



Dissertation By

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THE WESTERN CAPE.**

**DETERMINANTS OF PARTICIPATION
IN MUTUAL HEALTH INSURANCE: A
CASE STUDY OF THE KASSENA-
NANKANA MUTUAL HEALTH
INSURANCE SCHEME IN GHANA**

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**DETERMINANTS OF PARTICIPATION IN MUTUAL HEALTH
INSURANCE: A CASE STUDY OF THE KASSENA-NANKANA
MUTUAL HEALTH INSURANCE SCHEME IN GHANA**

**THESIS SUBMITTED TO THE FACULTY OF ECONOMIC
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BY

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DECLARATION

I declare that apart from the literature that has been duly referenced, this work represents my own independent research and that it has not been submitted anywhere else in the world.

Alatinga A. Kennedy
(Student)

Prof. J.J Williams
(Supervisor)

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DEDICATION

Dedicated to the Alatinga family and all loved ones.

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First of all I wish to glorify the Good Lord for the wisdom, the good health and energy He has given me and carried me thus far. To God be the Glory.

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KEY WORDS

Determinants, participation, mutual, health, social capital, access, socio-economic status, empowerment, Kassena-Nankana, Ghana.

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LIST OF ABBREVIATIONS

FGDs- Focus Group Discussions
GDP- Gross Domestic Product
GTZ- Deutsche Gesellschaft für Technische Zusammenarbeit
ILO- International Labour Organisation
IMF- International Monetary Fund
IMR- Infant Mortality Rate
KNMHIS- Kassena-Nankana Mutual Health Insurance Scheme
MHI- Mutual Health Insurance
MHIS- Mutual Health Insurance Scheme
NDSS- Navrongo Demographic Surveillance System
NHA- National Health Accounts
NHI- National Health Insurance
NHIS- National Health Insurance scheme
SAP- Structural Adjustment Programme
SHI- Social Health Insurance
UNDP- United Nations Development programme
UNICEF- United Nations Children and Educational Fund
WHO- World Health Organisation

ABSTRACT

Health security is increasingly being seen as integral to any poverty reduction strategy. Health is viewed not only as an “end” in itself but also as an indispensable “input” into the development process because there is a positive link between health and development. Of all the risks facing poor households, health risks probably pose the greatest threat to their lives and livelihoods.

Against this background, this research examines the vital subject of participation in mutual health insurance as a poverty reduction strategy at the rural community level. It has been accepted that community-based initiatives play important roles in improving poor people’s risk-sharing arrangements. The extent to which these community-based initiatives are able to address the problem of social exclusion in local communities is far from being clear.

Using household survey data and focus group discussions from two rural communities in Northern Ghana together with Principal Components Analysis (PCA), I compared mutual health insurance scheme (MHIS) members and non-members to find out the factors that determine households or individual participation in health insurance and their respective access to health care because many studies on health financing schemes at the community level have often glossed over the determinants of participation in such schemes. The findings indicate strongly that income and socio-economic status are the major determinants of participation in MHIS. However, the participation of the poorest of the poor is not automatic in the MHIS as they cannot afford the insurance premiums. Those who are “better off” are 28 times more likely to participate in MHIS than the poorest in society. Making the payment of insurance premiums flexible may enhance the inclusion of the poor in the MHIS.

The study is organised into six chapters. Chapter one looks at the research problem and objectives of the study. Chapter two focuses on the research strategy and data collection techniques employed. In chapter three, the theoretical literature is reviewed while chapter four looks more closely at the descriptive background of the study area. The empirical analysis takes the centre stage in chapter five and the curtains on the study are finally drawn in chapter six with conclusions and policy recommendations.

CHAPTER 1

1.0 THE PROBLEM OF COMMUNITY-BASED HEALTH

FINANCING SCHEMES: WHAT ARE THE CHALLENGES?

This introductory chapter describes community-based health financing schemes with the view to locate the study contextually. Accordingly, it presents the problem statement and research question, research objectives and assumption, the significance of the study and ends with the organisation of the study.

Community-based health insurance (CBHI) schemes (also called Mutual Health Insurance Schemes) are generally defined as “any scheme managed and operated by an organisation, other than a government or private for-profit company, that provides risk pooling to cover all or part of the costs of health care services” (Bennett, 2004). They generally include an element of community participation in their management or some form of democratic accountability of the management to the members. The target of these schemes is to provide insurance cover for those outside formal employment sector and often serve rural communities. They are often linked with a particular health service provider or may cover services provided at a range of health facilities among which members can choose. From now onwards, the term Mutual Health Insurance Schemes (MHIS) will be used in the rest of the discussion.

The aim of mutual health insurance is to increase access to health care by reducing out-of-pocket payments faced especially by poor households. The focus on health insurance as means of enhancing access to health care stems from the fact that good health is a basic human right and an indispensable prerequisite for poverty reduction, economic growth and development. To this end, improving access to health care and providing financial protection for the poor, especially in developing countries, are increasingly taking centre stage in national health and international policy agendas.

1.1 Problem Statement and Research Questions

It is estimated that about 1.3 billion people in the world lack access to effective and affordable health care due to financial limitations or governments cannot afford to provide them with the necessary coverage (World Health Organisation, 2006:3). These social and economic disparities are deepening poverty particularly among the rural poor. High levels of poverty exclude the rural poor from accessing basic essential services such as health care which does not enhance their well-being.

Engulfed in economic recession fuelled by global oil shocks in the 1970s and declining worldwide prices for cocoa and gold in the 1980s, Ghana acceded to demands from the International Monetary Fund and the World Bank for market reforms which led to the introduction of the structural adjustment programme (SAP) in 1983. As part of the SAP requirements, Ghana had to cut its budget on social spending culminating in the introduction of cost recovery into the health system where patients had to pay out of their pockets to access health. This system was popularly known as "cash and carry" and was instituted in 1985. The cash and carry system required that patients pay directly out-of-pocket at the point of seeking medical attention. The cash and carry system resulted in the underutilisation of health services both in the rural and urban settings, excluding majority of rural poor from accessing health care because the poor could simply not afford the fees charged. The rural people, who live mostly on subsistence farming and subsistence-level service activities, usually bear the brunt of out-of-pocket payments because they do not belong to any formal job-based prepayment schemes and thus have less access to social security in the form of financial protection against ill health. For instance, the United Nation Development Programme (UNDP) report for the year 2007 (UNDP, 2007:32-33) estimates that about 70 percent of the population of Ghana use alternative medicine which includes traditional health care while 30 percent rely on orthodox medical care. The report further posits that in terms of orthodox health care in Ghana, only 18.4 percent of the sick or injured consulted a health practitioner and a sizeable proportion of rural areas and northern Ghana generally are excluded due to the inability to pay. Sachs et al (2001:29) opine that the Millennium Development Goals for poverty reduction and health will not be met without a concerted effort aimed at extending health interventions to the world's poor.

Against this background, the Ghanaian parliament in 2003 passed the National Health Insurance (NHI) Act, Act 650 promoting Mutual Health Insurance Schemes for the extension of social protection in health to the poor regardless of ability to pay at the point of accessing health services. This culminated in the official launch of the National Health Insurance Scheme (NHIS) in March 2005. The scheme gives prominence to community/district mutual health insurance schemes as a key strategy for the extension of social security in health to every Ghanaian in a bid to enhance access to health care especially for the rural poor and combat social exclusion. But are the rural people able to participate in the mutual health insurance scheme? Does the wealth or income of a household determine its participation in MHI? Do religion and other socio-cultural factors determine a household or individual participation in MHI? Do mutual health insurance scheme members have better access to health care than non-members? Hence, the research seeks to answer the above questions among others in relation to the Kassena-Nankana Mutual Health Insurance Scheme in Ghana.

1.2 Research Objectives and Assumption

The general objective of this research is to examine the socio-economic determinants that influence household participation in MHI and access to health care and to make policy recommendations. Specifically, it seeks to examine the equity of participation and health care utilisation of participants with regards to income, ethnic group, religion, age, gender among others. These determinants are important so as to ascertain whether the scheme is able to address the problem of social exclusion from access to health. As a result, the underlying assumption or hypothesis of the research is as follows: *the wealth or income of households determines their participation in MHI.*

1.3 Significance of the Research

Despite the recent growth of scholarship on health care financing at the community level, there is still a dearth of systematic evidence in relation to factors that determine household participation or enrolment in mutual health insurance schemes and the impact of these schemes on protection against impoverishment and combating social exclusion. Much is yet to be discovered about their effectiveness in improving access to quality health care; their role in sharing risks across population groups; and their impact on

addressing the problems associated with social exclusion (Preker and Carrin, 2004:16). This research seeks to contribute to bridging this knowledge gap.

1.4 Expected Outcome

The research is expected to shed light on the factors that militate against the rural people participating in the MHIS thus excluding them from accessing health care. These will serve to inform decisions makers in the health sector and assist them to design and implement efficient policies to facilitate the participation of the poor in MHIS enhancing thereby, their access to health care in the rural areas. Finally, the research results will be beneficial to other academics and professionals in their efforts to refine health care and insurance policies.

1.5 Ethics Statement

Permission to carry out this study was granted by the School of Government (SOG) and the Senate of the University of the Western Cape-South Africa. Permission to conduct the research was also sought from the chiefs and people of Gaani and Pindaa communities in Navrongo-Ghana. The researcher takes absolute responsibility of ensuring that all gathered information is treated sensitively and confidentially.

1.6 Organisation of the Study

The rest of the work is organised as follows. In chapter two, the methodology, research strategy, sampling procedure and the data collection techniques are presented. Chapter three then contains relevant literature on health and development. It also briefly discusses the concept of participation and social exclusion. Again, various mechanisms or strategies of health financing are dealt with in more detail. Health Insurance and Social Capital theories which serve as the foundations for the study are briefly explained here. It further takes a closer look at the strength and weakness of mutual health schemes. Chapter four gives a descriptive background and context of the study area. Chapter five is then devoted to the analysis of the empirical data gathered from the field. Chapter six discusses the findings based on the analysis of the data based on which conclusions are drawn and recommendations made.

CHAPTER 2

2.0 COMMUNITY PARTICIPATION AND HEALTH CARE PROVISION: TOWARDS A RESEARCH METHODOLOGY

This section presents the research strategy, sampling procedure, the research instruments that are used to collect data and the technique of data analysis. It also indicates the time frame within which the research is carried out.

2.1 Research Strategy

Mixed methods of research were used to elicit, collate and interpret information germane to the study. By mixed methods is meant the combination of both quantitative and qualitative strategies to collect and analyse data. The rationale for choosing this strategy is that the weakness of one will be complemented by the strengths of the other. Supporting this choice, it is argued that ‘each approach has its own limitations or “imperfections”, which can be compensated for by using an alternative method’ (Bryman, 2008:612). It is further argued that this strategy is very useful in generating data that is suitable for policy-makers (Opt cit: 621).

Principal Component Analysis (PCA) was also used to generate the socio-economic index of households. PCA refers to the process of using household socio-economic status indicators such as household possessions and housing characteristics to create an index of socio-economic status (Bawa and Zuberi, 2005:55). This index was used to delineate the population of the study areas into four categories-poorest, very poor, poor and less poor. The PCA approach was found to be most appropriate for the study because in most rural settings in Africa, household characteristics such as source of drinking water, type of fuel used in cooking, housing construction materials and household possessions like, radio, television, bicycle, and animals are perceived as proxies of household economic status. The point here is that households with all these possessions are perceived as the “better off” in the rural setting as compared to households that have very few or none of these possessions. Thus the PCA enabled me to compare the socio-economic status of the insured and uninsured and their degree of participation in the mutual health insurance schemes. The PCA approach helped to

overcome the problem of traditionally measuring socio-economic status using the GDP or gross national product (GNP) because of their inability to capture the notion of well-being of the individual or household at the micro or community level (Sen, 1987, cited in Bawa and Zuberi, 2005).

2.2 Sampling Procedure

Probability sampling which gives all the elements or units in the population equal chances of being selected was used. Specifically, cluster random sampling and stratified random sampling are used.

2.2.1 Random Cluster Sampling

Given the dispersed nature of the rural communities in the study area, the communities have been further grouped into clusters by the Navrongo Demographic Surveillance System (NDSS)¹. Two clusters or communities were randomly selected for the study. Considering the time frame for the research and costs involved, random cluster sampling solved the problem of interviewers having to travel the length and breadth of these scattered communities looking for interviewees or respondents.

2.2.2 Stratified Random Sampling

Having selected the communities from which samples were drawn, the population of each community was then delineated into categories or strata of the insured and non-insured from which samples were drawn. To do this, a sampling frame containing a list of all the insured in the selected communities was obtained from the office of the health insurance scheme, while a list of all the inhabitants of the two selected communities was obtained from NDSS. This list helped to establish the sampling frame of the non-insured from which the sample was drawn. The sample was further stratified into male and female from which respondents were again randomly selected for focus group discussions (FGDs). In using stratified random sampling, both groups (insured and non-insured) were proportionately represented in the sample. In this regard, Bryman (2008:179) posits that stratification ‘injects an extra increment of precision into probability sampling process, since a possible source of sampling error is eliminated’.

¹ NDSS is a Unit of the Navrongo Health Research Centre that collects and updates demographic data in the Kassena-Nankana District in Ghana.

2.2.3 Sample Size

A total of 100 interviews were conducted taking into consideration the probability of non-response from respondents. Also, a total number of 4 FGDs were held, meaning two with the insured and two with the uninsured. This choice of sample size was informed by the fact that ‘decisions about sample size represent a compromise between the constraints of time and cost and the need for precision’ (ibid). The size of the FGDs also took into consideration the length of time used in organising them and the difficulty in transcribing them.

2.3 Methods of Data Collection

Data collection focused on interviews with the insured and non-insured households. Interviews are also done with the staff of the MHI scheme. Actual data collection in the field was preceded by a one week training session for field assistants who assisted the researcher in collecting the data. The purpose of study was explained to the field assistants during the training session. Together with the researcher, common terms and meanings of the variables used in the questionnaire were agreed upon. The training session was also followed by a pre-test of the questionnaire. This afforded the research team the opportunity to revise and make adjustments in the questionnaire accordingly. Data collection spanned the months of June and July 2009: starting on the 11th June and ended on the 13th of July, 2009. The specific techniques of collecting data are described below.

2.3.1 Literature review

Field work was preceded by detailed review of the relevant literature. This afforded me the opportunity to identify gaps and theories that relate to mutual health insurance. An intensive literature was also indispensable because drawing on the ideas of Bourdieu; it enables the researcher to understand the habitus that the author is claiming to be residing in, this being about understanding the beliefs and dispositions of the author combined with the constraints associated with his or her situation (Bourdieu, 1984, cited in Bryman, 2008:179). Again, Mouton, (2001) notes that the importance of the literature review is to avoid duplication of efforts, save time, and to guide the researcher towards conceptualising the research question by locating it in a body of theory. In this light, the literature review served as the ‘road map’ guiding the collection of my empirical data

and also enabled me to shed light on the gaps that have been identified. Secondary data was mainly collected from the mutual health insurance office and Navrongo Demographic Surveillance System.

2.3.2 Structured Interviews

Close-ended questionnaire was used to elicit information from households or individuals in relation to the reasons why they joined or did not join the mutual health insurance scheme and thus excluding them from accessing health care. The questionnaire was pilot-tested to detect and correct deficiencies before the actual data collection started.

2.3.3 Focus Group Discussions (FGDs)

The questionnaire was complemented by 4 FGDs, 2 in each selected community. In each community, 1 FGD was held with men and the other with women. The FGDs were very helpful in the elicitation of a wide variety of different views in relation to the topic that were not captured by the questionnaire. All FGDs were recorded and transcribed.

2.4 Data Analysis

Data analysis was done using descriptive statistics by way of cross-tabulation. Data collected by the questionnaires was coded and entered into Microsoft STATA 10.0 for analysis. Specifically, a chi square test is done to test the frequency of utilisation of health services between the insured and uninsured. Two logistic regressions are also done to estimate the determinants of participation in health insurance and the probability or likelihood of a household participating in health insurance giving its socio-economic status. Data generated from the FGDs was transcribed and categorised in line with the research question in order to bring out essential patterns. The data was then analysed qualitatively in the form of narratives based on the evidences.

2.5 Research Limitations

One critical challenge to the study was language barrier. The target population in the study area is predominantly illiterate who could not respond to the questionnaire in English and distortion of the meanings of the concepts might have occurred in a bid to translate the questionnaire into the local language. To overcome this problem, the

researcher together with the field assistants during the training sessions arrived at some common and acceptable definitions of the basic concepts in the local language since all of them were native speakers of the local language. The pilot test played a major role here as it helped to identify difficult and vague concepts which were rephrased accordingly.

The timing of the fieldwork (June-July, 2009) also coincided with the major rainy season, the peak in the study area when most people are busy on their farms. It was therefore, quite difficult to get people to participate in the study. To address this problem, the field assistants were encouraged to explain the purpose of the study to the participants and to build the necessary rapport with them. Again, the field assistants were also encouraged and motivated to make follow-ups to respondents they missed. With these efforts, the target group was reached and the data gathered is significant enough for the analysis.

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CHAPTER 3

3.0 EXISTING PERSPECTIVES ON COMMUNITY PARTICIPATION AND HEALTH CARE PROVISION: A LITERATURE REVIEW

This chapter examines the link between health and development; the *raison d'être* for every individual in society to have access to good health. It also looks at existing perspectives on health financing at the community level and why mutual health insurance might be an appropriate health financing strategy for the rural poor. These discussions are grounded on social capital and insurance theories.

3.1 Health and Development

Health and development are said to be symbiotic in the production of economic and human well-being. The World Health Organisation (WHO, 1948, no.2: 100) defines health as 'a state of complete physical, mental and social well-being and not merely the absence of disease or infirmity'. According to Nobel Laureate Amartya Sen, cited in (Sachs et al, 2001:21) "health (like education) is among the basic capabilities that give value to human life". The importance of health in development in the 21st Century is amply demonstrated by the fact that three of the eight MDGs relate to health. Good health boosts labour productivity, educational attainment and income and so reduces poverty. It boosts labour productivity because it reduces production losses due to worker illness. It also increases the productivity of adults as a result of better nutrition, lowers absenteeism rates and improves learning among school children. Good health also allows for the use of natural resources that used to be totally or partially inaccessible due to illnesses (Nora et al, 2004:15). Financial resources that might normally be destined for the treatment of ill health may be put to different uses such as paying school fees, buying farm inputs, increase the nutritional needs of families or invested in more profitable businesses thereby reducing the vulnerability of the family to poverty. Besides, well nourished and healthy children may be able to achieve higher educational level and may thus be able to contribute to future productivity.

Empirical evidence shows the positive linkage between good health, nutrition, the well being of individuals and the overall economic development (Schultz 1999 cited Jütting, 2005:3). A country's economic development is closely interrelated with the health status of its population (Jütting, 2005: 3). A study at the household level in rural Ethiopia indicates that cost of illness not only includes direct costs, but also indirect costs due to loss of working time and reduction in the supply of labour. Indirect costs for the missing labour force of the sick person and the family member taking care of the sick person is borne by the household resulting in low productivity or income. These indirect costs can further increase the overall vulnerability of the household (ibid).

It has also been proven that healthy people are more likely to gain wage-employment than unhealthy people. In Albania for instance, the chance of being wage-employed for an individual affected by any chronic disease is 7% lower than for an individual in good health and in Bulgaria an individual affected by Respiratory problems/asthma being wage-employed is 23% lower than an individual in good health (World Health Organisation, Europe: 75-76).

Again, studies have revealed that an increase in life expectancy from 50 to 70 years (a 40% increase) raises the growth rate by 1.4 percentage points per year (Nora et al, 2004:16) Again, a 10% decrease in malaria is associated with an increased annual growth of 0.3% whereas malnutrition causes a decrease in the annual GDP per capita growth worldwide of between 0.23 and 4.7% (ibid). For example, estimates of the direct relationship between health and growth in Mexico from 1970-1995 indicate that health is responsible for approximately one third of long-term economic growth (ibid).

Furthermore, studies show that the economic development of the industrialised countries is as a result of improvements in health. Fogel opines that “the increase in the amount of calories available for work over the past 200 years must have made a nontrivial contribution to the growth rate of the per capita income of countries such as France and Great Britain” (Sachs et al,2001:22). Reports also indicate that countries with an infant mortality rate (IMR) between 50 and 100 per 1,000 live births have an

annual average growth of 3.7 percent per year, whereas poor countries with an IMR greater than 150 have an average growth of only 0.1 percent per year (opt cit: 24).

The discussion above brings to light the multiplier effects of good and/or bad health hence, it can be concluded that good health is a prerequisite for laying the foundation necessary for human capital investment. An understanding of this relationship (health and development) is thus necessary to permit the design and implementation of more efficient policies aimed at improving the health status of a population and the economic development of a country as a whole.

3.2 Participation

Jennings (2000:1) defines participation as “the involvement by a local population and, at times, additional stakeholders in the creation, content and conduct of a program or policy designed to change their lives. Built on a belief that citizens can be trusted to shape their own future, participatory development uses local decision making and capacities to steer and define the nature of an intervention”. The concept of participation gained prominence in the 1960s and 1970s, when community participation became central to development projects as a means to seek sustainability and equity, particularly for the poor. Prior to the advent of participation, most development practice was top-down in nature where citizens of many third world countries were of the receiving end of development activities. Jennings (2002:1) opines that colonial authorities and most development agencies in post colonial era maintained that “big was always better”, and hence the ‘big’ centralized hierarchies were the nucleus of development planning and implementation.

In the light of this, Midgley et al. (1986), assert that ideas about community participation emanated from criticisms of the top-down approaches to development practice and the subsequent demand of citizens for political space and citizenship rights to shape their development paths. These criticisms and the quest of citizens to gain political space saw the emergence of humanist movements who argued for a people first development approach. The need to see the poor as subjects of their own development rather than objects of exploitation in development was earlier put forward by Paulo Freire (Mansuri and Rao 2004:4). In his seminal work, the “Pedagogy of the

Oppressed”, Freire argued that the oppressed needed to unite to find a way to improve upon their destinies.

However, (Williams 2006) argues that community participation is often seen more as a mere ceremonial presence of participants in local institutions without their active involvement in any decision making process. This type of pseudo participation does not empower the poor to take their destinies into their own hands; hence this type of participation is not human- centred.

John Friedmann (1992) describes a moral justification for people-centred development (empowerment), in harmony with the environment. He sustains his argumentation affirming that to be people-centred is to focus on the basic needs of the people, basically food, water and shelter; and in order to be in harmony with the environment, the planetary sustainability should be respected, and therefore growth should be limited. This view is in direct opposition to the mainstream development agenda, based on growth maximisation. Friedmann also states that to defend this alternative development approach has more to do with morality than facts. He shows three foundations for a morally justified alternative people-centred development: “human rights, citizen rights and 'human flourishing” (ibid). Firstly, on human rights, he defends the Universal Declaration of Human Rights, stressing its civil, political, economical and social rights, including liberty and basic needs. He says that a “wilful exclusion from these rights is a kind of violence on the person excluded” (ibid). Secondly, on citizen rights, he brings about the importance of the “citizens' relative autonomy vis-à-vis the state”, presuming, “therefore, a modern, democratic state, where the holders of authority are ultimately accountable to the people organised as a political community” (ibid). Lastly, his third moral foundation is about “human flourishing”, an “evocative and open-ended” (ibid) term that has to do with the possibility of each human being live up to her or his capacity. To Friedman, people should not only live but also flourish.

Relating the above concept of empowerment to our context, participation in mutual health insurance is conceptualised as the ability of households or individuals to enrol in the health insurance scheme and be able to hold the management of the scheme accountable for its operations. The participation of households or individuals in the mutual health insurance provides legitimacy to the scheme, promotes commitment on the part of registered clients to pay their annual renewal fees regularly and thereby ensuring the sustainability of the insurance scheme. However, the inability of households or individuals to pay insurance premiums and other socio-cultural factors may exclude some people; especially the poor from participating in the mutual health insurance scheme and thus are unable to access health care. If this happens, a section of the community is socially excluded from its social right to health as a basic need as Friedmann intimated earlier. In this sense, social exclusion depicts a state of inability or disempowerment which groups and individuals experience-being denied access to health insurance and subsequently access to health care.

It is also estimated that about 80% of African population are excluded from health care due to out-of-pocket payments and in Ghana only 10% of the working population are covered by social protection in health (Bailey, 2004:1). Based on the fact that poor families lack financial protection against ill health, they suffer dearly because direct payments pose severe risks of impoverishment and social exclusion. The poor often have to devise strategies such as cutting down expenditures on necessities like food and clothing or take their children out of school as they cannot afford to pay school fees anymore in order to cope with illness related expenditures. These strategies further perpetuate poverty and social exclusion. I now explore some mechanisms of health financing that countries have used over the years as a way of providing health care to their citizens.

3.3 Mechanisms of Health Financing

In their quest to meet the health needs of their populations especially that of the poor, countries often employ different mechanisms to finance health. Health financing describes all the mechanisms used for financing health services including taxes (State-funding), fees, and contributions via different forms of insurance such as social, mutual/micro, and private commercial/market insurance. The health financing process

has an impact on achieving an improved health status, not only in the aggregate level but all the more in the distribution of this health status among different segments of the population. If the cost associated with ill health prevents poorer segments of the population from seeking care early on, then income inequalities will be transmitted into inequalities in health status, making it difficult for the health system to achieve an improved overall health status of the entire population (Lasser and Rademacher, 2006:9). I now highlight these mechanisms of health financing in the subsequent sections.

3.3.1 State/Tax Funding

Many states play their role in health care provision to meet the health needs of their citizens in view of the positive link between good health and development. One way states finance the health care needs of their population is through general tax revenue or state funding. Experts suggest that state funding originates from the Beveridge report published in 1942 (Gottret and Schieber, 200:76). State-funded health systems are non-contributory (citizens are not expected to make advance contributions towards financing), they can thus easily be extended to the entire population, including workers in the informal sector regardless of individual health status, occupation or income level. The comprehensiveness of coverage averts the problem of risk selection. State-funded health systems are thus regarded as the most equitable way of financing health. The fact that all citizens are included in the same pool makes the systems very effective in managing risks due to the large numbers.

However, state-funded health systems have to compete annually with other equally important sectors within the economy for a share of the state budget. They may receive insufficient resources or the flow of resources (funds) may be unstable due to budget constraints on the part of the state. Consequently, resource constraints may make state-funded health systems inefficient deliver poor quality of service delivery and sustainable. The issue of sustainability received international and donor support in search of a more sustainable mechanism to health financing in the third world. As a result the 37th World Health Organisation Regional Committee meeting in Bamako, Mali in 1987 together with United Nations Children's Fund (UNICEF) passed a resolution known as the Bamako Initiative that recognised the financial inability of

many African countries to provide basic level of health care for their people. This initiative was to strengthen community participation and financing of health care services with decentralised management of community resources, to improve the availability of essential drugs and their rational use and to integrate all primary health care services (Audibert and Mathonnat, (2000:66)

3.3.2 User Fee Policy

The Bamako Initiative in 1987 gave birth to the principle of financial participation by users for accessing health care especially in developing countries in order to generate sufficient revenue for the health system and to also ensure the delivery of quality and efficient services. Lasser and Rademacher, (2006:70) describe the user fee policy as “all expenses that patients have to pay to a health care provider according to set tariffs and directly out of their own pockets”. In other word, user fees refer to a financing mechanism that has two main features: payment is made at the point of service use and there is no risk sharing. It is argued that the principal reason for the high share of out-of-pocket payments in low-income countries is their weak capacity to raise taxes, the small size of the formal economy to enhance the collection of social security contributions, the high proportion of the poor and rural population (Jütting, 2005:58)

Studies have shown the negative consequences of the user fee policy in developing countries including the underutilisation of health care services by the poor. For instance, the policy resulted in 50% reduction in the utilisation of medical institutions and that in West Africa, 10-30% of households were unable to even afford minor contributions to the costs of treatment (ibid).

In Ghana, studies show that due to the significant increase in user fees in 1989, there was a sharp decline in utilisation both at rural and urban clinics with the brunt falling on the former irrespective of their lower fees (Waddington and Enyimayew, 1989 cited in Agyepong, 1999:60). Nyonator and Kutzin (199: 337) assert that “health facilities in the Volta region of Ghana have achieved a kind of ‘sustainable inequality’, with fees enabling service provision to continue, while concurrently preventing part of the population from using these services”.

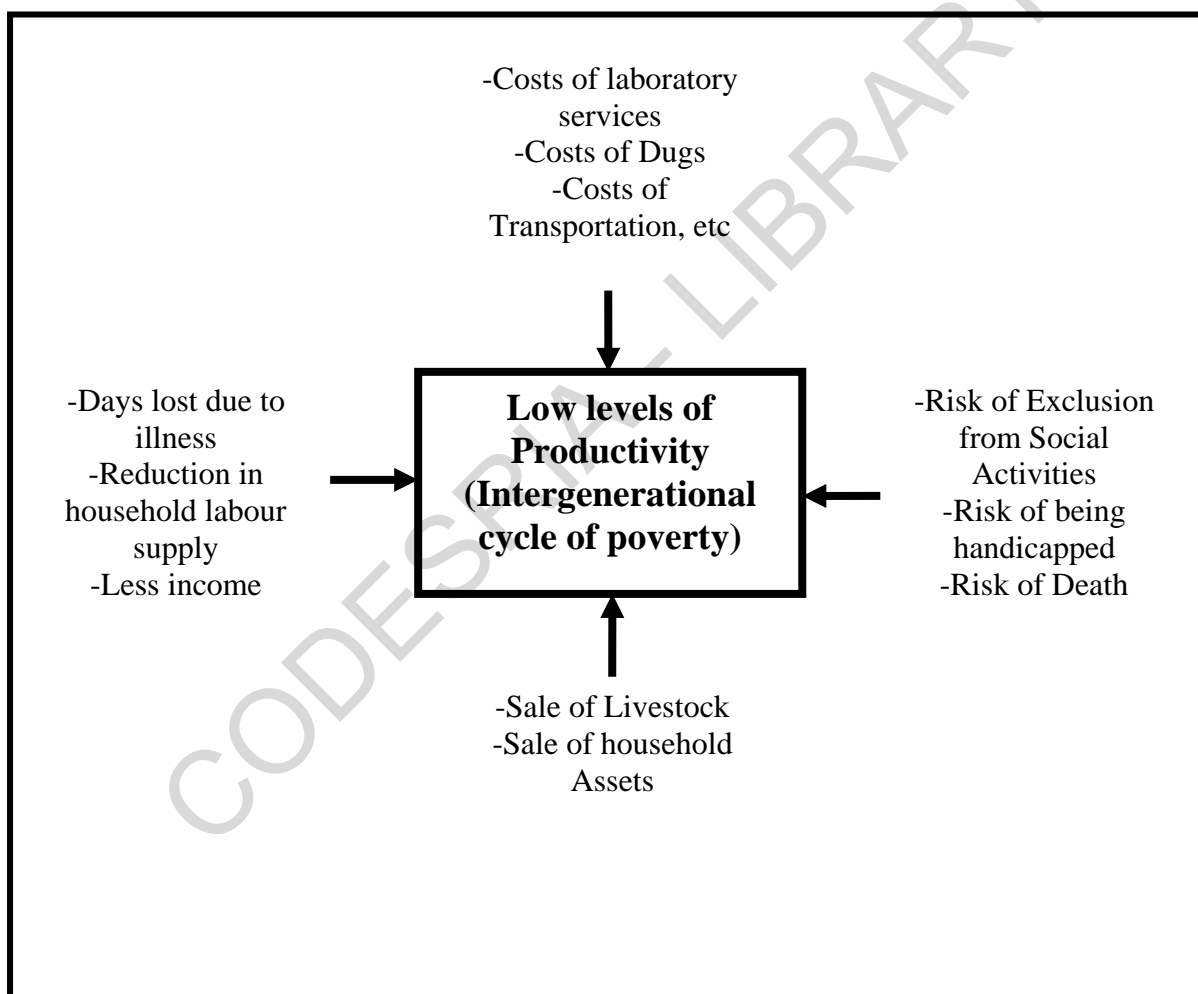
Furthermore, Agyepong's (1999) study examining patterns of utilisation of health services in the Dangbe West District of the Greater Accra Region of Ghana indicated that there was a decline in antenatal attendance, supervised delivery and outpatient attendance as a result of the implementation of user fees. The study posits that the associated factors could be put into three categories: financial costs, problems of physical access and quality of services but importantly financial costs surfaced as a new component of the problems of health service utilisation in the district. According to Arhin-Tenkorang (2000:12f) "the inability to afford access to health care leads also into feelings of discrimination or marginalization of the already underprivileged population, or reinforces them".

Similarly, the introduction of outpatient registration fee in Kenya in December 1989 brought about a considerable reduction in outpatient attendance by 27% at provincial hospitals, 46% at district hospitals and 33% at health centres (Collins D. et al, 1996:59). In point of fact, out-of-pocket payments is a highly inequitable form of financing health because it affects the poor most and denies all individuals the type of financial protection from the costs of catastrophic illness provided by public and private insurance mechanisms (ibid).

My own opinion and experience with the "cash and carry" system in Ghana could better be described as dehumanising and simply horrendous. Patients were literally turned away from health facilities because they could not afford the cash to pay for their treatments. Pregnant women who had the opportunity to deliver before making payments had to undergo the unpleasant ordeal of having their babies detained for several weeks and sometimes months for their families to make upfront payments before their babies were released. Thus, the policy literally hampered access of the poor to basic health care because it is associated with multi-faceted costs that can lead to low levels of productivity which may further push poor households into intergenerational cycle of poverty. The point here is that apart from the direct costs such as consultation fees, laboratory services, drugs and transportation among others that an individual or household has to pay in times of seeking health care, there are also huge indirect costs involved in times of illness. For instance, in times of illness, the sick person is weak and

cannot do work. The household member who also accompanies the sick person to the health facility is also not able to work leading to a huge reduction in the supply of labour for the entire household. Low supply of labour for the household means that less income is earned because of the days lost due to illness. The household may have to sell some of its assets or livestock to make up any differences in income to maintain its welfare. Importantly, the sick person risk exclusion from social activities or being handicapped or even the risk of death. These multi-faceted costs of illness are illustrated on figure 1 below.

Figure 1: Multi-faceted Costs of Illness



Source: Author's Construct, 2009

It can be seen from figure 1 above that apart from the direct costs for treatment and drugs, indirect costs for the missing labour force of the sick person and the family member taking care of the sick person must be borne by the household resulting in low

productivity or income. Due to the loss of income, the risk of exclusion from social activities or even death, the sale of household assets, there is the tendency for poor households to be plunged into perpetual poverty thus constraining the household's ability to access health care in the future. It is in line with this that Friedmann defends the Universal Declaration of Human Rights; postulating that wilful exclusion from these rights is a kind of violence on the person excluded (Friedmann, 1992). He argues further that the essence of human existence is to flourish, referring to the possibility of each human being to live up to her or his capacity. It goes without saying that the individual cannot flourish without adequate access to quality health care hence health insurance might be a better health financing mechanism for the poor. Health insurance is examined next.

3.3.3 Health Insurance

3.3.3.1 Why Health Insurance?

According to Ahuja and Jütting (2003:3), of all the risks facing poor households, health risks probably pose the greatest threat to their lives and livelihoods. Besides, the uncertainty of the timings of illness and unpredictability of its costs make financial provision for illness difficult for households receiving low and irregular income (ibid). Health risk such as those relating to illness, injury, disability, maternity and the like are considered insurable as these risks are mostly independent (ibid) (affect individuals and not a group)

Bender et al (2007:24) define a "risk" as the chance or likelihood that an event will cause damage or loss. They argue that fundamentally, insurance has two characteristics: risks are transferred from an individual to a group (Risk Transfer) and losses are shared on a predefined basis by all members of the group (Risk Sharing). They also classified risk into three categories: *the type and degree of uncertainty caused by the risk; the relative size of the loss and whether the risk is idiosyncratic or covariate*. In the first instance, Bender et al further opine that the uncertainty of risk may refer to the timing or the magnitude of the event. For example, health risks are particularly uncertain regarding timing: The severity of a certain illness might be known, but it might not be known if and when this illness might occur. In the second instance, they argue that the

occurrence of a risk may lead to high or low costs and that health risks are very dissimilar in nature. Health risks may vary from rather low costs covering basic medicines (e.g. drugs) to very high costs (e.g. major surgeries). *Idiosyncratic* risk refers to risks that affect individuals only whereas *covariate* risk refers to risks that affect a group of people or a community for that matter. Health risks are both idiosyncratic as in the case of illness affecting an individual and covariate (meaning that the risk is correlated among community members) in the case of the outbreak of epidemics such as cholera that may affect a whole group or community. Tabor (2005:10) also argues that the frequency with which health risks are likely to occur, and the household's limited ability to predict when they will be affected, and the cost of each event, implies that health risks generate a greater degree of uncertainty than many other sorts of risks.

Based on these risks, the uncertainty of the timings of illness and unpredictability of costs, risk-averse people entering the health market would therefore, want to protect themselves against this variability in health care expenditure, thus underscoring the importance of health insurance. Risk-averse people are those who are afraid of the unpredictable expenditures associated with ill-health. Indeed, insurance separates time of payment from time of use of health services for each member, and thereby makes possible demand for such services by its members who would not have otherwise been able to afford the cost.

3.3.3.2 Principles of Insurance

The concept of health insurance describes a system for the advance financing of medical expenses by means of contributions or payment of premiums into a common fund or pool to pay for all or part of health services specified in an insurance policy (Bender et al, 2007:24). Generally, insurance reduces vulnerability by replacing the uncertain prospect of losses with the certainty of making small regular premiums or contribution payments. Insurance offers the service of financial protection to its clients by reimbursing an individual for some or all of his financial losses that are linked to the occurrence of a risky event (ibid). Insurance thus aims to provide protection against the financial consequences of health risks for the insured. Financial protection in health via insurance is achieved through a pooling mechanism, which constitutes the basic underlying principle of insurance. Pooling refers to 'the accumulation and management

of revenues in such a way as to ensure that the risk of having to pay for health care is borne by all the members of the pool and not by each contributor individually' (WHO, 2000:96). Pooling aims to share the financial risk associated with the uncertain need for health interventions. The pooling mechanism is composed of two basic elements namely; risk pooling and resource pooling. In *risk pooling* individuals facing similar risk are joined together into a risk pool whereas in *resource pooling*, individuals pay their premiums or contributions into the pool, which is then used to compensate those individuals who actually suffer a loss. Prepayment is a prerequisite of pooling. It provides different options for financing risks equitably and efficiently across high- and low-income pool members (Schieber and Gottret, 2006:58). Paying of premiums into a risk pool regularly helps to reverse the irregular and unforeseeable catastrophic expenditure associated with ill-health into regular predictable payments. Without prepayment and risk pooling, the costs of health care will have to be borne by the individual or household.

Insurance works by sharing the risk across a larger number of people. The size of the risk pool is thus very important for the following reasons. In the first place, the size of the risk pool is very significant in random risk-pooling, because it is believed, the larger the group of individuals, the better the spread of the idiosyncratic risk (Dror and Jacquier: 2001). Risk pooling thus has an advantage in the sense that the group can defray expenses that none of its members can assume alone. Pooling risk can also facilitate cross-subsidisation and, depending on the level of pooled resources, can significantly increase financial protection for all pool members. Zweifel (2007:32) argues that a large number of insured of similar type of risk allows estimating of the unknown costs and benefits, (the amount paid by insurance in the event of loss) with greater precision due to the law of large numbers. In addition, the insurance of random events enhances redistribution of income within the protected group, particularly if contributions are income-rated (Dror and Jacquier, 2001:12). Large risk pools may however increase the administrative costs of the insurance scheme.

3.3.3.3 Problems of Health Insurance

Like any other enterprise, health insurance is beset with a number of problems. The problems include adverse selection, moral hazard and free riding. These are also known

as behavioural risks. *Adverse Selection* describes the situation (risk) where only individuals with high-risk profile tend to join an insurance scheme while persons with low-risk profile do not join the scheme due to the fact that the insurer is unable to distinguish between low-risk and high risk individuals because of information asymmetries. As a result, people with low-risk have the tendency to withdraw from the scheme thus increasing the proportion of high-risk individuals in the pool (Jutting, 2005:43). Adverse Selection increases the expenditure of the insurance scheme, pushing the scheme to continuously increase its premiums leading to a vicious circle undermining the sustainability of the scheme or even a complete breakdown (ibid). *Moral hazard* problems occur mainly due to the health lifestyles of individuals. Health lifestyles can be defined as 'voluntary health behaviour based on making choices from the alternatives that are available in individual situations (Cockerham et al, 1993 cited in Bowling, 2004:33). As insurance lowers the price of care at the point of use and removes barriers to access, demand for the utilisation of facilities will increase. On these basis moral hazard problems arise because of the tendency of individuals to behave, once they are insured, in such a way as to increase the likelihood or size of the risk against which they are insured (Criel, 1998, cited in Jutting, 2005:45). Put differently, because the insurance provider cannot easily monitor and detect the behaviour of the insured, they tend to be more reckless to avoidable risk because of the financial protection they are sure to get from the insurance provider. Ex ante and ex post moral hazard problems may occur. The former occurs due to reduced care of health after individuals have joined the insurance scheme. The ex post moral hazard problem sets in when the insured tend to overuse health facilities or medical services.

A *third party moral* may also be identified. Insurance providers usually contract health providers to provide health services to their clients (insured). The insured are usually not well informed about the services and rely on the health providers for information. Jutting (2005:45) argues that this information asymmetry results in a typical agency relationship where a principal delegates decision-making to another party, the agent. Thus the health providers (agents) tend to provide more or expensive services to the insured or patients (principals) than they really need by virtue of the fact that the insurance provider cannot verify and determine the appropriateness and necessity of the

treatments given to the insured. *Free riding* refers to the risk that individuals join an insurance scheme when they are in need and immediately they receive compensation they opt out. In the words of Bender et al (2008:14), “all behavioural risks are risks”. That is, these risks are not necessarily present in any context. They argue that the presence of moral hazard in health insurance is highly unlikely for poor persons working on a daily basis because spending time to seek health services involves high opportunity costs. These behavioural risks can be reduced in the following ways. In order to combat adverse selection, reasonable waiting periods could be put in place to deter people from joining the insurance scheme just after falling sick and leaving it immediately after receiving treatment. In addition, insurance providers can put in place pre-conditions requiring that a minimum pool size be reached before insurance coverage comes into effect. For example, insurance providers can put in place a regulation that a minimum proportion of the target population must sign-up for the insurance before it comes into effect. Moral hazard on the part of the insured can be reduced by introducing co-payments for the insured persons when they seek health care. With co-payments, the insured person is required to pay a particular percentage of the health or treatment cost before receiving treatment. This could deter the insured from abusing or overusing the health facilities. Limits could also be placed on the claims that the insured are entitled to.

For example, PACO Soriano PDC health plan (Philippines) apply a limit of US\$2 for hospitalisation aid; US\$50 for hospitalisation expense, and US\$10 for medicine reimbursement during confinement (Tabor, 2005:38-40). Another way of dealing with moral hazard is to exclude chronic illnesses that are likely to escalate the operations costs of the insurance provider from the benefit package. Provider moral hazard can also be minimised through a transparent operations between health providers and insurance providers. Health should allow their accounts to be audited by insurance providers to ensure that all services billed for were actually performed. Tabor suggests that retrospective reviews of patients; carrying out an evaluation after discharge to identify any treatments that are unnecessary for which payment will not be made (ibid). He also argues that insurance providers could pre-select health care facilities so that they can identify those that will provide quality care and show integrity in their dealings. Free-riding in insurance may be reduced by allowing members to pay contributions

according to their ability to pay. Governments or Non-governmental Organisations could also subsidise insurance premiums for the poor or absorb the entire premiums. Within this generic insurance framework, Social Health Insurance (SHI), Private/Commercial Insurance (PHI) and Mutual Health Insurance (MHI)/Microinsurance are now discussed.

3.3.3.4 Social Health Insurance (SHI)

Social Health Insurance (SHI) is a scheme for mobilising and utilising resources through a *risk-sharing mechanism* to finance the health care needs of the members in a manner that reflects values of *solidarity* and *shared responsibility* for health care. Otto Von Bismarck, then Chancellor of Germany is credited as the ‘father’ of SHI having introduced the first SHI-the Health Insurance Act in 1883, which was followed in 1884 by the Work Accidents Insurance Act with contributory compulsory membership for employers. In SHI, premiums or contributions are paid based on compulsory public pay-roll deductions and made by employers for a legally designated population. Other features of SHI include, the independence of contribution levels of individual risk exposure (income related or to a lesser extent flat-rate contributions) and self-administration (Bender et al, 2008:14). The design of SHI was based on many existing mutual help organisations occasioned by industrialisation and urbanisation (ibid). Bismarck embraced statutory social insurance not mainly on humanitarian grounds, but as a key potent strategy to trammel the blazing political agitations of socialists and communists at that epoch.

Usually, mandatory insurance membership is stipulated and enforced by the government but the government is not necessarily the insurance provider. The insurance carrier is either a private- or a public-law organization with government playing a supervisory and regulatory role. SHI has some advantages. Based on its mandatory membership, it is not prone to adverse selection or free riding behaviour if the enforcement of mandatory membership is ensured. Social health insurance also provides a secure protection against the financial consequences of medical treatment because incomes of employees are regularly assured. It therefore, increases the predictability of household expenditure. As SHI contributions are income-related, redistribution of income may result within the pool reflecting the principle of solidarity, which is one of the guiding

principles of social insurance. Gottret and Schieber (2006:86) argue that social health insurance systems usually are highly redistributive, with cross-subsidies from high-income to low-income participants (especially if there is no ceiling on the income subject to contributions), from high-risk to low-risk participants (individual health risks have no impact on the level of contributions), from young to old, and from individuals to families. They argue that social health insurance is often seen as an easy and effective way to raise resources to improve health because premiums are deducted directly from pay-rolls by employers hence it might be difficult for employees to evade payment. Social contributions are supposed to be easier to collect than general taxes because the employer can deduct them from salaries. Importantly, citizens may be more willing to pay their contributions because the destination of the money is visible, specific, and related to a vital need.

The literature reviewed suggests that SHI has the potential of combating social exclusion and providing financial protection to the poor if properly designed and managed. For instance, Vietnam has been able to increase SHI coverage to about 36 percent of the total population within 14 years of operation through compulsory SHI, for the poor (Long, 2008:3). It is argued that SHI has provided financial protection for the poor and that the poor had a higher utilisation rate of health insurance services over time even though inequalities in health care access between the rich and the poor still exists (opt cit:10). Similarly, Hsiao and Shaw (2007:86) report that with the establishment of PhilHealth, a government-owned and operated corporation, the Philippines has successfully extended the coverage of SHI to the poor and to informal sector workers. They further posit that the total membership of the indigent increased from 16 percent in 2003 to 48 percent in 2004 and at the end of 2005, PhilHealth estimated national coverage of SHI to be 81 percent. They also argue that the extension of health insurance to a large number of poor households through both the indigent program and the individual payment program has led to greater access and financial protection for poorer segments of society resulting in equity in access to health care. However, it has been noted that service utilisation rates among those groups remain relatively low, reflecting the fact that for the poor, indirect costs, such as those incurred

for transport and out-of-pocket payments required over and above PhilHealth benefits, remain a deterrent to seeking care (opt cite:104).

Critics and sceptics of SHI however, argue that it raises per capita total health spending by 3-4% and that since SHI contributions are payroll taxes, it can provide a disincentive for people to join and stay in formal employment, has the potential of reducing formal-sector share of employment by 8-10% and encourages informal employment (Wagstaff, 2009:12). A related weakness of SHI is the possible exclusion of the informal sector which includes many poorer segments of the population because most countries start implementing social health insurance for a limited part of the population such as civil servants and formal sector employees. Consequently, in its earlier stages, the poorer segments of the population mostly informal sector workers and unemployed people are often left without coverage. In fact, it is argued that there is a risk that the system may never move beyond the initial narrow base of formal sector workers and that, instead of improving the situation of the poorer groups; it may increase inequities (Conn and Walford, 1998 cited in Gottret and Schieber, 2006:88). Besides, informal sector workers mostly live in remote areas with irregular flow of income and do not fully understand the benefits they can get from being part of the system, and their income is very difficult to assess. These factors are relevant for SHI because Governments seeking to expand their social health insurance systems must consider them in the design of SHI. Taking these factors into account in the design of SHI will enable governments to encourage the affiliation of informal sector workers and the means to collect regular contributions from them. Based on these factors, governments may need to subsidise the extension of social health insurance to the poor.

In addition, SHI systems are expensive and complex manage because different players and interactions are involved, requiring strong institutional framework to enhance performance but this institutional framework unfortunately is work in developing countries. Also substantial amounts of money are involved and if not managed well can be susceptible to fraud. SHI faces moral hazard problem which further increases the administrative costs of the scheme. This is because insurance premiums are paid back to consumers in the form benefits and as such do not reflect the price of insurance. Rather,

the true price of insurance is that part of the premiums that is not used to pay benefits, the so-called loading for administrative expenses (Zweifel, 2007:28). Because Moral hazard (ex-post) results in the overuse of health services, higher premiums must be charged to cover the high loading costs. This means that higher rates of taxes must be levied on the incomes of labour as SHI is based on payroll deductions.

3.3.3.5 Private Commercial Health Insurance (PHI)

In developing countries, the choice has been to allow “the market” to fill the gap left by non-existent social health insurance schemes thus making private health insurance an important form of health financing. Proponents of private health insurance argue that the market is less “bureaucratic” and more flexible to adapt to the changing needs of people (Dror and Jacquier, 2001:4). PHI enhances patients’ access to timely hospital care in some health systems. Colombo and Tapay (2004:20) argue that privately insured individuals enjoy better access to more timely care in some health systems where publicly financed delivery is plagued by long waiting times, representing a clear advantage offered to those who purchase PHI. In addition, PHI serves as a sole source of insurance coverage for certain populations. PHI provides a source of insurance in systems with targeted, non-universal access to health care coverage. It plays a particularly large role in countries with a history of private health coverage and an absence of universal coverage. PHI has often financed the delivery of larger treatment volumes by offering higher payments to providers. Financial incentives linked to payment mechanisms exert a direct impact upon doctors’ productivity. Some countries – including Australia and Ireland – allow public hospitals to treat privately financed patients. This provides a mechanism to improve revenue collection because public hospitals can draw on this private financing source. It also assures better retention of doctors within the public sector due to this additional physician income stream, while providing private patients with free choice of doctor and upgraded hospital accommodation (ibid).

However, it is widely agreed that healthcare systems left to function according to market forces alone do not result in socially optimal quantity, quality or distribution of healthcare (Dror and Jacquier, 2001:4). Market based insurance is usually provided by a firm operating purely with commercial considerations. In fact, most policy makers and

even economists believe that private insurers make a conscious effort to attract favourable or “good” risks individuals in their pool leaving out “bad” risks individuals because of profit motives. In other words, market based insurance is a formal contract where an individual is insured and the premium charged is based on that individual’s risk profile. This practice of categorising individuals according to the risk that they represent is called “cream skimming” (Zweifel, 2007:24). PHI usually charge high premiums to enable them cover administrative costs and above all to make profit because their primary motive is to maximise profit. The poor also lack resources and may be unable to pay the high premiums charged by PHI. The poor may thus become excluded from accessing insurance. Consequently, the market has so far not been a guarantor of sufficient supply of healthcare for excluded populations because private insurers are free to control their operations and so prefer to select the demand associated with high-income groups usually concentrated in few urban centres. By its very nature, private health insurance faces the problems of adverse selection and moral hazard to a large extent due to information asymmetries. Thus reliance on the market alone leaves little hope that universal access to health insurance is likely to happen.

3.3.3.6 Micro insurance/Mutual Health Insurance (MHI)

Following the flow and logic of the arguments, neither the state nor the market is effective in providing health insurance to low-income people in rural and informal sector hence the need to find an alternative insurance to cater for the health needs of this excluded majority. Can micro insurance/MHI be the alternative solution? Micro insurance is the protection of low-income people against specific risks in exchange for regular premium payments proportionate to the likelihood and cost of the risk involved with a clearly prescribed target market: low-income people (Churchill, 2006:14). In other words, micro insurance is for persons left out by mainstream commercial and social insurance schemes. The target group of micro insurance is informal economy workers who have irregular cash flows.

Micro insurance can be delivered through a number of channels including credit unions, micro finance institution and small community-based schemes such as mutual health insurance which is also known as mutual health organisations (MHOs). The focus here is on Mutual Health Insurance (MHI). Musau describes MHI as “any non-profit health

financing scheme. It covers any not-for-profit insurance scheme that is aimed primarily at the informal sector and formed on the basis of an ethic of mutual aid and the collective pooling of health risks, and in which the members participate in its management” (Musau, 1999 cited in Preker and Carrin, 2004:61). Like PHI and SHI, micro insurance/MHI is a mechanism to pool both risks and resources of whole groups, to provide protection to all members against the financial consequences of mutually determined health risks (Dror and Jacquier, 2001:9-10). The underlying economic motivation for joining a micro-insurance unit is assumed to be a desire to seek reciprocity in sustaining risk-sharing arrangements among essentially self-interested individuals. Sifting through the scholarship, a number of common characteristics of MHI schemes can be identified. These include the voluntary participation of the people, not-for-profit objective in organising the scheme, scheme management by the community itself, and the degree of risk pooling, democratic process of jointly defining the risks that should be covered and the fact that the schemes are autonomous and make their own decisions. Autonomous decision-making enables a group of people to act as a cohesive social unit that can fulfil a role no one else can do better: relate needs and priorities to their prevalent activity, location-specific conditions and the level of resources. The decision-making process within the community empowers it to control the flow of its funds (ibid). Members of the same community rely on each other in many ways, and refer to each other in a context of roles, values, habits and customs, to satisfy moral and material needs. It is postulated that one of the objectives of community-based health financing is giving the poor a voice in their own destinies and making them active participants in breaking out of the social exclusion in which they are often trapped (Preker and Carrin, 2004:14).

Following this logic, Dror and Jacquier (2001:8), argue that the underpinning of micro-insurance/MHI is that excluded populations have not been covered under existing health insurance schemes, because of two concurrent forces. The first is that notwithstanding important differences between social and private health insurance schemes, insurers have done too little to include these population segments. The second factor has been that excluded people have forgone claiming access because of their disempowerment within society. They further argue that to be attractive to excluded populations, MHI

must be adapted effectively to living and working conditions of people, which are usually area- or trade-specific. Effective adaptation can occur through a process of mediation composed of two essential functions: empowerment and increased social capital. The first happens by enabling the population to express its needs and priorities; and the second occurs through forging a receptive public opinion towards the insurance. The process requires trust-building measures that will defuse the community's aversion to up-front payment for a deferred return. In this vein, MHI has the advantages of being simple, affordable and located close to members. **Simplicity**- Most people in the informal sector are unable to cope with procedural complexities. Formalities and procedures are normally simple. Simplicity is important not just because of the technical problems; it projects a public image that micro insurance is approachable by poor people (opt cit: 13). **Affordability**- Members of MHI generally pay low premiums reflecting their financial positions. The absolute level of premiums obviously makes a difference because when members perceive the scheme to be affordable more members are attracted to join the scheme. Again the confidence that, in a case of need, insurance will pay for the member also enhances the subjective feeling of affordability. **Proximity**- MHI schemes are usually located near their client base, simply because the poor or members of the rural population have neither the means nor the latitude to travel from their place of residence to service centres. In fact, Atim (1998: xii) summarises MHI schemes nicely in the following quote:

Even now, they make a significant contribution to health care access and extending social protection to disadvantaged sections of the population by mainly targeting people in the informal and rural sectors. This also represents a contribution to equity in health care in the areas where they are active. Another area in which MHOs make a new — and in this case, original — contribution is that of democratic governance in the health sector . . . [and] in representing their communities or members before the health authorities in order to articulate the views of the consumers of health care. This gives them some weight in influencing the priorities, resource allocation decisions, and responsiveness of the health authorities to the concerns of the public on such issues as waiting times, staff behaviour, quality of services etc. This is a genuinely new contribution which reflects the role and origins of the MHOs as part of the growing and confident civic society that began to develop in Africa in the 1990s.

However, MHI schemes may have some limitations. In the first place, the concept of health insurance is unfamiliar among the rural people which may lead to a high attrition or dropout rates and the failure of clients to renew their insurance. MHI schemes are said to work best where people value future protection but poor people tend to value current consumption relative to future consumption (ibid) because of their low and irregular incomes; the poor thus find it difficult to forgo their current consumption and save money towards a probable future event like sickness. In this light, poor people are more likely to drop out of MHI than the non-poor. In fact, a study by Ekman (2004) found strong indications that such schemes tend to exclude the poorest. Again, cultural norms and values play an important role in determining people's enrolment in MHI scheme. If people see disease as a punishment for evil behaviour, they will not join a MHI. According to Tabor (2005:29), in some parts of rural Benin, for example, saving money for a disease is seen to be "wishing oneself the disease".

Importantly, even relatively modest premiums can be too high for the poorest to pay, to defray the possibility of future health care costs. In point of fact, very few schemes allow payment-in-kind due to the complexity of managing such payments, so cash-poor households are likely to be excluded (Bennett et al, 2004:8). Also, the pro-poor orientation of community-based health insurance schemes is often thwarted by the fact that most schemes are financed through regressive flat-rate contributions (Gottret and Schieber, 2006:104). Again, the poorest face other barriers to accessing care, in terms of both geographic access and provider attitudes to treating the very poor.

Furthermore, Gilson et al (2000) cited in Jutting (2005:74) posit that community structures may not indispensably reflect the opinions of the larger population because crucial decisions may not consider the interest of the poorest who are often not involved in decision making as these are often dominated by successful households among the rural middle class. As a result, community involvement alone may be inadequate in preventing social exclusion since the very poorest often do not participate fully in these schemes.

Like private insurance, MHI is also prone to moral hazard and adverse selection problems. Evidence shows that many mutual health insurance schemes have quickly gone bankrupt because they failed to develop adequate protections against moral hazard. For example, over prescription of drugs and services to insured patients has been reported in Kisiizi Hospital Health Society in Uganda and in the Masisi Scheme in the Democratic Republic of the Congo (Jutting 2000, cited in Jutting, 2005:37). Adverse selection problem may arise in MHI not so much due to lack of information about risk probabilities to the insuring agency but because of the need to keep insurance contract simple. The simplicity objective overrides efficiency objective, which prevents the insuring agency to charge differential premium and instead bases premium on community rating (Ahuja and Jutting, 2003:8). However, it is argued that enrolling the family as unit of membership could reduce adverse selection in terms of pooling risks than enrolling individuals. The rationale here is that an appropriate unit of membership is to extend membership beyond those who would join the scheme voluntarily and thus mitigate adverse selection problem (Atim, 1998 cited in Dror and Jacquier, 2001:8).

Financial stability and sustainability is also a problem that might undermine the operations of MHI. Dror and Jacquier (2001:21), argue that MHI/micro-insurance may be exposed to very serious financial risk if many in the group are struck by an epidemic-like occurrence (covariate risks). They assert that such an occurrence is statistically more probable among small and homogeneous groups. MHI may also be vulnerable to failure due to the financial volatility associated with the small size of their risk pools. A small membership provides limited scope for risk pooling which has a bearing on the financial sustainability of schemes because of high variance displayed by actual claims vis-à-vis expected claims. Technical and managerial issues may also affect the performance of MHI. Following from the fact that MHI schemes are often small, they may not be able to employ well qualified managers and technical experts in the design and management of such schemes because of high salaries for such experts. Often MHI rely on community members who may volunteer to work for the schemes. These community members may not have the requisite skills to undertake prior actuarial studies and projections to determine the long term financial viability and sustainability of the schemes. They may therefore set too low or too high premiums which may force

many scheme members to drop out because high premiums make the MHI unattractive to the poor. Both low and high premiums undermine the financial sustainability of MHI schemes. According to McCord, in practice, many MHI schemes have managers who are not well-versed in insurance, finance, or in the basics of business management since these are managed on a voluntary basis and draw on existing members as elected managers. Weak management can lead to the rapid erosion of trust, and is one of the main reasons given for the demise of new schemes (McCord, 2002, cited in Tabor, 2005:5). It can also be argued that most MHI schemes managers often lack skills in product design, pricing, marketing, accounting, claims verification, reporting and seldom have the requisite skills needed to check the appropriateness of different forms of medical treatment. In sum, small risk pools dominated by high risk individuals, behavioural risks coupled with the reliance of MHI schemes on subsidies as well as technical and managerial issues may undermine the overall sustainability of MHI schemes in the long run.

3.4 Social Capital Theory

Social Capital from the literature defies a universal definition as different social scientists and economists label it with context specific meanings. It is also pregnant with *ontological* issues- dialectically whether social interactions and relations form or build up social capital or the latter engenders social interactions and relations.

The French sociologist, Pierre Bourdieu (1985:248-9), defined social capital as “the aggregate of the actual or potential resources which are linked to possession of a durable network of more or less institutionalised relationships of mutual acquaintance and recognition – or in other words, to membership in a group – which provides each of its members with the backing of the collectively owned capital, a ‘credential’ which entitles them to credit, in the various senses of the word”. Social capital according to Putnam (1995, cited in Mladovsky and Mossialos, 2006:592) is a ‘stock’ that is the property of a group or community, district, or even nation and constitutes features of social organization—“networks, norms, and social ties that facilitate coordination and cooperation for mutual benefit”. Woolcock (1998) cited in, Mladovsky and Mossialos, (2006:591) conceives social capital as “the information, trust and norms of reciprocity inhering in one’s social network”.

I see social capital in relation to MHI as the strength in numbers or people joining forces to generate ideas and solve social problems with the virtues of trust, solidarity and reciprocity serving as a pivot. My inspiration to define social capital this way is influenced by Said's work in the *Representations of the Intellectual* where he posits that the intellectual should be ready to challenge orthodoxies and receive ideas and to change the world (Kennedy, 2000:3). Though I do not claim to challenge the definitions of social capital given by the renowned scholars above, I am using their ideas to proffer a different definition of social capital in a bid to contributing to knowledge in this rich field of endeavour.

Drawing from the personalised relationships that typify rural communities, the interdependence of these principles is deeply rooted in the history, traditions and social relations or culture within these communities mirrored in shared solidarity which engenders trust and reciprocity which then goes back to consolidate solidarity again. Rural communities are often 'head over heels in love' with these social values because of their potency in improving their capacity to act collectively for the achievement of a common goal. In fact, these social values determine the ways in which reliable, stable relationships and shared information among actors can enhance the effectiveness and efficiency of both collective and individual interests. The crucial point here is that trust is likely to improve access to, and information flow between and among communities which is a prerequisite for risk pooling and for the success of health insurance in the rural setting.

3.5 Theoretical Significance

The scholarship so far finds favour with the social context for applying the social capital and insurance frameworks for the study of mutual health insurance schemes at the community level. In this regard, the distinctive feasibility of MHIS through the lens of social capital and insurance frameworks is explored next.

3.5.1 Social Capital: Trammelling Adverse Selection and Moral Hazard

The problem of moral hazard is likely to be attenuated with regards to mutual health schemes which are usually based on small risk pools (Zweifel, 2007:20). The World

Health Organisation (2000) argues that Ex-ante moral hazard may be uncommon in low-income countries since the costs associated with accessing health services are enough to deter increased 'frivolous utilisation.

Based typically on the principle of mechanical solidarity, social capital has the highest chance of reducing information asymmetries combined with effective sanctioning mechanisms that serve to keep in check overuse thereby reducing ex-post moral hazard (ibid). This is explained by the fact that rural communities are often small, where members of the pool know each other and are thus able to monitor each other's behaviour and group decision-making which is not possible in commercial health insurance. Supporting this point, Mladovsky and Mossialos (2006:594) argued that informal mechanisms depending on social norms at the local level may be more equitable and efficient than the formal, contract-based ways of combating fraud because trust which is a hallmark of MHIS mitigates against adverse selection and moral hazard, increases the willingness to pay and that MHIS covering small pools provides informal safeguards, such as full information and social sanctions.

3.5.2 Engineering Participation and a Sense of Ownership

Empirical research in China to measure the effect of social capital on mutual health insurance schemes revealed that social capital facilitated collective action, which in turn facilitated willingness to pay. A statistically significant association between indicators of social capital (degrees of trust and reciprocity) and farmers' willingness to join community financing was demonstrated, controlling for other socio-demographic characteristics. In this regard, the pathway linking levels of trust and reciprocity to willingness to pay in the Chinese schemes is that members with higher levels of solidarity are more ready to accept the cross-subsidization which is implicit in the insurance mechanism (ibid). Social capital could then be used as a potent tool for engineering community participation in MHIS since community members tend to associate and identify themselves with these schemes leading to accountability and transparency among the managers of the schemes. The poor often trust community programs because they feel they have some control over them. They often see national programs as impersonal and distant and think they will never benefit from those programs (Preker and Carrin, 2004:12).

A classic example of this view is Putnam's (1993:6-7) study of governmental reform in Italy in 1976-77. His study revealed that governmental reform succeeded well in Northern Italy because it was supported by a florescence of "civic community". He asserts that "in areas with a well functioning local government and a prosperous economy, the public activity of citizens has created an atmosphere of mutual co-operation, vital social networks, equal political relations and the tradition of citizen participation. Behind all of these phenomena radiates the ethos of mutual trust between citizens". Putnam even asserts further that "in the North people were citizens, in the South they were subjects" (opt cit: 121).

In sum, social capital theory provides enough insights that could contribute to our understanding of MHIS. This is because in my view, making regular contributions of premiums into a common pool could be equated with repeated games which promote the development of reputation, confidence and a sense of belonging which are vital ingredients for the sustainability of health insurance in the rural community setting.

3.6 Financial Protection and Social Inclusion: IS MHI the Panacea?

Generally, MHI schemes are reported to have made positive contribution in terms of financial protection, resource mobilisation, social exclusion, and in health care provision (Ahuja and Jutting, 2003:3). Empirical evidence suggests that MHI schemes are generally affordable and have the potential to reach larger section of the poor population. It is found for instance in Peru that to make medical insurance affordable in very poor communities, premiums of community based health insurance schemes are collected in the form of a portion of the annual potato harvest, which is then sold to finance health costs (2005:28). Again, literature reviews by Jakab and Krishnan (2001) and Ekman (2004, cited in Chankova, Sulzbach and Diop, 2008:265) conclude that there is consistent evidence that MHO membership is associated with lower out-of-pocket payments for health care. Similarly, Carrin and Preker (2004:41) argue that community- financing schemes have unparalleled degree of outreach penetration achieved through community participation. For instance, in Rwanda 85% of the population participates in mutual insurance programmes for their health coverage (Bulletin of the WHO, 2008:824). In Mali, mutual health insurance has improved

utilisation of health services, even for the poor and helped households to better manage their health-care expenditures (ibid).

In the same vein, the fact that the MHI mainly focus on informal sector workers, its simplicity and proximity to members makes it attractive for clients. Empirical work by Atim (1998:xii) suggests that MHI gives its member some weight in influencing the priorities, resource allocation decisions, and responsiveness of the health authorities to the concerns of the public on such issues as waiting times, staff behaviour, and quality of services. In a nutshell, the local level, the personal acquaintance of the membership with each other, the transparency of decisions, the autonomous low-cost management and the non-profit character of MHI/micro-insurance units are all amplifiers of social cohesion an essential ingredient for the MHI schemes to thrive.

However, the assertion that MHIS may be effective in combating social exclusion comes under fire as community involvement alone may be inadequate in preventing social exclusion since the very poorest often do not participate fully in these schemes. Studies have shown that community structures may not indispensably reflect the opinions of the larger population and crucial decisions may not consider the interest of the poorest and they may not be involved in decision making (Gilson et al 2000, cited in Jutting, 2005:74) as these are often dominated by the successful rural middle class.

Furthermore, it is argued that even relatively modest premiums can be too high for the poorest to pay, to defray the possibility of future health care costs. In point of fact, very few schemes allow payment-in-kind due to the complexity of managing such payments, so cash-poor households are likely to be excluded (Bennett et al, 2004:8). Again, the poorest face other barriers to accessing care, in terms of both geographic access and provider attitudes to treating the very poor. Also, the pro-poor orientation of community-based health insurance schemes is often thwarted by the fact that most of them are financed through regressive flat-rate contributions. Importantly, access to mutual health insurance is constrained in times of high economic stress so social pressure and norms may not be able to adequately ensure that members of the group do actually transfer to other members (Jutting, 2005:21). MHIS are said to work best where

people value future protection and fear of future exclusion from the insurance scheme keeps compliance high. On the contrary, poor people tend to value current consumption relative to future consumption (ibid). In this light, poor people are more likely to drop out of MHIS than the non-poor.

In another development, the sustainability of MHIS is questionable. The sustainability of MHIS may be looked at in the political, social, managerial and financial context. In particular, MHIS may be vulnerable to failure due to the financial volatility associated with the small size of their risk pools. Adverse selection problems coupled with the reliance of MHIS on subsidies may undermine their overall sustainability in the long run. Similarly, the changing demographic structure of the household, migration, and the general modernisation of village life can have an impact on the schemes. Social ties and networks become weaker when economic exchanges become more commercial and impersonal (opt cit: 23-24). The viability of community-based health insurance is very often jeopardized by the limited management skills available at the community level. Given their small size, most community-based health insurance schemes are fragile. Finally, Tabor (2005) cited in Gottret and Schieber (2006) argues that most mutual health insurance schemes are especially subject to covariant risks, because in a limited geographical area, an individual's health is not independent from the health of his or her neighbours, especially when an epidemic or a natural disaster occurs.

3.7 Summary

Mutual health insurance appears to be a better mechanism of financing the health care needs of the rural poor following the failure of the state and market interventions to meet the health care needs of the rural people. Social capital is appropriate for the study of mutual health insurance because based on its theoretical underpinnings, it helps mutual health insurance to avert common problems like moral hazard that afflict commercial insurance and social health insurance because of the principle of solidarity that characterise rural communities. Consequently, social capital has the potential to engineer community participation in mutual health insurance at the rural and informal settings, like that in the study area to which I now present the descriptive background.

CHAPTER 4

4.0 COMMUNITY PARTICIPATION AND HEALTH CARE

PROVISION: SOME EMPIRICAL EVIDENCE

The focus of this chapter is to give a brief profile of the Kassena-Nankana District where the research is conducted. It describes the physical characteristics and boundaries of the district, a detailed description of the Kassena-Nankana Mutual Health Insurance Scheme (KNMHIS) and health care situation in the district. The study area is shown in both the national and district contexts at the end of the chapter in figures 3 and 4.

4.1 Research Setting and Context

The setting of this research is the Kassena-Nanakana District in the Upper East region of Northern Ghana. The Kassena-Nanakana District is one of the 145 districts nationally and one of the 9 districts in the Upper East Region and has Navrongo as its capital.

The District lies within the Guinea Savannah woodlands and falls approximately between latitude 11°10' and 10°3' North and longitude 10°1' West. It has a total land area of about 1,674 sq.km and stretches about 55km North-South and 53km East-West. The district shares boundaries to the North with Burkina Faso, to the East with Bongo and Bolgatanga Districts, West with the Builsa District and Sissala District (in the Upper West Region) and South with West Mamprusi District (in the Northern Region) (Kassena-Nankana District Profile, 2007).

The population of the Kassena-Nankana District is estimated to be 154,000 and consists of 151 communities – majority of which are rural, only 13 per cent of the population live in towns. Two distinct ethnic groups make up the district- the Kassena and the Nankana. They have similar socio-cultural institutions such as the extended family system and patrilineal inheritance. For administrative purposes, the district is divided into four zones; north, south, east and west zones respectively. The research has been conducted in two communities: Pindaa in the North and Gaani in the South. The main economic activity of the district is subsistence agriculture. Agriculture employs over 68% of the total economically active population and contributes about 60% to Gross

Domestic Product (GDP) (ibid). Poverty is wide spread, notably among the rural households.

The health care situation in the district is far from satisfactory: People, especially children are exposed to a variety of illnesses and health risks such as malaria and diarrhoea. Malaria is endemic in the Kassena-Nankana District accounting for over 60% of all outpatients seen at health facilities and 25% of under five mortality in the district. Health care in the district is constrained mainly by finance, limited number of health facilities accessible to the population and inadequate health personnel. The district has a Doctor/Patient ratio of 1:75488 and Nurse/Patient ratio of 1:5245 (ibid).

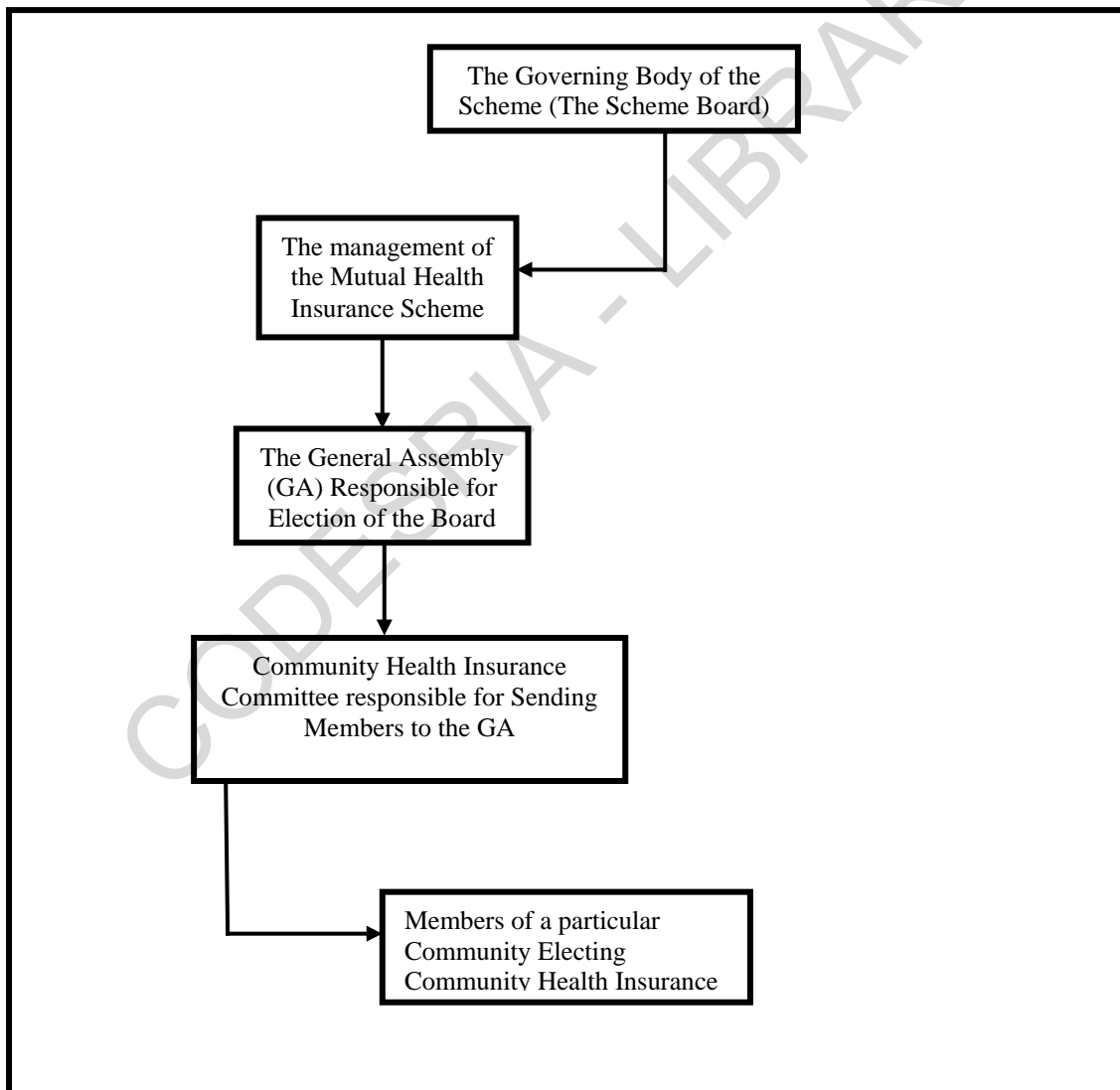
The Kassena-Nankana Mutual Health Insurance Scheme (KNMHIS) was launched in 2004 in line with the general policy framework of the National Health Insurance in Ghana to provide financial protection to the people especially the poor. According to official sources from the scheme's secretariat, the scheme has so far registered 79,029 people, representing 57% of the total population of the district (Annual Report of the Kassena-Nankana Mutual Health Insurance Scheme, 2008). The research has been conducted in two communities: Pindaa in the North and Gaani in the South. Appendix I show the study communities in the district context.

4.2 Organisational Structure of the KNMHIS

The KNMHIS has the following structure that oversees the smooth functioning of the scheme: the Scheme Board, The Scheme Management Team, the General Assembly (GA), Community Health Insurance Committee and Community Members. The scheme board is the overall governing body of the insurance scheme. The Scheme Management Team consists of the scheme manager, information systems manager, claims manager, public relations officer and an accountant. The team is responsible for the day to day operations of the scheme such as the enlisting of members and providing benefits; that is access to health care and payment of services rendered to its clients. The scheme manager and the board is also to keep members of the scheme updated about the financial and service delivery situation of the scheme. The GA is responsible for the election of the board. The GA and the board are responsible for the policy direction of the scheme and the appointment of employees. The Community Health Insurance

Committee (CHIC) is responsible for sending members to GA. This means that it is from the CHIC that members are elected to represent the community at the GA. Members of the CHIC are required to provide the necessary information to the communities they represent. Finally, community members are required to elect their members to the CHIC. Some members are also appointed as collectors who collect insurance premiums from community for onward transmission to the insurance scheme (Researcher's Interviews with Staff of the Kassena-Nankana Mutual Health Insurance scheme, 2009). The organisational structure of the KNMHIS is illustrated on the diagram below.

Figure 2: Organisational Structure of the KNMHIS



Author's construct, 2009

4.3 Benefit Package and Exclusion lists of the KNMHIS

Over 95% of disease conditions that afflict people are covered by the scheme. There is a 6 month waiting period before members can start benefiting from the scheme. The benefit package is in four parts comprising of *outpatient services, inpatient Services, oral health and maternity care*. The **Out-Patient Services** include (General and specialist consultations reviews, general and specialist diagnostic testing including, laboratory investigation, X-rays, Ultrasound scanning, medicines on the NHIS medicines list, surgical operation such as hernia repair, and Physiotherapy). The **In-Patient Services** also include (General and specialist in patient care, diagnostic tests medication-prescribed medicines on the NHIS medicines list, blood and blood products surgical operations, in-patient physiotherapy, accommodation in the general ward and feeding).

The **Oral Health Services** are pain relief (tooth extraction, temporary incision and drainage, and dental restoration (simple amalgam filling, temporary dressing). **Maternity Care services** include the following: Antenatal & Post-natal care, Deliveries (normal and assisted) and Caesarean sessions. The following are however excluded from the benefit package of the scheme: (Appliance, prostheses, rehabilitation, dentures, organ and cosmetics surgery and assisted reproduction, HIV retroviral drugs, hormone and organ replacement therapy, heart and brain surgery other than accident, diagnosis and treatment abroad, dialysis for chronic renal failure and cancers (Information provided by the Kassena-Nankana Mutual health Insurance Scheme, 2009). It is worth pointing out that under the Ghana Health Service (GHS), the following health care services are free of charge irrespective of whether an individual is a member of an insurance scheme or not: (Immunization, Family Planning, in-patient and out-patient treatment of mental illnesses, treatment of Tuberculosis and confirmatory HIV test on AIDS patients).

4.4 Insurance Premiums and Indigene Policy

The NHIA has put in place an indigene policy to take care of the poorest of the poor (the indigenes) who have been deemed to be unable to pay the annual insurance premium based on a means test or criteria. Interviews with staff of the KNMHIS indicate the following criteria that a person must meet to be classified as an indigene.

“A person shall not be classified as an indigene under a district scheme unless that person:

- is unemployed and has no visible source of income
- does not have a fixed place of residence according to standards determined by the scheme
- does not live with a person who is employed and who has a fixed place of residence and
- does not have any identifiable consistent support from another person”

Those who meet the above criteria and pregnant are exempt from paying the insurance premiums and must only register with the scheme to receive medical attention free of charge. While conceding that the process of identifying the indigene is often a difficult task as it is often politicised, the staff of the KNMHIS also intimated that traditional leaders, assembly members and some community members play a vital role in helping to identify the indigenes in the various communities (ibid).

Apart from the indigene and pregnant women, the KNMHIS charges an annual insurance premium of GH GH¢11.00 per person for informal sector employees between the ages of 18 and 69 years. This category of people must pay GH GH¢ 10.50 to renew their cards annually. A grace period of one month is given to households to renew their cards after one year period. Households who fail to renew their cards after the one month grace period are made to pay a penalty fee of GH GH¢ 5.00 on every member of the household in addition to the annual registration fee before it is allowed to register again. This measure was instituted by the scheme to curb drop-outs (ibid).

Those with Social Security and National Insurance Trust (SSNIT) contributions pay 2.5% of their contributions as insurance premium directly to the MHIS via the NHIA and they only need to pay an annual registration fee of GH¢ 3.00 in order to access health care. The aged, 70 years and above, children less than 18 years, and pensioners also pay an annual registration fee of GH¢3.00 and are thus exempt from insurance premium. They must also pay GH¢ 2.50 annually to renew their insurance cards, failure of which also attracts the penalty. It is worth pointing out that client and provider moral

hazard have been identified as a major problem facing the KNMHIS despite the high level of social capital at the community level. The staff of the KNMHIS indicated that there have been reported cases of entire families using the health facilities in a day and other cases where individuals use multiple health facilities up to three facilities within a week. It is also reported that some health providers over prescribe drugs for their clients while other over inflate their medical bills to the insurance scheme. Inadequate qualified staff and means of transport have also been identified as major challenges affecting the smooth operation of the KNMHIS.

4.5 Health Care Delivery in the District

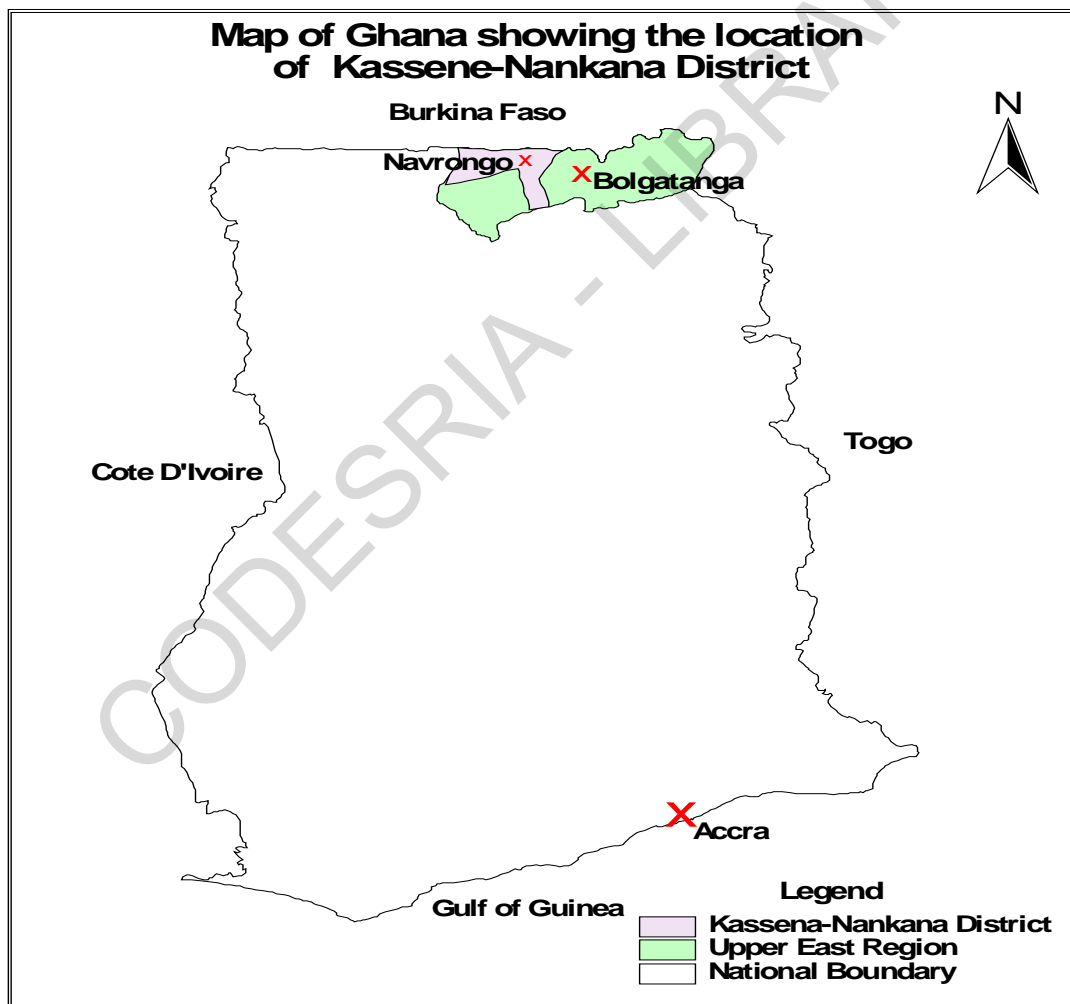
Health care in the district is decentralised to bring quality health care closer to the people. Health care is managed at three levels: Level A health facilities, level B health and Referral centres. The level A or first level health facilities are the closest health care services available to rural population which are normally clinics. These facilities provide both preventive and curative services such as child welfare clinics, immunisations, consultations and treatment of minor ailments (Profile of the Kassena-Nankana District, 2009:33). They are generally run by medical staff who are not physicians; community health nurses and midwives. These clinics do not have beds for admitting patients, and essential drugs and supplies often are not available. The level B health facilities are health centres that are equipped to handle cases that are referred to them by the level A health facilities. They are manned by midwives or medical assistants and have few beds to admit uncomplicated cases. Health staffs also carry out immunisation exercises, reproductive health services at static clinics, outreaches in the communities and house-to-house immunisations through home visits (mobile services). The Navrongo War Memorial Hospital located in the district capital, serves as the referral point to all health centres and clinics. There are two pharmaceutical shops in the district and several private licensed chemical stores. The Catholic Church also runs a number of health posts in the district. The district is thus equipped with 6 different immobile health facilities including a hospital, health centres, health posts, community clinics and a health research centre. The table below shows the distribution of health facilities in the district and Figures 5 and 6 below show the study area in both national and district contexts.

Table 1: Distribution of Health Facilities in KND

Facilities	Number
1. Hospital	1
2. Health Centres	4
3. Health Posts	3
4. Community Clinics	13
5. Health Posts run by Catholic Missions	3
6. Health Research Centre	1
Total Number of Facilities	25

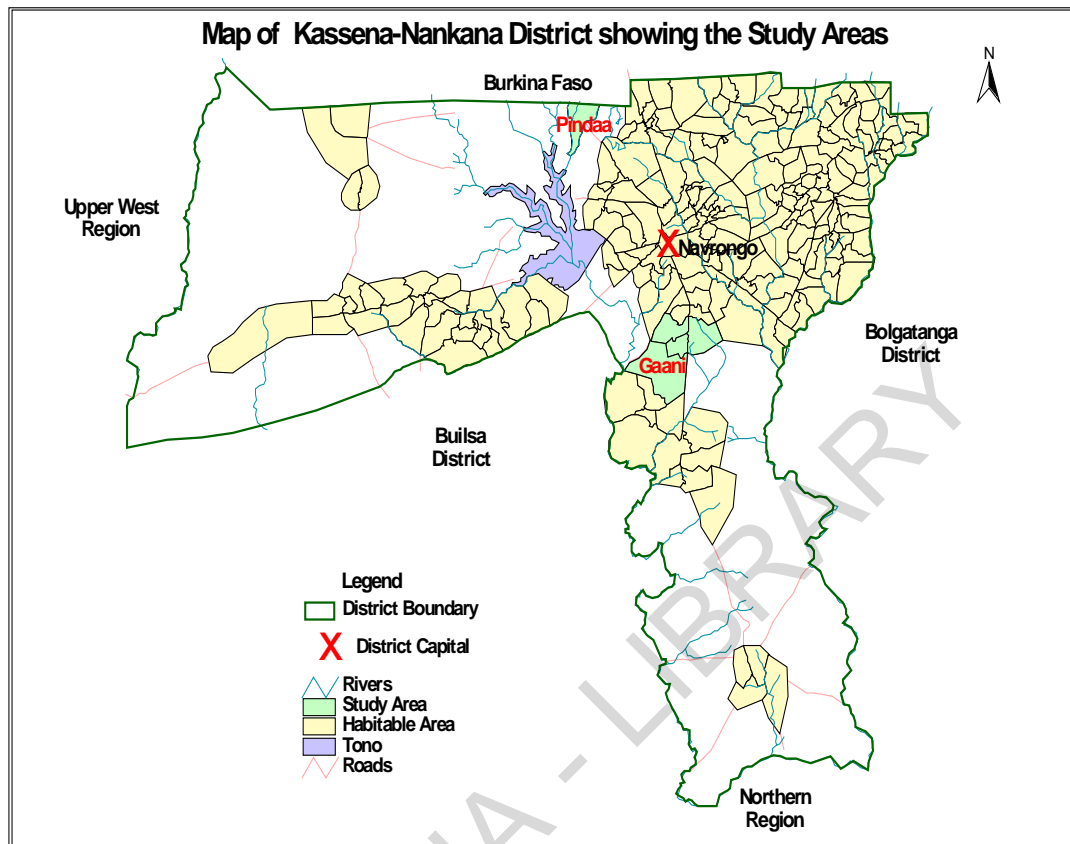
Source: District Health Administration, (2002) cited in Profile of KND, (2009:33)

Figure 3: Kassena-Nankana District in the National Context



Source: Map Produced by the Computer Centre, Navrongo health Research (2009)

Figure 4: Map of Kassena-Nankana District Showing the Study Communities (Pindaa and Gaani)



Source: Map Produced by the Computer Centre, Navrongo health Research (2009)

4.6 Summary

The health care situation in the Kassena-Nankana District is far from satisfactory. Malaria accounts for 60% of all outpatients seen at the health facilities in the District. Access to health care is constrained by financial inabilities of households to pay for health services, inadequate health facilities and personnel in the District. The Mutual Health Insurance is perceived as the best alternative to arresting the problem of financial constraints in seeking health care especially for the rural poor but how far the scheme is able to address the health needs of the rural poor is analysed in the empirical part of the study which is the next chapter.

CHAPTER 5

5.0 TOWARDS AN UNDERSTANDING OF COMMUNITY PARTICIPATION AND HEALTH CARE PROVISION IN GHANA

This chapter presents the results of the empirical research. The results are analysed using descriptive statistics in the form of cross tabulations. Specifically, two logistic regressions are done to estimate the determinants and probability of participation in mutual health insurance and a chi square test is also done to compare the frequency of use of health facilities by the insured and uninsured household.

5.1 Socio-Demographic Characteristics of Households

The ages of respondents ranged between 18 years and 60+ years. The age limit of 18 years was chosen because people of this age are considered adults and can therefore be household heads. However, the youngest household head in the survey was 26 years while the oldest household head was 80 years.

In Gaani males constituted 74% of the respondents with 26% being female. In Pindaa 88% of the respondents were males while females constituted only 12%. Again in Gaani 72% of the respondents were married, none was never married (0%), 6% was reported divorced while the widowed constituted 22%. As far as ethnicity is concerned, 94% of the respondents in Gaani were Nankana with 6% Kassenas. In the case of Pindaa, 96% of the respondents were Kassenas while the Nankana formed only 4%. The average household size was 5.41. The minimum household size was 1 while the maximum household size was 11. Malaria constituted 38.38% of all the illnesses that households suffered from, diarrhoeal related illnesses constituted 19.24%; injury related illnesses constituted 19.10% while other illnesses constituted 23.28% respectively.

Majority (86%) of the respondents have never being to school, 9% have attended primary school, 3% have attended Junior High School, 1% has attended Secondary School and also 1% have attained tertiary education. The predominantly illiterate population in the study area suggests that procedures and formalities of MHIS must be simple to make them attractive to the target population. This finding is in line with Dror

and Jacquier (2001:13) who posit that most people in the informal sector are unable to cope with procedural complexities. Below is a table showing the educational levels of respondents by community.

Table 2: Educational Levels of Respondents by Community

Educational Level	<i>Community</i>			
	Gaani		Pindaa	
	Number	Percentage (%)	Number	Percentage (%)
Never Been to School	42	84.00	44	88.00
Primary	6	12.00	3	6.00
Junior High School	1	2.00	2	4.00
Secondary	1	2.00	0	0.00
Tertiary	0	0.00	1	2.00
TOTAL	50	100	50	100

Source: Author's Field Work, 2009

5.2 Occupational Distribution of Respondents

The study shows that in total about 89% of the respondents were farmers, 8% were traders and only 3% of respondents were engaged in other occupations. Classifying the occupational distribution of respondents by community, it was found that 84% of the respondents in Gaani were farmers whereas 94% were farmers in Pindaa. The dominant occupations of farming and trading go to corroborate the existing literature that suggest that the target group of mutual health insurance is the informal economy workers who

have irregular cash flows (Churchill, 2006:14). Table 3 below shows the occupational distribution of respondents by community.

Table 3: Occupational Distribution of Respondents by Community

Occupation	Gaani		Pindaa	
	Number	Percentage	Number	Percentage
Farmer	42	84.00	47	94.00
Trader	6	12.00	2	4.00
Others	2	4.00	1	2.00
Total	50	100	50	100

Source: Author's Field Work, 2009

5.3 Determinants of Participation in Mutual Health Insurance (MHI)

In order to measure the determinants of participation in MHI, descriptive statistics in the form of cross tabulations and bar charts are used. Later, two logistic regressions are done. The first logistic regression is done to estimate the level of significance of the variables such as income, socio-economic status, age and household size among others in determining household participation in mutual health insurance. The final logistic regression is also done to determine the likelihood or how many times the poorest, the very poor, the poor and the less poor are likely to participate in mutual health insurance.

5.3.1 Household income

Households were asked for their average monthly income ranging from GHC10.00 (\$6.85) to GHC 80.00 (\$54.80) in relation to their insurance status-that is the insured and uninsured. The survey revealed that averagely, about 53.10% of the uninsured earn less than GHC10.00 (\$6.85) a month while only 15.67% of the insured earn an average income of less than GHS 10.00. In the same vein, about 20.41% of the uninsured earn an average monthly income between GHC 10.00 (\$6.85) and GHC 20.00 (\$ 13.70). The

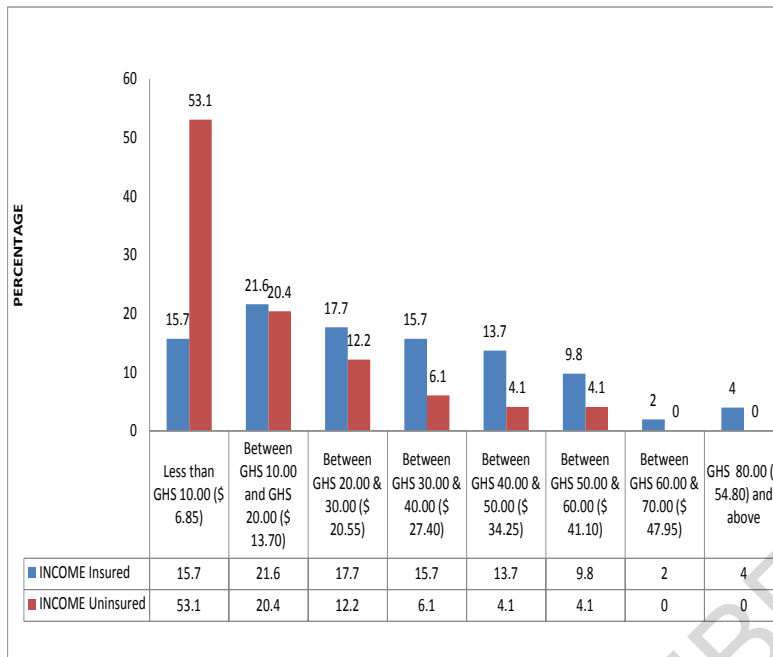
analyses show that as incomes increase, the incomes of the uninsured decrease sharply to the extent that no uninsured household earns an average monthly income between GHC 60.00 (\$ 41.10) GHC 80.00 (\$ 54.80). The survey shows that the insured are generally households that earn higher incomes than the uninsured households. Detailed information is presented on table 4 and figure 3 below.

Table 4: Average Monthly Income and Insurance Status

Ave. Monthly Income	Insurance Status of Respondents			
	Insured		Uninsured	
	Number	Percentage (%)	Number	Percentage (%)
Less than GH¢ 10.00 (\$ 6.85)	8	15.67	26	53.10
Between GH¢ 10.00 & 20.00 (\$ 13.70)	11	21.60	10	20.41
Between GH¢ 20.00 & 30.00 (\$ 20.55)	9	17.65	6	12.24
Between GH¢ 30.00 & 40.00 (\$ 27.40)	8	15.67	3	6.12
Between GH¢ 40.00 & 50.00 (\$ 34.25)	7	13.73	2	4.08
Between GH¢ 50.00 & 60.00 (\$ 41.10)	5	9.80	2	4.08
Between GH¢ 60.00 & 70.00 (\$ 47.95)	1	1.96	0	0.00
GH¢ 80.00 (\$ 54.80) and above	2	3.92	0	0.00
TOTAL	51	100	49	100

Source: Author's Field Work, 2009

Figure 5: Average Monthly income and Insurance status



Source: Author's Field Work, 2009

It is visually clear from the table and the bar chart above that the uninsured are households or individuals with relatively lower incomes as compared to the insured.

5.3.2 Socio-Economic Status (SES)

The rationale for separating the socio-economic status from income is that income alone might not be an adequate measure of well-being at the rural setting. The fact of the matter here is that in most rural settings in Africa income alone is seldom considered as a sign of well-being because very few people really receive or earn cash income. Rather household assets like cattle, sheep, goats, source of drinking water, and housing characteristics among others are indicative of a household's well-being. Consequently, a Principal Components Analysis (PCA) was done - using the wealth index or asset base of households to determine whether there is a relationship between the wealth index of a

household and its insurance status. With the PCA, the SES of household was divided into categories; poorest, very poor, poor and less poor² for the insured and uninsured in each community after which a combined PCA was done for both communities. In Gaani, the analyses show that the poorest represent 37.50% of uninsured while the insured constitute only 7.69%. The very poor represent 41.67% of the uninsured compared to 3.85% of the insured. 16.67% of the uninsured are poor compared 38.46% for the insured. Only 4.17% of the uninsured are less poor whereas 50% of the insured are less poor. As the wealth increases the number of insured household also increases dramatically while that of the uninsured declines considerably.

In Pindaa, the situation is not different as 36% of the uninsured are the poorest households whereas 20% of the insured are the poorest. Only 4% of the uninsured are less poor while 36% of the insured are less poor. The tables below summarise the socio-economic status of the insured and uninsured households for Gaani and Pindaa communities.

Table 5: Socio-Economic Status and insurance status (SES) by community-Gaani

Socio-Economic Status	Insurance Status of Respondents			
	Insured		Uninsured	
	Frequency	Percentage (%)	Frequency	Percentage (%)
Poorest	2	7.69	9	37.50
Very Poor	1	3.85	10	41.67
Poor	10	38.46	4	16.67
Less Poor	13	50.00	1	4.17
TOTAL	26	100	24	100

Source: Author's Field Work, 2009

² Poorest- Worst -off in terms of poverty, Very Poor- Slightly better than the 1st quantile, Poor- Households own assets like Sheep and Goats and Less Poor-Middle Class, Households that own assets like Cows, Donkeys.

Table 6: Socio-Economic Status and insurance status (SES) by community-Pindaa

Socio-Economic Status	Insurance Status of Respondents			
	Insured		Uninsured	
	Frequency	Percentage (%)	Frequency	Percentage (%)
Poorest	5	20.00	9	36.00
Very Poor	7	28.00	9	36.00
Poor	4	16.00	6	24.00
Less Poor	9	36.00	1	4.00
TOTAL	25	100	25	100

Source: Author's Field survey, 2009

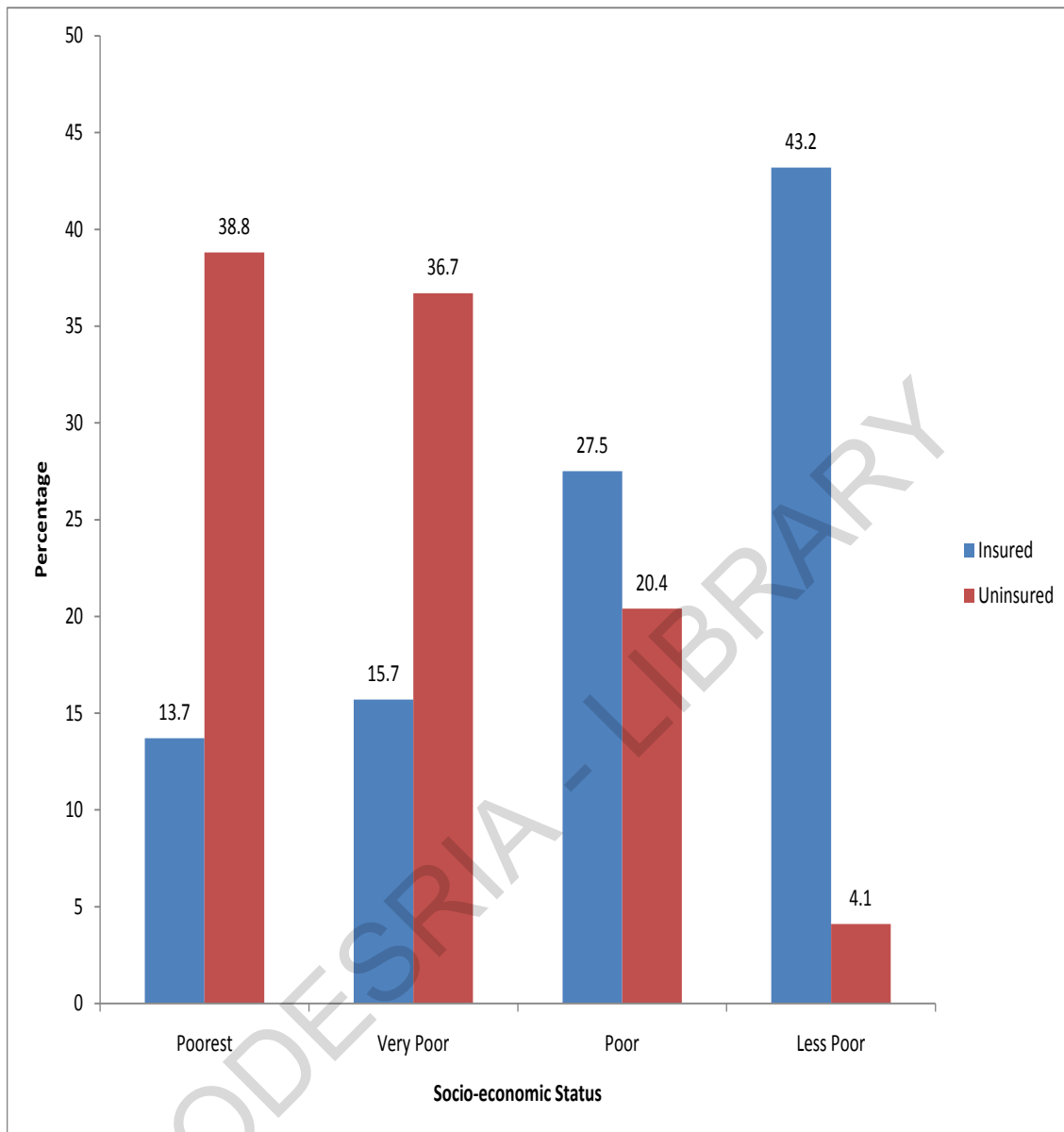
Based on the analysis of the PCA of SES and insurance status for Gaani and Pindaa communities, a combined PCA was done for both communities in order to paint a clearer picture of SES and insurance status. On the whole, the poorest constitute 38.78% of the uninsured households while that of the insured is 15.69%. Only 4.08% of the uninsured are less poor while the insured form 43.14%. The detailed information is provided on table 7 and figure 8 below.

Table 7: Combined Socio-Economic Status (SES) and Insurance Status

Socio-Economic Status	Insurance Status of Respondents			
	Insured		Uninsured	
	Frequency	Percentage (%)	Frequency	Percentage (%)
Poorest	7	13.73	19	38.78
Very Poor	8	15.69	18	36.73
Poor	14	27.45	10	20.41
Less Poor	22	43.14	2	4.08
TOTAL	51	100	49	100

Source: Author's Field Work, 2009

Figure 6: Combined Socio-Economic Status and Insurance Status



Source: Author's Field Work, 2009

The PCA shows that majority of the insured are the rural middle class households while majority of the uninsured are those rural households that live in abject poverty. The analysis also confirms the earlier findings that showed that the insured generally earn higher incomes than the uninsured. The findings are also consistent with existing literature on MHI that suggests that community structures such MHIS are often dominated by successful households among the rural middle class (Jutting, 2005:74) while the poorest are socially excluded.

As a result, 74% of the insured seek health care immediately at the formal health facilities when they consider their illness as mild or moderate. However, majority (93.75%) of the uninsured treat their illnesses at home and only seek treatment at the formal health facilities when they perceive their illness as severe. Only 6.25% of the uninsured seek medical attention at the formal health facilities when they perceive their illness as mild or moderate.

5.3.3 Age

The survey also established that age of an individual is a very important determinant of participation in health insurance at the rural level. The survey shows that individuals between the ages of 58 and 80 years were more likely to participate in health insurance than younger individuals. It follows that as household members grow older 58-years and above, they tend to enrol in the health insurance than the younger population. This is reasonable in that as people become aged, they become vulnerable to many sicknesses hence they tend to seek social protection in the form of health insurance.

5.3.3 Household Size

Another interesting finding from the study is that larger size households are more likely to participate in health insurance than smaller size households. About 65% of all the insured households have four (4) members and above. This is also quite reasonable because large size households may consider the amount of money involved to pay out of pockets for their sick members in the event of epidemics such as cholera. The amounts involved might be so huge that households with large sizes find it prudent to seek financial risk protection in the form of health insurance.

5.4 Logistic Estimation of the Determinants of Participation in MHI

This section estimates the determinants of participation in Mutual Health Insurance using a logistic regression model at 95% confidence interval on individual variables. This means that for any of the variables to be considered statistically significant determinant of participation in mutual health insurance, it must have a probability value (p-value) in the range of 0.05. Any p-value above this range is considered statistically insignificant. This model is expected to show clearly the variables that determine a household participation in MHI with their p-values. Even though several variables are used in the model, the most important variables of interest are income and socio-economic status of households. The results of the model are presented on the table below.

Table 8: Variables Used to Estimate the Determinants of Participation in MHI and Their P-Values

Variable	Description	P-Values
Age	58-80 years	0.000
Sex	Male/Female headed households	0.175
Marital Status	Married	0.407
Ethnicity	Nankana/Kassena	0.692
Literacy	Ability to read/read and write	0.653
Occupation	Farmer/Trader	0.091
Religion	Traditional/Christian/Muslim	0.412
Household size	Large	0.000
Income	Average monthly income	0.000
Socio-Economic Status.	Less Poor	0.000

Source: Author's Field Work, 2009

Only the variables of age, household size, income and socio-economic status are significant in determining participation in MHI with p-values of 0.000 respectively. This finding from the regression analysis is consistent with the results of the descriptive above. The other variables as seen from the table above are not statistically significant in determining participation in insurance.

Furthermore, using a second logistic regression with the same level of significance (0.05), I estimated the likelihood or the number of times the poorest, the very poor, the poor and the less poor are likely to participate in MHI using the odd ratios and the p-values; the output of the analysis is shown on appendix IV. The poorest is used as the base index for comparison so it does not appear in the output of the regression analysis. The poorest are assigned an index of (1), the very poor an index of (2), the poor an index of (3) and the less poor are assigned an index of (4) for the regression analysis. The odds ratio is a statistical measure that tries to compare whether the probability of a certain event occurring is the same for two or more groups. In this context, the odds ratio is a relative measure telling us how much more likely it is that someone say for instance the poorest, will participate in mutual health insurance as compared to say for instance the less poor. An odds ratio of 1 implies that the event is equally likely in both groups. This means that if the odds ratio for example, the poorest, very poor, poor and less poor =1, it implies that all the groups have the same likelihood of participating in mutual health insurance. An odds ratio less than one implies that the event is less likely in the first group and the vice versa.

The results of the regression analysis show a statistically significant p-value ($p=0.000$) for the less poor and an odds ratio of 28.3 as compared to the other groups. The results show that the less poor are 28.3 times more likely to participate in MHI than the poorest group of people. Based on these results, it can be concluded that the socio-economic status of a household determines its participation in mutual health insurance. The results seem to suggest that the insured are generally the rural middle class, “the better-off” in society. Here the question is: how does this situation affect access to health for the rural poor? Accordingly, in the ensuing section, access to health care is analysed.

5.5 Access to Health Care

Access to health care was measured using the frequency of use of health services and costs of treatment for the insured and uninsured. The objective is to analysis how many times the insured use health facilities as compared to the uninsured and the costs of treatment (out-patient and in-patient) for the two groups.

5.5.1 Frequency of utilisation of health services

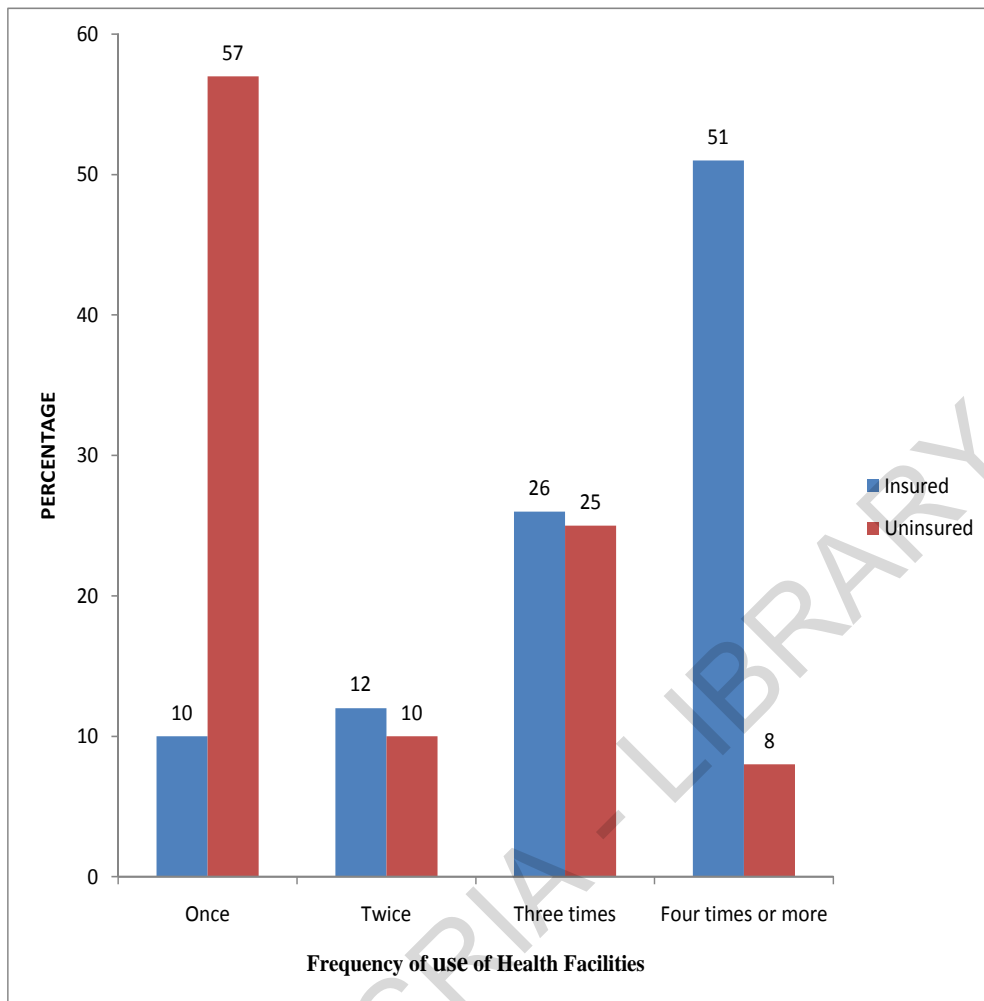
I compared the frequency of utilisation of health services during the last year 2008-2009 of both the insured and uninsured using a chi square test. The results show that only 8.16% of the uninsured use health services four (4) times or more in a year whereas 50.97% of the insured used health facilities/services four (4) times or more in a year. Majority (57.14%) of the uninsured use the health facilities only once the whole year. The chi square test shows statistically significant results ($p=0.000$), indicating that the insured have better access to health care than the uninsured. Table 9 and figure 7 below display the results of the analysis.

Table 9: Frequency of utilisation of health facilities during the last year (2008-2009)

Frequency of use of health facilities	Number of Insured	Percentage	Number of Uninsured	Percentage
0	1	1.96	0	0.00
1	5	9.80	28	57.14
2	13	25.50	12	24.50
3	6	11.80	5	10.20
4	10	19.61	2	4.08
5	5	9.80	1	2.04
6	2	3.92	0	0.00
7	1	1.96	0	0.00
8	4	7.84	0	0.00
9	0	0.00	0	0.00
10	2	3.92	1	2.04
11	1	1.96	0	0.00
12	1	1.96	0	0.00
Total	51	100	49	100

Source: Author's Field Work, 2009

Figure 7: Frequency of utilisation of health services and Insurance Status



Source: Author's Field Work, 2009

The average frequency of use of health facilities for both the insured and uninsured was found to be 2.98, while that of the insured alone was 4.08 and that of the uninsured alone was 1.84 times respectively. This shows that in a year the insured use health facilities almost three times as compared to the uninsured. Furthermore, comparing the frequency of use of health facilities for the insured and uninsured households during the months of April-May 2009 by means of cross tabulation, it was found that about 62.75% of the insured use health facilities about twice or more while only 18.37% of the uninsured attended hospital twice or more during the same period. On the other

hand, 81.63% of the uninsured attended hospital at least once as compared to only 37.25% of the insured. This shows that as the frequency increases, the use of health facilities by the uninsured decreases dramatically as illustrated on table 10 below.

Table 10: Frequency of Utilisation of health facilities between the Months of April-May, 2009

Frequency of Use of Health Facilities	Insurance Status of Respondents			
	Insured		Uninsured	
	Number	Percentage (%)	Number	Percentage (%)
At least Once	19	37.25	40	81.63
Twice or More	32	62.75	9	18.37
Total	51	100	49	100

Source: Author's Field Work, 2009.

5.5.2 Cost of Health Care

The costs incurred for seeking health care here includes both out-patient and in-patient costs; the household survey thus tries to establish the average amount of money that both the insured and uninsured pay when they use the health facility. This is done by analysing the average monthly expenditure on health for both the insured and uninsured ranging from less than GH¢ 10.00- GH¢ 80.00 and above in a month. It is established that 88.29% of insured pay less than GH¢ 10.00 (\$ 6.85) on health averagely in a month whereas only 14.29% of the uninsured pay the same amount on health in a month. As the monthly expenditure on health increases, the percentage expenditure on health by the uninsured also increases while that of the insured decreases sharply. No insured household spends beyond GH¢ 30.00 (\$ 20.55) & GH¢ 40.00 (\$ 27.40) on health in a month. At least 8.16% of the uninsured spend between GH¢ 60.00 (\$ 41.10) GH¢ 80.00 (\$ 54.80) and above on health in a month. This health expenditure incurred by the uninsured is catastrophic as it is well above their monthly income (no uninsured household is in the income bracket of GH¢ 60.00-80.00 as shown on table 4 above). Evidence from the FGDs indicate that in case of cost of illness exceeding incomes, the uninsured have to rely on risk coping strategies such as selling of assets, borrowing from friends or relatives or have to rely on transfers from their families and local

network to be able to pay for the costs of treatment. This situation can worsen the poverty levels of the uninsured because monies borrowed might have to be paid back with high interests. The table below lucidly presents the monthly health expenditure for insured and uninsured households.

Table 11: Average Expenditure on Health and Insurance Status

Ave. Monthly Exp. On Health	Insurance Status of Respondents			
	Insured		Uninsured	
	Number	Percentage (%)	Number	Percentage (%)
Less than GH¢ 10.00 (\$ 6.85)	45	88.29	7	14.29
Between GH¢ 10.00 and GHS 20.00 (\$ 13.70)	5	9.80	18	36.73
Between GH¢ 20.00 & 30.00 (\$ 20.55)	0	0	5	10.20
Between GH¢ 30.00 & 40.00 (\$ 27.40)	1	1.96	6	12.24
Between GH¢ 40.00 & 50.00 (\$ 34.25)	0	0	9	18.37
Between GH¢ 60.00 (\$41.10) & 80.00 (\$ 54.80)	0	0	4	8.16
TOTAL	51	100	49	100

Source: Author's Field Work, 2009

It is established that on the average GH¢ 11.88 is spent by both groups per hospital visit. Averagely the insured alone pay only GH¢ 4.16 per visit. This amount might represent services and drugs that are not covered by the MHIS. On the other hand, the

uninsured alone pay GH¢ 13.14 per hospital visit. These amounts include the cost of consultation, transportation, drugs, and X-Ray and laboratory tests. Furthermore, during the last month, a total of 7 households reported that a member of their households was hospitalised of which five (5) were insured and two (2) were uninsured household members. The two members of the uninsured household members paid GH¢11.5 for two days of hospitalisation whereas the insured household members paid only GH¢ 4.00 for five days. This amount paid by the insured is likely to be the cost of drugs and services that are not included in the MHI list because the MHIS covers the cost of hospitalisation. This implies that the uninsured paid about GH¢ 5.75 a day out-of-pocket while the insured paid less than GH¢ 1.00 a day- that is GH¢ 80 pesewas a day. In the event that an uninsured household member is hospitalised for say 14 days, s/he pays GH ¢80.5 (GHS 5.75x14) out-of-pocket for the cost.

The analyses thus far are very revealing and interesting. The uninsured are generally households that earn lower incomes and yet spend more on health as compared to the insured. The analysis goes a step further to explore whether there are other reasons why households participate in mutual health insurance apart from the fact that MHI improves access to health as demonstrated so far taking into consideration the high level of social capital that characterise rural communities.

5.5.3 Reasons for participating in Mutual Health Insurance Scheme (MHIS)

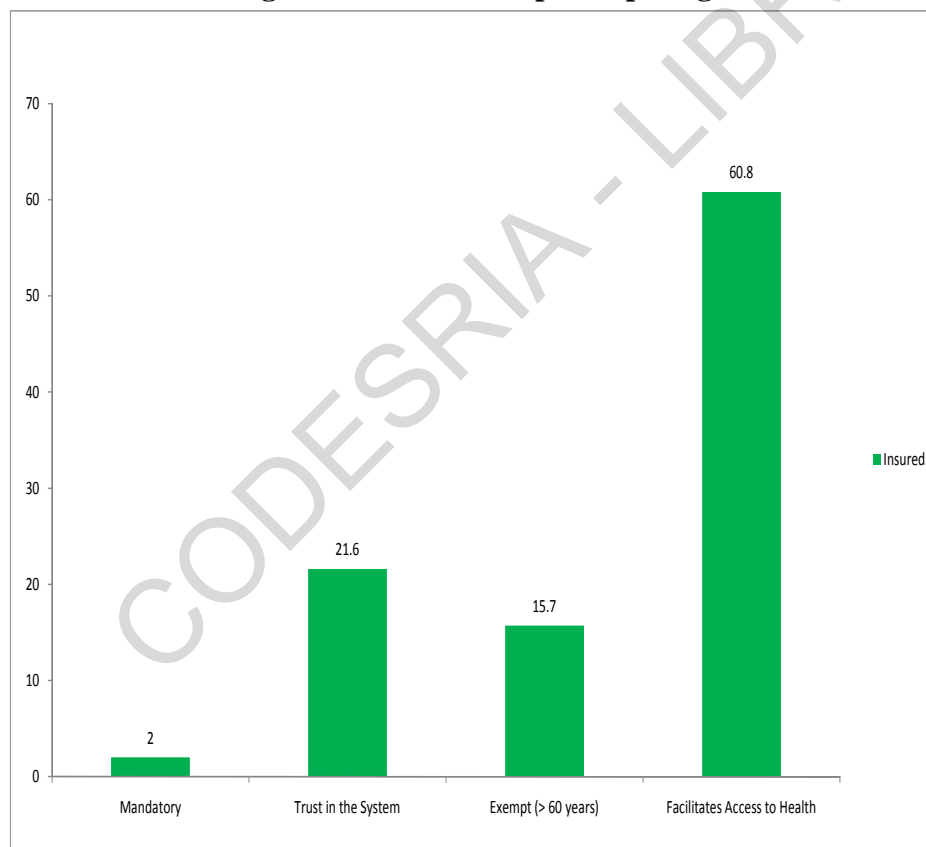
Households were further asked to list the four (4) most important reasons why they participate in MHIS. The evidence from their responses show that 60.78% participate because the MHI facilitates access to health care and 21.57% say they participate because they trusted that the system was good. The information is displayed on the table and graph below.

Table 12: Reasons for participating (RFP) in MHIS

RFP in MHIS	Insured	
	Number	Percentage (%)
Mandatory	1	1.96
Trust in the System	11	21.57
Exempt (> 60 years)	8	15.69
Facilitates Access to Health	31	60.78
TOTAL	51	100

Source: Author's Field Work, 2009

Figure 8: Reasons for participating in the MHIS



Source: Author's Field Work, 2009

The above evidence from the questionnaire was supported by the FGDs that were held with insured households in both communities. For instance, households were asked to compare their status without health insurance against their status with health insurance now to see which one gave them better access to health care. One of the respondents had this to say during one of the focus group discussions:

Now pregnant women don't die at home again. At first when there was no insurance, many women died in labour at home but such cases are now very rare. So the scheme is very good. Another respondent also stated that "in fact, receiving health care these days and the early days without insurance is not the same. These days you can be given full medication until you are cured as long as you have the health insurance. At first when we had no insurance, you had to sell your last goat before you could go to the hospital. But now, if you are able to get to the hospital with your insurance card you will at least get some Paracetamol.

It is interesting to find that 21.6% of households participate in MHI because of trust in the system. This is also the second most important reason why households/individuals participate in the insurance scheme. This finding is consistent with the theoretical assumption that social capital might be a potential tool to engineer participation in MHI in the rural setting because the virtue of "trust" is one of the key tenets of social capital. Thus MHI is generally acclaimed by the rural poor as a better risk management mechanism that facilitates access to health care in times of illness. At least, it is better than the "cash and carry system where households/individuals had to pay directly out-of-pockets at the point of demanding health care. MHI thus offers financial protection to its poor clients. Even so, it is logical to also analyse whether there are other reasons for which households do not participate in MHI other than income and socio-economic status.

5.5.3 Reasons for not participating in MHIS

Uninsured households were asked to list five major reasons for which they do not participate in the MHIS. The results show that 61.20% do not participate because they cannot afford the flat rate premium, 24.48% do not participate because there is no health facility close by them and 12.40% do not participate because the insurance premium is

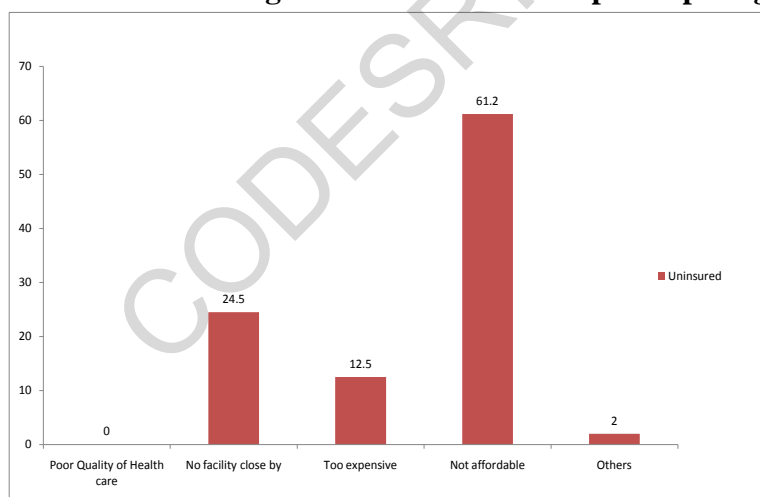
simply too expensive for them. The affordability of the premium relates to the ability to pay whereas the expensive nature of the premiums refers to the willingness to pay. The detailed information is presented on the table and graph below.

Table 13: Reasons for not participating (RFNP) in MHIS

RFNP in MHIS	Uninsured	
	Frequency	Percentage (%)
Poor Quality of Health care	0	0.00
No facility close by	12	24.48
Too expensive	6	12.40
Not affordable	30	61.20
Others	1	2.00
TOTAL	49	100

Source: Author's Field Work, 2009

Figure 9: Reasons for not participating in MHIS



Source: Author's Field Work, 2009

Analysis of the data generated by the FGDs also confirms that financial constraints or poverty is the major factor excluding the rural households from enrolling in the MHIS hence their inability in accessing health care. Testimonies of some the FGDs are quoted below to buttress the analysis.

--- If you don't have health insurance, getting a card alone at the hospital will cost you GH¢ 5.00. And before you are treated you might be asked to put GH¢100.00 down depending on the type of sickness, meanwhile you might not even have GH¢ 10.00. So when you are sick and you don't have the health insurance, you just stay at home till you die because you can't pay the bills.

Furthermore, one respondent during one of the FGD had this to say:

There is nobody who does not want to be enrolled in the MHIS but Poverty is making us unable to pay the premium or registration fees. The cost is too high. Over here there is poverty. Some of us want to register but the money is our problem. You know getting food alone is a problem. So just imagine if you have no food and someone comes to tell you to pay this amount to register with health insurance will that not be a problem? I think if the government can subsidise the insurance premiums or registration fees it will help we the poor to also enrol in the MHIS.

Another interesting finding from the FGDs is that the GH¢ 5.00 penalty fee introduced by the KNMHIS to encourage households and individuals to renew their insurance cards promptly is a serious barrier restricting access to health care. The penalty fee was introduced to control dropout rate from the scheme. The respondents lamented that the penalty fee is too high and rather serves to restrict people from accessing health care than encouraging prompt renewals of insurance cards. The following quote attests to this fact:

Another thing is their penalty fee. The charge is too much. They should know that the person has no money that is why he/she is not able to renew his/her insurance card at the specified time. Now if the person struggles to get that money and then they tell him/her to pay a penalty fee of GH¢ 5.00 on each household member before the household is allowed to re-register with the scheme, it is not proper. Imagine a household of about 6-10 members, where is the household head getting that GH¢ 5.00 on each household member from? So that is one serious problem.

Similarly, the FGDs revealed that the management of the KNMHIS also introduced GH¢ 1.50 being the cost of a card holder- a kind of purse in which insured members

will keep their insurance identity cards (ID) to protect them from fading and also enable members not to lose their cards. The decision to introduce the purse system according to the respondents was taken without prior consultation with the community members and clients. This action by the management of the of KNMHIS violates one of the core values of MHI (participation of the local community in decision and management of the schemes) and rather validates earlier research findings that suggests that crucial decisions at the community level may not consider the interest of the poorest who are often not involved in decision making (Gilson et al, 2000 cited in Jutting, 2005:74) .It is brought to light that even if a household pays all the premiums for all its members without paying the GH¢ 1.50 for the purse, the IDs will not be handed over to the household. So in the event that a household member falls sick within this period, s/he will not have access to health care despite the fact that s/he is insured. A respondent had this to say about the GH¢ 1.50 fees:

--- how can you suffer to pay for an insurance premium or registration fees and when you are going for you card they ask you to pay an additional GH¢ 1.50 before your card is given to you? I paid the insurance premium for 8 of us in my family and now they are telling me to come and pay for these card holder or purse before I can collect the cards. Now how am I going to get GHC 1.50 for each card for 8 cards (GHC 12.00)? You can imagine the cost. So I am worried. Are they trying to say that the covers are more important than the cards?

It goes without saying that the GH¢ 1.50 fee limits access to health care for both the insured and uninsured. It may even be more disadvantageous to uninsured because households or individuals who already could not manage to secure enough money to pay insurance premiums might be restrained perpetually from participating in MHIS because of the additional fee. In this light, one uninsured respondent during an FGD laments that:

They are punishing we those who are uninsured. That additional money can cause someone's inability to register because you could have the money for the card but not the cover and because of that you don't register with the scheme.

In addition, the distance to health facilities (proximity) has also been identified as the second most important reason why households or individuals do not participate in MHI in the study area. As shown above 24.48% of respondents cite no facility close by as the reason for not participating in the MHIS. About 32.00% of the insured visit the health

facilities on foot while that of the uninsured is 60.42%. 56.00% of the insured use bicycles compared to 29.17% of the uninsured. Also, 12% of the insured use motorbikes to the health facilities against only 6.25% for the uninsured. Averagely, 46.00% of the sick insured household member takes less than 30 minutes to the health facility, 46.00% also takes between 30 minutes and 1 hour and only 8.00% takes more than 1 hour to the health facility. On the other hand, 33.33% of the sick uninsured household member takes less than 30 minutes to the health facility, 52.08% takes between 30 minutes and 1 hour and 14.58% takes more than 1 hour to the health facility. Coincidentally, 1 insured and 1 uninsured household refused to answer the questions measuring distance. Below is a table showing the different modes of transport and the time taken by sick household members to the nearest health provider/facility.

Table 14: Different modes of transport and time taken by sick household members to the nearest health facility/provider

Mode of Transport used to health facility	Insured households (Number/%)	Uninsured households (Number/%)	Total (Number/%)
Walked	16 (32.00)	29 (60.42)	45 (45.92)
Bicycle	28 (56.00)	14 (29.17)	42 (42.86)
Motorbike	6 (12.00)	3 (6.25)	9 (9.18)
Public Transport	0 (0.00)	2 (4.17)	2 (2.04)
Private vehicle	0 (0.00)	0 (0.00)	0 (0.00)
Total	50 (100)	48 (100)	98 (100)
Time taken to the health facilities			
Less than 30 minutes	23 (46.00%)	16 (33.33)	39 (39.80)
Between 30 minutes and 1 hour	23 (46.00%)	25 (52.08)	48 (48.98)
More than 1 hour	4 (8.00%)	7 (14.58)	11(11.22)
Total	50 (100)	48 (100)	98 (100)

Source: Author's Field Work, 2009

Majority (48.98%) of both the insured and uninsured still use between 30 minutes and 1 hour to get to the nearest health facility. According to the Kassena-Nankana District Health Management Team (DHMT) the minimum distance that should be covered to access primary health care at the nearest health facility is five (5) Kilometres (Researcher's Interview with the Disease Control Officer, Kassena-Nanakana District Health Management Team, 18th September, 2009) . Following the inaccessible nature of health facilities in the rural areas due to distance, some households who can afford to pay insurance premiums refuse to participate in MHI because they intimated that even if they pay the insurance premiums, in the event of illness especially emergency cases, they can seldom find the means of transport to the nearest health facilities. In fact, people in the farming communities in Pindaa walk over 10 kilometres to access primary health care. One respondent had this to say about distance to the nearest health facilities during one of the FGDs:

Over here getting a car or motor is even a problem. They are even scares. From here to Pindaa is about 110 miles. Then from Pindaa to Kajelo is not a small journey and that of Kajelo to Navrongo. So we are suffering here.

It was thus suggested by the insured that the insurance premium should include the cost of transportation to the health facilities so as to enhance their access to health care and prevent the situation where an individual will be denied access to health care due to lack of transport irrespective of the fact that the person is insured. It is thus illuminating to find financial constraints and distance still remains a challenge to accessing health for rural dwellers in the study area.

5.7 Summary of Research Findings

The research findings establish vividly that the major determinants of participation in mutual health insurance are income and the socio-economic status of households. Majority of the insured are the rural middle class who can afford to pay the insurance premiums. The poorest of the poor do not participate in insurance due to the increasing annual flat rate premiums, yet the MHIS has been instituted as a poverty reduction strategy to improve accessibility to health care for the poor and vulnerable. In this regard, financial access to health is identified as the single most important factor that excludes the rural poor from accessing health care. Due to the high cost of seeking

health care, the poorest in do not seek early health care until the illness gets to a critical stage where they can no longer manage it home. Distance to the nearest health facility is the second most important reason why individuals or households do not participate in mutual health insurance.

Importantly, the means test for the indigenes covers almost nobody in the study area because due to the mechanical solidarity that characterise rural communities, nearly everybody gets some sort of support from friends and relative as well as irregular incomes as the communities are predominantly farming ones. Consequently, severally people may be excluded as they do not qualify as indigenes but do not earn enough to be able to pay the insurance premiums and registration fees for themselves and their household members.

Indeed from a *symbolic interaction* point of view, the exclusion of the poor from having access to health care due to their inability to pay insurance premiums *hermeneutically* can be likened to Plato's allegory of the cave. Like the prisoners who are chained in the cave and cannot move, these poor people *phenomenologically* can be said to be inside the cave and are thus excluded from access to health care and will remain in this cave until appropriate policies and institutional arrangements are made to lift them out of the cave. Thus it is perplexing that 93.75% of the uninsured treat their illnesses at home and only seek treatment at the formal health facilities when they perceive their illness as severe because of the high cost associated with health care. It is against this backdrop that Darwin (1909) succinctly opines that if the misery of the poor be caused not by the laws of nature but by our institutions, great is our sin.

In an attempt to overcome or at least minimise "the misery of the poor" being caused by our institutions, conclusions and recommendations are finally made to enhance the rural poor's participation in mutual health insurance and thereby improving their access to health care.

CHAPTER 6

6.0 POLICY IMPLICATIONS OF COMMUNITY PARTICIPATION AND HEALTH CARE PROVISION IN GHANA

From a conceptual point of view as espoused in chapter one, social and economic disparities remain as barriers preventing the rural poor from participating in MHIS. Indeed, MHIS does not necessarily result in equity of participation because the rural poor cannot afford the insurance premiums as was also highlighted in chapter. Consequently, the problem of social exclusion is not adequately addressed by MHIS because the empirical results show that mutual health insurance scheme members have better access to health care than non-members by virtue of the fact that they are able to afford the insurance premiums. In fact, the research results confirm the research hypothesis; *the wealth or income of households determines their participation in MHI* as indicated in section 1.2 of chapter one. Thus, the challenges facing the rural poor with regards to participation in MHIS and their subsequent access to quality health care still lingers on and need heuristic modus operandi to adequately address the situation.

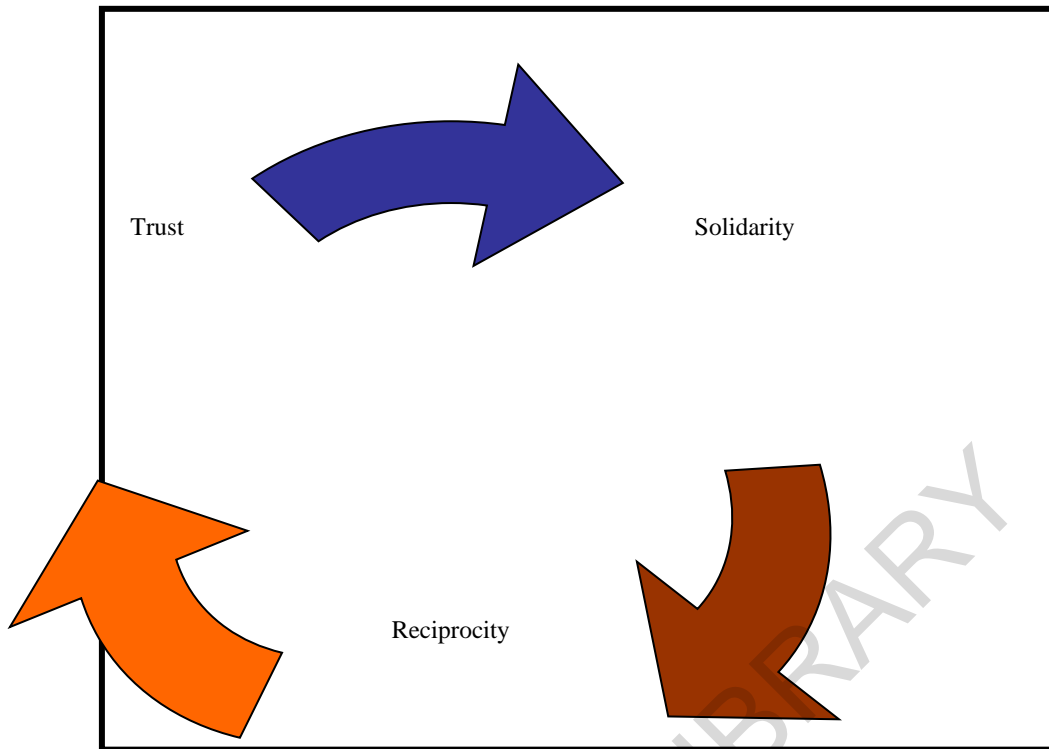
Even so, the research establishes that health insurance is certainly a potent and promising health risk management strategy with a high potential of improving the poor's access to health care and should accordingly be promoted by policy makers and implementers. From a policy and governance perspective, mutual health insurance is pro-poor because it allows the individuals to pool their risks and resources together; ensuring that the risk of having to pay for health care is borne by all the members of the pool and not by each contributor individually. Heuristically, risk pooling enables the insured group to defray expenses that none of its members can assume alone. Consequently, the introduction of the Mutual Health Insurance Scheme in Ghana is opportune and timely as the eradication of poverty continues to take the centre stage of development discourse throughout the globe and the desire to see a world free of poverty, inequality and injustice gave birth to the adoption of the Millennium Development Goals as time-bound and quantifiable targets for addressing extreme poverty.

In promoting mutual health insurance as a pro-poor health financing strategy for the rural poor policy makers and implementers should make maximum use of the social capital that abounds in the rural settings because Pierre Bourdieu indicates that social capital is the potential resource of communities and thus has the potential of engineering participation in mutual health insurance as indicated earlier in section 3.4.

Relating this theoretical view point to the empirical findings, Pierre Bourdieu's supposition (1985) is still relevant to development policy, planning and management today because about 22% of households indicate that they participate in the mutual health insurance because they trust that the system is good. In this sense, social capital can be visualised as a kind of circular flow where the principles of trust, solidarity and reciprocity are interdependent and mutually reinforcing which policy makers should harness to address the issue of participation as a poverty reduction strategy. Figure 10 below illustrates social capital as a circular flow.

Figure 10: Social Capital as a Circular Flow

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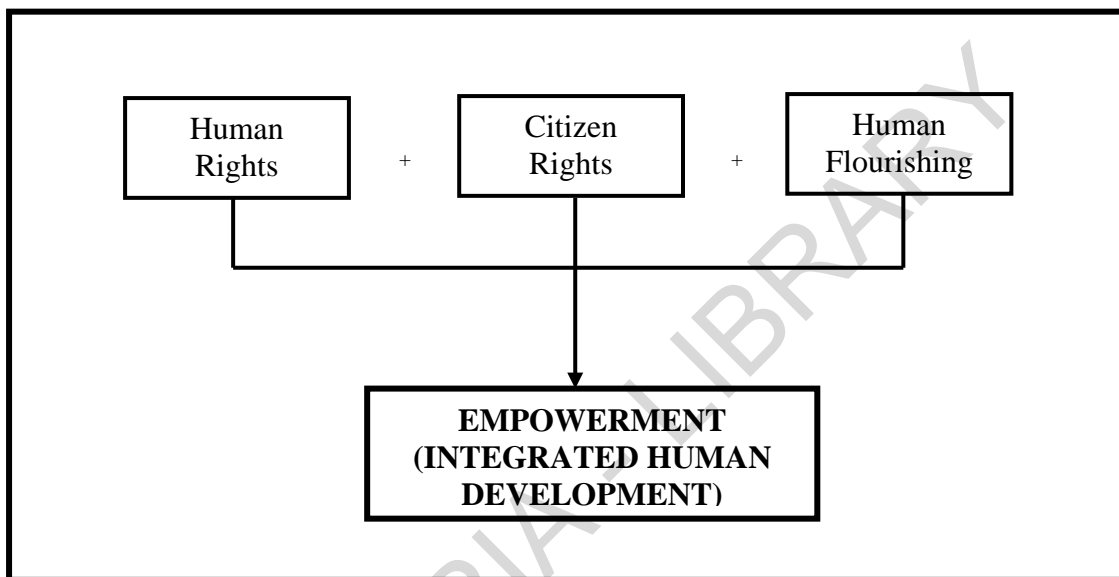


Source: Author's Construct, 2009

Even so, the participation of the poorest segment of society is not automatic in mutual health insurance due to unaffordable insurance premiums. Household income and socio-economic status determine participation in health insurance and so the insurance scheme is dominated by the rural middle class. For instance, the less poor are 28 times more likely to participate in health insurance than the poorest in society. The findings further suggest that the insured are about 3 times more likely to use health facilities than the uninsured in a month. As a result, 93.75% of the uninsured treat or manage their illnesses at home and only seek medical attention when the situation is critical beyond home management.

Relating these empirical findings to the theoretical framework of Friedmann’s people-centred development espoused in section 3.2, people should not only live but also flourish; stressing a link between human rights, citizens rights, and human flourishing as the three foundations leading to people-centred development (integrated human development). The three foundations of human development are illustrated on figure 11 below.

Figure 11: The Three Foundations for Human Development (Empowerment)



Source: Author’s Construct, 2009.

Indeed as shown above, the ultimate aim of development policy, planning and management is to achieve integrated human development. The question here is: how can the uninsured flourish when they are socially excluded from access to modern health care? The uninsured are in a state of disempowerment and cannot take any steps to effect changes to improve their health care situations. Consequently, the uninsured cannot liberate themselves from the mental and physical dependence on local and traditional psychomagic therapies in the management of their ailments.

Furthermore, from the perspective of health insurance theory, the high frequency of utilisation of health facilities could be indicative of a moral hazard problem on the part of the insured. Indeed, anecdotal evidence from the management of the insurance scheme suggests that insured clients tend to over use the health facilities. This could have serious policy implications for the financial sustainability of the scheme because

over use or abuse of the scheme could render it financially bankrupt. However, the problem of moral hazard in mutual health insurance needs to be thoroughly investigated because the poor in the rural areas earn their living by working daily on farms or informal business activities and would have no incentive to frequently visit the health facility if they are really not sick since it involves huge opportunity costs; the time spent at the health facility is the forgone wages that an individual or household does not work on the farm. Besides, the high stocks of social capital that abounds in the rural communities is a natural check on over use or abuse of the insurance scheme because community members know themselves very well and those who tend to over use the scheme can easily be identified and reported to the management of the insurance scheme so that they can be sanctioned.

In addition, the fact that the management of the Kassena-Nankana Mutual Health Insurance Scheme introduced the penalty and card-holder fees without prior consultation with communities to educate clients on the need for these fees violates the assertion that mutual health insurance allow their clients to participate in vital decision-making affecting their lives. This action by the scheme management further disempowers the community members as their rights are not respected; the community members would thus not be able to flourish as suggested by Friedman.

Last but not the least, distance to the nearest health facilities is also found to be a major factor that restricts access to health care in the study communities. From a policy perspective, some of the uninsured households who could otherwise pay insurance premiums do not participate in the insurance scheme due to the long distances they have to travel to receive health care. They feel it is a waste of resources to be enrolled in the insurance scheme and in the event of ill health; an individual finds it extremely difficult to access the means of transport to the nearest health facility.

Drawing from the insights of Sachs et al as opined in chapter one, the Millennium Development Goals for poverty reduction and health will be a mirage without a concerted effort aimed at extending health interventions to the world's poor. Accordingly, the following recommendations are made in a bid to enhancing the

participation of the rural poor in MHIS, thereby, improving their access to quality health care.

- ***Payment of Insurance Premiums should be made more flexible***

Households that cannot afford the one-time insurance premiums should be allowed and encouraged to pay in instalments according to their income levels before joining the MHIS. This may give otherwise excluded people/households the chance to participate in the MHIS. The Management of the scheme may also accept payments in kind from households. Collection of fees and premiums may also be planned to coincide with the harvest period when most of the people would have harvested their crops and may be able to pay for insurance at that time.

Besides, it is important to revise the indigene criteria because the current one excludes many people. An independent body can be instituted to scout for the indigene in the various communities or communities themselves should be allowed to identify the indigenes by making use of their social capital because as rural communities, they know those households amongst them that cannot genuinely afford to pay the insurance premiums. Non-Governmental Organisations and other philanthropic organisations should come to the aid of the poorest in society by paying registration fees and insurance premiums so as to enable them participate in the MHIS.

- ***Insurance premiums should include the cost of transportation***

It is also recommended that the insurance premium should include the cost of transportation so as to enable the poor have access to means of transport easily especially in times of emergency. This measure will relieve majority of the insured who may be denied access to health care at the time when they cannot afford the cost of transportation to the health facility.

- ***Provision of more health facilities and staff for rural communities***

Furthermore, the issue of distance restricting access to health care for the rural folk could be attenuated if Government, donor agencies and non-governmental organisations could help rural communities build more clinics and health centres. Communities could be asked to provide land and/or labour for the construction of such facilities.

- ***Community participation in decision-making***

Finally, the management of the insurance scheme should allow communities to take part in making decisions that affect their lives by respecting the organisational structure of the scheme. In fact, communities should be allowed to make inputs with regards to annual increments of insurance premiums and the benefit package that will improve the operations and performance and benefit the poor in society. The participation of communities in decision-making at the grassroots level will improve own their lives using democratic processes and voluntary efforts. This implies that when people participate in decision-making at the grassroots level, it raises their consciousness and they become awakened to realise their own potential.

When all these recommendations are adhered to seriously, it will go a long way to enhance the participation of the poor in mutual health insurance, thereby, ultimately improving their access to health care. This would also reduce the misery of the poor being caused by our institutions.

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APPENDICES

APPENDIX I: INDIVIDUAL/HOUSEHOLD QUESTIONNAIRE ON DETERMINANTS OF PARTICIPATION IN MUTUAL HEALTH INSURANCE IN THE KASSENA-NANKANA DISTRICT OF GHANA

Consent Form.

My name is Kennedy Alatinga and I am a Masters student pursuing an MPA degree at the School of Government (SOG) of the University of the Western Cape, Cape Town, South Africa. I am conducting a research on the Determinants of Participation in Mutual Health Insurance in the Kassena-Nankana District. The purpose of the research is purely academic as it forms part of my MPA degree requirements. I would be grateful if you could spare some of your time to answer the questions that will be asked. It will take approximately 45 minutes for the questionnaire to be completed. You are at liberty to refuse to answer any question or withdraw from the study at anytime you wish. You are also assured that your identity is anonymous and so your name will **never** be mentioned anywhere in connection with the study. All the information you provide will strictly be treated as confidential and will only be used for the purpose of the master thesis. Please feel free to ask any questions before, during and after the interview if you wish. You may also call 0244 933 750 if you have questions later on relating to the study for clarification.

Please, do you agree to take part in the research? Yes No.

SECTION 1: IDENTIFICATION

DATE OF INTERVIEW		DINT
COMPOUND NAME/ID		COMPNAM
HOUSEHOLD NAME/ID		HHNAME
NAME OF FIELD ASSISTANT		NFA
NAME OF COMMUNITY		COMTYNAM

SECTION 2: Socio-economic and demographic characteristics of respondent

	For the household head	Coding Categories	Codes		
1	How old is the household head? (Age in completed years)	<table border="1" style="display: inline-table; vertical-align: middle;"><tr><td style="width: 20px; height: 20px;"></td><td style="width: 20px; height: 20px;"></td></tr></table>			Q1HHAGE
2	Sex of household head	Male.....1 Female.....2	Q2HHSEX		
3	Marital status of household head	Married.....1 Never married.....2 Divorced.....3 Widow.....4 Other (specify).....5	Q3HHMAR		
4	Ethnic origin of household head	Kasem.....1 Nankam.....2 Buli.....3 Other(specify).....4	Q4HETHIC		
5	What is educational level of the household head?	Never been to school.....1 Primary.....2 JSS.....3 Secondary.....4 Tertiary.....5	Q5HEDUC		
6	What is the occupation of the household head	Farmer.....1 Trader.....2 Employed in the formal sect.3 Retired/Pensioner.....4 Student.....5 Unemployed.....6	Q6HOCCUP		
7	What is the religion of the household head?	Traditional.....1 Christian.....2 Muslim.....3 Other(specify).....4	Q7HRELIG		

8a	How many people live in this household?	<input type="text"/>		Q8HHSIZ
8b	Write down sex, age and education of each household member			
	Household member	Age	Sex Male.....1 Female...2	Educational level Never been to school.....1 Primary.....2 JSS.....3 Secondary.....4 Tertiary.....5
	Person 1			PERS1ASE
	Person 2			PERS2ASE
	Person 3			PERS3ASE
	Person 4			PERS4ASE
	Person 5			PERS5ASE
	Person 6			PERS6ASE
	Person 7			PERS7ASE
	Person 8			PERS8ASE
	Person 9			PERS9ASE
	Person 10			PERS10ASE
9	On average, what is the monthly income of the household?	Less than GH¢10.....1 Between GH¢10 & 20.....2 Between GH¢20 &30.....3 Between GH¢30 &40.....4 Between GH¢ 40 & 50.....5 Between GH¢50 &60.....6 Between GH¢60 &70.....7 Between GH¢70 &80.....8 Between GH¢90&100.....9 Above GH¢100.....10		Q9AVMI
10	On average, how much is the monthly expenditure of the household?	Less than GH¢10.....1 Between GH¢10 & 20.....2 Between GH¢20 &30.....3 Between GH¢30 &40.....4 Between GH¢ 40 & 50.....5 Between GH¢50 &60.....6		Q10EXP

		Between GH¢60 &70.....7 Between GH¢70 &80.....8 Between GH¢90&100.....9 Above GH¢100.....10	
11	What is the household's average monthly expenditure on health?	Less than GH¢10.....1 Between GH¢10 & 20.....2 Between GH¢20 &30.....3 Between GH¢30 &40.....4 Between GH¢ 40 & 50.....5 Between GH¢50 &60.....6 Between GH¢60 &70.....7 Between GH¢70 &80.....8 Between GH¢90&100.....9 Above GH¢100.....10	Q11MEXPHLT
	Health insurance Information		
12	Is the household head enrolled in the MHI scheme?	Yes.....1 No.....2 → SKIPQ13	Q12HMHI
13	If yes, why	Mandatory (formal worker...1 Trust in the system2 Exempted (poor).....3 Exempted (>60 yrs).....4 Exempted (0-17 years).....5 Others Please specify.....6 Na.....88	Q13YSHMH
14	If No, why have you not enrolled in the MHI	Poor quality of care.....1 No facility close by.....2 No trust in the system.....3 Too Expensive.....4 Not Affordable.....5 Na.....88	Q14NOHMH
15	How many members of your household are enrolled in the KNDMHIS?	<input type="text"/> <input type="text"/>	Q15HHMHI
16	How much do you pay for enrolling all the members in the scheme?	<input type="text"/> <input type="text"/>	Q16AMTEN

SECTION 3: LAST ILLNESS AND HEALTH CARE INFORMATION

17	When was the last time any member of the household used the health facility?	Within the last 1 week.....1 Within the last 2 weeks.....2 Within the last 3 weeks.....3 Within the last 4 weeks.....4 Other. Specify.....5 NA.....88	Q17LTHHF
18	Is the sick/injured household member enrolled into the insurance scheme?	Yes.....1 No.....2 → SKIPQ19	Q18ILMHI

19	If Yes, why is he/she enrolled in the MHI	Mandatory.....1 Trust in the system2 Exempted (poor).....3 Exempted (> 60).....4 Exempted (0-17 yrs).....5 Facilitates access to health service 6 Others, please specify.....7 Na.....88	Q19YSMHI
20	If No, why is the sick/injured household member not enrolled in the MHI?	Poor quality of care.....1 No facility close by.....2 No trust in the system.....3 Expensive.....4 Exempted.....5 Other please specify.....6 Na.....88	Q20NOMHI
21	What did you or sick/injured household member suffer from? (Circle all mentioned)	Malaria/Fever.....1 Diarrhoea/cholera.....2 Coughing.....3 Vomiting.....4 Catarrh.....5 Headache.....6 Piles7 Stomach pains.....8 CSM.....9 TB.....10 AIDS.....11 Hernia.....12 Eye problem.....13 Chest Pains.....14 Diabetes.....15 Rashes.....16 Injury.....17 Others (specify).....18	Q21ILTYP
22	Did you or sick/injured household member seek care?	Yes.....1 No.....2	Q22SEKCA → SKIP23
23	If yes, where did you or sick/injured household member seek care? (Circle all mentioned)	Public Health Centre/clinic.....1 Public Hospital.....2 Traditional healer.....3 Private Clinic.....4 Drug stores.....5 Self treatment at home.6 Other ,Specify.....7 Na.....88	Q22YESCAR
24	If no, why did you or sick/injured household member not seek care?	No money.....1 Not insured2 Distance.....3 Service Providers Attitude.....4 Sickness not severe.....5	Q24NOCAR

		Other Please specify.....6 Na.....88	
25	Why did you or sick/injured household member use the provider/facility you have mentioned? (Circle all that apply)	Proximity.....1 Staff attitude.....2 Availability of drugs.....3 Moderate fees.....4 Lab services.....5 Credit facility.....6 Availability of Doctors.....7 Availability of Nurses.....8 Insured (NHI).....9 Referred by a doctor/nurse.....10 Suggested by family.....11 Other, specify.....12	Q25WHYPR
26	Who attended to you or sick/injured household member at the health facility/Drug store?	Doctor.....1 Medical Assistant.....2 Nurse/CHO.....3 Drug store seller.....4 Traditional healer.....5 Others, specify.....6	Q26WHOAT
27	What type of services did you or the sick/injured household member receive from the service provider? (Circle all that apply)	Consultation.....1 Laboratory Test.....2 X-ray.....3 Surgery.....4 Drugs.....5 Herbs.....6 Others, specify.....7	Q27TYPSE
28	How did you or sick/injured household member get to the service provider?	Walked.....1 Bicycle.....2 Motorbike.....3 Public transport.....4 Private vehicle/transport.....5 Treated at home.....6 Others.....7	Q28HOWFA
29	How long did it take you or sick/injured household member to get to this service provider?	Less than 30 minutes.....1 Between 30 minutes & 1 hour.....2 More than 1 hour.....3	Q29TIMFA
30	Did you or sick/injured household member pay for care?	Yes.....1 No.....2	Q29PAYCA →SKIPQ31
31	If yes, how much was spent on the following	Consultation fee... <input type="text"/> <input type="text"/> Transport cost..... <input type="text"/> <input type="text"/> Cost of drugs..... <input type="text"/> <input type="text"/> Cost of surgery..... <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/>	Q30YSAMT

		Cost of herbs..... No cost due to NHI... <input type="text"/> <input type="text"/> Others specify..... <input type="text"/> <input type="text"/> Na.....88	
32	If no, why did you or sick/injured household member not pay for the care?	Free services.....1 Have MHI.....2 Know the service provider.....3 Others (specify).....4 Na.....88	Q32NOPYT
33	How long did you or sick/injured household member have to wait to see the service provider?	Immediately.....1 Less than 30 minutes.....2 Between 30 minutes & 1 hour.....3 More than 1 hour.....4	Q33WAITI
34	How was the attitude of the service provider who attended to you or sick/injured household member?	Very good.....1 Good.....2 Bad.....3 Very bad.....4	Q34ATITD
35	Were you satisfied with the services of the service provider?	Very satisfied.....1 Somewhat satisfied.....2 Not satisfied.....3	Q35QLTY
36	How many times have you or household used the hospital/health facility last year (2008-2009)?	<input type="text"/> <input type="text"/>	Q36HMHV
37	Were you or the sick/injured household member hospitalized?	Yes.....1 No2	Q37HOSP → SKIPQ38
38	If yes, for how many days were you or sick/injured household member hospitalized?	<input type="text"/> <input type="text"/> Na.....88	Q38DYSHP
39	How would you rate the illness/injury	Mild.....1 Moderate.....2 Severe.....3	Q39RATIL
HOUSING			
40	What is the main material for the wall?	Concrete.....1 Mud.....2 Bricks.....3	Q40MODD
41	Type of main roofing material (excluding animal compounds)?	Zinc.....1 Concrete.....2 Mud.....3 Thatch.....4 Concrete tiles.....5 Other.....6	Q41WLMAT
42	What are the toilet facilities in	Free range.....1	Q42TOLET

	your household?	Pit latrine.....2 KVIP.....3 Pan latrine.....4 WC.....5 Others.....6	
43	What is the main source of drinking water does your household have?	Pipe borne water.....1 Borehole.....2 Stream.....3 Well.....4 Other.....5	Q43WATER
OTHER POSSESSIONS			
44	How many functioning bicycles do members in your household own?	None.....1 One.....2 Two.....3 Three.....4 More than three.....5	Q44BIKE
45	How many functioning motor bikes do members in your household own?	None.....1 One.....2 Two.....3 Three.....4 More than three.....5	Q45MOTOR
46	How many functioning cars/vehicles are owned by household members?	None.....1 One.....2 Two.....3 Three.....4 More than three.....5	Q46VEHIC
47	How many wooden/iron beds are in your household?	None.....1 One.....2 Two.....3 Three.....4 More than three.....5	Q47BEDS
48	How many functioning radio sets are in your household?	None.....1 One.....2 Two.....3 Three.....4 More than three.....5	Q48RADIO
49	How many functioning mobile phones are in your household?	None.....1 One.....2 Two.....3 Three.....4 More than three.....5	Q49MOBIL
50	What is the main type of cooking fuel used in your household?	Gas.....1 Electricity.....2 Wood.....3 Charcoal.....4 Stalks.....5 Other.....6	Q50CFUE
51	How many cattle do you have in your household?	None.....1 One.....2 Two.....3	Q51CATLE

		Three.....4 More than three.....5	
52	How many sheep do you have in your household?	None.....1 One.....2 Two.....3 Three.....4 More than three.....5	Q52SHEEP
53	How many goats do you have in your household?	None.....1 One.....2 Two.....3 Three.....4 More than three.....5	Q53GOAT
54	How many pigs do you have in your household?	None.....1 One.....2 Two.....3 Three.....4 More than three.....5	Q54PIGS
55	How many donkeys do you have in your household?	None.....1 One.....2 Two.....3 Three.....4 More than three.....5	Q55DONKY

Thank you very much for your time

APPENDIX II: INTERVIEW GUIDE FOR FOCUS GROUP DISCUSSIONS

1. Why have you joined or not joined the MHI? (Probe for indigent exempt, costs, and amounts, lack of information, cultural barriers such as values and norms and then probe for the three most reasons why people have or have not joined the MHI)
2. Which health facilities do you use when you or household member falls sick or gets injured? (Probe for as many facilities as possible)
3. Reasons for the use these facilities.
4. What is the main means of transport you use to the health facility? (How long does it take you to get there?)
5. Is there any preferential treatment for the insured and non-insured at the health facility? (Probe for differences in e.g.
 - Attitude of health providers (Nurses /Doctors) towards patient
 - Waiting time (which group gets faster attention and why?)
 - Duration of consultation
 - Availability of prescribed drugs (Probe for habitual over prescriptions if insured, and how much drugs usually cost in case they are not covered by insurance))

6-10 (for the insured only)

6. How do you evaluate the quality of services you receive now as compared to the time you had no insurance?
7. As an insured person how do you compare the costs of health to the time you were not insured?
8. If insured, do you have information about the benefits (drugs and treatments covered by the NHIS)?
9. What is your overall evaluation of the MHIS with regards to the quality of services you receive based on your satisfaction as excellent, good, satisfactory, poor, very poor on a scale of 1-5 with 1 being excellent and 5 very poor would ?
10. What suggestions would make in order to improve the quality of service delivery under the MHIS?

Thank you very much for your time!

APPENDIX III: IN-DEPTH INTERVIEW GUIDE WITH STAFF OF KNMHIS

1. How much is an individual required to pay as registration fee and insurance premium?
2. Do households readily renew their payments when their cards expire? If no, what happens to those clients whose cards expire and the need medical attention? (Probe for penalty and its implication on social exclusion)
3. What criteria must one meet to be considered as an indigene?
4. Do you have problems identifying the indigenes? Explain
5. How many indigenes are there in Gaani and Pindaa?
6. What challenges do you face with regards to the operations of the scheme? (Probe for provider and client moral hazard) What can be done to improve the performance of the scheme?
7. What is your overall impression about the performance of the scheme?

Thank you very much for your time!

APPENDIX IV: LOGISTIC REGRESSION OF SOCIO-ECONOMIC INDEX/STATUS AND INSURANCE STATUS

xi: logistic insured i.index
i.index_Iindex_1-4

Insured	Odds Ratio	Std. Err.	Z	P> z	[95% Conf. Interval]	
_Iindex_2	1.082707	.6639423	0.13	0.897	.3254867	3.601542
_Iindex_3	3.6	2.189325	2.11	0.035	1.09307	11.85652
_Iindex_4	28.28571	24.39543	3.88	0.000	5.217179	153.3552

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