for their health care expenses in times of need (Osei, 2004). The Government of Ghana in 1985 implemented hospital decree of cost recovery system known in a Ghanaian community as the 'cash and carry' system. This allows general removal of government subsidies to its health

care facilities. The advocates argue that this system would bring back efficiency and sustainability is assured since government is financially incapacitated. This policy was introduced at the time when almost all the economic activity in the country had come into a halt. People were confronted with high unemployment rate and the basic necessities of life. The poor had to depend on borrowing and assistance from family, friends or acquaintances which resulted in unnecessary delays and deterioration of illness. Patients who could not afford their medical bills were turned away only to suffer the consequences of death at home (Osei, 2007). The majority of the residents resort to the use of the local way of treatment, delay in seeking medical attention, self-medication, and visiting healing and prayer centers (Asenso-Okyere & Anum, 1998).

The ‘cash and carry’ system was officially introduced in 1985 in Ghana’s health care delivery system to allow residents to foot their medical expenses in time of health delivery. The idea behind this was to raise enough funds to improve health systems. It was also presumed that it would eliminate or reduce unnecessary visitations by patients who over abuse the system because it is free of charge. These ideas were not achieved according to available statistics, but rather basic health care needs were taken away from the majority of the residents (Quaye, 1991).

#### **1.4 Health Insurance in Ghana**

As noted earlier, before the introduction of the health insurance scheme in Ghana, health services were operated under cost recovery system known as ‘cash

and carry' by the then provisional national defense council (PNDC) military government since 1985 to curtail the economic crises that was bordering the nation. With the repercussion of this system, policy makers were challenged with how to find the best way of ensuring that health care does not continue to be a burden to the society. This debate continued until 2003, when a newly democratically elected Government, led by John Agyekum Kuffour's New Patriotic Party (NPP) soon passed the national health insurance ACT (650) backed by legislative instrument (LI 1809) in 2004 with the sole responsibility of ensuring that access to quality health care is free for all without any difficulties through the establishment of mutual health insurance schemes in all the districts in the country (Yevutsey & Aikens 2010). The law established the National Health Insurance Authority (NHIA) to regulate, facilitate and coordinate the activities of all the district base health insurance schemes across the country.

At the launch on the 18th of March, 2004, the then President of the Republic of Ghana, His Excellency John Agyekum Kuffour in the inaugural speech stated that it is unacceptable that 80% of ill-health and early deaths are a result of infectious diseases, pregnancy and child-related problems and accidents. He further stated that such ailments will be accommodated for under the National Health Insurance Scheme. Before the NHIS, there were pilot programs in the Dangme West District of the Greater Accra Region and Nkoranza District of the Brong Ahafo Region as a means of putting a firm substance for what eventually became the National Health Insurance Scheme in Ghana (NHIA, 2009).

The National Health Insurance Scheme (NHIS) covers primary health care services which constitute about 95% of frequently reported cases in the health care institutions in the country comprising the charge of drugs acknowledged in the NHIS drug list. Outpatient and inpatient services such as eye care services, maternity care, oral health services, surgical and gynecological operations and emergency care are covered under the scheme (MoH, 2004).

The NHIS premium is explicitly kept low to allow poorer people to subscribe. These premiums are determined according to the poverty indicators in every district. It is mandatory for people between the ages of 18 and 69 years to pay yearly subscription fees. Persons above the age of 70, and also Children below the age of 18 whose parents are beneficiary are also registered free of charge. The national health insurance regulation also provides that people lacking a visible financial source, no permanent residence, not living with someone who is employed with permanent residence or not having a persistent and consistent source of income from others is considered as indigent and relieved from premium payment. Pregnant women also enjoyed the same benefit as they are exempted from all financial obligations to NHIS.

It is very evident that the only viable way to pool risk in preparing equitable means of health care for all is through the introduction of national health insurance scheme. High membership would allow pooling more funds to fully finance the activities of the institution leading to its sustainability in the long run. The scheme in Ghana has successfully increased membership from 1,348,160 in 2005 to 15.8 million in 2010 out of 24,658,823 representing 64.07% of the total

population (NHIA, 2010). There is the need to shed more light to why it has not achieved total coverage. It is anticipated that there are some fundamental reasons why some residents are not interested in joining the scheme.

### **1.5 The Success Story of Japan's Health Insurance System**

Provision of several types of insurance in progressive fashion was experimented with different group of people in Japan until the balanced system was discovered which subsequently increased the number of its participants which led to the successful achievement of universal coverage.

The first health insurance (Kenko Hoken) system was introduced to industrial workers by the government in 1922. The number of applicants was modest because at the beginning, participation was not mandatory. After so many years, this was backed by law to enforce compliance on employers of certain kinds of companies in Japan. In 1938, health insurance coverage for farmers and self-employed known as the National Health Insurance (Kokumin Kenko Hoken) was instituted.

Again, participation was voluntary which lead to a small number of participants at the initial stage. After the second World War led to the establishment of universal health insurance coverage since the national government took it as one of the highest priorities. The national government offered financial assistance to municipalities in managing their own National

Health Insurance (NHI) funds. During this period, some villages and towns were too small to maintain independence in several respects.

This informed the government to encourage merger of smaller municipalities to overcome this obstacle. As a result, the total number of municipalities lessened from 10,500 to 3,574 between 1950 and 1960. These nationwide mergers strengthened the monetary and the human resource capabilities of small municipalities across the nation. In 1958, the NHI Law was revised and participation became mandatory for the people. After three years, almost all people who lived in Japan were covered by an insurance system (Yasuki, 2009).

## **1.6 Brief Profile of Study Area**

### ***1.6.1 Geographical location and description***

**Figure 1.2 Map of the Study Area**





The Dormaa Municipal is positioned in the Western part of the Brong-Ahafo Region of Ghana. The Jaman District and Berekum Municipal share boundary with the district on the north, on the east by the Dormaa East district, in the South and Southeast by Asunafo and Asutifi Districts respectively, in the southwest of Western Region and in the West and northwest by Cote D'Ivoire.

The Municipal Capital, Dormaa Ahenkro, is located about 80 kilometers west of the regional capital, Sunyani. The Municipality has a total land area of 1,368 square kilometers, which is about 3.5 percent of the total land area of the Brong Ahafo Region and about 0.6 percent of that of the country. It has 296 settlements out of which only two towns have a population of 5,000 and above and therefore classified as urban centers. The urban inhabitants constitute 31.30% of the total municipal population, which implies that the district is primarily rural in nature. It has one traditional authority and three constituencies, namely: Dormaa East, Central and West.

The population in the municipality according to 2010 population and housing census by the Ghana statistical service is 159,789 with male 78,270 (49.00%) and female 81,519 (51.00%), the second highest in the region after Techiman Municipal. The municipality is classified as one of the forest zones in the country; hence most of the people are mainly into cultivating of cash and food crop farming. Dormaa municipal's population is generally youthful with those in the age group of 15 - 64 constituting 57%; age group 0 – 14 forms 36% while those above 64 years constitute 7% of the population. The male-female ratio is 1:1.07. This implies that for every 9 males in the municipality, there are 10

females to contend with. This phenomenon is not different from the national level where females out-number males.

The main system of transportation for the people in the municipality is by road. The lone lengthiest tarred road is the Gonokrom-Dormaa Ahenkro which connects up with Sunyani, the Brong-Ahafo regional capital. Also, the Dormaa Ahenkro main township and 5 kilometers Nkrankwanta-Nyameama-Brofoyedru and 11 kilometers Dormaa Ahenkro-Asikasu No. 1 road are tarred. Apart from these, the rest of the road networks, which are under the department of the feeder roads are not tarred.

The people in the municipality are faced with a substantial level of poverty, according to the baseline survey conducted in 2008. The results of the survey indicate that about 27% of the inhabitants are classified as poor with estimated extreme poverty of 13%. Generally poverty is considered to be high, particularly women, rural occupants and other helpless sets of individuals such as people with disabilities, human immunodeficiency virus/acquired immunodeficiency syndrome (HIV/AIDS) patients and orphans. The poverty, according to the survey was attributed to restrict the chances for middle level manpower, low education level and capability, limited opportunities to credits and low revenues because of low and unstable prices of agricultural produce (DMA, 2012).

### 1.6.2 Health sector in the Dormaa Municipality

People's poor condition of health can be seen as an import of poverty and hence, the economic growth of the whole municipality. The millennium development goal of eliminating poverty in the municipality could not be achieved if the health of the inhabitants is not ultimately guaranteed. The consequences of these could result in low productivity, reduction of disposable income and savings as well as a drastic reduction of investment which could create jobs for the teeming unemployed youth. An attempt to develop the human resource capacity would not be materialized if the resident's health condition is not improved through access to quality and affordable health care services. Therefore, the government and the private entities combined have 127 health facilities made up of 2 hospitals situated in the municipal capital, 4 health centers, 5 rural clinics and 2 private clinics, 2 private maternity homes, 2 community-health planning and services (CHPS) compounds. There are also 6 static maternal and child health (MCH) centers and 104 outreach points that are evenly distributed across the municipality (GHS, DMO, 2010).

Unfortunately, these facilities have huge challenges in terms of qualified personnel's to man them. Apart from the municipal hospital, all the other 31 facilities have only one trained health personnel. In supporting the argument, the doctor-patient and nurse- patient ratios stand at 1:44,000 and 1:10,000 respectively. This condition is in no doubt affecting the efficiency and the effectiveness of health care delivery with its apparent aftermaths on low incomes

and less productivity. The table 1.00 illustrates the distribution of health staff in the municipality.

**Table 1.3 The Distribution of Health Staff in the Dormaa Municipal**

Category	Number
Doctors	6
Medical Assistants	2
State registered Nurses	11
Midwives	14
Community Health Nurses	21
Ward Attendants	47
Paramedical Staff	124
Health Aids	50
Total	275

Source: Ghana Health Service, Dormaa Municipal Office, 2010

Limited logistics and equipments, insufficient housing accommodation for the workers and poor sanitary condition and above all, high incidence of preventable diseases are confronted with the health sector. This situation has grossly affected the effectiveness and efficiency of health care delivery in the entire municipality with clear aftermaths on recovery level when one seeks for health care services.

The municipality is saddled with a lot of diseases such as HIV/AIDS, hypertension, rheumatism and joint pains, pregnancy related complications and

malaria. But malaria continues to be the most frequently reported cases in the Out-Patient Department (OPD) and admissions. There were 52.6% cases in 2003, 55% in 2004 and 51.6% in 2005; even though efforts are underway to ensure a clean and healthy environment to prevent mosquitoes.

### 1.6.3 The Municipal Health Insurance Scheme

The Municipal NHIS like other schemes is a statutory institution located in the Municipal capital, Dormaa Ahenkro. It was established in the year 2004, in an effort to make health care accessible and affordable for all registered subscribers. Membership registration and renewals are open to all residents throughout the year and mostly done through the community agents/collectors. The scheme has 22 accredited health facilities that extend medical services to all subscribers in times of need. The enrollment level of the scheme has seen an appreciable increase since its inception. Available statistics showed that in 2009 membership was 31,021, 2010 it went up to 55,255 and 2011 it was 81,194; which represents 50.8% of the total population of 159,789 in the municipality (GNA, 8/11/2012).

The municipal scheme has a planned and established managerial structure bounded by the NHIS policy guideline. It is made up of the general assembly, the board of directors and the management staff. The general assembly is the highest decision making body of the scheme, and is made up of the representatives of the registered members in every community. The board of directors is responsible for the negotiation of service contracts with providers, and the identification of core poor in various locations within the municipality to grant free access to health

care. The day to day running of the scheme lies in the hands of the management staff made up of the scheme manager, the accountant, the management information system manager, the claims manager and the marketing and public relations manager.

An effective mobilization of residents to the scheme is hampered by abject poverty, apathy and anxiety of what one stands to benefit when he/she becomes a member of the scheme. This research seeks to investigate to confirm the authenticity of these judgments and look beyond to uncover what might be the obstacle for membership. The institution is not spared with common obstacles confronting various institutions such as inadequate staff and infrastructure, means of transport and communication among others. (GHS, DMO, 2013).

### **1.7 Statement of the Problem**

Good health is very essential for national and human development. Living a healthy life helps people to exhibit their full potential to create more wealth and opportunities for themselves and the country at large. In general, the cost of health care services is always an obstacle to most citizenry; especially the poor and vulnerable in society. There are instances where people have died because they cannot make upfront payment in seeking medical service. Even though these are worrying situations, some significant number of the populace feels reluctant in joining NHIS, which seeks to offer support in the event of such nature.

Governments all over the world have great deals on health matters. In this regard, the Ghana Health Service (GHS) has the objectives to “implement

approved national policies for health delivery in the country; increase access to good quality health services and manage prudently resources available for the provision of the health services”. At the same time, the National Health Insurance Authority as the national governing body of the National Health Insurance Scheme has a mandate to “secure the implementation of a National Health Insurance policy that ensures basic healthcare services to all residents”. However, both institutions seek to collaborate effectively to achieve their ultimate goals, which drive towards improving access to quality and affordable health care in order to reduce preventable deaths and delays associated with seeking medical care in the country. But it seems the task ahead is overburden as life expectancy remains as low as 60.5 (WHO, 2012), infant mortality rate is 57% (UNICEF, 2010) and malaria cases and deaths is escalating as well (GHS, 2010).

It is evident from the available statistics that the National Health Insurance Scheme has progressively increased its membership since its inception in the year 2004, from 1.3 million in 2005 to 18 million in 2010. Notwithstanding the hard work and mechanisms by the scheme authorities to expand the subscription level to cover all residents in the municipality and the nation, there are still a large number of people who have declined membership. The question that still remains unanswered is; why for almost a decade now, a significant number of people are unwilling to register? Could this be attributed to an institutional problem or the general public?

This study aims to identify the challenges that are hampering residents' chance of participating in the scheme. This will aid in offering credible remedies

based on available facts to cure the mischief surrounding health care, using Dormaa Municipality as a case study.

### **1.8 Significance of the Study**

The accessibility, affordability and efficiency of health care of the people cannot be compromised. Awkwardly, the literature available does not specifically look at challenges in enrollment and satisfaction with the current health services, which serves as a barrier for residents who are interested in becoming beneficiaries of NHIS especially in the Dormaa Municipality. This study will deeply investigate obstacles affecting enrollment, which would aid in increasing the number of literature. This research hopes to contribute immensely to the practical and effective way of ensuring that all residents are captured under the NHIS to reduce the incidence of preventable deaths from society. This will help the scheme to accomplish their optimum objective of “health insurance for all.”

The policy makers and health care providers can nevertheless use the research results to determine priorities for improvement, and to identify areas where performance of the country’s health service system is deteriorating and might adversely affect patient satisfaction. This will help them strategically formulate and implement policies and programs that would deliver quality services to meet people’s expectations. Even though the study aims at examining the existence of a possible problem confronting the society, and the success of NHIS as an institution, it would also serve as a source of reference for future researchers. Finally, this study will be useful, and serve as a benchmark for



policy makers and various governments around the world who want to implement the health insurance scheme to establish the right procedure to achieve success within a limited period.

### **1.9 Objectives of the Research**

The general aim of the study is to identify the challenges in enrollment and residents' satisfaction with the current national health system after the introduction of NHIS in the Dormaa Municipality, Ghana. Specifically, the study seeks to achieve the following objectives.

- To examine socioeconomic and demographic factors that affect residents' participation in the scheme.
- Evaluate individual satisfaction with health care provision in the Municipality.
- To identify residents willingness and expectations of the NHIS.
- To offer policy guidelines to achieve total coverage.

### **1.10 Research Questions**

The general question of this study is: what are the challenges in enrollment and residents' satisfaction with the current national health system with the introduction of NHIS in the Dormaa Municipality, Ghana?

The research seeks to answer the following questions:

- What are the socioeconomic and demographic factors that affect residents' participation in the scheme?
- Are the individuals in the Municipality satisfied with health care provision?
- What are the residents' willingness and expectations of the NHIS?
- What policy recommendations are likely to ensure universal coverage?

### **1.11 Purpose of the Study**

Ghana and specifically Dormaa Municipality continue to face huge challenges with the health of its people. Generally, the cost of accessing medical care has always been a burden and hard to afford, especially the poor. The consequences of this can result in preventable deaths. The World Health Organization in 2010 estimated that adult mortality rate (the probability of dying between 15 and 60 years) is 332 per 1000 population for both sexes. Also, the Central Intelligence Agency (CIA) reported that there are 8.57 deaths/1,000 population (CIA, July 2012). The NHIS was officially introduced in 2004 to solve this problem, but the situation seems to be deteriorating day by day. The authorities have used several options such as community sensitization through public lectures, mass and electronic media to educate people on the need to partake in the scheme have not received the expected public endorsement. This is a worrying trend which needs to be tackled with the greatest seriousness for a nation and human development. This research focused on identifying challenges confronted by the general public in an attempt to demand insurance and make an

assessment of the current health care services. This will help provide better insurance coverage with higher quality for all, thus, ensuring universal health coverage.

### **1.12 Study Limitations**

Even though some level of restrictions such as finance, transportation, and time was anticipated and solutions were provided before the actual study, yet the research was not free from such problems and also recall of some of the completed questionnaires. The study depends on having access to people in their various settlements, but access was limited due to transport. Some communities could be visited once in a week (Tuesdays) supposedly the market day in the district capital. The deplorable nature of most of the roads makes access very difficult and affected the speed of the work. Moreover, most of the respondents were farmers and traders who leave for their work early and come home late in the evening. This has in no doubt disturbed the effort of assembling all the completed questionnaires for analysis purpose. Finally, the estimated budget could not support the entire study since visitations to some places tripled which requires additional income to accomplish.

### **1.13 Organization of the study**

This study is divided into six main chapters. The chapter one outlined the country and study background, the concept of a user fee system, health insurance in Ghana, the profile of the study area, problem statement, the significance of the study, objectives, research questions, the purpose of the study, limitations and the organization of the study. The chapter two provides the review of the relevant literature undertaken by experts and researchers related to this study. Chapter three put forward the conceptual framework which gives clarity and understanding of the way forward. It also contains the research the methodology applied in this research. Chapter four presents the results obtained from the field study. Chapter five shows the discussion of the results and testing the hypotheses thus revealing the reasons why universal coverage is yet to be achieved. Finally, chapter six gives the conclusion and recommendations for decision makers to incorporate in the policy direction of the scheme to realize the promised vision. This chapter ends by suggesting direction for a similar study in the future.

## CHAPTER TWO

### REVIEW OF MAIN CONCEPTS

#### **2.1 Introduction**

The Researcher used search engines such as PubMed, ProQuest, Scholar Google and ScienceDirect among others, with the following key words: problems of health insurance in Ghana; National Health Insurance Scheme in Ghana from 2003 to 2012; the challenges of the health insurance system; and obstacles of universal health insurance coverage, to implore for relevant literature related to the topic. Most of these journal articles outlined by various authors around the globe were reviewed extensively. This chapter explains the user fee system, universal coverage obstacles, health insurance coverage, community-based health insurance scheme, health insurance and national development, health care financing in developing countries and Ghana's health care access and status.

#### **2.2 Universal Coverage Obstacles**

The fundamental principle of universal health coverage requires that every person have access to sufficient, quality and effective health services while ensuring that the public will not get any financial hardship when paying for these services. Universal Health Coverage (UHC) has thus become one of the prime targets for health care transformation in several countries and a significant objective of the World Health Organization (WHO).

This definition of UHC embodies three related objectives:

- Equity in access to health services - those who need the services should get them, not only those who can pay for them;
- That the quality of health services is good enough to improve the health of those receiving services; and
- Financial-risk protection – which means that the cost of using care does not put people at risk of financial hardship.

Universal health care coverage delivers self-reliance for improved health care and protection against poverty for hundreds of millions of people, especially those in a position of greater vulnerability. Universal health coverage, according to WHO is firmly based on its constitution of 1948 declaring health care for all is a fundamental human right and everyone's health agenda set by the Declaration of Alma Ata in 1978. The achievement of the Millennium Development Goals and health goals for the next wave looking beyond 2015 will depend principally on how states manage and move towards universal coverage (WHR, 2010).

A study was carried in West African countries such as Burkina Faso and Guinea Conakry to investigate the courses of low enrollment in their insurance schemes. It was reported that low enrollment in the community health insurance in Burkina Faso was inflexibility in the collection of premiums rather than poverty. In the Guinea Conakry, the issue of low enrollment was attributed to poor quality of health care services by the insured (Basaza, Criel, & Van der Stuyft, 2008).

Metiboba, 2011, also identified that present constrained as at by several other factors in Nigeria, a West African state like Ghana are poverty, poor supply

of drugs or vaccines, inadequate trained health personnel and dwindling funding of health care, employers/providers' resistance to contributing their own quota, general poor state of nation's health care service, cultural belief and dilapidated health infrastructures.

Mershed et al. (2012) review the satisfaction with the current system and the role of national health insurance in householders,' reported that supporting the scheme financially is a major distress and should be taken into consideration the ability to pay and relieve the poor. They were of the view that waiting times should be reduced and satisfactory coverage needed to be assured. It was mentioned that residents are willing and ready to support the scheme to pool resources if fraud and inadequacies are expressed and dealt with accordingly.

WHO, in 2003 identified quality of health care as one of the obstacles that can undermine the achievements of the universal health coverage. A study was conducted in Maliando scheme in Guinea-Conakry in a community based health insurance scheme and participants were of the view that quality of health care denotes rapid recovery, good health personnel, quality drugs and nice reception when they visit a facility. It was cited that they prefer paying a huge amount in receiving these services elsewhere rather than enrolling in the scheme which would deny them of these basic services.

Membership rates in the health insurance scheme are sometimes influenced by the size of the gap between the household's home to the nearby health facility where covered services are delivered. In a case of the Gonosasthya Kendra scheme, participation between the two socioeconomic disadvantaged

clusters of individuals seemed to be linked to the distance. It was discovered that 90% of the target population who subscribe are from close communities, while target population who live far away were only 35%. A project study was done in Rwanda and it was reported that families who lived within the range of 30 minutes from an accredited health facility had a considerably superior likelihood to be enrolled in the community health insurance scheme as opposed to people who lived distant away (WHO, 2003).

Health care financing either by general tax or social health insurance is one of the most powerful means to ensure that every individual is secured against unforeseen health care eventualities. Clearly, the objective of universal health care system should be in line with universal financial protection for all. This means that individuals are expected to contribute according to their financial capabilities and right to access to health care needs must be made available for everybody. In the general tax funded system of health care financing, people's contributions were mainly indirect taxes whilst social health care system is through workers monthly contributions based on how much they earn at the end of the month (Carrin, 2003).

In the wake to achieve a universal coverage system, lower middle-income country like Ghana face a huge challenge in terms of generating enough taxes to finance health care throughout the country. This means that, accessibility to health facilities and other benefits offered are inadequate. It is obvious that, a government income highly depends on export and consumption, but the tax collection agencies have institutional challenges which affect their daily



operations. This poses a great danger in raising enough funds to subsidize the health care system, but this could be achieved if formal and informal workers agreed to comply with the principles of taxation (WHO, 2003).

Another obstacle confronting health insurance scheme is the struggle in a sharp change to adopt the social health insurance scheme. There have been difficulties for the stakeholders to reach consensus on the basic principles of the social health insurance scheme. Thus, notwithstanding how much one contributes to the scheme, every individual is guaranteed equal and similar health care protection. This problem is very severe in countries where an income disparity between the rich and the poor is very wide (WHO, 2003).

It was observed by Carrin, 2002 that, health expenses are considered too huge if it can send the householders consumption pattern below the standardize poverty line. It was argued that householders' ability to pay for health care after their basic needs are met would not put much pressure on them. Similarly, Russel, 2004, discusses that a budget quota of 10% will not be classified as disastrous for high income families that can amend their expenses on luxuries or for robust householders that can marshal resources and common systems to pay for treatment. But any health financing plan that costs 5% may be considered as terrible for the poorer homes and might force them to reduce their expenditure on the basic necessities of life. It was acknowledged that any outflow required for the poor is said to be a burden since they are considered as vulnerable and struggling to meet the daily consumption desires. Therefore, any spending that consumes 1%

of his income is vicious enough to be considered as devastating health expenditure.

Social health insurance and tax funded health insurance scheme can be sustained if there is political will coupled with economic independence. Governments all over the world control and manage taxes; hence raising funds to support health care are a sole prerogative of the ruling government. Social or a tax based health care finance could be delayed or collapsed if there is no strong motivation for political determination (Carrin, 2003). Another important challenge identified by Oxfam, 2011, was that everybody in Ghana contributes to health insurance but few are benefiting. It is evident that one of the main sources of funds for NHIS is a National Health Insurance Levy (NHIL) added to the Value Added Tax (VAT). This means that every resident indirectly pays for NHIS through their purchases irrespective of one's financial capacity, but only 18% are benefiting from this fund. Even though, quite a significant number of Ghanaians are living on less than a dollar a day, 20% of the poorest pay 6% of their expenditure as tax and almost 15% of this goes to government health expenses.

### **2.3 The Review of Health Insurance Coverage**

Most health insurance schemes in the world start in a small community or formal sector of an economy with a smaller number of people before it grew to become nationwide. Japan, the Republic of Korea, Uganda, Mali, India, and Kenya are few examples. The world health organization (WHO) in 1998,

conducted an extensive review in 82 nonprofit health insurance schemes for people in the informal sector in some developing countries. These schemes, according to Bennet et al. (1998), are unwilling to register high proportions of the eligible population, but few of these schemes have a large proportion of the population. The data revealed that 24.9% out of 44 of these schemes cover eligible population, 13 schemes had coverage below 15%, and 12 schemes had coverage above 50%.

The review analyzed one of health insurance schemes in both Ghana and Mali and reported that there is a membership of 53% and 25% of the target population of 25,000 and 200,000 respectively. In the republic of Senegal, the coverage rate was 26% in one of the schemes over three years in existence. In Guinea, there was a decline of membership from 8% to 6% in the Maliando Health Organization (Criel, 1998). (Schneider & Diop, 2001) also reported that a project was launched in Rwanda in 1999, to establish 54 schemes in three districts, but by the end of one year, the enrollment level remained as low as 7.9% of these three districts. These facts reviewed support the argument that if necessary structures are made available, they can contribute immensely for the total achievement of health insurance for all.

## **2.4 Community-Based Health Insurance Schemes**

Community as used in so many areas of study refers to a group of people living in an area that shares common values and principles in a given period within a specific period of time. The community with togetherness usually looks

for an alternative means of financing health care. In an engagements of such nature mostly depends on the community settings, their financial capabilities and most importantly, their objectives (Jütting, 2002). The bulk numbers of such communities are small scale peasant farmers with poor financial status. Therefore, an individual involvement in the scheme is based on one's membership of a social group where contributions are made in the spirit of solidarity. The Democratic Republic of Congo's Bwamanda scheme and Guinea-Bissau's Abota schemes are examples of schemes that emerged in response to the failure of Government to sustain the state funded ones (Jutting, 2002).

After a long suffering by the people in the struggle to fund their medical expenses against the background of high user fee and loss of innocent lives, stakeholders realize the need to look for an alternative means to finance health care. In 1997, the ministry of health began to pilot health insurance scheme in selected communities in the eastern region of Ghana (Oxfam, 2011). These schemes were voluntary in nature and there was community involvement in the management and control of resources. All these measures were put in place to encourage people to be enrolled but according to an Oxfam report on March 2011, the coverage never exceeded 2% of the population.

The international and local organizations such as the World Health Organization (WHO), the International Labor Organization (ILO), the European Union (EU), the Ghana Medical Association (GMA) and the national body of labor union known as the Trade Union Congress (TUC) having realized the consequences of the existence of 'cash and carry' system proposed an

institutionalization of national health insurance scheme to replace the existing pilot schemes. This informed the ministry of health to establish a separate office in the 1990s for the scheme (Agyepong & Adjei, 2008).

## **2.5 Health Insurance and National Development**

The economic development of every nation has direct linkage on the human resource base capacity of its residents. The health status of the populace serves as an indicator of the poverty level of such a nation. Efficiency, affordability and accessibility of the health care serve as a strong instrument in the fight against poverty. The health status of the residents of a nation is recognized generally as one of the biggest barriers of economic growth and development especially the less developed ones. The concept of human development has a very strong relationship with the health of the people in relation to their ability to contribute positively to the growth and total productivity of each sector of an economy (UN, 1975).

The contribution offered by the introduction of national health insurance scheme policy is seen as one of the greatest means to the nation's development. It has now paved a way to easy access to health care for the majority of residents, job creation, increased in income level, improvement in health status of the people and improvement in education level which serves as cardinal indicators in the measurement of poverty of every nation. The focus of the national health insurance scheme policy in Ghana is efficiency and accessibility of health care

coupled with the high rise of government expenditure on the general infrastructure, equipment and personnel to man these facilities. This laudable achievement is identified as one of the main objectives of the Millennium Development Goal (MDG) in terms of improving quality of life of the people, reduction of mortality rates, reduction of HIV/AIDS and malaria in the country (MDG, 2002).

The United Nations development program (UNDP) report, on human development in 2007, indicated that, the overall access to health care in Ghana has improved since the introduction of national health insurance scheme in the country. The Ghana Statistical Service also reported that poverty level has also seen a significant reduction (52% to 29%) within the same period (1998-2008) and this shows a positive sign in the quest to fight against poverty (GSS, 2007).

## **2.6 The Concept of Health Care Financing in Developing Countries**

The health care financing systems are fundamental in achieving universal health coverage. The health care financing Controls approaches for universal health coverage are in three interrelated areas:

- Raising funds for health;
- Reducing financial barriers to access through prepayment and subsequent pooling of funds in preference to direct out-of-pocket payments; and
- Allocating or using funds in a way that promotes efficiency and equity.

Improvements in these important sections of health care funding will explain whether or not the health services are available and accessible to all, or people can afford to use it when they seriously need it (WHR, 2010).

Health care financing has a great deal for both developed and developing countries all over the world. Policies by the policymakers on how to raise enough funds to provide quality, adequate and efficient health care services to the general public continue to be an overburden to the less developed countries. Sub-Saharan African countries are not spared in terms of funding the health care needs of the population due to stable governance, poor tax administration and good governance (WHO, 2004).

Over the last decades, health care financing has changed entirely in its perspective, especially the developing ones. Within these periods, health care, financial policies and programs were driven towards fighting only major epidemics confronting societies. Thus, making sure that the entire population lives in a disease free environment. But questions were raised on how sustainable this could be in terms of effectively and efficiently combine the limited resources, fee policies and revenue distribution in general. In the late 1990s, cost recovery system was relegated to the background and health care financing policies became the main issue for consideration (WHO, 2004).

The key component that could undermine the health status of the residents in a country is the availability and efficiency of health care financing. The developing country's portion of the global population is 84% with 90% of the disease burden, but could spend only 12% in totality of global spending on health

care. The United States of America alone in 1983 spent about \$478 billion on health care whilst in 1988, 148 developing countries could spend only \$100 billion (WB, 1993). With this, developing countries continue to receive donor support from the developed countries to cushion their spending on health care. Available statistics showed that 3.4% was used by developed countries to support the health care budget of developing nations and other voluntary organizations contributed approximately 20% of global health assistance (Preker, 2002).

## **2.7 Satisfaction in Service Provision**

The satisfaction in the health care delivery cannot be compromised for high membership allows pooling more funds to be able to finance their activities leading to its sustainability in the long run. There is a growing perception that access, affordability and quality of health care services have a relatively greater influence on patients towards their health seeking behavior. Lafond, 1995, observed that because of customers' negative perceptions about quality, the utilization of health facilities remained low. Guldner and Rifkin, 1993, also made a similar observation that poor quality of services in the public sector led to greater use of private providers in Vietnam and Uganda (cited from Andaleeb, 2001).

The cost and the satisfaction derived from health service when covered by the NHIS are not mutually exclusive. Consumers in general want value for money and would be ready to sacrifice some appreciable percentage of their income if



they receive better quality of healthcare at the point of service. It must be noted that ensuring easy access or minimizing costs is not enough if there is a lack of confidence and mistrust in the quality of health care services. When there is criticism and insecurity in the health care provision, it does not guarantee a minimum quality threshold, and is likely to affect the income generation of facilities since they may be underutilized, or bypassed, and used only for minor ailments, or used as a measure of last resort.

Sitzia & Wood, 1997 and Williams & Calnan, 1991, noted that one of the important elements in measuring consumer satisfaction is the assessment of quality of health care which is not adequately catered by other health service statistics such as patient throughput, waiting times, consultation times and proximity. Patients' satisfaction is considered as one of the most powerful predictors of the health-related behavior of people's willingness to seek health care services, ability to accomplish treatment, full cooperation, submission, and changing of healthcare provider.

These factors are likely to influence treatment outcomes (Mahapatra, 2013). Valarie & Zeithaml, 1990 believed that, service quality is based on customer perception about the services delivered by the providers and how these services meets or exceed their expectations is purely based on customer judgment. Jackson et al. (2001) revealed that, a significant improvement in symptoms after 2 weeks and 3 months of visiting a facility increased patient satisfaction, but with no sign of improvement decreases satisfaction level. It was also discovered that

satisfaction could be predicted by unmet expectations such as the interaction that existed between patient and the doctor.

Mohammed et al. (2011), observes that marital status, general knowledge and awareness can impact positively on satisfaction while employment, income, hospital visit and duration of enrollment influence satisfaction in a small manner. They recommend that a similar study is conducted in different settings to deeply understand the phenomenon.

Irfan et al. (2012), study indicate that public hospitals have no plans for delivering the quality of services to patients and are not making any viable efforts which can meet the needs and wants of their consumers. Customers all over the world play an important role in measuring the quality of goods and services. In the healthcare sector in particular, patients are the consumers and their sensitivities cannot be ignored when proper assessment of service quality is conducted. An evaluation of patient satisfaction helped in maximizing an organization's quality and the value of the care it provides (Bell et al., 1997).

Patient satisfaction also hinges on whether the service experiences, meet consumer expectations. This has created the need for a system of continuous quality improvement aimed at providing valued services to the consumer. This is vital for improving the quality of care in the health delivery system in the country.

Brown et al. (1990) disclosed that, quality health care is described as one that meets the patients' requirements, and always delivered in a professional manner and on time. Consumers want value for their money thus, they want services that match with the amount they pay by showing an effective relief of

symptoms and disease preventing mechanism. Indeed, one cannot talk about quality and for that matter, satisfaction concerns without considering the users of the service. An intermittent interaction of customers provides managers with innovative ideas for improvement and ultimately assists them to measure and adjust performance against the all-important barometer of customer satisfaction (Longenecker & Neubert, 2003). Dispensa, 1997, observed that, when customers are satisfied with a product, they share good information about it for others to patronize. On the other hand, it is natural that when people are dissatisfied with a particular product or service, they do not only desist from subsequent patronage, but rather go beyond, and make comments that sometimes discourage others of patronage. Customer satisfaction was described by Kohl and Gasworks, 1990, as the essence of success in today's highly competitive business world.

Ghana's population is increasing and it is expected to place greater demands on the country's health care services. The consequences are grim since the economic situation has not matched with the ever-growing population. Until quality improvement and consumer satisfaction become a priority of the nation's health sector, people may hold out from availing healthcare services until their condition deteriorates irreversibly, or they may bypass the system in search of alternatives that assure better quality of care elsewhere. It is imperative, therefore, for healthcare providers focus on and deliver quality services to gain patient confidence. In turn, such measures should bring patients back to a system that is designed to serve their needs as well or better than the services abroad.

Evaluation of patient satisfaction is an important factor for the monitoring of the health care system for effectiveness, efficient planning and monitoring. This research will investigate the consumer satisfaction in health care service in the Dormaa Municipality after introduction of the NHIS. Satisfaction parameters will put into consideration the availability of medical professionals at the facility, quality of basic amenities, the attitude of health personnel and NHIS staff, drug availability, easy access to health care and improvement in symptoms and recovery after one week of visiting a facility.

## **2.8 Ghana's Health Care Access and Status**

One of the core objectives of Ghana health reform, which came into force in 1997, was to make health care accessible for all irrespective of one's religion, ethnicity or geographical location. Access to healthcare services as described in the document is where within 30 minutes one should be able to locate well equipped modern facility capable of rendering efficient service for all. It emphasized that an individual access to health care should be devoid of any obstacle that would obstruct his/her effort of gaining quality and affordable health care service (MoH, 1996). Even though efforts are underway to improve quality and access; a lot of people deny this access because of their geographical location, financial capacity and means of transport. Geographical location is the spatial interaction between the residents in a defined area and access to health facilities.

Financial capacity is a situation whereby one can afford to pay his/her medical expenses in time of visiting a facility. The means of transport is the availability and mobility of people from one destination to a health center. According to Ghana Statistical Service (GSS, 2003) survey on core welfare indicator reported that access to health care in Ghana has progressively increased from 37% in 1997 to 58% in 2003. The availability of health care includes where the facility's location, hours of operation, drug provisions, total number and type of health workforce, the limit and the quality of service provision.

Thiede et al. (2007) & Jane Macha et al. (2012), in their study to investigate the issues considered as a delinquent of health care funding and the spreading of health services assistances in Ghana, Tanzania and South Africa. All the three countries public and private hospitals with modern and advanced technology are typically positioned in large cities, resulting accessibility more difficult for lower income bracket individuals living in isolated places. These people are more probable to use nearer, primary services established in sub-districts.

Meanwhile, even these are not easy to reach since people have to travel some miles before they can get to the nearest health facility. Respondent lamented that "When one fell sick, he/she has to travel as far as nine miles, and if such a person did not get favor from God, he/she might perish". The scarcity of health experts and a deficiency of investigative tools to support health care delivery at the public primary amenities were discussed as a source of worry by the respondents specifically in Tanzania and Ghana, because of possibility of mis-

diagnosis, which result in expenditures on needless medicines, and at the same time greater chance in waiting longer for care.

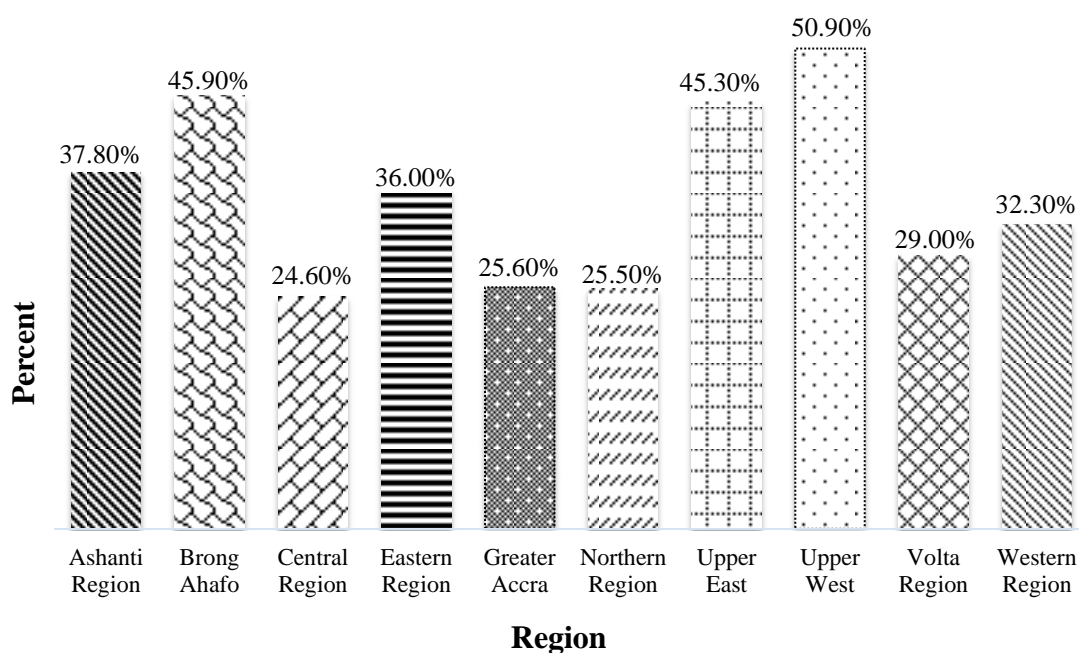
Rural communities were said to have an inadequate choice of service suppliers with a majority of basic health care services at the public facilities and, in Tanzania in particular, spiritual health providers. The data from the three nations emphasized the fact that drugs were expected to run out of stock in the national facilities rather than the private ones. The inconsistencies in working hours were found to have been affected service availability. In Ghana, health facilities are officially instructed to operate 24 hours a day, but to the obstruction of the respondents, most often facilities in the rural areas defile such orders.

The World Health Organization in 2010 estimated that adult mortality rate (the probability of dying between 15 and 60 years) is 332/1000 population of male and female. Also, the Central Intelligence Agency (CIA) reported that there are 8.57 deaths per 1,000 population (CIA, July 2012). Malaria continues to be the most frequent reported cases in the hospitals as reported by Ghana Health Services. The total number of cases reported seeing an upward trend from 3694,671 in the year 2009 to 3740,005 in 2010 and a proportion of malaria to total *Out Patient Department (OPD)* increased from 32.5% to 34% for the year under review. Apart from malaria, there are other frequently reported cases of diseases such as tuberculosis, measles, pregnancy related diseases, skin diseases, cholera, diarrhea and cancer (GHS, 2010).

## 2.9 The official Coverage of NHIS

According to the National Health Insurance Authority annual report in 2011, the scheme is presently operating in 145 districts, municipal and metropolitan assemblies including five additional satellite offices all over the country. It has total subscribers with up-to-date premium payments and card renewals (active membership) of 8.2 million, which corresponds to 33% of the population. The Upper West (UW) has the highest number of active membership (50.90%) followed by Brong Ahafo (BA) with 45.90% and Central Region (CR) contributing the least membership of 24.60%. The report also revealed that 785 health facilities were accredited, which brings the total number of accredited health facilities to 3,344 as of 31<sup>st</sup> December, 2011. The active membership by regional percentage in relation to its population can be seen in figure 2.1.

**Figure 2.1 Active Memberships as Percent of Population by Region In 2011**



Source: NHIA 2011 annual report

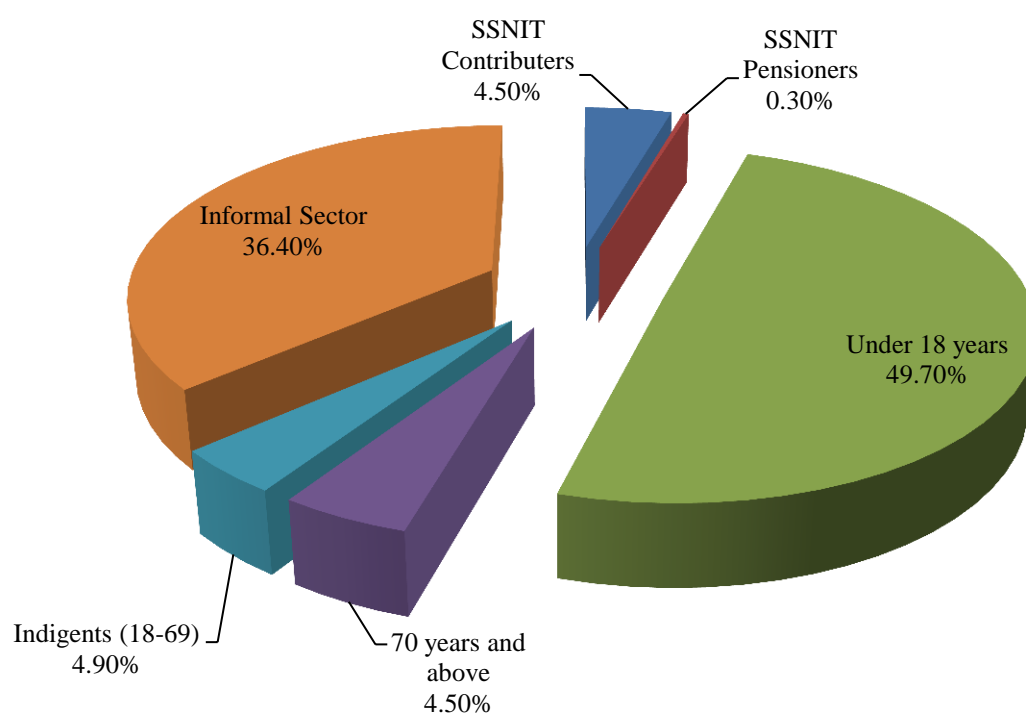
## **2.10 Membership categories**

The report also highlights the categories of active members during the year under review. The details of figure 2.2 underscore the fact that Children under 18 years are the majority constituting 49.70% of NHIS active members. This is followed by the informal sector of 36.40% with the Social Security and National Insurance Trust (SSNIT) Pensioners being the least 0.3%. The informal sector which employs over 80% of the working population with majority of whose income is insecure and inadequate are the only population group required by the Act to pay premiums in cash to benefit from the scheme which ordinarily falls between Gh¢15 and Gh¢25 per individual. This brings to bear the fact that majority of the registered members does not make a financial contribution to support the activities of the scheme.

It is therefore important to strategically ploy smart edifices that can increase membership of the informal sector in order to boost the financial strength of the scheme. The distribution can be illustrated in figure 2.2 below.



**Figure 2.2 Active Members of NHIS by Category in 2011**



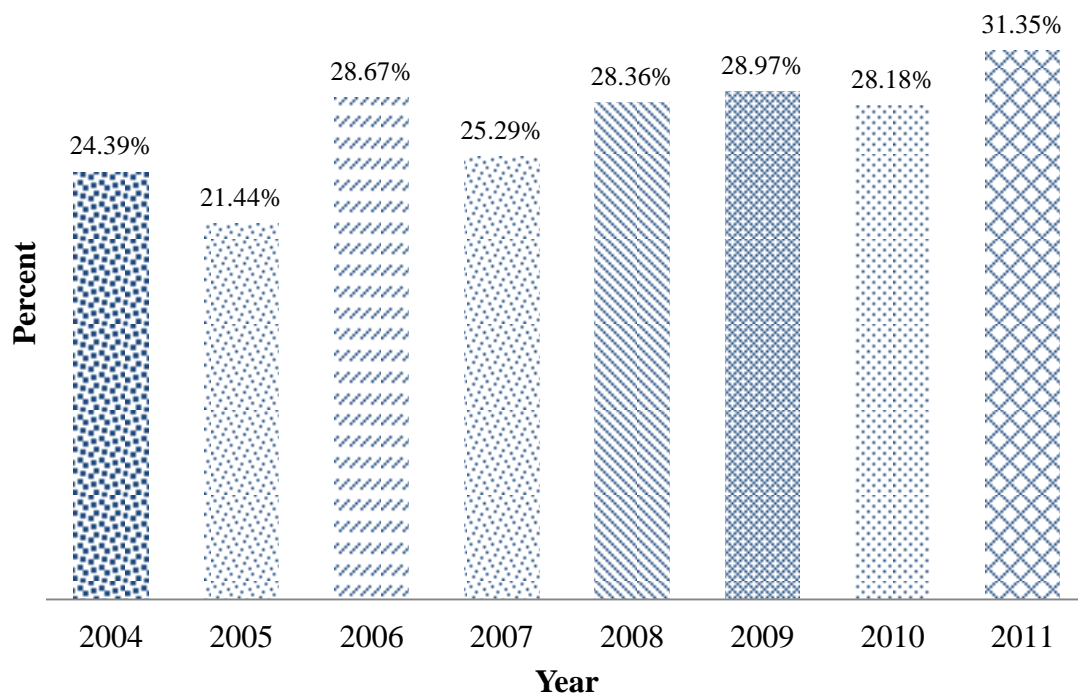
Source: NHIA 2011 annual report

### **2.11 Out of Pocket Expenditure**

There is no doubt that the introduction of the NHIS in 2004 has seen a significant reduction in out-of-pocket expenditure as a percentage of total health expenditure (THE). However, obstacles to enrollment and the continuing dependence on out of pocket payments in health care services make up a significant portion of total health care financing more than the WHO recommended rate of between 15.00%-20.00% in the country. It is rational to assume that with the introduction of NHIS, the out of pocket payment as a percentage of total health care expenditure must decrease if there is an increase in

membership. But available statistics according to WHO database on Global Health Expenditure is rather increasing from 24.39% in 2003, to 31.35% in 2011. This is unacceptable because those who cannot afford, especially the poor would be denied access to basic health care services. It is important to emphasize on what accounts for the sharp increase in the figure and how best it could be resolved. A detail of this is shown in figure 2.11.

**Figure 2.3 Out Of Pocket Expenditure as Percentage of Total Health Expenditure between 2004 and 2011**



Source: WHO Global health expenditure database

## CHAPTER THREE

### FRAMEWORK, HYPOTHESES AND METHODOLOGY

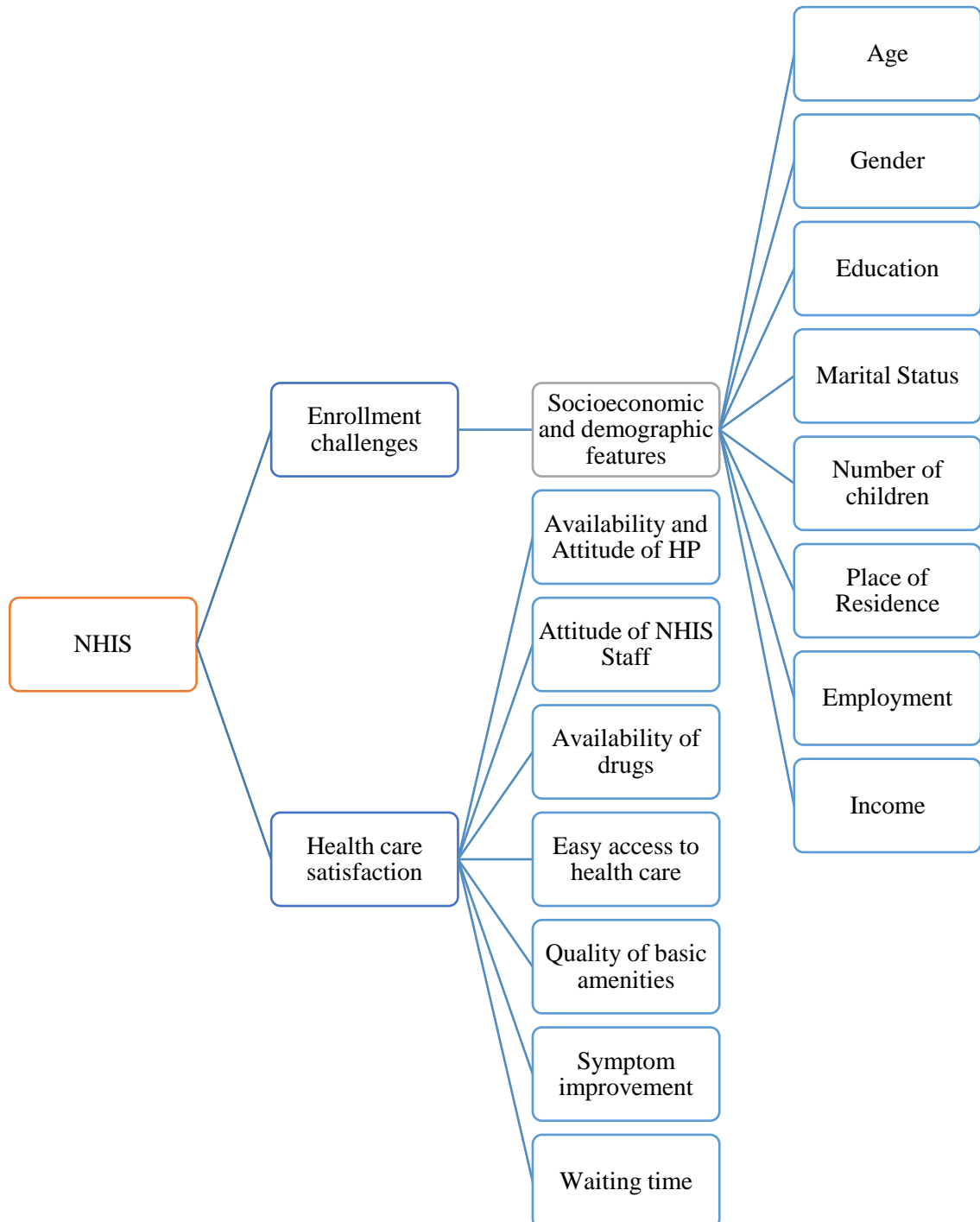
#### **3.1 Introduction**

This chapter discusses the framework, hypotheses, and methods that were employed in the study. It outlines the research design, the validity and reliability of the research method, sample and sampling procedure used, research hypotheses, techniques of data collection tools and pre-testing, data collection procedures and data analysis plan.

#### **3.2 The Framework of the Study**

This research has been conceptualized after the review of relevant literature and personal observation after a year and half working with the scheme in 2008. The framework clearly identifies the potential factors that are likely to affect the residents' decision to enroll in the NHIS in the Dormaa Municipality and Ghana in general. Similar studies have been conducted in different parts of the world which has proven that age, education, income and marital status affect enrollment of the scheme. But this study is exclusive in the Municipality, which makes it significant to authenticate their results and move beyond the discovery of main challenges affecting consumers' choice in obtaining health insurance. This can be exemplified in the figure 3.1 below.

**Figure 3.1 The Framework of The Study**



The person's decision to enroll in the National Health Insurance Scheme is presumed to have a high influence on the socioeconomic and demographic characteristics such as age, gender, education, income level, marital status, place of residence, employment, income and the number of children/dependents. Age naturally plays a role in health seeking behavior. Biologically, when people grow older, their health begins to deteriorate, leading to a lot of health complications. It is therefore assumed that people with old age will stand a higher chance of buying health insurance than the younger ones. High enrollment is expected if married couples or single parent has a sizable number of dependents.

Even though, children below 18 years of age do not pay a subscription according to the NHIA act, but are required to pay a registration fee, which could be a burden for parents or guardians with high number of dependents. Also, enrollment into the scheme could be determined by the level of education one has obtained. People with higher education are much sensitized about health issues which makes them not vulnerable to health care protection compared to the less or non-educated ones. Knowing the economic and social effect of being healthy, motivate them to do what it takes to secure better health care policy for themselves and their family.

Notwithstanding the fact that they consider health issues more important than every material thing, they have the ability to read and understand the activities and the benefit packages of the insurance scheme much easier. The opposite holds as people with no education may have to depend mostly on secondary information before taking a decision. This placed them in a most

disadvantage situations since they might be negatively informed about the activities of the scheme.

Also the income level of the residents is touted as one of the factors which could undermine enrollment level. Peoples' ability to pay premiums to become beneficiaries of the scheme depends largely on their incomes. People with high income are likely to join the scheme while people in lower income brackets are likely to be denied the opportunity to become a member.

Government employees have no worries in paying premiums as their monthly deductions are collected by SSNIT and paid to the NHIA account. The individual's involvement in the insurance scheme is likely to be influenced by his geographical location. It is believed that people who live in the remote areas with difficult access to the NHIS accredited health facility are not likely to purchase it. Conversely, residents who live close to a health facility are likely to be part of the policy.

On the whole, the cost and the satisfaction derived from health service when covered by the NHIS are not mutually exclusive. Consumers in general want value for money and would be ready to sacrifice some appreciable percentage of their income if they receive better quality of healthcare at the point of service. That notwithstanding, if the insurance package is designed to cover one's illness or mostly demanded by the majority of people, there is a high probability that it would be highly accepted. It is an undeniable fact that health insurance is very important in ensuring free and equitable access to health care service.

The United Nations General Assembly in 1948 adopted and proclaimed in the Article 25 on the principle that, each and every one has the right to a standard of living adequate for the health and well-being of himself and the family, including food, clothing, housing and medical care and necessary social services, and the right to security in the event of unemployment, sickness, disability, widowhood, old age or other lack of livelihood in circumstances beyond his control.

It is therefore important to fish out the obstacle that is likely to affect the chances of getting better health care policy as demanded by a noble organization like the UN and bring it under control. It is through this that the Health insurance could be sustained by pooling financial resources that could cater for the health, desires of its members because high membership would lead to extensive monetary capacity to ensure full operations.

### **3.3 The Research Hypotheses**

Several literatures related to this topic were carefully and extensively reviewed to unravel what has been discovered by other researchers around the globe. Based on these articles and journals, two separate mutually exclusive hypotheses were established for the purpose of this research:

1. People with higher income and education are more likely to subscribe NHIS.
2. Place of residence has a significant effect on enrollment.

3. Individuals who are satisfied with service provision are more likely to subscribe NHIS

The NHIS has a core duty to register every resident in Ghana to ensure that people have free access to health care irrespective of one's geographical location, ethnicity, gender and religious background. It is a decade now since the institution was established and is expected that their slogan of "health insurance for all" should have been achieved granted that there is nothing working against the needs and wants of the people. Questions have been raised as to why some significant number of people feel reluctant to subscribe to the scheme? Is it a personal or institutional problem? It is hypothesized that residents may have some reasons why they are not motivated to be enrolled.

The research focused on residents rather than the institution because NHIS welcomes any person or group of persons who meet the minimum requirements, even though they have their own challenges. This situation cannot be allowed to exist, and therefore needed to be investigated as to why this cancer remains cumbersome to tackle as a developing country. This research will seek to investigate and authenticate whether or not the hypotheses reflect the current situation pertaining in Ghana by soliciting the views of some residents using Dormaa Municipality as a reference point. The research aimed at providing useful lessons and policy interventions, which would relieve the burden of the scheme, of reaching its ultimate objective.



### **3.4 Research Design**

A design of a research is the precise plan used in gathering, analyzing and writing a research. Therefore, this research adopted a descriptive and cross-sectional study with both quantitative and qualitative approaches in the data collection. The quantitative method includes the use of a structured questionnaire to obtain the necessary information needed to undertake the research. This was chosen because it offered an opportunity to do a comprehensive analysis of men and women, rich and poor, young and old, employed and unemployed, educated and uneducated, and other demographic characteristics of the respondents which are key in health insurance determination. This approach enabled the researcher to investigate the geographical location and the overall impressions of respondents for health care services which was presumed that it could affect people's decision to join the scheme. The questionnaire was structured in line with the objectives set for the purpose of this research.

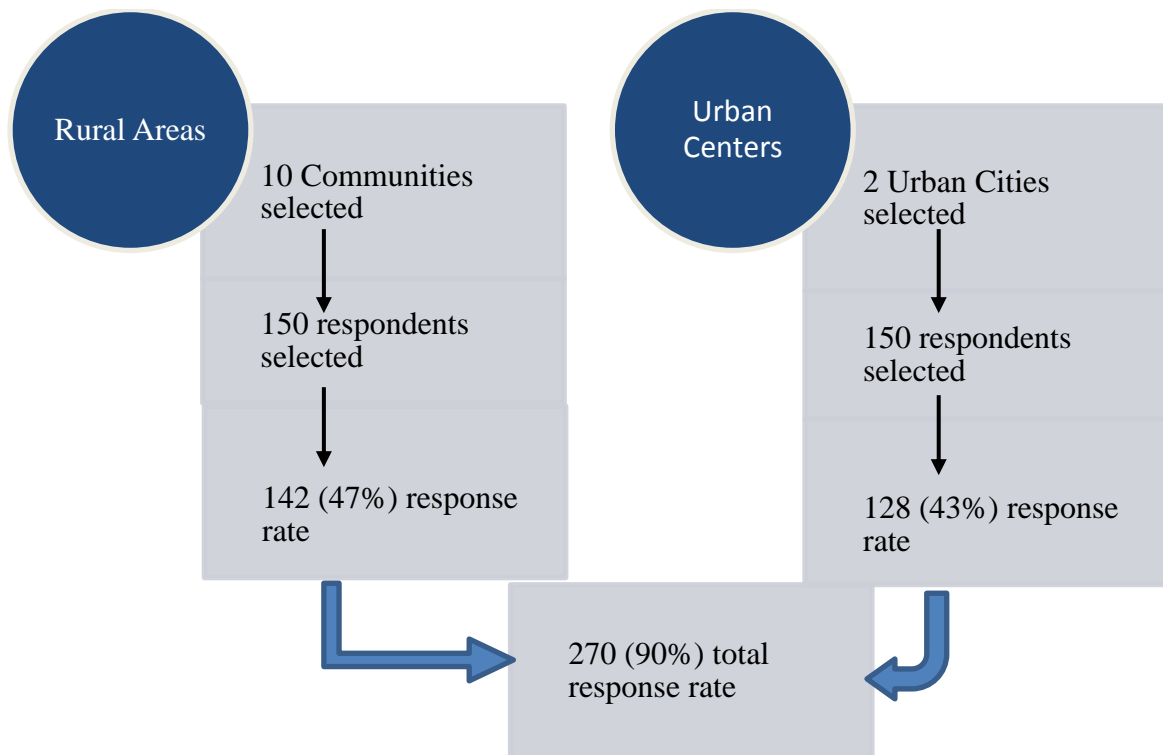
Qualitatively, personal observation was also done to view some facilities, equipment and its operated environment. This method of data collection usually focuses on personal view and judgments for a specific study. It is being argued by Yin, 2003 that collecting information using different methods permit accuracy, which help in reporting and predicting of a phenomenon. It is therefore useful; to collect data using different methods to allow deep investigation into all the possible factors likely to influencing residents' decision purchase health insurance. This allowed the researcher to validate respondents' answers to specific questions to avoid reporting inaccurate results.

### **3.5 Sample and Sampling Procedure**

The Dormaa Municipal is very large and could not choose the entire population for the study. The researcher adopted both probability and non-probability sampling techniques in the selection of samples. In the first place, the municipality was grouped into urban and rural communities. Purposive sampling (non probability) was used to select the only two urban cities in the Municipality. The simple random sampling (probability) was adopted to select 10 additional villages for the study on the assumption that information would be obtained from both rural and urban residents in order to draw a fair and balanced conclusion.

The selection of rural communities was done by listing the names of all the settlements, then folding and putting them into a container. A lottery method was employed where an assistant was blindfolded, and selected samples without replacement out of the list. The researcher again carried out the lottery method in selecting respondents because it allowed equal opportunity for every member of the population to be chosen. Community size was considered in the sample selection to allow equal representation. In all, 300 questionnaires (150 for rural and 150 for urban centers) was distributed, but 270 (representing 90%) (Rural = 47%, Urban = 43%), completed questionnaires were retrieved. Data collection took place between May and August, 2013. This can be shown in the figure 3.2 below.

**Figure 3.2 Sample and Sampling Procedure**



### **3.6 Technique of Data Collection Tools and Pre-Testing**

The questionnaire for data collection was first developed and subsequently revised by supervisor and senior colleagues. Before field study was formally carried out, two assistants were trained to familiarize themselves with the questions and research objectives. An arrangement was made for the first call of the respondents to do a simple introduction and objective of the visit. An appointment was booked to spare respondents convenient time to express themselves. Twenty-five pilot interviews were carried and comments were solicited to strengthen the weakness of the questions and also as a means of building fluency in time of actual field work. The experience from the pre-testing

was inculcated in the data collection tool which shaped the researcher to carry a very comprehensive and distinguished research work.

### **3.7 Data Gathering Instrument**

The data gathering instruments that were used for the research was the use of a well-structured questionnaire. These were chosen because it offered a very effective and efficient way of obtaining credible, accurate and efficient information from a given population. The questionnaire was made up of closed and open ended questions. Closed ended questions are questions that have a given response option, while open ended questions do not have response options. This would allow fairness in judgment as respondents can freely choose from the available options and also express their own opinions as a means of providing solutions to the research questions. The questionnaire was administered by respondents, and an assistant was extended to respondents who could not complete it by themselves. The motive behind it was to ensure that respondents understand the questions in order to give accurate answers.

### **3.8 Data Analysis Plan**

The data which was used for the purpose of analysis was drawn primarily from the self-administered questionnaires and field interviews of residents. Statistical Package for Social Sciences (SPSS) was used in analyzing the data for easy understanding of the result obtained. The data were organized in

quantitative forms such as frequencies, percentages, and figures. Microsoft word and excel was also employed as well for the tabular presentations. A bivariate analysis, such as chi square ( $\chi^2$ ) test of independence was engaged to show the association between socioeconomic and demographic characteristics of respondents on insurance subscription. The logistic multiple regression model was employed to identify the relationship and the overall impact of the satisfaction variables with current health care provision.

### 3.8.1 The Logistic Multiple Regression Analysis

The Logistic multiple regression equation is often used in predicting an outcome variable that is continuous or categorical in nature. It is very useful because this research contains categorical outcome variable (less satisfied and satisfied) which violates the assumption of linearity in a normal regression model. The analysis adopted logistic multiple regression to evaluate the outcome variable from several predictors. It demonstrates the prediction of probability on satisfaction of health care provision (dependent variable) given the values of some health care services. This facilitated in making a step forward analysis of satisfaction variables in predicting individual motivation in the health sector performance, which has great impact in health insurance subscription. The general logistic multiple regression model is stated as:

$$Y'_{ij} = \frac{e^u}{1+e^u} \quad (1)$$

**Where:**  $Y'$  is the estimated probability that the  $i^{\text{th}}$  variable is in a category,  $e$  is the base of natural logarithms and  $u$  is the normal linear regression equation.

**Where:**

$$U = \alpha + b_1x_1 + b_2x_2 + b_3x_3 + b_4x_4 + b_5x_5 + b_6x_6 + b_7x_7 + b_8x_8 + b_9x_9 + \varepsilon_i \quad (2)$$

**Where:**

Alpha ( $\alpha$ ) = Constant/Intercept

$b_1, b_2, b_3, \dots, b_9$  = The Slope (Beta coefficient) for  $x_1, x_2, x_3 + \dots + x_9$

$x_1, x_2, x_3, \dots, x_9$  = The independent variable that is explaining the variance in  $P$

$\varepsilon$  = stochastic error term.

### 3.8.2 Standard Error (S.E.)

The Standard Error (S.E.), are the individual errors associated with the coefficients of the independent variables. It is used for testing whether the parameter is significantly different from 0, and as such, form a confidence interval for the estimated parameter under investigation.

### 3.8.3 The Odds Ratio

The odds ratio ( $\text{Exp}(\beta)$ ), shows the change in odds as a result of a unit change in the explanatory variable (satisfaction indicators). If the odds ratio is greater than one ( $\text{Exp}(\beta) > 1$ ); it indicates that an increase in the predicted variable (satisfaction indicators) will result in an increase in the probability of outcome (less satisfied, satisfied) occurring. On the other hand, if the odds ratio is less than one ( $\text{Exp}(\beta) < 1$ ); it means that if the independent variable increases, the probability of an outcome occurring will decrease.

#### 3.8.4 Wald Statistic (Wald) and Significance (Sig.)

The Wald statistic (Wald) and the matching level of significance evaluate the unique contribution of each of the independent variables in the model to the dependent variable by holding all other independent variables constant. If the Wald statistic and the associated p-value is less than 0.05, then it suggests that the parameter is significant in the model.

#### 3.8.5 The Cox & Snell $R^2$ and Nagelkerke $R^2$

The Cox & Snell  $R^2$  and Nagelkerke  $R^2$  is the proportion of the variation in the value of the dependent variable (Y) that is explained by the regression equation or the independent variables. The value tells how much of the variability in  $P$  can be explained by health service provision (x's) (availability of health personnel, the attitude of both health and NHIS staff, drugs availability, easy access to health care, quality of basic amenities, symptom improvement and waiting time).

#### 3.8.6 The Overall Chi Square ( $\chi^2$ ) Model

The model overall  $\chi^2$  value and its associated significance were tested using the likelihood (-2 Log likelihood) of observing the actual data under the assumption that the model that has been fitted is accurate to predict the outcome variable. In this regard, two important hypotheses were set to test in relation to the overall fit of the model:

**H<sub>0</sub>:** The predictors have a significant effect in the model.

**H<sub>1</sub>:** The predictors have a significant effect in the model.

## CHAPTER FOUR

### RESULTS

#### **4.1 Introduction**

This chapter mainly presents the analysis of results, obtained from the respondents. It is sub-divided into six main segments. The first part shows the results on the socioeconomic and demographic features of the sample population. Next to this, is current service satisfaction with the national health care system. The residents' willingness and expectations were also analyzed and augmented by some obstacles that confront residents in their decision to enroll in the NHIS. A descriptive analysis of all other questions in the survey is presented in this chapter.

#### **4.2 Socioeconomic and Demographic Features of Respondents**

The socioeconomic and demographic data were collected to give a fair idea of what distinguishes the individual respondent's identity relevant to the study. They comprise age, gender, education, marital status, number of children/dependent, place of residence, employment status and monthly income of employees. The Age of respondents was analyzed because it plays an important role in the planning and execution of any developmental agenda. The analysis will portray which specific age group has more subscription, or otherwise, which will inform policy and decision makers the way forward. The age of respondents was limited to 18-69 years who, according to NHIS Act contribute financially either directly or indirectly into the scheme. It was believed that people under 18, and



above 70 years do not suffer any payment mechanism, and may not be able to identify reasons for non-involvement in the scheme.

The gender composition of respondents in relation to their subscription was determined to evaluate their involvement in the scheme to draw fair and balance conclusions. This is helpful because it would specify which sexes to target most in the sensitization campaign. It also provides which gender is more careful and sensitive to their health care.

The respondent's ability to read or write was determined to assess their literacy levels. This serves as a main key to unlocking the full potential for personal growth and development. This highly broadens one's understanding of the activities of the NHIS, and how well they could communicate effectively and professionally with other subscribed and unsubscribed neighbors. Again, it generally portrays an individual's ability to widen his intellectual capacity in order to make better lifestyle choices. It is said that education is the key to development, and peoples' ability to read and write will enhance their knowledge and understanding of some key issues that affect their lives. Therefore, the education levels of the respondents were considered as an important element in this research because it will show clearly how people understand the concept, activities and benefits of health insurance scheme.

Again, it is assumed that people with higher education have a higher probability of getting well-paid jobs that would permit them the ability to purchase health insurance for themselves and their families as well.

The marital status of the respondents was also considered as an important element in the data analysis. This is because it will illustrate the distribution of people who have or do not have any other additional responsibility. For instance, in the local setting, a married man is responsible for taking care of his wife and children, and in such a situation can put an undue pressure on his finances if he does not earn enough money from his employment. At the same time, they made sure to secure health care protection to avoid any health care expenses at the time when there would be no money in their savings accounts.

The number of dependents for each respondent was analyzed to determine if it has impacted individual's involvement in the scheme. As it was mentioned earlier, subscribers with children/dependents under 18 years do not pay for a subscription fee but instead pay for registration every year.

According to the Center for Disease Control and prevention (CDC), an individual's health is highly influenced by his geographical location, and it is assumed that this can impact their decision to join or not join the health insurance scheme. However, such study was done in a different country which might have diverse characteristics compared with the people of Dormaa Municipality, and it would be fair to check its validity.

The employment status of the respondents is very significant in the assessment of membership of the scheme. An individual income is influenced by the type of job he/she does which depends on their level of education. Money is said to have been the purchasing power which determines how much goods and services one can afford at a given time in a specific period. An individual can

become a member of the national health insurance scheme only when they show the willingness and the ability to pay premiums every year in order to receive the basic health care services. It is against this background that it is reasonable to investigate the income level of respondents, and their involvement in the scheme.

### **4.3 The Chi Square ( $\chi^2$ ) Test**

The Pearson's chi square test, also known as cross tabulation was adopted in this regard. It assumes bivariate association between the dependent variable and each of the independent variables. The test explains the association between the dependent variable (health insurance subscription) and the independent variables (socioeconomic and demographic features of respondents). The test statistic and corresponding significant value (p-value) shows whether or not two variables are mutually exclusive. If the p-value is less than .05 ( $p < 0.05$ ), then it suggests that there is an association between the dependent and the independent variable, with a conclusion that they are related. This can be displayed in table 4.3.

**Table 4.1 The Impact of Socioeconomic and Demographic Features over Enrollment**

Demographic Variables	Groupings	Current Subscribers			Chi square	P-value
		Yes (%) n = 157 (58.15%)	No (%) n = 113 (41.85%)	Total (%)		
Age group	18-30	45 (53.6)	39 (46.4)	84 (31.1)	1.236	0.744
	31-43	49 (62.0)	30 (38.0)	79 (29.3)		
	44-56	37 (58.7)	26 (41.3)	63 (23.3)		
	57-69	26 (59.1)	18 (40.9)	44 (16.3)		
Gender	Male	62 (50.4)	61 (49.6)	123 (45.6)	129.904	0.002
	Female	95 (64.6)	52 (35.4)	147 (54.4)		
Education	No Education	20 (69.0)	9 (31.0)	29 (10.7)	131.637	0.013
	Non Formal	1 (6.7)	14 (93.3)	15 (5.6)		
	Primary	25 (65.8)	13 (34.2)	38 (14.1)		
	Middle/JHS	59 (61.5)	37 (38.5)	96 (35.5)		
	Tech/Comm/SHS/'O' Level	20 (39.2)	31 (60.8)	51 (18.9)		
Marital Status	Tertiary	32 (78.0)	9 (22.0)	41 (15.2)	150.709	0.037
	Single	48 (53.9)	41 (46.1)	89 (33.0)		
	Married	70 (60.3)	46 (39.7)	116 (43.0)		
	Divorced	11 (44.0)	14 (56.0)	25 (9.2)		
Number of Children/Dependent	Widowed	28 (70.0)	12 (30.0)	40 (14.8)	56.247	0.016
	0	46 (62.2)	38 (37.8)	74 (27.4)		
	1	12 (36.4)	21 (63.6)	33 (12.2)		
	2	34 (69.4)	15 (30.6)	49 (18.2)		
	3	28 (51.9)	26 (48.1)	54 (20.0)		
Place of Residence	4	34 (56.7)	26 (43.3)	60 (22.2)	174.253	0.001
	Rural	84 (59.2)	58 (40.8)	142 (52.6)		
Employment	Urban	73 (57.0)	55 (43.0)	128 (47.4)	162.708	0.022
	Apprenticeship	20 (74.1)	7 (25.9)	27 (10.0)		
	Farmer	47 (52.2)	43 (47.8)	90 (33.3)		
	Salary Worker	26 (70.3)	11 (29.7)	37 (13.7)		
	Self Employed	24 (64.9)	13 (35.1)	37 (13.7)		
	Student	8 (40.0)	12 (60.0)	20 (7.5)		
	Trader	30 (60.0)	20 (40.0)	50 (18.5)		
Unemployed	2 (22.2)	7 (77.7)	9 (3.3)			
Income	<100	40 (71.4)	16 (28.6)	56 (24.1)	175.714	0.001
	100-200	47 (62.7)	28 (37.3)	75 (32.4)		
	201-300	17 (58.6)	12 (41.4)	27 (12.6)		
	301-400	17 (85.0)	3 (15.0)	20 (8.7)		
	401-500	15 (83.3)	3 (16.7)	18 (7.9)		
>500	13 (39.4)	20 (60.6)	33 (14.3)			

Chi-Square test is statistically significant at the 0.05 level (Asymp. Sig. (2-sided))

NOTE: (1 USD \$ = GH ₵1.90 as of March, 2013, Bank of Ghana)

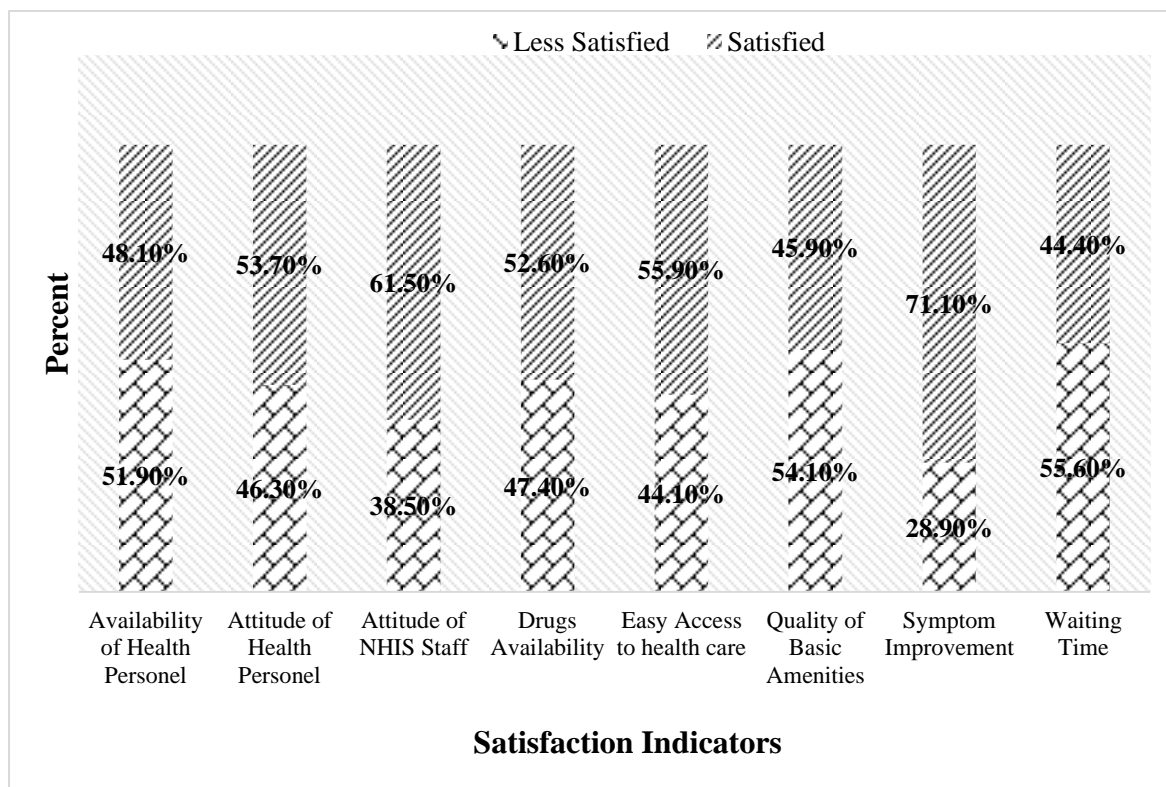
The table 4.3 above presents the frequencies and percentages of subscription and non-subscription. The chi square values with its corresponding significance level under the socioeconomic and demographic features of respondents. There is 157 (58.15%) subscription and 113 (41.85%) non-subscription. The respondents' mean age is 43.5 with a significance value of 0.744. The male respondent represents (45.60%) and females (54.40%). This shows a significant value of  $p = 0.002$ . Females have a higher membership rate of 64.60% compared to male subscription of 50.40%. The results demonstrate that the subscription was high at tertiary education level (78.0%). A substantial number of respondents have education up to Middle/Junior High School level (35.5%). There exists a significant association between education and insurance subscription ( $p = 0.013$ ). Married respondents constitute higher respondents rate (43.0%), but subscription was high with the widowed (70.0%). Again, the analysis shows a significant association between subscription and marital status ( $p = 0.037$ ). The response rate of people with no children is very high (27.40%). People with 2 children have a higher subscription level (69.4%). The association between subscription and the number of children is significant. The majority of the sampled population lives in the rural communities (52.60%) with a higher subscription rate of 59.20%, over the urban dwellers (57.0%). A significant association prevails between place of residence and subscription. Farmers form the bulk of the total sample (33.3%) but apprenticeship subscription was higher (74.1%); followed by salary workers (70.3%) which further displays a significant

difference between insurance and employment ( $p = 0.022$ ). The monthly income of majority respondents lies between Gh¢ 0-200 which is USD\$ 105 equivalence. Respondents with monthly income between Gh¢ 301-400 (USD\$ 211 equivalence) have 85.0% subscription and 25.0% non-subscription. A significant association exists between the demand for health insurance and monthly income ( $p < 0.05$ ,  $p = 0.001$ ). This puts forward that in general, income has the potential to influence membership.

#### **4.4 Satisfaction with the Current National Health Care Provision**

In order to explore more into the reasons why some residents are not willing to enroll in the NHIS, preference regarding the services provided by NHIS itself, and the general health care service was assessed. The idea is to evaluate how consumers appreciate and embraces the services and performance of service providers. In this regard, respondents were asked to rate their level of satisfaction in terms of “less satisfied” and “satisfied” in respect of some services considered to be significant factors in the determining health insurance. The measurement index of satisfaction focused on these options: availability of medical professionals at facilities, quality of basic amenities, the attitude of health personnel and NHIS staff, drug availability, easy access to health care, time taking, and improvement in symptoms and recovery after one week of visiting a facility. After the evaluation, scores were recorded and converted into percentages. This is presented in figure 4. 1

**Figure 4.1 Satisfaction Evaluations by Respondents.**



The figure 4.1 depicts the criteria percentages of “less satisfied” and “satisfied” with NHIS/health service provision. The outstanding result among the satisfaction is symptom improvement (71.10%), over less satisfied (28.90%). This is followed by the attitude of NHIS staff (61.50%), and less satisfied (38.50%). The availability of health personnel has 51.90% in less satisfied and 48.10% in satisfied. The analysis also shows less satisfied (46.30%) and satisfied (53.70%) under the attitude of health personnel, while drugs availability portrays 47.40% in less satisfied and 52.60% in satisfied. Other variables, such as, easy access to health care, quality of basic amenities and waiting time (respectively) show less

satisfied (44.10%, 54.10%, 55.60%), while satisfying are 55.90%, 45.90%, 44.40%.

The quality of medical facility plays an important role in the achievement of universal health coverage. Consumers want value for money, so if facilities are substandard with limited or no place of convenience, good water, electricity, keeping proper sanitation, well-equipped modern health equipment among others may deter the consumer intent to invest in health care. 52.3% of the respondents also showed their level of dissatisfaction with the quality of medical facility. Some of them complain of lack of hospital beds during admission and in some instances they have to sleep on the bare floor under insecure conditions. Power fluctuation was mentioned as a major problem, especially at night where every place is very dark. Sanitation was not left out as the environmental situation in various facilities has potential to affect patient satisfaction.

There are a lot of bad smells and turn window nets with a lot of mosquito bites, which could result in attracting different kinds of diseases after admission. On the other hand, 41.20% are of the view that the available facility satisfied their desires, while only 6.48% rated it as very satisfied with the present condition.

The attitude of both medical and health insurance personnel was also evaluated to identify if they are a threat to residents' decision to enroll in the scheme.

The available statistics showed that 47.62% of the respondents were not satisfied with the attitude of health personnel, 36.67% were satisfied, and 15.71% were very satisfied. On the other hand, the most rated and the overwhelmed satisfaction was the attitude of NHIS officials as 49.53% were pleased with their



services while 37.26%, says they are dissatisfied, and 13.21% say they are very satisfied. In terms of drug availability after diagnosis, 42.86% of the respondents express their dissatisfaction with drug availability. It was mentioned that there are some instances where facilities run shortage of drugs and consumers have to buy it themselves without recourse or difficult procedures to refund. 41.90% of respondents were satisfied while 15.24% were very satisfied with the current situation.

Among the prime objectives of the NHIS is to ensure that residents have basic and accessible health care for all. In this regard accessibility of health care services in the municipality was also investigated. An average of 50.00% responded that access to health care is a burden which needs an immediate intervention. Meanwhile, 32.38% of the respondents were satisfied and very satisfied is 17.62% with the situation.

#### **4.5 Satisfaction Categorization by Age Groups**

Figure 4.2 summarizes the evaluation of satisfaction by age classification of respondents. The analysis seeks to find out which age group is satisfied or otherwise with the service provision for planning purposes. It is clearly shown, that generally, a significant number of people are satisfied with the kinds of services they have received. This is illustrated in the figure 4.2

**Figure 4.2 Satisfaction Evaluations by Age Groups**

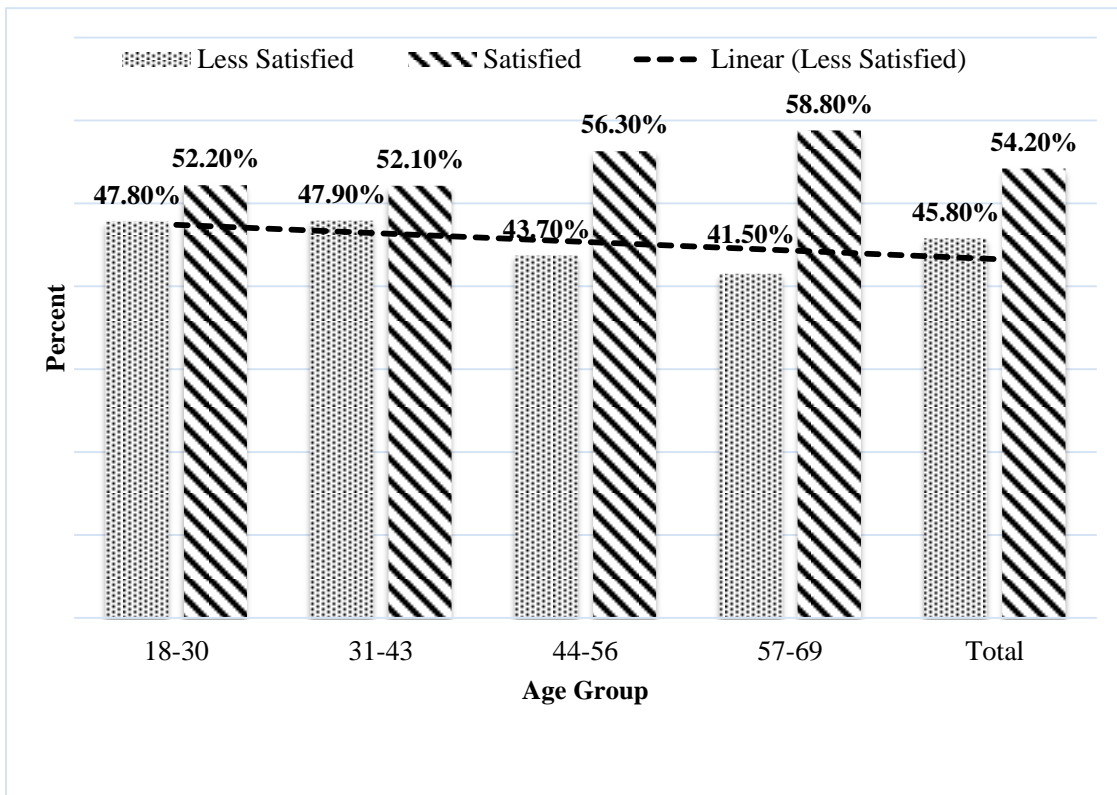


Figure 4.2 outlines a graphical presentation of satisfaction by age groups. The total for less satisfied category of respondents was 45.80% and 54.20% was satisfied. Satisfaction increases with the age; except people within the age of 31-43 years. Older respondents (age 57-69) reported more satisfaction (58.80%), over the younger adults (age 18-30) with 52.20%. To sum up, satisfaction with the current national health care provision has a direct/positive relationship with age. This which means that satisfaction increases when age increases, and it decreases when age decreases.

#### **4.6 Satisfaction and NHIS Subscription**

Living a quality life and demand of health care service requires the effort of professionalism from providers. Patients expect facilities that can provide services that ensure rapid and complete recovery of sickness. The study recognizes that there is a direct correlation between patient satisfaction and demand for NHIS. Patient satisfaction is a critical component, and it determines the willingness in participating in any health care plan that protects them from any catastrophic expenditure. Understanding consumer preference will increase satisfaction in health care provision, which ultimately increases membership to raise enough revenues to improve the current system. To better understand individual opinions, and identify whether policy makers can learn from such experiences, important health indicators, such as, availability of health personnel, attitude of health personnel, the attitude of NHIS staff, drugs availability, easy access to health care, quality of basic amenities, symptom improvement after a week and waiting time were evaluated. The analysis linked the level of satisfaction with respondent's involvement in the NHIS. This can be presented in table 4.2.

**Table 4.2 Satisfaction and NHIS Subscription**

Indicators	Subscription			
	Yes		No	
	Less Satisfied	Satisfied	Less Satisfied	Satisfies
Availability of health personnel	85 (31.48%)	69 (25.55%)	55 (20.37%)	61 (22.60%)
Attitude of health personnel	71 (26.30%)	86 (31.85%)	54 (20.00%)	59 (21.85%)
Attitude of NHIS Staff	65 (24.07%)	92 (34.07%)	39 (14.45%)	74 (27.41%)
Drugs Availability	65 (24.07%)	92 (34.07%)	63 (23.33%)	50 (18.53%)
Easy access to health care	73 (27.04%)	84 (31.11%)	46 (17.04%)	67 (24.81%)
Quality of basic amenities	80 (29.63%)	77 (28.52%)	66 (24.44%)	47 (17.41%)
Symptom improvement after one week	52 (19.26%)	105 (38.89%)	26 (9.63%)	87 (32.22%)
Waiting time	81 (30.00%)	76 (28.15%)	69 (25.55%)	44 (16.30%)
<b>TOTAL</b>	<b>572 (26.48%)</b>	<b>681 (31.53%)</b>	<b>418 (19.35%)</b>	<b>489 (22.64%)</b>

Table 4.2 shows that respondents who are less satisfied with the availability of health personnel, but are registered to the scheme represents 31.48%, but those who are satisfied and registered scheme members represents 25.55%. Conversely, 20.37% and 22.6% respectively, are those who are not members of the scheme, and are less satisfied and satisfied with the availability of health personnel at the facilities. Also, respondents who were less satisfied with the attitude of health personnel, but are duly registered members of the scheme are 26.3%, and satisfied (31.85%); while those who are not members but are less satisfied are 20.0% and satisfied (21.85%).

The attitude of NHIS staff was also put to test as indicated earlier. The analysis revealed that respondents who are not satisfied, but is under the cover of the scheme are 24.07%, and satisfied (34.07%). On the contrary, those who

evaluated the NHIS staff, but are non-members of the scheme has 14.45% less satisfaction and 27.41% satisfied. In addition, analysis of the availability of drugs shows 24.07%, less satisfied and satisfied (34.07%), registered members (while those who are not members but responded that they are less satisfied under the same category) represent 23.33% and satisfied (18.53%). Easy access to health care services analysis revealed 27.04% less satisfied and 31.11% satisfied members of the scheme. On the other hand, 17.04% and 24.81%, respectively, represent less satisfied and satisfied non-subscribe of NHIS.

Also, respondents who are subscribers, but either less satisfied or satisfied with the quality of existing basic amenities are 29.63% and 28.52% respectively. On the other hand, 24.44% and 17.41% respectfully represent less satisfied and satisfied non-subscribers. Beside these, results in symptom improvement after one week of visits to a facility shows 19.26% less satisfied and 38.89% satisfied registered members while 9.63% and 32.22% represents less satisfied and satisfied non-members. The last evaluation focused on waiting time when seeking health care services. It was revealed that 30.00% were less satisfied and 28.15% satisfied members of the scheme. On the other hand, 25.55% and 16.30%, respectively, represent less satisfied and satisfied non-subscribe of the scheme. On the whole, total percentage of subscribers of the scheme who are less satisfied, represent 26.48% and satisfied (31.53%). Conversely, non-subscribers who are less satisfied are 19.35% and satisfied (22.64%).

#### 4.7 The Logistic Multiple Regression Analysis

The analysis adopted logistic multiple regression to evaluate the outcome variable from several predictors. This can be illustrated in table 4.3.

**Table 4.3 The Regression Analysis Result of the Respondents' Assessment of Health Care Satisfaction**

Variables	$\beta$	S.E.	Wald	Sig.	Exp( $\beta$ )	95% C.I. for EXP( $\beta$ )	
						Lower	Upper
Constant	1.905	.542	12.344	.050	6.719		
Availability Health Personnel	1.531	.765	7.615	.044	2.078	.464	9.301
Attitude Health Personnel	-2.124	.685	9.619	.002	.120	.031	.458
Attitude NHIS Staff	-.853	.829	1.060	.303	.426	.084	2.162
Drugs Availability	-2.661	.811	10.775	.001	.070	.014	.342
Easy Access	-1.396	.929	2.258	.133	.248	.040	1.529
Quality Basic Amenities	3.332	.987	11.392	.001	5.992	4.043	13.788
Symptom Improvement	-1.267	.547	5.360	.121	.282	.096	.823
Waiting Time	.070	.960	.005	.942	1.072	.163	7.040
n	270						
-2 Log likelihood	245.993						
Cox & Snell R <sup>2</sup>	.374						
Nagelkerke R <sup>2</sup>	.500						

**Model test: LR  $\chi^2$  (8) = 126.512, p = .004**

- a. Dependent Variable: Satisfaction
- b. Predictors: (constant), availability of health personnel, the attitude of health and NHIS staff, drugs availability, easy access to health care, quality of basic amenities, symptom improvement and waiting time.

Table 4.3 presents the logistic multiple regression results of satisfaction in the provision of current health care services. Analysis shows that the availability of health personnel ( $\beta = 1.531$ , S.E. = .765,  $p = .044$ ) and quality of basic amenities ( $\beta = 3.332$ , S.E. = .987,  $p = .001$ ) positively influence consumer satisfaction with the provision of health care services significantly. On the other

hand, attitude of health personnel ( $\beta = -2.124$ , S.E. = .685,  $p = .002$ ), and drugs availability ( $\beta = -2.661$ , S.E. = .811,  $p = .001$ ) negatively affect consumer satisfaction significantly. Waiting time ( $\beta = .070$ , S.E. = .960,  $p = .942$ ) slightly affects satisfaction positively; while the attitude of the NHIS staff ( $\beta = -.853$ , S.E. = .829,  $p = .303$ ), symptom improvement ( $\beta = -1.267$ , S.E. = .547,  $p = .121$ ) and easy access to health care service ( $\beta = -1.396$ , S.E. = .929,  $p = .133$ ) affect patient satisfaction negatively. On the whole, the indicators proved to have telling positive effect on satisfaction ( $\beta = 1.905$ , S.E. = .542,  $p = .000$ ).

#### 4.7.1 Empirical Evidence

The logistic multiple regression equation was used to analyze individual evaluation of being less satisfied or satisfied with the current health care provision. The logistic regression model provides an estimation of  $b$ -values which designates the single parameters influence of each predictor to the model. It is assumed that, individual choice of satisfaction is associated with the utility and function of its attributes ( $X_i$ ), a vector of indicators of health care provision ( $R_i$ ), plus the stochastic error term ( $\epsilon$ ). This in turn deal with the missing of important variables in the equation, and errors in estimates (Kirigia, 2005). This can be expressed as:

$$EU_{ij} = g(X_{ij}, R_i) + \epsilon \quad (4)$$

**Where:**  $EU_{ij}$  is the satisfaction that  $i^{\text{th}}$  person expects to derive from choosing  $j^{\text{th}}$  satisfaction indicator;  $j = 1$ , if individual is less satisfied;  $j = 2$  if individual is satisfied; ( $X_i$ ), ( $R_i$ ) and ( $\epsilon$ ) are defined above. The underlying factor is that:  $i^{\text{th}}$  person is less satisfied with the current care provision if  $EU_{i1} > EU_{i2}$  satisfied if

$EU_{i1} < EU_{i2}$  and no difference  $EU_{i1} = EU_{i2}$ . Hence, the probability that a person being less satisfied with the service provision is  $P_{i1} = P(EU_{i1} > EU_{i2})$ . On the other hand, the probability that a person is satisfied with the service provision is  $P_{i2} = P(EU_{i1} < EU_{i2})$ .

To determine the probability of satisfaction with the current health system, indicators were substituted into equation (1), and are estimated as:

$$Y_{ij} = \alpha + b_1 \text{availability of Health Personnel} + b_2 \text{attitude of health personnel} + b_3 \text{attitude of NHIS staff} + b_4 \text{drugs availability} + b_5 \text{easy access} + b_6 \text{quality of basic amenities} + b_7 \text{symptom improvement} + b_8 \text{waiting time} + \epsilon_i \quad (5)$$

Putting the coefficients of the independent variables in the equation (5) gives:

$$\hat{Y}_{1,2} = 1.905 + 1.531 \text{availability of health personnel} - 2.124 \text{attitude of health personnel} - .853 \text{attitude of NHIS staff} - 2.661 \text{drugs availability} - 1.396 \text{easy access} + 3.332 \text{quality of basic amenities} - 1.267 \text{symptom improvement} + .070 \text{waiting time} \quad (6)$$

The  $\beta$ -values expressed the relationship between the outcome (dependent) and the predictors (independent variables). If the coefficient is a positive, it indicates that there is positive relationship between the predictor and the outcome, whereas a negative value portrays a negative relationship. The odds ratio ( $\text{Exp } \beta$ ) and 95% confidence interval was used to determine the impact of each variable in the equation. It indicates to what extent each of the independent variables interrupts satisfaction if the effects of all other factors remain constant. If the odds ratio is greater than one, it means that as the predictor increases, the odds of the



outcome occurrence also increases, otherwise it decreases if the value is less than one.

From table 4.3, it is shown that a unit change in availability of health care personnel ( $\beta = 1.531$ , ( $\text{Exp}(\beta) = 2.078$ , C.I = 464 – 9.301) or waiting time ( $\beta_7 = .070$ ,  $\text{Exp}(\beta_2) = 1.072$ , C.I = .163-7.040) shows the odds of consumer satisfaction will increase if all the other parameters are held constant. Similarly, a unit change in the quality of basic amenities ( $\beta_5 = 3.332$ ,  $\text{Exp}(\beta_5) = 5.992$ , C.I = 4.043 -13.788) will increase the odds of satisfaction if all other variables remain unchanged. Also, the effect on the attitude of health personnel ( $\beta_2 = -2.124$ ,  $\text{Exp}(\beta_2) = .120$ , C.I = .031-.458) and drugs availability ( $\beta_3 = -2.661$ ,  $\text{Exp}(\beta_3) = .070$ , C.I = .014-.342), have negative coefficient and significantly affect satisfaction which suggest that a unit change of each variable will result in a decrease in the odds of satisfaction in the provision of health care services. In addition, attitudes of NHIS staff ( $\beta_3 = -.853$ ,  $\text{Exp}(\beta_3) = .426$ , C.I = .084-2.162 ), easy access ( $\beta_4 = -1.396$ ,  $\text{Exp}(\beta_2) = .248$ , C.I = .014-.342) and symptom improvements ( $\beta_6 = -1.267$ ,  $\text{Exp}(\beta_2) = .282$ , C.I = .096-.823) negatively affect satisfaction. This suggests that a unit change in any of the variables if others are held constant will decrease the odds of satisfaction in the provision health care services.

The Wald statistic (Wald), and the matching level of significance is found in the "Sig." column from table 4.7. From these results it is shown that attitude of health personnel ( $p = .044$ ), availability of health personnel ( $p = .002$ ), drugs availability ( $p = .001$ ) and quality of basic amenities ( $p = .001$ ), contribute

significantly to the prediction; thus, affect people's satisfaction regarding current health care provision. Hence, their inclusion in the model estimation is substantial in assessing the satisfaction of residents. But attitude of NHIS staff ( $p = .303$ ), easy access to health care services ( $p = .133$ ), symptom improvement ( $p = .121$ ) and time waiting ( $p = .942$ ) did not add significantly to the model.

The Nagelkerke  $R^2 = .500$ , indicating that about 50.00% of the indicators, accounts for the variability in satisfaction with the current health care provision.

#### 4.7.2 Testing the Overall Chi Square ( $\chi^2$ ) Model

The general fit of the model is made known by -2 Log likelihood, and the accompanying chi-square statistic. The significance of the chi square statistic indicates that the model fits the data perfectly, and therefore could predict the outcome result. By testing the overall case model, taken into consideration the  $H_1$  and  $H_2$  above, the  $\chi^2$  has a value of 126.512 and  $p < .004$  (under table 4.3). This shows that there is an overall significant association between satisfaction and the satisfaction indicators. This suggests that the model has a good fit, with the model, indicating that the independent variables (satisfaction indicators) predict whether or not people are satisfied with the current national health system.

#### **4.8 Reasons for non-participation in the NHIS by respondents**

In all, 40.00% of the respondents authenticated their non-subscription of the insurance. The research sought to know the reasons for their action since one of the main objectives of this study is to offer policy guidelines to achieve total

coverage. This can be achieved based on evidence from the residents, which can permit the policy transformation and strategies in securing full endorsement by the people. Many reasons were assigned by respondents for their non-participation in the scheme, but the key ones can be seen in figure 4.3 below.

**Figure 4.3 Reasons for Nonparticipation in the NHIS by Respondents**

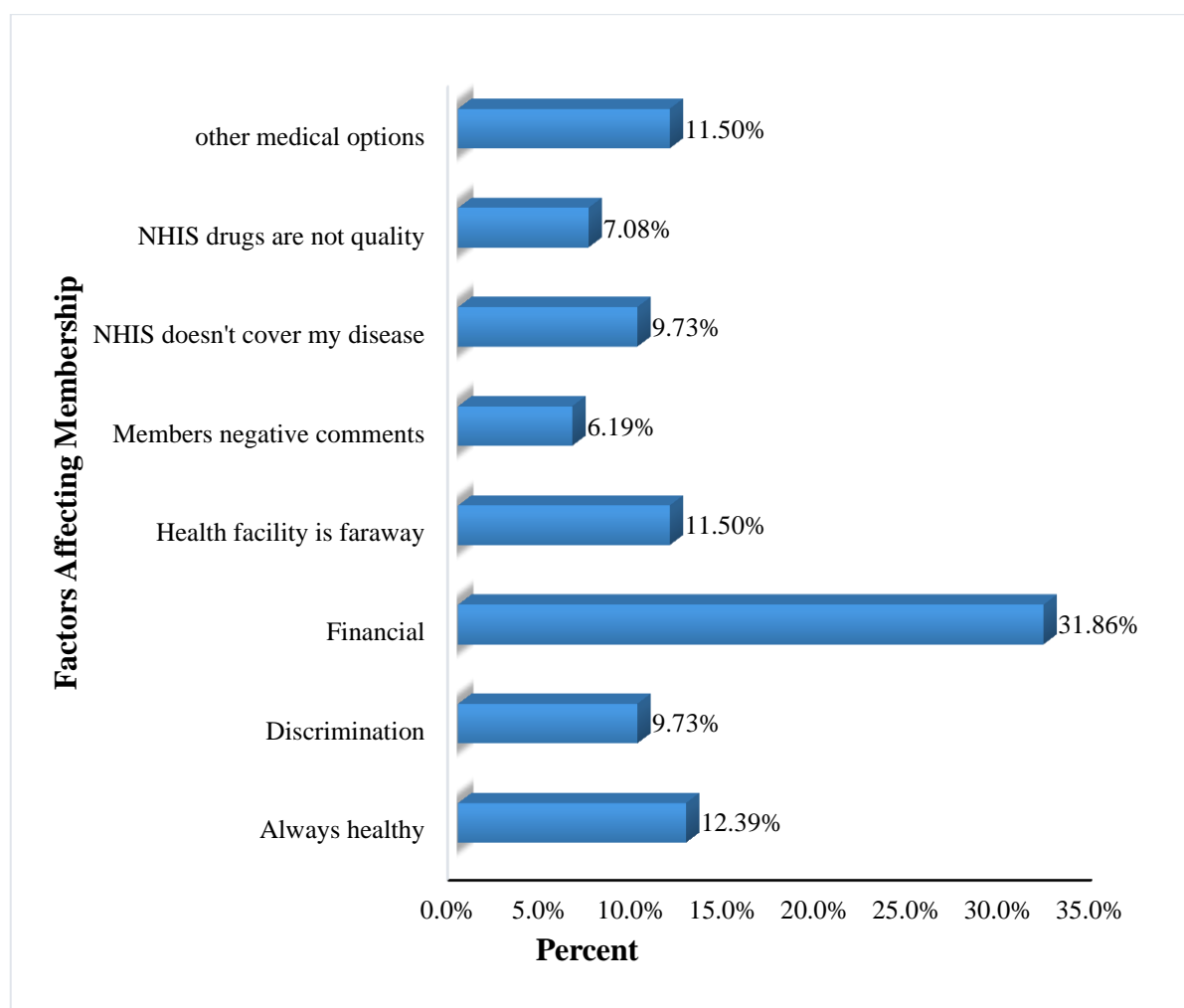
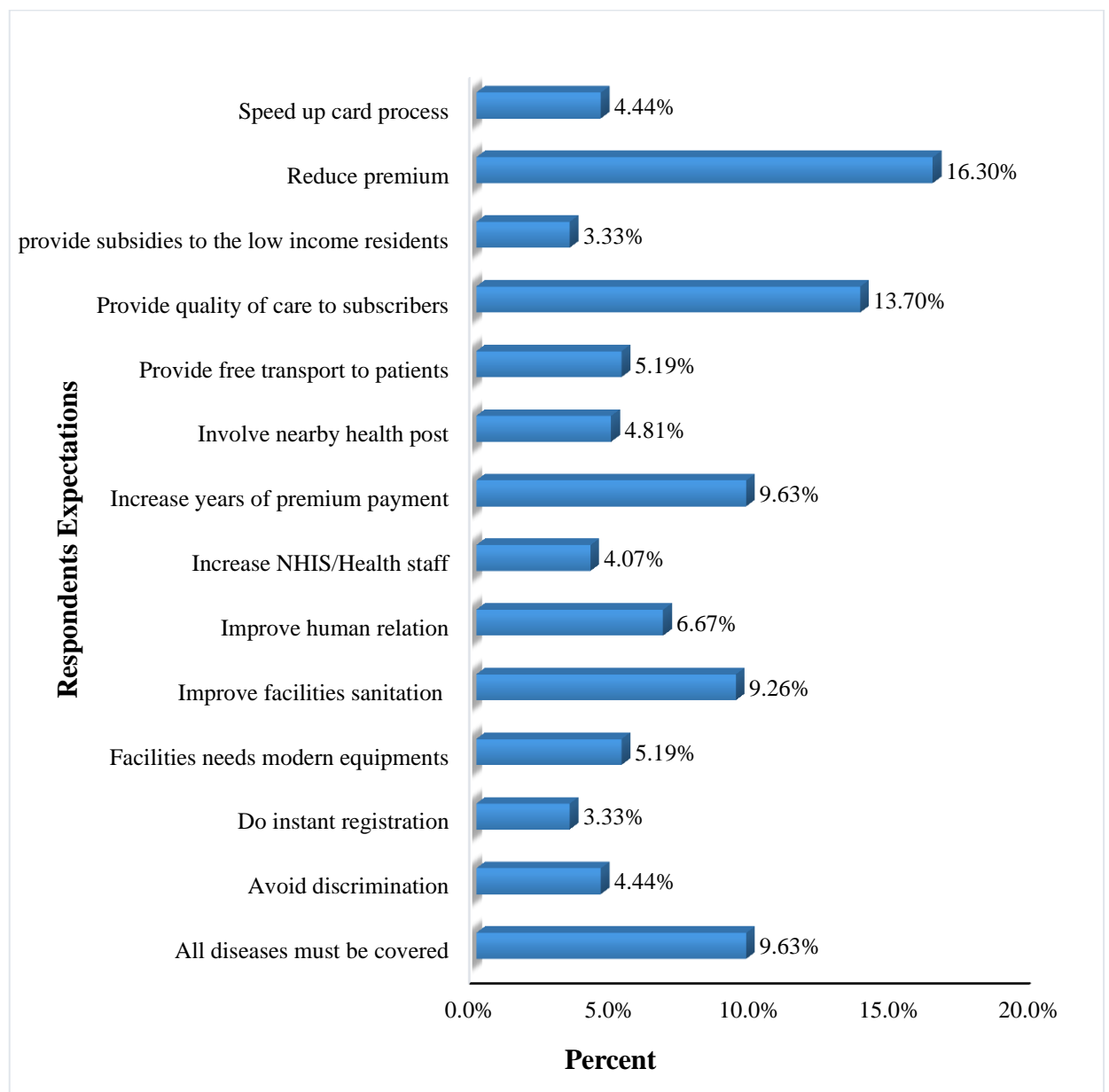


Figure 4.3 displays the analysis of reasons why some respondents are not members of the scheme. The highest among them are financial (31.86%),

followed by always healthy (12.39%), health facility is far away (11.50%), other medical options (11.50%), discrimination (9.73%), NHIS doesn't cover my disease (9.73%), NHIS drugs are not quality (7.08%), and members negative comments (6.19%).

**Figure 4.4 Respondents Expectations of the NHIS and Health Providers**



#### **4.9 Respondents Expectations of the NHIS and Health Providers**

The respondents' were asked to express their opinion on what NHIS and health providers should do to entice them. Several suggestions among others were stated, but the most pressing ones are illustrated in figure 4.4 above.

Figure 4.4 above shows the graph of respondents' anticipation with regards to the activities and the operations of the NHIS and health providers. The majority acknowledged the fact that the premium is high, and must be reduced (16.30%). 13.70% said that facilities must provide quality of care to subscribers. An increase in years of premium payment represents 9.63%, while 3.33%, suggested that the scheme must provide subsidies to lower income residents. All diseases must be covered was expressed by 9.63% of the respondents, improve facilities, sanitation and amenities (9.26%), avoid discrimination at the point of service delivery (4.44%), NHIS must periodically conduct instant registration (3.33%), facilities need modern equipment (5.19%), an improvement in human relation was suggested by 6.67%, increase NHIS/Health staff (4.07%), involve nearby health post (4.81%), provide free transport to patients (5.19%), and speed up card process (4.44%). These among others, were expressed by respondents for future growth of the institution.

#### **4.10 Descriptive Analysis of Other Variables**

All the other variables were analyzed and presented in table 4.10 with particular reference to the objectives set for this research.

**Table 4.4 Descriptive Analysis of Other Variables**

Other variables	Groupings	Frequency	Percent (%)
Understanding the activities of NHIS	Very little	17	6.30%
	A little	56	20.74%
	Well	101	37.41%
	Very well	96	35.56%
Impression on NHIS	Average	81	30.00%
	Good	133	49.26%
	Very good	56	20.74%
Means of transport	Bicycle	28	10.37%
	Foot	55	20.37%
	Motorcycle	23	8.52%
	Vehicle	164	60.74%
Time taken to the nearest facility	<30 minutes	119	44.07%
	30-59 minutes	80	29.63%
	1 - 1.5 hours	14	5.19%
	1.6 - 2 hours	38	14.07%
	>2hrs	19	7.04%
Access to health care service (24 hours)	No	193	71.48%
	Yes	77	28.52%
Accessibility obstacles	Do not work at night	24	12.40%
	Financial	81	42.00%
	Safety	31	16.10%
	Transport	57	29.50%
Years of subscription	1≤	6	3.82%
	1-1.99 years	25	15.92%
	2-2.99 years	43	27.39%
	≥3 years	83	52.87%
Premium payment	Relative	38	24.52%
	Self	93	60.00%
	SSNIT contribution	24	15.48%
Uninsured who wish to join the scheme	Yes	101	89.40%
	No	12	10.60%

All other variables significant to the study are illustrated in table 4.4.

Respondents understanding the activities of NHIS show that 6.30%, says they

have very little understanding of the general activities of the scheme, 20.74% represents respondents who say they understand a little, well and very well represents 37.41% and 35.56% respectively. The categories to evaluate the respondents' impression on NHIS were: not good, average, good, and very good. It was discovered that a majority of respondents rated NHIS to be good (49.26%), followed by average (30.00%), and very good (20.74%). None of the respondents rated it "not good".

Responses on Means of transportation to visit a nearby health facility indicates that 10.37% uses a bicycle, 20.37% goes by foot, 8.52%, use motorcycle and 60.74% uses a vehicle. This shows that the majority uses vehicles in traveling to the nearby health facility. Time taken to the nearest health facility analysis shows that the majority (44.07%), uses less than 30 minutes to reach the nearby health post. Those who spend between 30-59 minutes represent 29.63%, 1-1.5 hours (5.19%), 1.6-2 hours (14.07%), and more than 2 hours is 7.04%. Respondents who answered that they cannot have 24-hour access to health care service represent 71.48% over those who have 24-hour access (28.52%). The reasons behind these shows that, 42.00% is attributed to financial, 29.50% being transport, 16.10% is caused by safety at night and facilities that do not operate 24-hour service represent 12.40%. Investigation for years of subscription analysis results are 3.82%, 15.92%, 27.39% and 52.87%; which respectively represents less than a year subscription between 1 to 1.99 years, 2 to 2.99 years and 3 or more years membership. Analysis of how subscribers pay for premium indicates that, the majority (60.00%) pay for premium by themselves, 24.52% is paid by

relatives and 15.48% is through by SSNIT contribution. The statistics also show that 89.40%, of non-subscriber respondents express their interest in joining the scheme, as against 10.60% of them who say that they are not willing to join the scheme even if the subscription is free.



## CHAPTER FIVE

### DISCUSSION AND HYPOTHESES TESTING

#### 5.1 Introduction

This chapter discusses the research results, and at the same time, testing the hypotheses set forth at the beginning of the study.

#### 5.2 Discussion

A total of 270 responses were obtained through field interviews (with those who could not complete the questions), and self-administered questionnaires. Respondents were selected from different socioeconomic and demographic characteristics to ensure accuracy of results that reflect the real situation pertaining in the municipality. Chi square ( $\chi^2$ ) test showing descriptive information about the socioeconomic and demographic features of respondents are presented in table 4.1. The statistics showed that the majority of the respondents (60.40%) are between 18-43 years; which is classified as the economically active age group. This is almost similar to the results of 2010 population and housing census, by the Ghana Statistical Service, which estimated that 60% of the population falls within the ages of 15 and 64 years. This suggests that any policy intervention by stakeholders to achieve the universal coverage must target the youth. Again, 54.40% respondents were female which is slightly consistent with the aforementioned census, which tag women population at 51.00%, as against men (49.00%), of the municipal population.

The socioeconomic characteristics such as age, gender, education, marital status, number of children/dependent, place of residence, employment and income was analyzed and linked to enrollment. The findings suggest that all the features except age have significant association with enrollment. Even though age does not have a significant association with enrollment, the results show an inverse relationship. It is natural that, as people grow older, the health situation also denigrates. This, as a result, motivates them to invest in their health care in an attempt to limit the speed of depreciation in order to live longer. This goes to confirm the findings of Grossman, 1972, which says that, since the health standard decline rate increases with time of life; it is probable that the old folks will make a larger investment in their health than the younger ones.

More women (54.4%) subscribe to the scheme as opposed to their men counterparts (45.6%). The higher number of females could be attributed to the free maternal health care policy since 2008. The policy allows every pregnant woman to be registered, and enjoy the full benefit package of the scheme up to three months of delivery.

Also, the results depict that as people moves towards getting a higher education, their level of subscription increases. Education level has been discovered by other researchers: Jutting, 2000, Kirigia et al. (2005), and (Mensah, Oppong, & Schmidt, 2010), as a significant factor for the people having the demand for insurance and medical care. It is assumed that as people get higher education, they tend to understand the need to pay for their health care in advance to prevent an unforeseen catastrophic health expense.

The result proves that widowed (70.0%), stands the highest chance of demanding for health insurance. The reason could be that, they do not have partners who can support them should they encounter any catastrophic health cost. The married (60.3%) and the size of the family (two or more, 60.40%) of the respondents were also proved to have higher rates of subscription. Married couples tend to demand health insurance to protect themselves and their children. It is argued that having children added more responsibilities, and as such put parents or guardians extra adversity to the jeopardy of health expenditures as compared to singles. The result is in line with Liu & Chen, 2002, whose research outcome stated that married persons stand the highest chance of buying health insurance because of combined earnings, and also the need to protect their kids against unforeseen circumstances.

It is a common knowledge that people in the city may have access to health care services more than those in the small cities; hence, their involvement in the scheme will be higher, but the situation is rather opposite. The respondents who live in the rural areas slightly have a higher subscription level (59.2%), than people in the urban centers (57.0%). Further investigation to understand this trend proved that more than 90% of the facilities in the rural communities provide services to NHIS beneficiaries. An additional cost would be incurred should someone in the rural area want to access a facility in the district capital or beyond. This means that, even if the quality of service is lower than desirable, they have a limited preference compared to the urban dwellers. This result supports Macha et al. (2012), which says that, “rural communities were said to have an inadequate

choice of service suppliers with a majority of basic health care services at the public facilities.” Also, WHO, 2003, says that membership rates in the health insurance scheme are sometimes influenced by the size of the gap between the household's homes to the nearby health facility where covered services are delivered. It was also discovered that 57.14% of the salary workers were respondents from the rural areas which as a result have boosted their subscription level. This support the result by Karigia, 2005, which says that persons who lives in official urban places, or white-owned farms in the rural communities, had seven times greater likelihood of owing a health protection plan, as compared to those living in an informal urban settlement; which has differences in their economic status.

The type of employment determines the amount one would receive at the end of the month. As noted earlier, the main occupation of the people in the municipality is agriculture (62.00%), which is predominantly on the subsistence basis. The activities of these farmers are confronted with seasonal bush fires, lack of ready market for products and lack of transportation. These threaten economic activities, and together have significant impact on incomes. This however, contributes to general low income levels for the majority of farming communities. Comparing income *vis-à-vis* expenditure patterns by the Municipal Assembly composite budget for 2013, fiscal year seems to suggest that, greater proportion of residents income goes to food (44.80%) followed by education (14.48%), and then health (7.60%). This informs policy makers to intensify education campaign

on the need to invest more on health and also support and encourage commercial farming to boost income levels.

High income earners have high subscription rate, but as income becomes higher, subscription is negatively affected. This signifies the need for the scheme to revisit the benefit packages to make it more attractive to high income earners. On the contrary, the result signifies that the problem of affordability is an impediment in the quest to demand insurance by the residents.

This difficulty with respect to the current economic situation of the residents calls for the re-examination of the exemption procedure of the scheme to benefit the poor and the vulnerable in societies in order not to contradict the NHIS slogan of “health insurance for all”. Policy intervention that leads to a reduction in premium payment and ensuring that the enrollment campaign corresponds to the present financial sequences of the municipality, and assisting access to credit are all measures which are expected to increase accessibility; thus leading to greater membership rates. In order to meet the health needs of the poor, the institution must provide a guaranteed health security base on the principles of impartiality, value for money, cohesion, risk allocation and communal possession.

The findings of the satisfaction in health care provision suggest that in general, people are satisfied with the kind of services they received. Those who are satisfied have higher chance to demand health insurance. Yet, a significant number of them is less satisfied with the current system as proved by the results and out-of-pocket payment data of the WHO. The implementation of the NHIS, has led a significant increase in attendance at various facilities without a

corresponding increase in the existing infrastructure and human resource capacity. This situation has naturally resulted in an extra amount of work, and extreme pressure on the facilities and condensed care to patients. The condition in some communities is even graver because facility attendance has increased over the years, while the number of health professionals has considerably reduced.

The attitude of both health personnel and staff of NHIS negatively affects people's satisfaction. The employee and subscriber satisfaction, according to Zeithaml & Bitner, 2000, feed off each other. This is because the satisfied employees put up his/her best in the discharge of their duties, which will support increased customer satisfaction, and at the same time enhances their satisfaction for good work done. The salary level and condition of service for health workers as always reported by the Ghana medical association is below standard. But they must remember their reputation for excellence and sense of purpose for the work they have sworn to do for all their lives. It is vital that greater attention is given to employee satisfaction by providing them with the needed equipment and incentives in order to give their best to reinforce patient satisfaction. The management of NHIS and Health care practitioners ought to view the results of this study as an overall evaluation of their performance, and as a reminder that patient-driven service standards are important for the production of quality care, and must be better understood.

Drugs for patients are among the ways of curing majority of ailment. However, due to delay in payment by the National Health Insurance Authority (NHIA) to health care providers in some instances leads to shortage of drugs at

some health facility's pharmacy. Consumers in this case have to buy their prescription without recourse or difficult procedures to refund by the scheme. There is no doubt that findings show a negative association between satisfaction and drug availability. This certainly does not portray a good image and could prevent people to seek for health care services, and as a result affect insurance subscription. The authority must re-evaluate their payment system to ensure that payment of claims is done on time to salvage the situation.

Access to healthcare services according to the Ghana Statistical Service, 2003, Core Welfare Indicators Questionnaire (CWIQ II) survey report is defined as within 30 minutes one should be able to locate well equipped modern facility capable of rendering efficient service. The individual access to health care should be devoid of any obstacle that would obstruct his/her effort of gaining quality and affordable health care service.

The ability to access health care service in time, taking into consideration of distance and means of transport according to the findings is an obstacle. About 26.30% responded that they have to travel an hour or more before they could access health care considering the deplorable nature of some of the roads. It was observed during data collection that vehicles travel to some rural communities only on Tuesdays, which are apparently the market day in the district capital. Apart from this, they could travel by walking distance away to the nearby village before they could board a care to continue the journey. Owing to these circumstances pushes a lot of them in applying local medication as a means of

treating ailments. This situation is unhealthy and does not promote and encourage the willingness to demand health insurance.

Again, MoH, 2007, underscore the fact that the current practices of the scheme continue to favor people with the best access to medical facilities. The scheme should recognize that an effective and efficient health insurance system is the one that can provide timely access to the type of care needed by the beneficiary. In the absence of this, leads to dissatisfaction in the system, and less enrollment.

The quality of basic amenities within the health facilities also affects client satisfaction with health provision. Personal observation at some facilities in the municipality discovered orderliness and conducive health care environment. However, some are substandard with limited or no place of convenience, good water, electricity, keeping proper sanitation, and well-equipped modern health equipment among others. Some facilities lack hospital beds during admission and in some instances they have to sleep on the bare floor under insecure conditions. There is evidence of power fluctuation, especially at night when it is all very dark. This may deter the consumers' intent to invest in their health care. The cleanliness of the immediate surroundings and access to toilet and urinal must be guaranteed. Again, the analysis shows a negative association between satisfaction and improvement in symptom after a week of visiting a facility. This affirms Jackson et al. (2001), that when symptoms improve significantly after 2 weeks and 3 months of receiving health care services can increase patient satisfaction, but with no sign of improvement decreases satisfaction level.



Patients all over the world are entitled to care within a reasonable period of time; not only for cases of emergency or surgery. Long waiting time at health facility for consultations, treatment, which intertwines with the availability of health personnel proved to have positive association with satisfaction. It is believed that having more health workers can reduce the time spent to receive treatment. This reaffirms the report by the municipal assembly, and the district health directorate report in 2013, that there are shortages of health staff to man the health facilities. This situation would definitely aggravate the pains of sickness if patients have to spend such a long time in accessing health care treatment. Therefore, there is the need to train more health workers to fill vacancies as a means of reducing uncertainties of the long waiting time.

The majority of respondents (89.40%) who are not members of the scheme are willing to join the scheme if the premium level is reduced. The quality of care to insured persons and among others is shown in figure 4.4. It is observed that residents expect to receive better and improved services more than they are currently enjoying. The satisfaction evaluation also supports this information.

Also, People have the notion that, all diseases must be covered by the insurance policy regardless of their contribution. This could be linked to the income levels of the residents. The majority of respondents monthly income cannot guarantee payment for most expensive services provided by various health facilities.

An appreciable number of respondents expect facilities to improve on their sanitation system. The sub-Saharan Africa, which Ghana is a part of, is being

noted as one of the highest in terms of malaria cases (WHO, 2008). This mostly occurs as a result of unsanitary conditions. Authorities must rigorously intensify sharing of free mosquito nets campaign, and enforces regular cleanliness of the hospital environment, spray insecticide to prevent mosquitoes and mend the worn out nets of windows at various facilities to ensure that people's health do not degenerate in an attempt to seek care.

Respondents also expect that the relationship between them and health personnel must be improved. As conceded by the municipal website, facilities have huge challenges in terms of qualified personnel. It is believed that tiredness and frustrations may occur after long hours of attending to patients. This is likely to affect doctor-patient relationship and output level. This situation, when left unattended, could discourage and undermine the health systems and insurance subscription.

Ghana Health Service, 2011, annual report confirmed that most facilities had a grade C, with only 3% being awarded a grade A after inspection by NHIA for accreditation purposes. The report recommended an improvement in infrastructure, equipment and staffing capacity for the majority of health facilities to support their ratings. The accreditation rating provides a basis by which quality of care being offered in a facility can be measured.

The financial problem raised by the majority as the reason for their inability to join the scheme. This is consistent with the results of Metiboba, 2011, which says that constrained in demanding health insurance was a result of several other factors in Nigeria, such as poverty, poor supply of drugs or vaccines,

inadequate trained health personnel, dwindling funding of health care, employers/providers' resistance to contributing their own quota, general poor state of nation's health care service, cultural belief systems and dilapidated health infrastructures. Unsuitable comment by subscribers was identified as a challenge to enrollment. The level of education for most people does not support reading, and understanding the need to subscribe to NHIS by themselves. This means that they will rather depend on the information given by the general public. Hence, the satisfaction of subscribers is a key to boost enrollment level.

### **5.3 Testing the hypotheses**

#### **5.3.1 Hypothesis One (1)**

The first hypothesis was; people with higher income and education are more likely to subscribe NHIS. The hypothesis was tested using probability value (P-Value) of 95.00% (0.05) significance level in table 4.3. If the significance value is less than 0.05 ( $P < 0.05$ ), then it suggests that the response and explanatory variables are related and therefore the outcomes of the explanatory can influence the response variable. The results demonstrate that the subscription was high at tertiary education level (78.0%), even though, the substantial number of respondents has education up to Middle/Junior High School level (35.5%). There exists a significant association between education and insurance subscription ( $p = 0.013$ ). On the other hand, respondents who income is between Gh¢ 301-400 (US\$ 211 equivalence) and Gh¢ 401-500 (US\$ 263 equivalence) have subscription of 85.0% and 83.3%, respectively, compared with those who

income is between Gh¢ 100-200 (US\$ 105 equivalence), and Gh¢ 2001-300 (US\$ 158 equivalence) subscription of (62.7%) and (58.6%), respectively. Again, there is a significant association between income and insurance subscription ( $p < 0.001$ ). This confirms the set hypothesis which suggests that people with high income and education have a higher chance of subscribing to NHIS.

### 5.3.2 Hypothesis Two (2)

The second hypothesis was, the place of residence (urban or rural) has a significant effect on enrollment. The second hypothesis was also tested at P-value in the output of table 4.3 at a 95.00% (0.05) level of significance. The results in table 4.3 show that, rural communities have a higher subscription rate (59.20%), compared to the urban dwellers (57.0%). A significant association prevails between place of residence and subscription ( $p < 0.001$ ), which is significant at a 95.00% significance level. This means that people who live in the rural communities are more likely to subscribe to the NHIS. The conclusion here is that the place of residence significantly affects enrollment in the Dormaa Municipality.

### 5.3.3 Hypothesis Three (3)

The last hypothesis is on the fact that individuals who are satisfied with the current service provision are more likely to subscribe to the NHIS. This hypothesis used output in table 4.6, which shows the evaluation result of satisfaction by respondents on indicators. This includes availability of health personnel, quality of basic amenities, the attitude of both NHIS officers and health

personnel, the availability of drugs, easy access to health care services, improvement in symptoms after one week on a visit to the facility and waiting time. The results discovered that people who are satisfied with the current national health care system have subscription of 31.53%, over 26.48% non-subscribers. This confirms the hypothesis that those who are satisfied with the current service provision stand the highest chance of purchasing health insurance.

In conclusion, the socioeconomic and demographic features, such as, income, education level, geographical location and satisfaction in the health service provision. This determines the respondent's involvement in securing health insurance.

## CHAPTER SIX

### CONCLUSION, RECOMMENDATION AND SUGGESTION FOR FUTURE RESEARCH

#### **6.1 Introduction**

This chapter discusses the conclusion and policy recommendation based on the research results. It ends by offering a suggestion for further research should someone want to undertake in a similar research in the future.

#### **6.2 Conclusion**

This research sought to identify the main challenges in enrollment and satisfaction with the current national health system after the introduction of NHIS since 2004. The result will help increase enrollment and subsequently aid policy and decision makers to provide a better coverage system with higher quality in Ghana. Chi square ( $\chi^2$ ) test was employed to show the association between NHIS subscription and socioeconomic and demographic features of respondents. Findings from the test results revealed that the socioeconomic and demographic features such as gender, education, marital status, number of children, place of residence, employment and income, have significant association with the resident's decision to enroll in the NHIS.

It was discovered that females have a higher membership rate (60.5%) compared to male (39.5%). Also, people with tertiary education have a higher subscription level (78%). The evidence on marital status show that widowed have a higher membership rate (70%). Respondents with 2 children have a higher

subscription level (69.4%). The majority of NHIS subscribers live in the rural communities (53.5%) over the urban dwellers (46.5%). The employees' analysis shows that apprenticeship subscription is very higher (74.1%). Age in general does not significantly affect NHIS determination.

The findings further revealed that, the majority of the general public is satisfied with the number of health personnel at the facility, the attitude of both health and NHIS staff, quality of basic amenities, drug availability, easy access to health care service, symptom improvement and time waiting at the facility. The test results of the logistic multiple regression model show a positive relationship between availability of health care personnel, quality of basic amenities and waiting time. These suggest that consumer satisfaction with the current national health care system will increase, if all the other parameters are held constant.

Conversely, the attitude of health personnel and drugs availability show a negative relationship which implies that a unit change in any of these variables, if all the other independent variables remain unchanged, will decrease consumer satisfaction. The young adults are less satisfied than the elderly. It was clear from the results that respondents are willing to join the scheme if issues of income, service quality, sanitation and all treatments and laboratory test must be covered are addressed by the scheme. To ensure that the aims and objectives for which the scheme was established is achieved, there is an urgent need for decision makers to set up policies that will improve the current situation in the health sector to meet the expectations of the general public. By doing so, it is vital to include respondents' expectations into programs and strategies.

It is expected that NHIS devise means of providing a furnished medical facility to the doorsteps of the people which have both health and economic importance. NHIS in collaboration with their accredited facilities must assure clients that they will obtain the desired level of services to prevent any information that does not promote the scheme. Feelings of assurance are best conveyed through the skills, professionalism, commitment, and efficacy of the staff whose competence and training must come through in every interaction, and encounter with subscribers. It is particularly important that medical procedures are performed correctly at any given time. The nation depends greatly on the health of the people and therefore an optimum health care service will speed up the development of the country.

### **6.3 Recommendations**

The study reveals that there are inadequacies of physical and evenly distribution of health facilities which affect individual participation in the scheme. Communities with better health care setup have greater potential to generate enough wealth than those with poor or no health facility. It is therefore important for the government to place more priorities in the provision of modern health facilities to every community; thus making accessibility more comfortable.

The section 9 of national health insurance regulations 2004 (LI 1809) gives the outline of the minimum benefit packages that is covered by the scheme. This is termed as the drug list, which covers about 95% of diseases reported at the hospitals. It is believed that this list contains medications which is very cheap and



could be paid by an average worker. It is therefore important to review the list in order to cover expensive drugs which are difficult to afford to attract the majority.

Another problem related to the drugs is frequent shortages of NHIS approved drugs at the pharmacy. Generally, when the number of facility attendance increases, it would impact negatively on the service providers' ability to purchase medications to match with the increasing numbers, considering the overall financial limitations in the country. This situation forced subscribers to purchase the drugs by themselves without or complex refund process by the scheme. It is recommended that NHIA should support facilities in making sure that drugs are readily available at all times. In an instance where the situation demands the subscriber to make purchases, the process of reimbursement should be simple and attractive.

The attitude of health professionals was seen as greatly affecting residents visitations to the facility. It is an indisputable fact that there are few personnel to man the health facilities culminated with huge number of patients. Therefore, personnel are overburdened by their workload, and in the act of distress, forced them to behave in such a manner. This problem could be solved by encouraging private individuals to invest in the health sector by building health training schools to augment government effort of training more manpower to the health sector. There is also the need for the Ministry of Health in collaboration with the Ghana Health Service, focuses on constant maintenance of current health infrastructure, improve upon the condition of service, human resource situation, provide special packages for persons willing to work in the rural communities and

redistribute health workers to underserved and overburdened areas across the length and breadth of the country.

As noted earlier, The NHIS is an instrument for health care financing, which seeks not to frighten the poor and vulnerable from seeking the basic health care in time of needs. It was established to address the financial obstructions under the cash-and-carry system in line with the Ghana Poverty Reduction Strategy (GPRS). One of the objectives of the policy is the establishment of NHIS, which would ensure that every resident is included in the health insurance scheme to safeguard him or her the adequate coverage against out of pocket payment at the point of service. The research discovered financial constraints as a significant challenge to enrollment. The design of the NHIS saw the need to exempt the extreme poor, known as the indigent, from paying the premium; and gives advantage for the poor to pay less than the rich; ostensibly to boost entrance of the underprivileged. It is therefore very important for the stakeholders to review the indigent's policy to cover the less privileged in society.

The subscribers of the scheme play an important role in the education of non-subscribers to become subscribers. The messages they carry out to their communities concerning the benefits and the treatment meted out in no doubt could influence either positively or negatively the decisions of others. It is therefore important that NHIA in collaboration with the Ministry of Health consider subscribers as an important element in their education campaign by extending the needed courtesies at the point of service delivery. This possibly

could increase enrollment, and at the same time encourage them to remain subscribers at all times.

The awareness of health care in the daily decisions of the citizenry cannot be discounted. When people place health care as a priority above everything, it serves as a motivation in making financial arrangements to cater for their health needs irrespective of their income level. This could be attributed to their level of education, and it is therefore important to revamp the public relations department of NHIS to let people know that without good health, nothing could be achieved.

### **6.3 Suggestion for Future Research**

Both qualitative and quantitative methods have been used by various researchers in an attempt to address the low membership of health insurance scheme around the globe. This research relied on socioeconomic and demographic characteristics which is likely to affect enrollment and evaluate service satisfaction in the health sector. It is obvious from the results that challenges of membership go beyond these. Another research focus only on the satisfaction is needed to understand individuals very well, particularly the broader societal factors that were not explored to identify the needs and wants of health care consumers.

It is believed that when information is obtained right after a person exits from his/her health care provider's office, or by visiting patients in their homes immediately they finished interacting with the health care providers, might be

good enough to produce a reflective result. It is recommended that, similar study must be conducted to apply both cohort and observational methods that allow exploration, dynamics of human behavior and their attitude towards health care systems in general. This approach cannot be the ideal one, but the combined results from both are more likely to provide the most useful evidence for future advancement in health care system that meet the people's expectation to guarantee universal coverage.

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## **Appendix: Interview Guide/Questionnaire**

The Researcher is a Graduate Student of Ritsumeikan Asia Pacific University who is undertaking a research to help provide better health insurance coverage with higher quality in Ghana. All information given would be treated with strictest confidentiality. This research is purely an academic exercise.

**Please, kindly provide an answer or [✓] appropriately. Thank you!**

### *Socioeconomic and Demographic Data*

1. Age: ..... (Years)
2. Gender:     Male     Female
3. What is the highest level of education you attained?  Primary  Non-formal  
 Middle/JHS  Technical/Commercial/SHS/'O' level  Tertiary  None
4. Marital status  Married  Single  Widowed  Divorced
5. How many children/dependents do you have? .....
6. Place of residence.  Village  Town  Other (specify): .....
7. Employment status.  Trader  Farmer  Salary worker  Unemployed  
 Student  Other (specify): .....
8. If employed, how much do you earn in a month? (Gh C)  below100  
 100-200  201-300  301-400  401-500  Above 500

### *Awareness and Access*

9. Do you know the NHIS?  Yes         No
10. What is your impression of the NHIS?  Very good  Good  Average  
 Not good

11. What means of transport do you use to access health facility?  Bicycle  
 Motorcycle  Car  Foot  Other (specify): .....

12. How long does it take to reach the nearest health facility?  
 Minutes.....  Hours.....

Service Benefits and Challenges

13. Can you access health facility anytime you want?  Yes  No

14. If NO, why? (i) .....  
(ii) .....  
(iii) .....

15. Have you visited a health facility for the past 6 months?  Yes  No

16. How do you rate your satisfaction with the following services?

**Please tick [] only one under the given options**

<b>Variables</b>	<b>Less satisfied</b>	<b>Satisfied</b>
a) Availability of health personnel	<input type="checkbox"/>	<input type="checkbox"/>
b) Quality of basic amenities	<input type="checkbox"/>	<input type="checkbox"/>
c) Attitude of health personnel	<input type="checkbox"/>	<input type="checkbox"/>
d) Attitude of NHIS staff	<input type="checkbox"/>	<input type="checkbox"/>
e) Availability of drugs	<input type="checkbox"/>	<input type="checkbox"/>
f) Easy access to health care	<input type="checkbox"/>	<input type="checkbox"/>
g) Waiting time at facility	<input type="checkbox"/>	<input type="checkbox"/>
h) Symptom improvement after a week	<input type="checkbox"/>	<input type="checkbox"/>

17. Are you currently a member of NHIS?  Yes  No

If YES, please answer questions 18, 21 & 22, If NO, continue from question 20

18. For how many years now? (Specify).....

19. How do you pay for your premium?  SSNIT contribution  Self

Relative  NGO/Church/Organization  Other (specify) .....

20. Do you like to join the scheme?  Yes  No

21. Why have you not join the scheme?

(i).....

(ii) .....

(iii) .....

22. What can NHIS, service providers and policy makers do to achieve total coverage?

(i) .....

(ii) .....

(iii) .....

(iv) .....