**CHAPTER ONE**

**1.0 INTRODUCTION**

**1.1 Background Information**

Healthcare issues are of greater concern to every nation because her economic development is closely linked to the health status of its population. In view of this, the healthcare industry is one of the largest and fastest growing sectors of many developed nations, taking up about 10 percent of the Gross Domestic Product (GDP) of these nations (Cracium et al., 2004).

Healthcare can be at the primary level, secondary level or tertiary level depending on the type of service provided for the individual by health professionals (WHO, 2011), and is essential for all and its provision must be of quality at every level.

According to the World Health Organization (WHO), for healthcare to be of quality, it must be: safe - void of injuries to patients; effective - the services given based on scientific knowledge, and patient centred - care provided is respectful and responsive to individual patient preferences, needs, values’ and that patient values - guide all clinical decisions. Not only should quality healthcare be efficient and equitable, it should also be timely to reduce waits and harmful delays (WHO, 2003). There is growing evidence around the world that healthcare can drive parents into poverty due to the high cost of provision of healthcare. According to the WHO (2005), about a hundred million (100,000,000) people become impoverished by paying for healthcare and about one hundred and fifty million (150,000,000) more face financial hardship from healthcare cost.

Studies have evidence documented that in Africa the heaviest burden of healthcare cost, particularly those that are considered catastrophic, falls on the poorest households (Xu et al., 2003, 2005; Whitehead et al., 2005). Consequently, in times of ill-health, many of these poor people are unable to have access to healthcare due to many factors such as unavailability of health facilities and cost of health services.

In Ghana, one major challenge facing health delivery is financing. Health financing in Ghana prior to independence, was predominantly by out-of-pocket payments at point of service used. This was however changed under the First Republic, from the late 1950s up to 1966, when Healthcare financing in Ghana was in line with the Socialist Philosophy of the then government, and was virtually free as was education and other social services.

Following the overthrown of the government, Healthcare financing in Ghana saw a complete ‘U-Turn’ under the Military-Cum-Civilian Junta of the National liberation Council(NLC), Ghanaian’s were asked to pay for their Healthcare. When the government introduced the user fees for various Health services as an outcome of the Structural Adjustment Program (SAP) implementation, cost recovery fees were charged for drugs and this was called ‘‘Cash and Carry System’’.

As at 1980, the economy of Ghana had deteriorated to such an extent that the government wandered how to find the best combination of Government-Peoples-Partnership (GPP) that would meet each other part of the way and satisfy the needs and pockets of Ghanaians with which Healthcare was not exclusive, as and when they visit the hospital, while the state bore all other cost including consultation, salaries and emoluments for Doctors, Nurses and other Healthcare workers in state hospitals.

The ‘‘Cash and Carry’’ System also provided for free medical care to the aged above 70 years of age, children under 5 years, and pregnant woman for their Ante-Natal care.

In 1981, a number of community-based pre-payment schemes otherwise known as Mutual Health Organizations (MHOs) were developed in response to the access obstacles created by the user fee. By 2003, there were 168 of these Schemes covering about 1% of the population of Ghana. Examples of these schemes were Dangme’s West Health Insurance Scheme (Dangme Hewani Nami Kpee), Nkoranza Community Financing Health Insurance Scheme, Salaga Women’s Health Insurance Scheme, Jaman South Health Insurance Scheme, Agogo Community Health Insurance Scheme, Asutifi Health Insurance Scheme, Gomoaman Health Insurance Scheme, and the like. While these Schemes provided financial protection against healthcare cost, particularly for in-patient care for their members, the poorest households were unable to afford the contributions and so did not benefit from it. In recognition of the potential of MHOs to eliminate user fees and utilisation of healthcare, the government of Government of Ghana established a National Health Insurance Council Act 650 in August 2003.

The National Health Insurance Council Act 650 mandates the creation of district-level MHOs in accordance with national guidelines and the establishment of a National Health Insurance Council (NHIC). The law represents a bold and innovative move by government to provide Health Insurance coverage to all of its citizens. This is meant to provide financial protection for the entire population and move away from the ‘‘Cash and Carry’’ System.

During the 2000 general election in Ghana, the New Patriotic Party (NPP) campaigned, and subsequently won, on a platform that promised to get rid of ‘‘Cash and Carry’’ System and introduce a pro-poor Health Insurance model for the country and technically requires all citizens to be enrolled in some form of Health Insurance coverage, being it private coverage, the NHIS coverage, or a combination of the two.

However, in practice, there was no enforcement of this rule and many citizens were without Health Insurance coverage of any kind. These individuals must therefore pay out-of–pocket should they need treatment at a health facility, meaning that the ‘‘Cash and Carry’’ System still lived on in some form. This resulted in a system with multiple payers-NHIS, private Insurance, ‘‘Cash and Carry’’, and a potential for hierarchies of prioritizing care. NHIS cardholders may only receive coverage at NHIS accredited facilities, though these facilities were owned and managed by different players including the Government, Private ownership, Mission ownership and Quasi-Government ownership. Below is a table showing the ownership of the NHIS accredited health facilities in Ghana as of 2010.

**Table 1.1.1: National Health Insurance Authority Annual Report 2010.**

|  |  |  |
| --- | --- | --- |
| **Facility ownership** | **Number of accredited facilities** | **Percentage of ownership** |
| Government Ownership | 1,460 | 55.2% |
| Private Ownership | 1,022 | 38.6% |
| Mission Ownership | 149 | 5.6% |
| Quasi-Government Ownership | 16 | 0.6% |
| **Total** | **2,647** | **100%** |

Source: NHIA, 2010.

Ghana introduced a National Health Insurance Scheme (NHIS) as part of a major development policy framework-Ghana Poverty Reduction Strategy (GPRS) implemented in 2003. The Aim of the NHIS was to replace the hitherto obnoxious ‘‘Cash and Carry’’ System of paying for healthcare at the point of service, and to provide better and much more humane financial arrangement that will enable the poor to access healthcare service without having to pay at the point of health service delivery.

The establishment of the Scheme was also to ensure an improvement in the quality of healthcare services for all citizens, especially the poor and the vulnerable. Ten years after the implementation of the NHIS, a nationwide Assessment of the Scheme by the NHIA showed that only 36% of the people are covered. Again, 70% of pregnant women, children and the aged who enjoys free registration under the program failed to renew their cards after expiry of their membership. Unfortunately, no attempt has been made to understand the factors that had accounted for that low coverage of the Scheme or what factors motivate people to join the Scheme. As at the end of December 2011, the total active membership of the Scheme increased from 8.16 million in 2010 to 8.23 million in 2011 showing an increase of 0.8% over the 2010 figure and representing 33% of the population.

Based on this membership, contributions vary among schemes from GH₵7.2 to GH₵48. Beyond the premiums collected locally, the NHIS is financed through a 2.5% National Health Insurance Levy instituted by the Central Government which is the levy on goods and services collected under the Value Added Tax (VAT). Basic foodstuffs and goods predominantly consumed by the poor are however excluded.

There is an additional 2.5% deduction of workers contribution to the Social Security and National Insurance Trust (SSNIT) fund. The rest of the funding sources include accruals from investments made by the National Health Insurance Council (NHIC).

As at 2009, 14,283,620 cards bearing Ghanaians across all the ten regions representing 69.73% (2000 population census) have registered with the Scheme out of the total population of the country (NHIA,2009). However, the NHIS does not cover all not cover all drugs/treatments that may be prescribed. Besides the explicit cost which are covered under the NHIS. There are also implicit costs which are borne by insured persons on NHIS. These among other factors are likely to play a role with respect to the choice of healthcare providers among the persons.

Whereas these studies are important contributor to our knowledge about the strength and weaknesses of the Scheme in general, the context in which these Schemes have been introduced and the objectives of the Schemes themselves have not been given enough attention.

It is within this context that this study would analyses the influence of the Scheme on the quality of healthcare delivery in Wenchi Municipality in the Brong- Ahafo region of Ghana.

**1.2 PROBLEM STATEMENT**

The National Health Insurance Scheme was established to replace the hitherto obnoxious ‘‘Cash and Carry’’ System of paying for healthcare at the point of service, and to provide a better and much more humane financial arrangement that will enable the poor to access quality healthcare without having to pay at the point of service delivery.

The establishment of the scheme was also to ensure an improvement in the quality of basic healthcare service for all citizens, especially the poor and the vulnerable but what do we see in Wenchi municipal health centers, clinics and hospitals today?, most of the people enrolled are not renewing their membership with the scheme and are now resorting to the hitherto obnoxious ‘‘Cash and Carry’’ System for their healthcare. Also, some available health centers’, clinics, and hospitals practicing the scheme are more or less not offering their services to NHIS card holders when they come there for medication with an active membership card.

In addition to this, sick people who attend the hospitals or clinics come back with complains that special treatment is given to those who are not on the scheme. Others also says because they are on the scheme, they are not given any better drugs but are always referred to purchase drugs out there out-of-pocket for the reason being that the NHIS do not cover them. Meanwhile, huge sums of monies are incurred by the government on the scheme for its effective and smooth running in other to be able to provide quality healthcare for the people in the municipality.

This has been an issue unfathomable by all people in the municipality and the nation as a whole hence the need for the study.

**1.3. RESEARCH OBJECTIVES**

* To examine the socio-economic and demographic factors that influence the enrollment and utilisation of the scheme by people in the municipality.
* To determine the difference in perception of the people who are insured and that of the uninsured about the quality of healthcare they receive at various health facilities in the Municipality.

**1.4. RESEARCH QUESTIONS.**

The study was guided by the following questions;

* What role do socio-economic conditions play in enrolment and utilisation of services of the scheme?
* Are there differences in the quality of services received by insured and uninsured persons in the health facilities at the municipality?

**1.5. SIGNIFICANCE OF THE STUDY**

The high cost of healthcare has been at a detriment to many people from poor homes. Thus, people were identified as part of the vulnerable group who should benefit from the NHIS without paying premium. Since the NHIS provide an alternative means of financing healthcare for people, there is a need for more people to be enrolled on the scheme to avert high cost of healthcare which has been a major contributor to mortality in Ghana.

Therefore, the study is useful for highlighting some major contributions of the NHIS to the people’s healthcare and the need to ensure its benefit to insured people.

Furthermore, the study brings out the people’s perspective of quality of healthcare they receive and this significantly influences their decision to be enrolled on the scheme and benefit from its services. This is important for the NHIS to ensure that an insured person receives quality services under the scheme to erase the negative perception some people have about the scheme.

Moreover, the study highlights the various factors that influence people’s accessibility and utilisation of the scheme in different geographic settings. These eventually have implications for coverage in the long run. Therefore, the study will contribute to strengthening the policies of the scheme, improving its services to increase its enrollment and the utilisation by the people.

**1.6. SCOPE OF THE STUDY**

The study was conducted in four communities in Wenchi Municipality in the Brong Ahafo Region of Ghana. They are; Wenchi, Subinso, Droboso and Nchiraa.

Wenchi and Subinso were the urban communities selected while Nchiraa and Droboso were the rural communities for the study.

The study objectives are; to examine the socio-economic and demographic factors that influence the enrollment and utilisation of the scheme by people in the rural and urban communities, to determine the difference in perception of the NHIS and the quality of healthcare, received by insured and uninsured people at various health centres in the municipality and to know if the insured are willing to pay more premium for improvement in the quality of healthcare.

**1.7. RESEARCH LIMITATION**

The time duration within which this research was carried out was obviously the greatest limitation to this project. Also, the general lack of information on the scheme with respect to service utilisation combined with the unwillingness of users of the scheme and the NHIS office to volunteer information hampered the gathering of data.

**1.8. ORGANIZATION OF STUDY**

This study is composed of five (5) chapters. The first chapter comprises an introduction to the study, problem statement, objectives to the study, research questions, significance of the study, scope of the study, limitation of the study and organization of the study.

Chapter two (2) reviews relevant literature and examines the gaps that have made this research necessary.

Chapter three (3) is on the study’s methodology and discusses the study area adopted for the study. The first part of this discussion provides information on the physical and the socio-economic characteristics of the study area while the second part dwelt on the methods and approaches for the study. The final part is on the analysis of the data which includes the procedures to be followed to reach a perfect conclusion.

Chapter four (4) presents results that were generated using statistical tools such as: Statistical Package for Social Sciences (SPSS version 20), Minitab16 and Microsoft Excel from the field data. The results are presented in graphical and tabular formats for easy interpretation.

The final chapter, five (5), is on the study’s key findings, conclusions and recommendations for policy implementation. It looked at the implications of decision making and policies on the efficiency of the National Health Insurance Scheme to healthcare delivery.

**CHAPTER TWO**

2.0. LITERATURE REVIEW

**2.1 Introduction**

This part of the study reviews topics that are important to this research. The topics present an overview of the theoretical framework upon which the entire research is based. Therefore, the researcher reviews such topics as the health policies in Ghana, healthcare financing, types of health insurance, objectives of the National Health Insurance Scheme, significance of health insurance for the people, benefits of NHIS in Ghana, challenges of the National Health Insurance Scheme and conceptual framework.

**2.2 Healthcare Policies in Ghana**

Ghana, like any other country in the world, remains committed to providing quality, accessible pre-independence era where successive governments have introduced various health reforms in a bid to cater for the health needs of Ghanaians. Prior to independence, financial access to modern healthcare was predominantly through out‐of‐pocket payments at point of service use (Arhinful.2003).

Following independence, the government switched to tax‐based financing of public sector health services and all such services were made free. Private sector health services continued to be paid for by out‐of‐pocket fees at point of service use.

By the early 1970s, general tax revenue in Ghana could not support a tax‐based health financing system. Therefore, in 1972, very low out‐of‐pocket fees at point of service use were introduced in the public sector. However, following a stagnation of the economy, the health sector was affected and there were widespread shortages of essential medicines, supplies and equipment, and poor quality of healthcare (Buor, 2010). Thus, in the early 1980s, there were considerations at different times to institute a National Health Insurance Scheme (NHIS) at national level.

Consequently, the International Labour Organization (I.L.O.), World Health Organization

(WHO), European Union( EU) and London School of Hygiene and Tropical Medicine were requested by the Ministry of Health to provide technical advice on such a scheme and in 1997 an NHIS pilot project was launched. Due to a lack of consensus on health financing policy in general however, the pilot project broke down (Buor, 2010).

However, NHIS concept was rejuvenated in 2001 by the government, as one of their key policy platforms was to abolish out-of-pocket payment system, with a specified goal of having 50‐60% of the population covered by health insurance within 10 years of the implementation of the new scheme, with a final goal of universal health insurance coverage (Cichon et al., 2003).

Notably, the Christian Health Association of Ghana’s providers began to experiment with hospital‐based health insurance, called community health insurance, as early as 1992. By the time the government introduced health insurance nationally, there were already at least 57 district health insurance schemes and over a hundred other group of schemes. These community‐based schemes greatly influenced and informed the development of national health insurance (Mensah et al., 2009).

**2.3: Healthcare Financing**

The accelerating cost of healthcare has been a major issue for developed and developing countries. As a result of this, Health policy makers are faced with competing alternatives, and for the systems of healthcare financing. It is essential that the choice of financing method is able to mobilize resources for healthcare and provide financial protection for all especially the poor. (Ekman., 2004).

There are numerous ways of financing healthcare and may take the form of public and private funding. Private funding includes private health insurance schemes, employer financed services, charitable and voluntary donations, and private house hold expenditures. On the other hand, tax revenues, social health insurance and out-of–pocket payment are sources of public funding of healthcare. (Mossialos et al., 2002 cited in Akorstu et al., 2009). However, most low income countries have resulted to social and micro health insurance to reduce direct spending by patients. In this regard, most African countries have either sought to schemes only for the formal sector, or micro insurance that target the informal sector or the health insurance which tends to achieve universal coverage but social health insurance tend to have many limitations (Letoumy., 2008).

Funding of the scheme is a major concern and should take into account the ability to pay to help the poor. In addition, waiting times should be shortened and sufficient coverage guaranteed. On the whole, the people would support a national health insurance with national pooling and purchasing under a public set-up, but important concerns of such a system regarding corruption and inefficiency (Mershed et al., 2011). For instance, China's efforts to improve public health insurance have seen the scheme go through several phases. In some cases the vulnerable, mostly children and women were negatively affected. Nevertheless, current health insurance schemes in China fall into three categories: urban employee basic health insurance scheme, urban resident scheme, and new rural cooperative medical system. This is because they realized that the national health insurance did not benefit the poor people who found themselves in the rural areas. Thus the new system is to ensure a universal coverage and benefit for all (Wang et al., 2011).

Despite the success, these substantially identity-based, district-varied health insurance schemes have separate operation mechanisms, various administrative institutions, and consequently poor connections. On the other hand, the establishment and implementation of various health insurance schemes provide the preconditioning of more sophisticated social health insurance schemes, the increase in the income of urban and rural people, and the great importance attached by the government (Wang et al., 2011).

Towards the end of the 1980s more and more evidence began to emerge that the structural adjustment and the associated conditions were not delivering on the promises of growth and

prosperity and that the fiscal constraints they called for were rather damaging education, health and other essential services particularly in Africa and Latin America (Cornia et al.,1987, Mosely et al.,1995) and therefore the need for policies to improved lives was very crucial (Hulme.,2009). In recent years, the measurement of development has moved beyond just economic growth to involve health, environment, education and human rights issues among others. Thus, the United Nations initiated the 8 Millennium Development Goals (MDGs) in 1997, with its achievement to be a yardstick for development for member nations.

In conclusion, when public health financing has the public’s support, it is more sustainable and likely to improve over time. National health insurance attracts the most support, (Balabanova et al.,2004) but there is other debate about the establishment of an urban-rural integrated, citizenbased, and nationwide-universal health insurance scheme important to attain equality and national connection. Accordingly, the differences between urban and rural areas should be minimized (Wang et al., 2012).

**2.4 Types of Health Insurance**

Health insurance is a financial arrangement in the health sector that is used to pay the medical expenses of insured persons who utilize the services of an accredited health provider. It thrives on three factors; the provider, the subscriber and the payer which is the scheme (Gorman. 2006).

Health insurance thus, generally pays for medical expense. Like other forms of insurance, it is a means by which people collectively pool their health risks of incurring medical expenses.

Nevertheless, health insurance can be privately or publicly owned. In this case, the covered groups or individuals pay premium or taxes to help protect themselves from unexpected healthcare expenses. For instance Private Mutual Health Insurance Scheme (PMHIS), is where private individual members of the scheme benefit from the scheme. On the other hand Private Commercial Health Insurance Scheme (PCHIS) is where private insurance companies register individuals and premiums are paid based on calculated risk of members. However, the Mutual

Health Insurance Scheme is jointly owned by communities. It was introduced in 1985 by the Legislative Instrument (L.I) 1313. The Catholic Church established the first mutual health insurance scheme in Ghana in 1989 in Nkoranza (Owusu., 2010).

There are also various classifications of health insurance schemes around the world and the subscriber may have the opportunity to make a choice depending on the person’s economic status. They include premium, deductible, co-payment, co-insurance, exclusions, coverage limits, and out-of-pocket maximums (Gorman, 2006). For instance the premium is where the policyholder pays an amount of money to the health plan each month to purchase health coverage while the deductible is an amount the insured person must pay out of pocket before the health insurance pays its share. For example a policy holder might have to pay GH50 deductibles per year before his health is covered by the health insurer.

Co-payment on the other hand is the amount the insured person must pay out- of- the pocket before the health insurer pays for a particular visit or service. A co-payment must be paid each time a particular service is obtained. For co-insurance, instead of, or in addition to paying a fixed amount up front like in co-payment, the co-insurance is a percentage of the total cost that insured person may also pay. For example the member might have to pay 20% of the cost of a surgery over and above a co-payment. While the insurance company pays the other 80%. If there is an upper limit or co-insurance, the policy-holder could end up owing very little or great deal, depending on the actual cost of the services they obtain.

Nonetheless exclusions do not cover all services. The insured person generally is expected to pay the full cost of non-covered services out of their own pocket and with coverage limits some health insurance policies only pay for healthcare up to a certain amount. The insured person may be expected to pay any charges in excess of a specific service. To add to that some insurance companies scheme has annual life time coverage maximum and the policy holder must pay all remaining costs.

The last but not least is out-of-pocket maximums which is similar to the coverage limits, except that with this case the insured person’s payment obligation ends when they reach the out-of pocket maximum and the health company pays all further covered cost to a specific benefit category or can apply to all coverage provided during a specific benefit year (Van, 2010). Since health insurance policy is a contract between an insurance company and an individual or his sponsor, it can be renewable annually or monthly.

However, in Ghana there are two main types available. One is the Social- type which is made up of mutual health funds. Examples are District Mutual Health Scheme and Private Mutual Health Insurance Schemes. The other is the Private Commercial Health Insurance Schemes. The option depends on the individual although everybody must be a member of at least one of them

(NHIA ., 2002). Nevertheless, policy makers need to be better informed as to both the cost and the benefits of implementing various financing options in order to reach the target group (Ekman. 2004).

**2.5: Objectives of the National Health Insurance Scheme**

The national health insurance ensures first of all that opportunity is provided for all Ghanaians to have access to the functional structures of health insurance. Secondly, it ensures that Ghanaians do not move from an unaffordable cash and carry regime to another unaffordable health Insurance Scheme. Thirdly, it must ensure that a sustainable health insurance option is made available to all Ghanaians and fourthly, the quality of healthcare provision is not compromised under Health Insurance (MoH., 2003).

According to the policy it is compulsory for every person living in Ghana to belong to a health insurance type and all Ghanaians pay 2.5% on selected expenditures and transactions to be put into the NHIS fund. The formal sector contributes 2.5% of their 17.5% Social Security and Insurance Trust (SSNIT) contribution whereas the informal sector contributes GH72.00 per annum (MoH,2003). The scheme has some underlying principles such as Equity, Risk Equalization, Cross-subsidization, Solidarity, Quality care, Efficiency in premium collection and claims administration, Community or subscriber ownership, Partnership, Reinsurance and Sustainability.

Contribution is based on stratification. The policy comes out with six main categories being the core poor, very poor, poor, middle income, rich and the very rich according to the ability to pay. Health insurances have governing bodies which are responsible for the direction of policies of the scheme. They are registered under the companies code ACT 1973 as either limited by guarantee or liability. There is no restriction on the number and type of scheme that one can join.

Initially, the Health Insurance Scheme was financed entirely by tax revenue. As the sustainability of this form of financing became questionable, there was the need to look at other sources of funds.

**2.6. Significance Of Health Insurance To The People Of Ghana**

Estimates released by UNICEF for 2008 show that 9.2 million children less than 5 years died in the year 2007 with the average mortality reduction rate of 1.8% between 1990 and 2007.

Nevertheless, a rate of 9.8% is needed for 2008 to 2015 to achieve the MDG 4. The annual number of under 5years deaths for 2010 in Ghana stood at 57000 with a reduction rate of less than 4.0%; a scenario which is very alarming (UNICEF., 2012).

The establishment of a National Health Insurance Scheme (NHIS) in Ghana was expected to provide affordable healthcare and make healthcare more accessible to all especially, poor people and families to reduce mortality rate. Consequently, there is an increase in both in-patient and out-patient utilisation by at least one visit per year for people with NHIS in place. These visits are associated with an increased receipt of preventive care (Buchmueller at al., 2004). However, more children are still dying from poor healthcare, (UNICEF. 2012). If NHIS seems to have improved accessibility to child healthcare, then why is mortality still increasing?

A global concern movement especially in the African sub-region is a commitment to significantly reduce financial constraints of access to quality healthcare in general, particularly with greater attention to high priority services and vulnerable groups (Witter et al., 2009).

Studies suggest that many low-and middle-income families depend largely on patients‟ out-of pocket health payments to finance their healthcare systems (Xu et al., 2007); and this has always placed a huge financial burden on people especially the less fortunate. According to the World Health Organization (WHO), studies have shown that out-of-pocket health payment is the most inefficient and inequitable alternative for financing healthcare. This makes many individuals to shun from early or timely search for medical care and thereby aggravating the poverty conditions of people (WHO. 2000; Xu et al., 2003).

Health insurance became important as cost of healthcare escalated in various countries making it difficult for individuals to pay these high cost. Thus, WHO saw the need and encouraged countries to find alternative means to paying for healthcare so it will be affordable (WHO., 2000) It has been seen to have numerous benefits for the various countries who have established and Ghana is no exception. It has been found out by various studies that the lack of health insurance has a higher fiscal burden on individuals in case of chronic diseases. It further prevents timely medical care thereby worsening the outcome of conditions for especially children since they mostly report to health facilities late (Jehu-Appiah et al., 2011, Xu et al., 2003).

In the recent decade, Health insurance schemes are increasingly gaining both institutional and public accent as a framework to finance healthcare provision in developing countries and it has the potential to increase health services utilisation and better cushion people against health expenses and even resolving inequality tendencies (WHO, 2000). Health financing systems through general taxation or through the development of social health insurance are generally recognized as powerful mechanisms to augment universal coverage with adequate financial protection for all against healthcare costs (Carrin et al., 2005). In most African countries including Ghana, Rwanda, Tanzania, Kenya and Nigeria, these are being tested through a multi wide-ranging, social health insurance schemes that engages both private and public-funding alternatives (Carrin et al., 2008; Witter et al., 2009; Mensah et al., 2010).

**2.7. Challenges of the National Health Insurance Scheme**

The impact of health insurance can be assessed better if beneficiaries have access to better health services and there is change in professional behavior especially in the public health facilities (Letourmy, 2008). As there are imperfections in many government policies, the health insurance policy is no exception. For instance, in the United States of America, after Massachusetts expanded health insurance coverage to 98% of the state population, it now struggles to control healthcare costs that threaten the viability of its reform (Song et al., 2012).

In 2004, the USAID-funded Partners for Health Reform plus project, in collaboration with the Health Research Unit of the Ghana Health Service, initiated an evaluation of the NHIS. The focus was on how the Health Insurance (HI) Act has been translated into implementation at the district level and to what extent the implementation practices reflect national level policy and guidelines, plus if there are differences in NHIS enrolment rates among different socioeconomic groups and how implementation of the NHIS has affected health service utilisation and out-of-pocket payments (NDPC., 2009).

It is interesting to note that the conclusions brought out a number of challenges mentioned by scheme officials and lack of understanding of the need for health insurance by community members. More to that, despite having an official waiting period of three months, actual waiting periods have been far longer for many insured. Another challenge concerns delays in the reimbursement of the district schemes from the NHI Fund. It was also revealed by scheme managers that delays in reimbursement soured their relationship with the service providers in the district, who in some cases threatened to stop accepting DMHIS patients (NDPC, 2009).

However, amidst all these challenges it is better for all individuals to be registered on the scheme for the reason that the burden cost of the healthcare on households is very high and therefore when the individuals are not registered with NHIS, healthcare accessibility becomes difficult and even more challenging for poorer households who are not insured (NDPC., 2009) .

**2.8: Definitions of Key Concepts in the Study**

**2.8.1: Theories of healthcare accessibility and healthcare utilisation**

There have been various theories and models that explain accessibility and utilisation of healthcare throughout the literature. Some are mathematical such as Pyle’s gravity model and others are descriptive such as Andersen and Newman’s Predisposing-Enabling-Need model,

1973, (Buor., 2008). Nonetheless, few pertaining to the study have been reviewed.

Defining accessibility is complex and according to Mosely (1979), it is a ‘‘slippery’’ notion. First of all, Philips explains how healthcare goes beyond access to medical facilities in developing countries. According to him, accessibility can be described in three different ways, namely; physical (potential) and revealed accessibility (utilisation), equity and equality of services, and quality and quantity of service (Philips, 1990). In other words, having individuals use the healthcare facilities is not enough. It must be in proportion to population in number and be available to all groups of persons. Notwithstanding, the services the users receive must be of the best standard to give them an overall satisfaction.

In another instance, Smith looks at physical and social resources as the factors which influence accessibility of healthcare. The physical factor has to do with geographic location of health facility; influenced by distance and quality of road which promote a person’s ability to reach a health facility on time to receive healthcare. In another dimension, a longer distance may render a health facility inaccessible even though the facility is available. For instance, for an individual who has suffered severe injuries from an accident, geographic location can become a barrier to the use of health services (Smith et al., 2004). The relevance of distance decay theory which explains that things that are further away are unlikely to be used then becomes an important factor in the study (Skov-Peterson, 2001). Thus, as health cantre’s are further away from individuals they are not likely to use those facilities.

However, the resources include family economic capital, social support, and knowledge of illnesses and health facilities to treat illnesses. For example, among Taiwanese, Kleinman (1980) found that if an individual’s family has knowledge of an effective home remedy; the person will often attempt that treatment before utilizing professional healthcare services.

Accessibility to healthcare can be said to be in close association with utilisation of healthcare because one is likely to use one service or the other after getting to the facility. As such, Andersen’s 1968 model of healthcare utilisation which looked determinants of healthcare utilisation in three categories is important in this study.

The first predisposing characteristics (which is made up of age, sex, education and employment, and marital status) influences healthcare utilisation. These socio-economic factors that influence an individual’s ability to use healthcare facilities are relevant to current situations. According to Andersen, an individual is more or less likely to use health service based on demographics, position within the social structure, and belief in health services benefits.

The second is enabling characteristic are made up of income and insurance. These are factors that give one the ability to pay for healthcare services either from out-of-pocket or through health insurance.

Finally, the third category is need which includes health status, nature of illness and perception (Andersen.,1980). Perception is said to be a coping mechanism for some poor people who cannot afford to pay for high cost of healthcare. They do this by adjusting to illness by ignoring a disease till they become worse (Sauerborn et al., 1995).

**2.8.2: Adapted Conceptual framework for NHIS in healthcare delivery**

Utilisation of the services of the scheme depends on three main factors which are socio-economic, geographic and institutional. All of these factors have individual components which all link up to influence the final output which is utilisation of the scheme by the enrolled person.

First of all, socio economic and demographic factors such as age of person, their education, employment and income levels and the number of people have significantly influence the utilisation of the NHIS services. Educational level of people affects their employment status as well as their income levels. These intend influences their knowledge, choices and perception of their healthcare. Thus, depending on these factors, they are likely to use the services of the NHIS or not.

Furthermore, in a geographical context, NHIS services may be perceived differently by people in different geographical areas (rural or urban). This is so because people in the areas may have different socio-economic status which may be positively or negatively related to enrolment and eventually, NHIS utilisation.

In addition, geographic factors influence distribution of health resources in urban areas and rural areas. Nevertheless, people in urban areas are more likely to have access to health personnel and improved health facilities at the disadvantage of people in rural areas. This in the long run affects utilisation of the NHIS services in these locations.

**2.9: Conclusion**

This chapter reviewed various literatures on health policies in Ghana, healthcare financing, types of health insurance, objectives of the National Health Insurance Scheme in Ghana, significance of health insurance for the people, benefits of health insurance and the challenges of health insurance. It also touched on various theories and concepts that bother on accessibility and utilisation as well as healthcare financing from which the framework for the study was adapted.

**CHAPTER THREE**

**METHODOLOGY**

**3.0 Introduction**

The first part of the methodology describes the study area with emphasis on the location and size, vegetation, climate, drainage, sanitation, population and economic activities as found in the Wenchi Municipality of the Brong- Ahafo region of Ghana. The second part is devoted to the methodologies that are used in achieving the objectives of this study.

**3.1. STUDY AREA**

**3.1.1 Physical Location**

The Wenchi Municipal is located in the Western part of Brong Ahafo Region. It is situated at the northeast of Sunyani (Regional Capital). It lies within latitudes 7 30’ and 8o 05’ North and longitudes 2o 15’ West and 1o 55’ East. In terms of land area, Wenchi Municipal covers 3,494 square kilometers. The Municipal shares boundaries with Techiman Municipal to the west, Kintampo Municipal on the northwest, Tain district to the east and Sunyani Municipal to the south. Wenchi, the Municipal capital is 29km from Techiman. Below is a map of the study area.

**3.1.2 Vegetation, Climate and Drainage**

The Wenchi Municipality spans the moist-semi- deciduous forest and the Guinea Savannah woodland vegetation zones. The Guinea savanna woodland represents an eco-climatic zone, which has evolved in response to climatic and edaphic limiting factors and has been modified substantially by human activities. The original forest vegetation has been subjected to degradation, caused mainly by the indiscriminate bush fires, slash-and burn agriculture, logging and felling of trees for timber and fuel over the years. The cumulative effect is that secondary vegetation occurs in cultivated areas. Timber species like Odum, Sapele, Wawa and Mahogany are found in places such as Nwoase. In the semi-derived savanna areas, there is the absence of large economic trees as a result of logging, charcoal burning and mechanized farming. The groves at Nwoase show that with protection, forests in the Municipality can be very productive because the soils in the sacred groves appear more fertile compared to soils laying a few metre away which have been laid bare by intensive cultivation and other unsustainable uses. In the grooves, wildlife like deer and antelope are found. Other forest reserves are Sawsaw and Yaya. The combination of the vegetation zones – guinea savannah, transitional zone and the forest permit the cultivation of a variety of crops – cereal, tubers and vegetables and even animal rearing.

The rainfall pattern is characterized by seasonality, which is a limiting factor in agriculture and plant growth. The municipality has two main seasons – rainy and dry seasons. The rainy season occurs between April and October with a short dry spell in August. The average annual rainfall is about 1,140 – 1,270mm. The municipality experiences an average of 4 months of rain. However, rivers such as Tain, Subin and the Black Volta flow throughout the year, which can be dammed to support dry season farming. The pattern of rainfall has been erratic over the years, which has affected production levels of farmers.

Generally, the municipality is well drained. The Black Volta marks the northern boundary of the district with the Northern Region. The tributary rivers, which serve the communities in the municipality, are Tain, Subin and Yoyo. While some of the streams dry up in the dry season, the major rivers flow throughout the year. Groundwater potential in the municipality is highly variable. Much depends on the nature of the underlying rock formation and rainfall pattern. The present combination of lack of water storage in the wet season, heavy run-off, high evaporation and low infiltration rates to charge aquifers in some areas contribute to water deficiencies hampering human settlement and increased agricultural production. There is, however, good groundwater potential in the Subin, Tain and Volta Basins.

**3.1.3 Water and Sanitation**

Wenchi municipality has 106 water points which are served by a mechanized bore hole. Towns with these facilities include Wenchi, Nchiraa, and Awisa. In addition to these, there are 30 hand-dug wells, some of which are found in Wenchi and Subinso. There are five major streams and their tributaries that also serve the rest of the population. The streams Yoyo, Subin, Tain, and Kyiridi, are usually perennial. These show that a higher proportion of the population do not have access to potable water. However, incidence of water borne disease in the municipality is minimal. The reason for the low coverage of bore holes and hand dug wells is the geological formation in certain areas such as Subinso and Amponsakrom. Water exploratory activities in those areas require higher technology and infusion of capital from both the District Assembly and the community.

Five different forms of toilet facilities are found in the district. The common type is the KVIP/VIP followed by pit latrine. The water closet is among the lowest used system. It may be due to inadequate spread of the pipe-borne water system and the relatively high cost of construction. Interestingly, the removable pan latrine is gradually fading out of the system. It used to be the dominant type in the seventies. There is no acquired permanent final refuse disposal site in the entire municipality

**3.1.4 Demographic Characteristics**

The population of Wenchi Municipal in 1970 was 98091. In 1984, the population had increased to 155,857 and as at 2000(population figures included that of Tain District and Kintampo), Wenchi Municipal recorded a population of 166,641. The intercensal growth rate between 1970 and 1984 was 3.3%. However, a portion of the district was ceded to Kintampo in 1988 and to Tain in 2004. It is therefore not possible to estimate the growth rate between 1984 and 2000 and 2000 to date. The current population size of 89,739 was based on the Municipal Data Base system which captures information on every citizen.

The population of Wenchi is youthful in that 7.24% are under 5 years while 35.45% are within ages 5 and18 years. Again 50.12% are between 18 and 59 years. Only 6.69% of the population is above 60 years. The large potential labour force is an asset that needs the requisite skills to push the development agenda in the Municipality.

The economically active population is 50.12% while it is 24.4% at the national level and 23.9% at the regional level. In the sex distribution, 49.36% are males, which is a reduction from 51.5% in 1984 and 50.64% are females. This may be explained by higher male migration or high male mortality in the municipality. The sex ratio in the municipality is 1:1.03. The ratio was 1:06 in 1984 showing the level of decline in the male population.

The population of the municipality is largely rural as 68.89% (61,824) lives in rural settlements and only 31.11% (27,915) is urban. In Ghana, settlements with population over 5000 are considered urban, among other criteria. By population criteria alone, only Wenchi and Subinso settlement would be classified as urban, Nchiraa the next bigger community has population of 3658. The other fairly large communities like Awisa, Nkonsia, Beposo, Droboso, Nwoase etc. rely on Wenchi and Subinso for services. The implications are that there is much pressure on the infrastructure services in Wenchi and Subinso town. Dependency ratio shows the relative predominance of persons in dependent ages (Persons less than 15 and those above 65) and those in productive ages (15-64 years).

About eight major ethnic groups are found in the Wenchi Municipality. However, 50% of them are Bono, the dominant indigenous group. This is followed by the Banda (15%). These two and other tribes such as the Mo, Badu and the Ashanti’s are mainly farmers. Other tribes as Fantes and Ewes are mainly fishermen and carpenters. The Dagombas are settler farmers and the Sisalas are normally charcoal producers. In spite of the multiplicity of tribes, there is relative peace and harmony among them which promotes development.

**3.1.5 Health Facilities and Health Service Delivery in Wenchi Municipality.**

The main emphasis of municipal development plan is on improved public health, and, many improvements have been made in nutrition and in maternal and child care. Many of the endemic diseases, such as malaria, pneumonia, and diseases of the gastroenteritis group, have been eliminated.

In 2010, there were eight (8) health facilities providing healthcare to inhabitants of the Municipality. Out of the eight, five were public or government health facilities while the other three were privately owned. These health facilities occasionally referred cases to the Sunyani Regional Hospital. In 2010, the problem with health facilities in the Municipality was that only two hospitals in the municipality were privately owned and this made the cost of health delivery very high. There was also the problem of spatial disparity in the distribution or location of facilities.

There were a total of two hundred and ninety- eight health professionals manning these health facilities in 2010. As of 2010 there were: Six medical doctors’, four medical assistants, Sixty-six nurses and midwives, and Twenty-nine support staffs working in the Municipality. The Methodist hospital was the highest employer, employing about 183 professionals.

In 2010, staffing level of the population to doctor ratio stood at 1:11,330, which was an improvement compared to the 2007 ratio of 1:16,176. In 2010, the Municipality also had a population to nurse ratio of 1:1545. Even though the Municipality had recorded some significant increases in the number of health professionals in the past two years since 2008, the numbers in 2010, were still not enough considering that the hospitals in the Municipality serve as a referral point for health facilities in the Tain district.

**3.2 Study Methodology.**

**3.2.1 Sources of Data**

The study employed questionnaire, in-depth interview and direct observation to collect data from the field. Primary data was taken from the Hospital Administrators, Hospital information Officers and the public relation officer of the National Health Insurance Scheme in the Municipality.

Questionnaires and in-depth interview were used to solicit views from two groups of people; those who are enrolled on the Scheme and those whose are not enrolled on the scheme.

On the other hand, interview guides were developed for Hospital Administrators, HospitalInformation Officers from Wenchi Methodist Hospital and E-Mail Hospital which are the health centres in the municipality, and the NHIS Public Relations Officer in charge of Wenchi municipality.

Medical and social journals, published books and articles, census report, National Health Insurance scheme policy document and relevant internet documents will be the sources of secondary data for the study.

**3.2.2 Method of data collection**

The study adopted a multi-stage approach. Four communities were selected using purposive sampling. The selection was based on the characteristics of the areas (rural or urban) in addition to availability of an accredited NHIS health facility. The total population of the Municipality as at 2010 stood at 89,739 with 31.11% (27,915) residing in urban areas whereas 68.89% (61,824) reside in rural portion towards the Tain district. This led to the selection of four communities for the study which includes two rural communities and two urban communities. Wenchi and Subinso were the urban communities selected while Droboso and Nchiraa were the rural communities. Wenchi has two accredited NHIS hospitals which are the Methodist Hospital and the E-mil Memorial Hospital. However, there are NHIS accredited clinics in the rural areas from which data will be collected.

Subsequently, people from the communities were selected through purposive sampling based on the size of the population of the area using a projected population figures based on the 2010 population and housing census from Ghana Statistical Service (GSS). The sample size can be calculated using the Cochran’s sample size formula assuming an alpha value (α) of 0.05 implies.

*n*= *( t2 ) \*( p )( q )*

*(d2)*

Where; *n* is the sample size to be determined, *t* is the value for with selected alpha level of 0.05 and this gives 1.96, *P* is the proportion of the sample that became ill and sought treatment in the municipality, *q* is the proportion that did not seek treatment *(1-p)* and *d* = acceptable margin of error for proportion being estimated = 0.05 (the maximum error researcher is willing to accept).

From a pilot survey conducted by the researcher, 0.3 proportions of households were ill and sought treatment. This gives *p =* 0.3 and *q* *= (1-p)* =0.7, in which case the sample size becomes:

*n*= ( 1.96)2 \*(0.3 )\*( 0.7) = 322.7

(0.05)

The sample size of 322 was rounded up to 330 to take care of maximum error. To ensure representativeness, the sample size was distributed according to the proportion of households in the two locations in relation to total households. For the questionnaires, a total of 330 people were selected through random sampling to answer the questions.

From Wenchi, 211 people were selected, 52 people from Subinso, 33 people from Droboso and 34 people from Nchiraa.

Respondents were initially briefed on the operation of health insurance, bringing out its advantages and disadvantages, how one can benefit from the scheme by paying premiums at regular intervals as at when they are due. They were then given the chance to pose questions where necessary and these were answered accordingly. Some of the respondents who had prior knowledge about health insurance were engaged in open discussion before responding to the questionnaire. The questionnaire administration took 4 weeks.

Some of the selected persons were interviewed at Wenchi Methodist Hospital, E-Mail Hospital and the clinics at Droboso, Subinso and Nchiraa while they were accessing healthcare.

Others were interviewed in their homes, in the market places and in their work places. They were interviewed based on the questionnaire and the answers recorded accordingly.

Data was collected based on the people’s socio-demographic background, utilisation of health facilities by the insured and uninsured persons, assessment of quality of healthcare from insured and uninsured persons as well as the challenges of using the scheme by the people. A total of two hundred and twenty eight persons who are enrolled on the scheme (controlled group) were interviewed as against hundred and two person’s uninsured (treated group). This was to ensure different perspectives of the different groups of persons to prevent bias in the findings.

The in-depth interview was used to solicit views of officers of the various selected Hospitals and the individuals in the various households selected as well.

**Table 3. 2.1: Sampling Design**

|  |  |  |
| --- | --- | --- |
| **COMMUNITY** | **POPULATION** | **SAMPLE** |
| WENCHI | 22395 | 211 |
| SUBINSO | 5520 | 52 |
| DROBOSO | 3250 | 33 |
| NCHIRAA | 3658 | 34 |
| **TOTAL** | **35023** | **330** |

**Source**: Projections computed from Population and Housing Census, 2010

**3.3 DATA ANALYSIS**

The data were sorted and coded into Excel and imported into Statistical Package for Social Science (SPSS) version 16.0 and Minitab version 16.0 and were used for the analysis while Excel was used to generate descriptive statistics. With the aid of the software, the quantitative data were tabulated and summarized into statistical tables.

**3.3.1: Determining socio-economic and demographic conditions that influence the people enrollment and utilisation of the scheme**

The Binary logit model was used to show the relationship between demographic, institutional factors and people enrollment on the scheme.

This model helps to identifies how significant the influencing factors can predict individuals’ demand for health insurance. The variables take a value of 1 with the probability of success (p) and zero with the probability of failure (1-p) this type of variable is called a binary variable. The functional form of the demand for health insurance equation is presented as;

Him = g (Age, Sex, Ms, Edu, Es, Hs, Inc, Hfm, DtH, Prem).

Where; g = log likelihood, Age=age of respondents (1=old, 0= young), Sex = Sex of respondent(1=male, 0=female), Ms = Marital status(1=married, 0=single/others), Edu= Educational status(1=Not educated, 0=educated), Inc = Income of the individuals (1= <1000; 0= >=1000), Es = Employment status (1=Employed, 0=unemployed), Hfm = Health facility mostly attended(1=Government/others, 0=Private Hosp/Clinic), Hs=Health status of respondent(1=Easily fall sick, 0=Not easily fall sick), Prem = Premium or price of insurance (1=≤ GHȻ5, 0= ≥12) , DtH= distance from NHIS accredited facilities (1 = distance > 5 km, 0 = distance ≤ 5 km).

The dependent variable Health Insurance Membership (Him) (dummy variable), takes the value of 1 if one is a member of health insurance scheme and 0 otherwise.

Now for the model, let the function be called *f(z).*

Then ***f(z)=*** ---------------------------------------------------- (1)

When the values of this function from (1) above are plotted, z varies from - to + and its shape is given the figure below.

**1 - - - - - - - - - - - - - - - - - - - - - - - - - - - -**

**-  0 +**

**Z**

Figure 3.3.1.1: Shape of logistic function.

Source: Fieldwork, 2015.

From the graph, the range of *f* (*z*) is between 0 and 1, irrespective to the value of *z*. The model is designed to describe a probability, which is always some number between 0 and 1.

Another characteristic of the logistic model is derived from the shape of the logistic function, which is an elongated S shape. As shown in Fig. 3.3.1.1, if we begin at -  and move to the right, then as *z* increases, the value of *f* **(***z***)** hovers close to zero for a while, then starts to increase dramatically toward 1, and finally levels off around 1 as *z* increases toward z =+ 

Next, we write *z* as the linear sum as;

**Z = α+β 1X1+ β 2X2+ β 3X3+ ……..+ β kXk** ----------------------------------- (2)

Where the x‘s are independent variables of interest and the β’s are constant terms representing unknown parameters.

Substituting (2) into (1) gives ***f(z)=***------------------------(3)

Let p(x) denotes probability statement where x is a notation for the collection of variables *xi* through Xk.

This implies that p(x) =  **-------------------------------------** (4)

However, since the above logistic model is non-linear, the logit transformation would be used to make it linear. This is given by; ***Logit p(x) =*****-----------------** (5)

Where p(x) = .

This transformation allows us to compute a number, called logit p(x), for an individual with independent variables given by x.

By substituting Equation (4) into Equation (5), we obtain

**= = =**

**=**

This implies that ***Logit P(x) =***

Therefore ***Logit P(x) =* α+β 1X1+ β 2X2+ β 3X3+ ……..+ β kXk**by expansion.

Thus, the logit of p(x) simplifies to the linear sum. The quantity p(x) divided by **1-p(x)**, whose log value gives the logit, which describes the odds for health insurance membership, with independent variables specified by x. then = odds for an individual x.

For this study, the fitted model is given by ***logit* p(y=1) = α +β1 x1+ β 2X2+ …………β 10X10**

Where p is the probability of being a health insurance member, β’s are the coefficients of the socio-economic and demographic factors, α is the constant, and the x’s are the socio-economic and demographic factors which are the independent variables.

The adequacy of the fitted model is tested by the overall goodness of-fit test and examination of influential observation. One concludes that the model is fit if the difference between the observed and the fitted values are small and if there is a systematic contribution of the difference to the error structure of the model. The hypothesis to be tested under this is given bellow.

H0: The model fits the data

H1: The model does not fit the dataat 5% level of significance.

Decision rule: Reject H0 if p≤ 0.05. Then a conclusion can be drawn from the results obtained regarding the model.

**3.3.1.1: Interpretation of the Results from the Model**

The model can be estimated in SPSS and Minitab. The logistic regression use MLE to generate the logit (logistic regression coefficient, which corresponds to the Natural log of the Odds Ratios (ORs) for each one-unit increase in the level of the regressed variable. The interpretation of the logit coefficients is made more intuitive by using the ORs. The ORs measures the probability of the event occurring divided by the probability of the nonevent. In a more technical term, Odds ratio is the exponential of the (B). Odds ratios equaling 1 means that there is 50/50 chance that the event will occur with a small change in the independent variable. Negative coefficients lead to odds ratios less than 1, implying that the partial effect of the independent variable on the dependent variable will be less in explaining the outcome.

**3.3.2: Determining the difference in perception of the people who are insured and that of those not insured about the quality of healthcare they receive at the health centres.**

A Mann-Whitney U test is a nonparametric test used to compare two unrelated, or independent, samples. The two samples are combined and rank ordered together. The strategy is to determine if the values from the two samples are randomly mixed in the rank ordering or if they are clustered at opposite ends when combined.

To test the difference between the insured and the uninsured perception about the quality of healthcare using the Mann-Whitney *U* test, the hypothesis to be tested is given below as;

H0: There is no significant difference in the perception of the insured and the uninsured people

about the quality of healthcare they receive at the health facilities.

H1: There is a significant difference in the perception of the insured and the uninsured people

about the quality of healthcare they receive at the health facilities at 5% significance level.

Decision rule: Reject H0 if p≤ α.

For the test statistics *U*, first use the formula ***Ui =n1n2+* -∑Ri**to calculate the U statistics for the two samples n1 and n2. Where *U¡* is the test statistic for the sample of interest, *ni* is the number of values from the sample of interest, *n1* is the number of values from the first sample, *n2* is the number of values from the second sample**,** ∑Ri is the sum of the ranks from the sample of interest.

After the *Ui* statistic is computed, the smallest is chosen as the obtained value for the observed test statistics. After choosing the smallest, it must be examined for significance. We may use a table of critical value. However, if the number of values in each sample, ni exceeds those available from the table, then a large sample approximation may be performed. For large samples, compute a z-score and use a table with the normal distribution to obtain a critical region of z-scores.

For this study, there are large sample sizes *n1* and *n2* and for that matter we will compute the

z- score for the conclusion to be made. The z- score is given by **Z\*=** Where; z\* is the

z- score for a normal approximation of the data , *U¡* is the *U* statistic from the smallest sample’s *U* chosen, is the mean and is equal to and = is the standard deviation. Next we compare the obtain value of the Z-score with the critical value and make a decision either to accept or reject the hull hypothesis. If Z\* falls within the critical region of the distribution, we accept H0else we reject it in favour of H1*.*

At this point, the analysis is limited to identifying the presence or absence of a significant difference between the two groups and does not describe the strength of the significance if significant. We can consider the effect size (ES) to determine the degree of association between the two groups. We use Formula **(ES) =**  to calculate the effect size and then concluded for the strength of the association. Where; Izl is the absolute value of the z-score and *n* is the total number of observations. The effect size ranges from 0 to 1. Cohen (1988) defined the conventions for effect size as small = 0.10, medium = 0.30, and large = 0.50. (Correlation coefficient and effect size are both measures of association) .

**CHAPTER FOUR**

**RESULTS AND DISCUSSION**

**4.0: Introduction**

This chapter covers the presentation of results and discussion. Information gathered from individuals interviewed for the study are discussed in the direction of socio-economic factors that will motivate the people to enroll with the NHIS as well as the other factors that influence the use of NHIS services by the people in the study area.

**4.1: Demographic Characteristics of Respondents**

The respondents were asked to provide their socio-demographic and economic profile by indicating their age, sex, level of education and years of schooling, employment status and their marital status. The findings as presented in Table 4.1.1 show that, majority of the respondents (208) representing 63.0% were females whilst males were (122) representing 37.0%. However, the reason for the high representation of females was due to the fact that they visited the health facilities as well as with their children more frequently and had ready information about their healthcare. Unfortunately, few men use to go to the hospital/clinic more frequently to seek for healthcare when they are sick could give any accurate information about their experiences about their health status.

**Table 4.1.1: Sex distribution**

|  |  |  |
| --- | --- | --- |
| **SEX** | **FREQUENCY** | **PERCENTAGE (%)** |
| Female | 208 | 63.0 |
| Male | 122 | 37.0 |
| **TOTAL** | **330** | **100** |

Source: Fieldwork, 2015

Figure 4.1.1: Gender of respondents.

Source: Fieldwork, 2015

In addition, age of respondents ranged from 17years to 98years. The study showed that 21.5% were less than 24years while 31.8% were between 25-34years. Those who were between 35-44years were 17.0% while 9.7% of the respondents were between 45-54years. Those who were between 55-64years were 8.5% and 3.0% were those between 65-74years. However, 8.5% were those who fall above 75years. The modal age class of the respondents was 25-34years. This may be explained by the fact that they fell within the fertility age which implies that they were more likely to have younger children and needed to be enrolled on the scheme. Children (people below18years) and the aged (people above 70) are exempted from paying premium under the NHIS but they however need to be registered with the scheme to enjoy the benefits. For the fact that children and the aged are exempted from paying premium under the NHIS, more parents were expected to register with their children as well as the aged in other to enjoy the benefits of the scheme. Table 4.2 shows the age distribution of insured and uninsured people for the study.

More so, the data on education revealed that 20.0% of the respondents did not have formal education while 5.5% had primary education. Also 6.1% were found to have had Junior High/Middle School education while those who had Secondary education were 24.5%. However, majority of the respondents (43.9%) were founded to have had Tertiary Education.

Table 4.3 below shows the education level of respondents.

**Table 4.1.2:Education distribution.**

|  |  |  |  |
| --- | --- | --- | --- |
| **Level Of Education** | | **Frequency** | **Percentage (%)** |
|  | No Formal Education | 66 | 20.0 |
|  | Primary | 18 | 5.5 |
|  | J.H.S / Middle School | 20 | 6.1 |
|  | S.H.S/ Tech/ Voc | 81 | 24.5 |
|  | Tertiary | 145 | 43.9 |
|  | **TOTAL** | **330** | **100.0** |

Source: Fieldwork, 2015

The majority of the respondents were self-employed/informal employment engaged in small scale businesses. The other income generating activity was formal employment. Thus, the study showed wide variations in income levels of respondents with a small percentage earning above GH¢1000. In total, 104 representing 31.5% of the respondents stated that their average monthly earning was below GH¢100. Majority of 115 representing 34.8% of the respondents reported that their monthly average income was between GH¢100 and GH¢500. Only 75 people representing 22.7% and 36 people representing 10.9% of the respondents reported that their monthly average income was between GH¢500 and GH¢1,000 and above GH¢1,000 respectively. The study showed that most of the respondents were self-employed and earned income mostly between GH¢ 100 and GH¢500.

Figure 4.1.3 Income distribution

Source: Fieldwork, 2015

The majority of the respondents were married. The study showed variations in those who are married and those single/others. A total of 228 respondents representing 69.1% answered they are married while 102 representing 30.9% were not married. The figure below is a pie chart representing the marital status of the respondents.

Figure 4.1.4 Marital status

Source: Fieldwork, 2015

**4.2: Socio-Economic and demographic conditions that influence the enrollment and utilisation of NHIS by the people in Wenchi Municipality.**

From the survey, Binary logit model was used to measure enrollment and utilisation of NHIS by respondents. The variables that were used are; socio-economic conditions, characteristics of health centers and NHIS institutions. The fitted model from table 4.2.1 is given by

***Logit (Him=1)* =1.197– 0.571\*Age – 0.755\*Sex – 0.717\*Edu – 1.698\*Es + 0.978\*Ms**

**-0.506\*Inc + 20.630\*Prem – 0.773\*Hs – 0.018\*DtH – 0.315\*Hfm.**

From the model above, the variable inputs are; Age of respondents (Age), Sex of respondents (sex), Marital status (Ms), Education (Edu), Employment status (Es), Income status(Inc), Health status (Hs), Health facility mostly visited (Hfm), Premium (Prem), and Distance from NHIS accredited facilities(DtH). The table 4.2.1 below is the output of the binary logit model.

**Table 4. 2.1: Factors influencing a person enrollment.**

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| **Variables** | | **B** | **Std. Error** | **Exp(B)** | **P-value** | **95% C.I .for EXP(B)** | |
| **Lower** | **Upper** |
|  | Age | -0.571 | 0.410 | 0.763 | 0.657 | 0.231 | 2.520 |
| sex | -0.755 | 0.305 | 0.470 | 0.013 | 0.258 | 0.855 |
| Edu | -0.717 | 1.100 | 0.488 | 0.043 | 0.244 | 0.976 |
| Es | -1.698 | 0.354 | 0.183 | 0.123 | 0.021 | 1.579 |
| Ms | 0.978 | 0.323 | 2.659 | 0.002 | 1.411 | 5.012 |
| Inc | -0.506 | 0.375 | 0.603 | 0.177 | 0.289 | 1.257 |
| Prem(GHȻ) | 20.630 | 43131.45 | 907749609.8 | 0.996 | 0.000 | - |
| Hs | -0.773 | 0.310 | 0.167 | 0.010 | 1.200 | 3.912 |
| DtH | -0.018 | 0.310 | 0.018 | 0.004 | 3.554 | 1.870 |
| Hfm | -0.315 | 0.315 | 0.852 | 0.000 | 2.096 | 7.078 |
| Constant | 1.197 | 1.126 | 3.311 | 0.288 | - | - |

No. of Observation 330

Hosmer and Lemeshow 0.075

Pseudo R2 0.7282

-2Log likelihood 404.125

**Source: Fieldwork, 2015.**

The value of the log likelihood function when all coefficients are zero is - 404.125 with an R2 value of 0.7282 for the binary logit mode showing that 72.82 percent of the variations has been explained by the model, and Hosmer and Lemeshow test value of 0.075 which justify better fit of the models.

**4.2.1: Demographic factors influencing person Enrollment**

From the results in table 4.2.1, the coefficient of sex of respondents was negative and insignificant at 5% level indicating that there was a negative relationship between sex and a person enrollment onto the NHIS. This implies that females were more likely to buy Health insurance than males. This confirms a statement made by one woman who had not been enrolled, “*my husband told me that Health insurance is not necessary because no better Healthcare will be provided to the insured since all insurance companies are corrupt.*”.

Likewise, the ages of respondents ranged from 17 to 98 and showed a negative relationship with health insurance membership though not significant. This implies that, as age of the people increased, the likelihood of them to be enrolled on the scheme is less.

Married couples patronized the health insurance policy than non-married people. The result obtain showed a high significant level of 1% and a positive relationship between marital status and health insurance membership, which may result from the many responsibilities married couple has over the non-married people .

Also, on the issue of Health status, there is a negative coefficient at a very high significant level of 1%. The model predicted that, respondents who on the average less frequently fall sick will be less likely to enroll on NHIS than respondents who frequently fall sick due to the fact that they will be frequently seeking for medical care given that other variables remaining stable. However, People with low levels of education are less likely to be enrolled with the scheme on the grounds that they may probably not understand the scheme better and this account for the negative relationship between education and the NHIS membership though not significant.

Moreover, the study found that income and employment status had a negative coefficient and was insignificant implying that the type of work and the level of income of the people influenced their enrollment negatively. This indicates that as people get better jobs and income increases the likelihood of them being enrolled on the scheme is less. This depicts the evidence on the ground where some of those in the high income bracket preferred to pay out of pocket because according to them they did not trust the quality of healthcare they receive under the scheme. In line with this, they preferred to use the private health facilities solely because they provided them with better health services than the public health facilities and this confirms the negatively relationship between the health facility mostly attended and a person enrollment to the scheme. More so, the study revealed that, majority of the respondents in the lower and middle income brackets are enrolled on the scheme than those in the high (above GH¢1000) income bracket.

It was also discovered that those in the lower income group visited the public health facility mostly when they were sick.

Furthermore, most of those in the middle income bracket (between GH¢500 and GH¢1000) had been registered with the scheme and uses both public and private health centres when they fall sick.

**4.2.2 Institutional and NHIS Characteristics Influencing utilisation of NHIS Services in Health Centres in the study.**

Institutional and NHIS characteristics in the study refer to the distance people cover to health facilities, the kind of health facilities mostly visit and the amount of premium the insured pays with the scheme.

From table 4.2, distance to health facility negatively influenced utilisation of healthcare services by respondents at a very high significant level of at 1%. The NHIS accredited health centres in the study areas served a number of people from nearby villages’ aside people who were residents. They visited these facilities not only because they could use the services of the scheme but partly because they are within their reach. Thus, the people utilized more of health facilities that they could easily be accessed which confirm the distance decay theorem (Skov Petersen; 2001). This implies that, when there are accredited health centres or when available ones are not easily reached, the scheme’s service are not used. It then makes enrollment on the scheme inadequate and this discourages the people to be enrolled.

Moreover, respondents were selective with the kind of health centres they visited based on the services they could provide for them and not merely because they are NHIS accredited.

The study discovered that, the kind of health facility respondents’ used showed a negative relationship with NHIS membership at a very high significant level of 1%. This means that enrolling and maintaining an individual on the scheme is highly dependent on the kind of health centres available for the individual and the kind of services they receive in the health centres. According to the NHIS officer interviewed, a hospital may be accredited but not all the services in the facility may be accredited. For instance, a parent may have to pay for laboratory service in an accredited health centre and this created a lot of confusion in that health facility between that parent and the health officials. It was also a major reason why many people refused to renew their status on the scheme or encourage others to join.

More so, based on the services received in the various health centres, the people were asked to grade the serves under the scheme. In other words, respondents graded the NHIS from the kind of service they received. It was realized that some respondents visited both private and public health facilities. When respondents were asked what kind of health facility they mostly used when they are sick and why they preferred using that facility, one respondent gave this answer, “when *I have money I go to the private hospital but I visit the public* *hospital to use the NHIS card when I don’t have money and in other times goes to buy drugs from pharmacy shops and herbal centres cash. The private hospital gives me a better* *service”* and this increases their medical expenditure (curative care plus preventive care).

In addition, the amount of premium to be paid also showed a positive coefficient which imply that, the premium amount do not deter the respondents from being enrolled on the scheme. This is confirmed by the answers most respondents gave on the questionnaire when they were asked about their satisfaction with the amount of premium they pay and the amount of benefit packages they receive from the scheme. Most of them said’’ *the amount of premium is even small and should be increased because looking at the benefit packages of the scheme and the economic conditions of Ghana today will make the scheme run at a loss which will affect is efficiency in the long run’’.*

Mrs. Comfort Acquah of the Wenchi Methodist Hospital also confirmed that at an interview with her that ‘’*the amount of premium now is good and the benefit packages have helped to improved accessibility to healthcare by increasing the total Out-Patients and In-Patience attendance and it cut across all the other benefit packages of the scheme and this has helped to reduce maternal mortality, infant and child mortality just to mention a few since the year November/December 2009 when the facility started with NHIS as compared to the cash and carry system’’* and this was seconded by the lab technician Mr. Eric Antwi of the hospital.

**4.3: PERCEPTION OF QUALITY OF HEALTHCARE RECEIVED BY INSURED PERSONS UNDER THE SCHEME**

**4.3.0Introduction**

This section discusses the difference in people’s perception on the quality of healthcare they receive under the NHIS. This is in comparison with similar works done by various scholars.

**4.3.1: Difference in People’s Perception about Quality of Healthcare in Health Facilities.**

The Table 4.3.3.1.below shows the results obtained from the Mann Whitney U-Test of differences in perceptions among respondents who had been enrolled and those who had not been enrolled on the NHIS. Based on the Ministry of Health (2007) manual for quality assurance in health facilities, the following indicators were used; Prompt Attention, Doctor/Medical assistant’s examination, Diagnosis Information provided, Treatment advice given, Understanding of Treatment advise, Information of follow up given, Privacy during consultation, drug availability and Overall satisfaction.

**Table 4.3.1.1: Mann-Whitney U-Test of Difference in Perceptions of NHIS Service Quality**

|  |  |
| --- | --- |
| **PERSON’S ENROLLMENT**  **ENROLLED NOT ENROLLED z Mann-Whitney U P-Value**  **n1 n2** |  |

Membership 228 102

Mean Rank 79.91 356.81

Sum of Ranks 18220.00 36395.00

**Values** -1.697 10289.000 0.029

|  |
| --- |
| **ES:0.093**  Source: Fieldwork, 2015 |

The table 4.3.1.1 above revealed that as far as perceptions about qualities in health service delivery (Prompt Attention, Doctor/Medical assistant’s examination, Diagnosis Information provided, Treatment advice given, Understanding of Treatment advise, Information of follow up given, Privacy during consultation, drug availability and Overall satisfaction.) were concern, we rejected the null hypothesis with ***(U=*10289, n1=128,  *n2= 102, p<0.05)*** suggesting that a real difference exists between the perceptions of the people who are enrolled on the scheme and that of those who are not enrolled with regards the service delivery quality of NHIS.

In addition, since the sum of the ranks for those not enrolled **(∑R2=36395)** was greater than that of those enrolled **(∑R1=18220)** we see that those not enrolled had significantly higher scores.

However at this point, the analysis is limited to identifying the presence or absence of a significant difference between the perceptions of the two groups. In other words, the statistical test's level of significance does not describe the strength of the difference. The American Psychological Association (2001), however, has called for a measure of the strength called the *effect size (****ES****)* andwe can consider the effect size for this large sample test to determine the strength of the difference between the groups. The table revealed the effect size to be 0.093 and based no Cohen (1988), who defined the conventions for effect size as ranging from 0 to1 and with that, small = 0.10, medium = 0.30, and large = 0.50, the value of the effect size 0.093 indicates a small level of difference between the perception of the enrolled and that of those not enrolled. However, a negative Z-value indicates a negative difference in their perceptions.

By implication, insured and uninsured did not have the same satisfaction with the quality of healthcare services they received based on the criteria used for accessing the quality of healthcare. We can conclude here that the NHIS has a negative influence on the quality of health care based on the people perception. This outcome contradicts with a study done by Turkson (2009) in some selected rural districts in Ghana where it was found out that generally the quality of healthcare delivery was perceived not to be different. The figure 4.3.3.1 below shows the satisfaction with the NHIS.

Figure 4.3.1.1: Satisfaction with NHIS

Source: Fieldwork, 2015.

Consequently, respondents who had been enrolled on the scheme were asked to grade the services of the scheme and figure 4.3.3.1 shows the results of the answers that the respondents gave. From a total 228 respondents who had registered with the scheme, 46.1% revealed that the NHIS services were unsatisfactory while 33.8% stated that NHIS healthcare services were good whereas the remaining 20.2% of the respondents graded the service to be excellent.

Though the members of the Formal Group on the scheme do not pay premium, people pay between GH₵5 and GH₵19 to register their children and themselves on the scheme. Respondents were asked if the cost of registration was affordable. The results was that, 201 (60.9%) of the respondents said that the cost of registration was less expensive, 107(32.4%) revealed that the registration was expensive and the remaining 22(6.7%) reported that they were indifferent about the cost involved in registering all includes the uninsured.

However, when the insured’s were asked if they would pay more for the quality of services to be improved, the results was that on the average of 0.79 representing 79% were willing to pay more for improvement in the quality of healthcare services while on the average 0.21 representing 21% of the respondents reported that they were not willing to pay more for improvement in the quality of healthcare under the scheme for the reason that they had been impressed with the scheme so far. Hence we conclude that the major of the subscribers were willing to pay more for better healthcare under the scheme.

In addition they were asked if they found it convenient going to the hospital with their NHIS cards for medical care and on the average, 0.754 representing (75.4%) reported that it was easy for them to go the hospitals under the NHIS for medication because they did not need to have money to do that. However, the rest the people insured on average 0.246 representing (24.6%) reported that they did not find it that easy at all to go to the health facilities for medical care under the NHIS. This is because they made other payments in one way or the other at the hospital which they were sometimes not ready for. An example of other payments respondents made was the cost of laboratory test.

**CHAPTER FIVE**

**SUMMARY, CONCLUSION AND RECOMMENDATIONS**

**5.0. Introduction**

The National Health Insurance Scheme (NHIS) is a social intervention program introduced by government to provide financial access to quality healthcare for the people. This chapter summarizes the major findings based on the four objectives of the study.

Based on the results, conclusions are drawn and recommendations are made for policy makers to ensure a smooth running of the scheme to encourage more respondents to be enrolled to help achieve the objectives of the scheme.

**5.1. Summary of Major Findings**

The study employed questionnaire, in-depth interview and direct observation to gather data from the field. The questionnaires were used to solicit views from two groups of people; those who are enrolled on the NHIS and those not enrolled. On the other hand, interview guides were developed for hospital administrators, hospital information officers, and the public relation officer of the NHIS office.

The study adopted a multi- stage approach. First of all, four communities (Wenchi, Subinso, Droboso, and Nchiraa) were selected using purposive sampling. This was based on the characteristics of the areas (urban or rural) in addition to availability of an accredited NHIS health facility.

The first objective was to show socio-economic and demographic conditions’ influence on utilisation of NHIS by people in rural and urban communities, a Binary logit model was used to show the relationship between demographic, institutional and NHIS factors and a person’s enrollment on the scheme.

The second objective was to determine the difference in people’s perception of the NHIS and the quality of healthcare received by insured and uninsured people in health centres, and here, the Mann-Whitney U test was used and the result showed a real difference existing between the perceptions of those enrolled on the scheme and that of those not enrolled.

A total of three hundred and thirty people were selected through random sampling to answer questions about their enrollment, utilisation and challenges they faced in using the scheme.

Wenchi had 211 people selected, Subinso had 52 people, Droboso had 34 and Nchiraa had 33 people.

In conclusion, some findings were made, leading to some conclusions being drawn. Following this, some recommendations have been made to ensure the NHIS has an enhanced contribution to the people’s healthcare.

I. The study revealed that, the implementation of the scheme has generally contributed positively to the people’s healthcare in the municipality. According to three the health information officers, general mortality has significantly reduced in the area since the inception of the scheme. Yet, there are more people who had not been enrolled to benefit from the services of the scheme. In this regard, the paradox in view was why some respondents had not been enrolled and yet they could not afford to pay for their hospital bills out-of-pocket.

II. Consequently, it was found that, socio-economic and demographic characteristics of the people such as age, sex, educational status, employment status, income status, health status, distance to NHIS accredited health facility and type of health facility mostly attended, negatively influenced enrollment of the people on to the scheme with sex and educational status significant at 5% level, and health status, distance to NHIS accredited health facility, type of health facility mostly attended, are highly significant at 1% level. However, age, employment status, and income status were not significant. All these had a negative influence on the enrollment of people regarding the scheme.

On the other hand, marital status highly significant at 1% and premium of the scheme not significant at 5% level influenced the people positively to be enrolled.

III. Furthermore, perception of the people about quality of healthcare they received under the scheme (prompt attention, Doctors examination, treatment advice, availability of drugs and overall satisfaction) affected their use of the scheme. Thus, the results showed a negative significant difference in the perceptions of those who had been enrolled on the scheme and those who had not been enrolled. Those enrolled perceive to be receiving healthcare that is not quality as compared to the quality of healthcare receive by those not enrolled.

IV. Also, the study revealed that, on the average, 0.79 representing (79%) of the insured respondents reported that they were willing to pay more for improvement in the quality of the healthcare services under the NHIS for the reason that they had been impressed with the services of the scheme while on the average 0.21 representing 21% of them reported that they were not willing to pay more. Moreover, an average of 0.754 reported that they find it convenient to go to the hospital with their NHIS cards because they don’t have to pay anything whilst on the average, 0.246 reported that they don’t find it easy.

V. The study also found out that the public health facilities had not seen an improvement in their facilities to match the increasing number of people being enrolled on the scheme.

This has resulted in some of the challenges such as long queues and delays for respondents and is a great deterrent for utilisation of the services of the scheme in the long run.

VI. Finally, for the overall results, almost all the variables that pertained to the use of health facilities impacted negatively on people’s continuous use of the NHIS. In other words people who used the services of the NHIS will not hesitate to stop using the scheme if they do not receive the services they expect from providers. Since the health centres providing these services for the NHIS is part of the whole health system, it is rational that the NHIS puts necessary tools in place to ensure delivery of the best services to its clients.

The study revealed that, there was very little monitoring by the NHIA at the various accredited health facilities due to inadequate human resources, inadequate logistics (Government support in areas such as the lack of vehicles, motors and funds to enhance movements of officers to do effective monitoring of the scheme’s services) and network problems. These challenge leaves room for fraudulent activities to go on in some health accredited health facilities which does not foretell well the scheme. In the long run, it is those insured who will suffer. For instance, most respondents did not know that they could take NHIS prescription forms to accredited pharmacy shops for unavailable drugs while in some cases respondents were made to pay for some services which are covered by the scheme.

**5.2. Conclusion**

The study assessed the Influence of National Health Insurance Scheme on the quality of healthcare in Wenchi Municipality. Factors (age, sex, marital status, employment, income, ill-health and) were uses and people’s registration and their perception about the quality of healthcare they receive were also considered. The results obtained showed that, demographic characteristics such as age, sex, family size, employment status, ill- health, income, and current medical expenditure negatively influenced the people’s enrollment on to the scheme with both family size and current medical expenditure at a high significant level and therefore having a high negative impact on the utilisation of the services of the scheme. For instance as income and age increased, the probability of the people registering or renewing their membership with the scheme decreased. They preferred to pay out –of- pocket and use private hospitals rather than public NHIS accredited health centres. This is consistent with other studies done by Palacio- Vieira and Jehu- Appiah and others that showed that families with affluence preferred specialist hospitals. Moreover, distance between residences of respondents and accredited health centres where they accessed healthcare also had a negative influence on utilisation of the scheme at a high significant level. Thus, respondents were challenged travelling long distances to seek for healthcare. Contrariwise, education positively influenced the enrollment of more people on to the scheme at a high significant level. This can be explained by the fact that they had much knowledge about the scheme and its policy

Furthermore, there was a significant difference in respondents’ perception about the quality of healthcare both the insured and uninsured received in health centres. Thus, the insured perceived the services they received in the health centres to be substandard compared to that received by uninsured people.

**5.3. Recommendations.**

Given the empirical findings, the proposed policy recommendations are as follows:

**I. Decentralization of the National Health Insurance Scheme in the Municipality.**

The study revealed that, distance had a negative relationship with the people’s enrollment and utilisation of the services of the scheme. Some of the people who lived further away from accredited NHIS health centres in the municipality and those who could not afford high cost of transportation were reluctant to seek healthcare especially those who reside in the rural areas. Meanwhile, the municipal head office serves a combination of four districts (Wenchi North, South, East and West). This unquestionably increases the workload and slows down general administrative work. Thus, the NHIA should establish offices at various health centres to decentralize the scheme such that it will be easy for the people in the rural areas especially, to access the scheme. This will improve accessibility and utilisation of the scheme. Moreover, there should be mobile NHIS officers who will go to the homes of people who live farther from accredited NHIS health centres to register or renew their membership for them when due. However, these officers should have NHIS identification and strictly be monitored regularly to minimize fraud in the system.

**II. Regular Monitoring and Strengthening of the Collaboration between the Scheme and the Accredited Health Facilities**

The NHIA should intensify their regular monitoring of NHIS accredited health centres to assess the services under the scheme in other to ensure an optimal operation of the scheme. In light of this, regular workshops should be organized for hospital information officers to update them on any changes in the scheme. First and foremost is how to avoid mistakes in filling the claim forms which tend to delay payments resulting in rejection of NHIS cards at the health facilities. Against this backdrop more vehicles should be provided for the municipality to allow the officers to do a proper monitoring as currently only one vehicle is available for the four combined districts.

**III. Improvement in the Quality of Healthcare Services for Insured People.**

Lastly, the study indicated a negative significant difference in the people’s perception of quality of healthcare received at the health centres by the insured and uninsured in the municipality. This notion did not differ in the two different geographic settings. This implies that, the insured people in both the rural and the urban areas did not perceive that they were receiving the same quality of healthcare as the uninsured. According to the first and second objectives of the scheme, it must provide an opportunity for all Ghanaians to have access to the functional structures of health insurance.

Secondly, the NHIA must ensure that Ghanaians do not move from an unaffordable ‘‘cash and carry’’ regime to another unaffordable health Insurance Scheme. Thus, the government should update prices of drugs, laboratory tests and other services under the scheme whenever it is necessary and bring that to the public notice to enable health facilities to improve the quality of service for insured individuals. More so, government should ensure prompt payments to the service providers as and when duly to be paid and also ensure the detachment of diagnosis services from the all-inclusive in other to help prevent losses to the accredited health facilities.

REFERENCES.

1. Asah, Akua (June, 2013). *NHIS and child delivery in the Ga East District of Ghana*. Accra: University of Ghana
2. National Health Insurance Authority, (2014), *A guide to registering and accessing NHIS*. P: 2 Accra: NHIA.
3. Buor, D. (2008). *Analysing the socio-spatial inequities in the access of health services.* Sub-Saharan Africa: Interrogating geographical imbalances in the uptake of health care. Aprofessorial inaugural lecture, KNUST.
4. Naasegribe, Kuunibe (6th October, 2012). *Choice of* Healthcare *providers among insurance persons in Ghana*. USA: Centre for Promoting Ideas.
5. Sekyere, E.O. (2014).*Demand for health insurance in Ghana: what factors influence enrollment*. P: 32, America: Science and Education publications.
6. Foreman, G .W. (2009).*Nonparametric statistics for non-statisticians*.P:155.Canada: John Wiley and sons Inc., Hoboken. New Jersey
7. Naasegribe, Kuunibe (6th October, 2012). *Choice of* Healthcare *providers among insurance persons in Ghana*. USA: Centre for Promoting Ideas.
8. Dixon et al (2013, 13:35). *NHIS: A national level investigation of members’ perceptions of service provision*. Canada: BMC International Health and Human right.
9. Mensah, peter (2014). *Service quality in Ghana hospitals vol.6, No.18*. Accra: European Journal of business and management.
10. Wenchi municipal assembly (2006). Wenchi: *www.* *ghana districts.gov.gh*

**APPENDICES**

**APPENDIX A: Questionnaire for the people.**

**University for Development Studies. Department of statistics (Actuarial Science Option).**

**QUESTIONNAIRE SURVEY: NHIS & NON-NHIS SUBSCRIBERS.**

*This questionnaire is designed to solicit your views on the National Health Insurance Scheme (NHIS) and people’s HealthCare in the Wenchi Municipality of the Brong Ahafo Region. Any information given will be kept in strict confidence for academic purposes only. Your involvement will be much appreciated.*

**INSTRUCTION**

1. Where answers have been provided, please tick the box where appropriate.
2. Where answers have not been provided kindly provide your own answer.

Number………………………..

Name of Hospital/Community……………………………………………..

**SECTION A: SOCIO DEMOGRAPHIC FEATURES**

1. (a) what is your age? ……………
2. Sex: Male [ ] Female [ ]
3. Employment Status: Self-employed [ ] publicly employed [ ] privately employed [ ] Unemployed [ ]
4. Level of Education: No formal education [ ] Primary [ ] J.H.S/Middle School [ ] S.H.S/Tech/Voc [ ] Tertiary [ ]

4b. Marital Status: Married [ ] Single/ Others [ ]

1. What is the range of your income for a month? Less than GH¢100 [ ] GH¢ (100 -500) [ ] GH¢ (500 -1,000) [ ] above GH¢ 1,000 [ ]

**SECTION A: EFFECT OF EDUCATION ON UTILISATION OF HEALTH FACILITIES**

6a. Do you have knowledge about the NHIS (procedures) system? Yes [ ] No [ ]

6 b. If yes, how did you get to know about it? Through Friends [ ] Through Relatives [ ] Radio [ ]

Television [ ] Newspapers [ ] Others [ ] Please specify………………………………………..

7. What do you think about the cost of the NHIS registration? Less expensive [ ] Expensive [ ] Very expensive [ ]

**SECTION B: ACCESSIBILITY AND UTILIZATION OF NHIS ACCREDITED HEALTH SERVICES**

8a. Are you registered with the National Health Insurance Scheme? Yes [ ] No [ ]

9a. What amount of premium did you pay…………………………………………..……………..

9a. Average number of hospital attendance per year……………………………………………….

10 a. How then do you pay for your health bills? Employee benefit [ ] Personal income [ ] Private health insurance [ ] Others [ ] Please explain ………………………………………………………………………….

10 b. Would you like to register in future? Yes [ ] No [ ]

10 c. How will you grade the NHIS services? Unsatisfactory [ ] Good [ ] Excellent [ ]

11. Would you be willing to pay more for improvement in quality of health service under the scheme?

Yes [ ] No [ ] Why…………………………………………………………………………………….

12. How far is the NHIS accredited health facility from your home? Below 1km [ ] 1-5km [ ] above 5km [ ]

13. With the NHIS, do you find it easier to go to the hospital compared to the out of pocket Payment?

Yes [ ] No [ ] Kindly explain your answer…………………………………………………………. …………………………………………………………………………………………………………………………

14. Does the NHIS subscription influence you to visit the health facility for healthcare?

Yes [ ] No [ ] Please explain ……………………………………………………………………………………

15. Do you use the NHIS card in a health facility all the time? Yes [ ] No [ ]

Why……………………………………………………………………………………………………………….

16a.Which kind of health facility do you visit **first** when you are not well?

|  |  |  |
| --- | --- | --- |
| **I.** | **HEALTH FACILITY** | **TICK** |
| **II.** | Herbal centre |  |
| **III**. | Pharmacy shop |  |
| **IV.** | Private hospital |  |
| **V.** | Public hospital |  |

16b.Which of these health facilities do you use **most** when seeking healthcare?

..........................................................................................................................................................

16c.Where is the health facility you use **most** located? ..................................................................

16d.Please give reason(s) for using a particular health facility?

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

17. List some benefits you have received from using the NHIS card in a health facility.

--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------

**SECTION C: ASSESSMENT OF QUALITY OF HEALTHCARE UNDER THE NHIS**

18. Have you assessed health care for the past 6months? Yes [ ] No [ ]

If no, what is the reason? .......................................................................................................

19. Which of these experiences did you had in the health facility you visited? Please tick where applicable.

|  |  |  |  |
| --- | --- | --- | --- |
| **No.** | **QUALITY ASSURANCE INDICATORS** | **Yes** | **No** |
| **A** | Prompt attention |  |  |
| **B** | Doctor or medical assistant’s examination |  |  |
| **C** | Diagnosis information provided |  |  |
| **D** | Treatment advise given |  |  |
| **E** | Understanding of treatment advise |  |  |
| **F** | Information of follow up given |  |  |
| **G** | Privacy during consultation |  |  |
| **H** | Availability of all prescribed drugs |  |  |
| **I** | Overall Satisfaction |  |  |

20. How long do you spend in the health facility you visit? Less than 1hour [ ] 1- 3hours [ ]

3-6 hours [ ] Beyond 6hours [ ]

21. What do you think about the cleanliness in the health facility? Very clean [ ] Clean [ ] Dirty [ ]

22a. Have you visited the health facility in an emergency (including the night) in the last six

months? Yes [ ] No [ ]

22b. If Yes, were you attended to promptly? Yes [ ] No [ ]

**SECTION D: CHALLENGES OF USING THE NHIS**

23. Did you have easy access to the NHIS office during registration? Yes [ ] No [ ]

**Using the scale: 1 (worst), 2(unsatisfactory), 3(indifference) 4(good) and 5 (Very good),** tick appropriately in each case**. INDICATOR 1 2 3 4 5.**

24. Which of these challenges did you face in registering with the scheme?

1. Long distance [ ] [ ] [ ] [ ] [ ]
2. High cost of transportation [ ] [ ] [ ] [ ] [ ]
3. Absence or poor attitude of officials [ ] [ ] [ ] [ ] [ ]
4. Long queues [ ] [ ] [ ] [ ] [ ]
5. Others [ ] If others please specify-------------------------------------------------------------

25. Which of these challenges do you face in using your card in a health facility?

1. Rejection of card [ ] [ ] [ ] [ ] [ ]
2. Unavailability of drugs [ ] [ ] [ ] [ ] [ ]
3. Poor attitude of health officials [ ] [ ] [ ] [ ] [ ]
4. Long queues [ ] [ ] [ ] [ ] [ ]
5. Others [ ] [ ] [ ] [ ] [ ] please specify……………………………………..

26. How long did it take for you to receive your card after registration? 0-3months [ ] 3-6months [ ]

6-9months [ ] 1year + [ ] Never received it [ ]

27. Were you given a temporary card to use in place of the NHIS card? Yes [ ] No [ ]

28a. Are you able to renew your membership every year? Yes [ ] No [ ]

28b. If No, what are the reasons…………………………………………………………………………..

**SECTION E: CHALLENGES OF NOT USING THE NHIS**

29 a. Do you encounter any challenge(s) in accessing healthcare as you are not registered with the

NHIS? Yes [ ] No [ ]

29b.If Yes, list some of them,

…………………………………………………………………………………………………………

……………………………………………………………………………………………………………….

30. How do you overcome these challenges? ...........................................................................................

**APPENDIX B: INTERVIEW GUIDE FOR HEALTH WORKERS**

**QUESTIONNAIRE SURVEY**

*This questionnaire is designed to solicit your views on the National Health Insurance Scheme (NHIS) and the people’s Healthcare in the Wenchi Municipality of the Brong Ahafo Region.*

*Any information given will be kept in strict confidence for academic purposes only.*

*Your involvement will be much appreciated.*

* In your view, has the NHIS improved healthcare accessibility in the Municipality?
* What are some of the improvements?
* Do you think it can be made better? How?
* What do you think are the challenges?
* How long has your hospital been subscribed to the scheme?
* Will you say the NHIS has increased the attendance of the sick to your hospital over the years? Has it had an impact on mortality?
* Is there an instance your facility refuse to treat insured sick person? Reason(s)
* What is the endemic disease in the area and is it covered by the scheme? If not, how can it be addressed to improve healthcare for the people?
* What benefits or dangers exist for uninsured person?

**APPENDIX C: INTERVIEW GUIDE FOR NHIS OFFICIALS**

**QUESTIONNAIRE SURVEY**

*This questionnaire is designed to solicit your views on the National Health Insurance Scheme (NHIS) and the people’s Healthcare in the Wenchi Municipality of the Brong Ahafo Region.*

*Any information given will be kept in strict confidence for academic purposes only.*

*Your involvement will be much appreciated.*

* Has membership of registered people met your expectation?
* Do people renew their membership regularly and timely?
* Do all people in different social and economic classes have equal patronage of your services?
* What are some of the challenges in ensuring universal coverage for all people?
* Is it possible for children to access healthcare under the NHIS without registering since they are classified under indigents?
* Do you have operational difficulties and what are the major ones if any? Publicity, facilities, transportation and the ability to reach out to prospective subscribers.
* How will you grade the coordination between you and the health service providers?

:Excellent [ ] Good [ ] Poor [ ] Please Explain