

**A COMPARATIVE STUDY OF MODERN AND TRADITIONAL  
HEALTH SERVICES IN THE BOLGATANGA MUNICIPAL**

**AREA**

**BY**

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## ABSTRACT

Accessibility to health services is a major global problem and its greatest manifestation is found within sub Saharan Africa. There is a dichotomy in the spatial distribution of health services in the Bolgatanga municipality as it is a common feature in most developing countries like Ghana. Majority of the health facilities are skewed towards the urban centre to the neglect of rural settings. Dimensions of distance to health services namely travel time, waiting time, appointment with a doctor; nature of roads, means of transport and cost all have a telling effect on utilization. Also poverty and illiteracy are important variables that influence the use of health services. Given the above situation, traditional medicine is being perceived to have gained popularity among the people in the Bolgatanga municipality. Various traditional health practitioners are found in most of the areas in the municipality. This provides an alternative health care system to users. It is within this context that the study assessed the level of patronage of modern and traditional health facilities in the Bolgatanga Municipality and analysed the factors responsible for the decision to use traditional medicine rather than modern medicine. It also examined the perceptions on the efficacy of Modern and Traditional Medicine. The cross-sectional research approach was employed to elicit answers or responses from the research questions. Structured questionnaires were used to interview 156 household heads, 22 modern and 22 traditional medical practitioners. The analysis of the data revealed that the patronage of modern medicine in the municipality is high (72.2 percent) as compared to traditional medicine (15.6 percent) and both 12.2 percent. The survey also showed that factors such as convenience, taste and preference, accessibility/affordability, effectiveness and attitude of staff all play a role in the choice of a particular health care system. The results further revealed that modern medicine is considered effective in the treatment of diseases than traditional medicine because it offers complete healing (tried and tested). The integration process of both medical systems stands the chance of ensuring universal health coverage in the municipality. Nonetheless, the issues of unequal recognition of knowledge by practitioners and differences in the practices of both systems have to be battled with. The study recommends that stakeholders particularly government should establish more modern health facilities as efforts are made to make traditional medicine more acceptable to the people.

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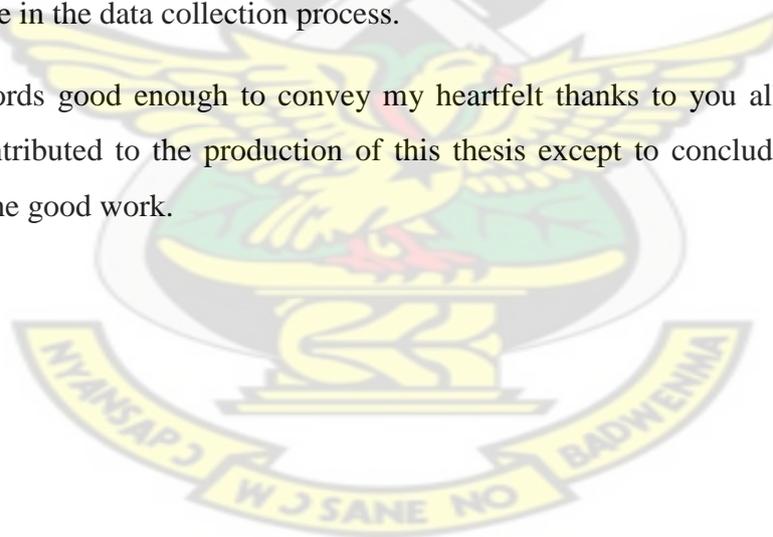
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## LIST OF ACRONYMS

AIDS	Acquired Immune Deficiency Syndrome
CAM	Complementary and Alternative Medicine
CHPS	Community Health Planning and Services
GSS	Ghana Statistical Service
H/C	Health Centre
HH	Household head
HIV	Human Immune Virus
KM	Kilometre
MM	Modern Medicine
MMPs	Modern Medical Practitioners
NDPC	National Development Planning Commission
NGO	Non-Governmental Organisation
NHIA	National Health Insurance Authority
NHIS	National Health Insurance Scheme
OM	Orthodox Medicine
OPD	Outpatient Department
SPSS	Statistical Package for the Social Scientists
TM	Traditional Medicine
TMPs	Traditional Medical Practitioners
WHO	World Health Organisation
TBA	Traditional Birth Attendant

# CHAPTER ONE

## INTRODUCTION TO THE STUDY

### 1.1 Background to the Study

Accessibility to health facilities is a major global problem and its greatest manifestation is found within sub Saharan Africa. Access to medical facilities is a problem that the government of Ghana and well-meaning Ghanaians have been battling with. The provision of adequate health facilities for the teeming population is a worrying phenomenon. Van den Boom, et al, (2004) cited in Abdallah and Prinz (2009:6) argues that, “Ghanaians on average live about 16 km from a healthcare facility where they can consult a doctor, but half of the population lives within a five km radius. By the same token, the other half cannot consult a doctor within five km, which corresponds to one hour walking distance and one quarter even lives more than 15 km from a facility where a doctor can be consulted”. This briefly sums up the uneven distribution of medical facilities across the length and breadth of the country. It is also a common characteristic to find most of these facilities skewed towards urban centres to the detriment of rural areas.

Gender differentials in terms of access and utilization of health services are another dimension worth stating. In a study of gender and utilisation of health services in the Ashanti Region of Ghana, Buor (2004a) found that men have greater access to the use of health facilities than women. In furtherance, he stated that the probability that a man would access health care when the need arises is higher than women, especially in the rural areas, urban periphery and slums. This certainly presents a clearer picture of gender differentials in terms of accessibility and utilization of health services.

Given the situation described above, governments over the years have made frantic efforts through health sector reforms at raising accessibility to the people. These reforms included free public health care services to all after independence, as this system gradually became financially unsustainable with economic stagnation in the 1970s. Initially, low user fees were established for hospital services to discourage unnecessary use, locally recover some costs and generate provider performance incentives. The adoption of the structural reforms also saw the emergence of the ‘cash and carry’ system of health delivery. Having accepted the fact that this system was

obnoxious and dehumanizing, the National Health Insurance Scheme (NHIS) was given birth in 2003.

In another dimension, the establishment of Community based Health Planning Services (CHPS) , Health centres, Hospitals, increasing in the training of health personnel is part of measures aimed at bringing health service to the doorsteps of Ghanaians. Studies have shown that the emergence of the National Health Insurance Scheme in 2003 has contributed to the increase in accessibility to healthcare services to different category of people (Gobah et al, 2011). These studies have concentrated extensively on access to modern medical care. There is however another growing trend of demand for traditional medicine. Though traditional health facilities are for now not covered by the NHIS, people still patronise their services. Traditional medicine provides an alternative form of treatment to people in the country. Mander et al, (2008), argues that, traditional medicine is desirable and necessary for treating a range of health problems that western medicine does not treat adequately. This certainly could be a factor which contributes to the patronage of traditional medicine.

According to the World Health Organization (WHO, 2003) cited in Abdallah and Prinz (2009:14) in Africa, up to 80 percent of the population uses traditional medicine for primary health care”. In Ghana a large proportion of the population rely exclusively on this type of healthcare, particularly in rural areas” (SciDevNet, 2007) cited in Abdallah and Prinz (2009:15). These are all pointers to the demand for traditional medicine.

The NHIS factor might minimize the impact of cost on accessibility to health services in the country. This is confirmed by the increase in Outpatient Department (OPD) attendance in most health facilities across the length and breadth of the country. NDPC (2010) in its annual progress report indicates that the utilization of outpatient services by the Ghanaian population has been increasing over time, due mainly to treatment of more patients with health insurance. Obviously, it can be inferred that, the increase utilization without corresponding appropriate measures to contain the numbers will have a telling effect on waiting time at user centres.

In a study conducted by Dalinjong and Laar (2012:13) in Bolgatanga municipality and Builsa district, this was what clients had to say, *“We come to the hospital early in the morning and leave only in the evening for home. We spend the whole day in order to*

*get treatment (FGD, insured men-Bolgatanga”)*. Clearly, this supports the notion of NHIS factor in increasing accessibility and utilization of health services in the Bolgatanga municipality with its attendant effect on waiting time at user centres.

It is against this background that this study investigated in a comparative manner access to and utilization of modern and traditional medicine in the Bolgatanga municipality. This certainly has unearthed the multiple causes of under-utilisation in the Municipality.

## **1.2 Problem Statement**

Accessibility is a multidimensional terminology with respect to quality health services delivery. Variables such as affordability, availability, environment, distance of facility and transport are more likely to play a dominant role in people's access to quality health care. Poverty, service cost, distance, travel and waiting times, inadequate drugs and medical personnel are some of the factors militating against the use of health facilities (Buor, 2008). Access to quality health care delivery in the Bolgatanga municipality is affected in one way or the other by the factors listed above. Inadequate health personnel in the municipality, absence of a municipal hospital (this puts pressure on the Regional Hospital which is supposed to be a referral centre) are a few of the health challenges in the municipality.

There is a dichotomy in the spatial distribution of health services in the municipality as it is a common feature in most developing countries like Ghana. Majority of the well-equipped health facilities are found within the township of the municipality (urban area). The urban centre of the municipality has a regional hospital, two private hospitals and a clinic, and other public health centres. There also exist pharmacy and chemical shops, five traditional health facilities and medical laboratory centres. All these facilities are found in the township of the municipality clearly spelling out the urban bias in the distribution of health facilities in the country. Even though a good number of rural communities in the municipality have health centres and CHPS compounds, they are ill-equipped and hence, people still have to cover longer distances to the urban centres for services that cannot be provided by such facilities such as laboratory services.

Dimensions of distance to health services namely travel time, waiting time, appointment with a doctor; nature and means of transport and cost all have a telling

effect on utilization. Nemet and Bailey (2000) argues that an important predictor of utilization is whether or not a physician is located within the wider set of places that people visit regularly. Based on this, it is undisputable that utilization rates would be lower in rural settings where people have limited activity space.

The deplorable condition of roads linking the communities to the Bolgatanga Township may also discourage utilization of health services. Majority of the feeder roads connecting the various communities are usually not motorable during the rainy season due to erosion. This obviously makes their use difficult and could affect utilisation of health services.

Also, poverty and illiteracy are important variables that influence the use of health services. The municipality is found in one of the poverty endemic areas or regions of the country (Ghana Statistical Service, 2000). As such, people lack the enabling resources for medical care expenses such as enrollment and re-enrollment in to NHIS membership. Considering the high illiteracy rate of 78 percent (GSS, 2008) in northern Ghana and for that matter the Bolgatanga municipality, people are more likely to perceive no need for modern health service use.

Given this situation described above, traditional medicine and self medication could be a possible alternative for people in the municipality. Traditional medicine provides a wide range of medical services that orthodox medicine does not. It is effective as it is employed in treating numerous medical conditions such as malaria, typhoid fever, arthritis, jaundice, impotency, infertility, stroke, broken bones, boils, piles, HIV/AIDS, mental illness (Gyasi et al, 2011).

It is obvious from the discussions so far that access and utilization of health services are a major problem in the municipality. It is within this context that the study interrogated the issues further into accessibility and utilization of traditional and modern medical services in the municipality. As such, this study added up to existing literature by finding out whether traditional medicine are been sought for during time of ill health.

### **1.3 Research Questions**

In line with the main research problem, the following research questions were investigated

1. What is the level of patronage of modern and traditional health facilities by the inhabitants of the Bolgatanga municipality?
2. What are the factors responsible for the decision to use traditional or modern medicine?
3. What are the perceptions on efficacy of modern and traditional Medicine?
4. What are the prospects and challenges of integrating traditional and modern medicine?
5. What are the suggestions and recommendations that could be made towards an appropriate integration mechanism of both health delivery systems?

### **1.4 Research Objectives**

The main objective of this study was to examine comparatively access to and utilisation of modern and traditional medicine by inhabitants of the Bolgatanga municipality and make recommendations to inform policy. Specifically, the study seeks to:

1. Assess the level of patronage of modern and traditional health facilities in the Municipality;
1. Analyze the factors responsible for the decision to use traditional medicine in the municipality rather than modern medicine;
2. Examine the perceptions on efficacy of Modern and Traditional Medicine;
3. Examine the prospects and challenges of integrating traditional and modern medicine; and
4. Make recommendations towards an appropriate integration mechanism of both health delivery systems.

### **1.5 Scope of the Study**

This study is limited to the Bolgatanga municipality. Bolgatanga municipality has been chosen given the proliferation of traditional health facilities and herbalist. It is therefore appropriate to find out if the inadequacies of modern health professionals and facilities have a telling effect on traditional medicine. Accessibility and proximity are among the reasons for the selection of the Bolgatanga municipality. In

terms of context, the study considered, comparatively, the level of patronage of modern and traditional health facilities; the factors responsible for the decision to use traditional medicine rather than modern medicine. The study further delved into the perceptions on efficacy of modern and Traditional Medicine. The prospects and challenges of integrating traditional and modern medicine were equally taken in to consideration by this study. Time wise, this study was limited within the period spanning from 2000 up to date.

### **1.6 Justification of the Study**

A good number of reasons usually inform the choice of a researcher into a particular area. This study is justified on the basis that, it has brought to bear the perceptions on the efficacy or otherwise of traditional and modern medicine in curing illnesses in the municipality. This of course if properly ascertained will provide a better conclusion to be drawn which could in turn inform best integrative mechanisms.

This study is also deemed relevant in the sense that little studies has been carried out on this subject area. As such, the study unearthed the various issues such as health seeking behaviour of the inhabitants of the Bolgatanga municipality; establish the factors responsible for the decision to use traditional medicine in the municipality rather than modern medicine, among others.

A particularly justifiable point worth mentioning is the uniqueness of this study. Its uniqueness lies in the comparative manner in which both systems of health care delivery were studied.

Also, this study is significant in the view that it has contributed to the body of knowledge regarding operative mechanisms of both traditional and modern systems. Hence, it could serve as the basis for further research in to related areas.

### **1.7 Limitations of the Study**

A major exercise of this sort definitely encountered certain challenges. Below are a few of the limitations of this study.

Apathy on the part of officials of various departments who were contacted such as the head of the Municipal Health directorate, Municipal Planning Officer among others to release the necessary information was a setback. In an effort to minimize the possible impact of this anticipated limitation on the outcome of the study, I made

frequent visits to such institutions and also cross visitations to sister organizations to obtain the needed information.

Also, the problem of coverage was encountered, since the area under study is very broad. In addressing this limitation, scientific methods (sampling procedures) were employed to ensure that the size determined is representative enough for the entire population.

As a student researcher the problem of finance was also encountered. In an attempt to minimize the impact of this challenge on the outcome of the study, frantic efforts were made to secure funds. Resources procured were used to recruit research assistants and also covered stationary bills incurred.

In furtherance, the problem of non-response of some members of the sample population was encountered by the researcher. A replacement of persons for interview was sought in instances that people failed to respond. This ensured that the sample size was covered.

### **1.8 Organization of the Study**

The study is divided into five chapters. Chapter one introduces the study. It covers the background to the study, problem statement, research questions, objectives, scope, justification and limitations of the study. Chapter two focuses on review of relevant literature on accessibility and utilization of health services. It discusses scholarly definitions of key terms in this study, the patronage of modern and traditional medicine, perceptions on the efficacy of traditional and modern medicine. A case study on the successful integration of traditional and modern medicine is reviewed in order to provide a good footing for this study. Above all, the conceptual framework for this study is catered for in this chapter. Chapter three considers a brief profile of the study area and the methodology employed for this study. Location and size of the study area, socio-demographic characteristics of the municipality are considered in chapter three. Research methodology including the design of the study, sampling techniques, sources of data, sample size determination and analysis of data also forms part of chapter three. Data analysis and presentation in line with the objectives of the study constitutes chapter four. Chapter five provides a summary of the research findings and emerging critical issues regarding accessibility and utilization of modern

and traditional health facilities in the municipality. Recommendations and conclusions are made thereafter.

### **1.9 Summary**

The forgone chapter has introduced the study and hence, has laid a formidable foundation upon which the rest of the chapters will be built. It has laid bare the problem of access and utilization of health services in the Bolgatanga municipality in particular and Ghana as a whole. The next chapter seeks to unpack relevant literature that underpins this study.

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## CHAPTER TWO

### CONCEPTUAL AND THEORETICAL ISSUES ON ACCESSIBILITY AND UTILISATION OF HEALTH SERVICES

#### 2.1 Introduction

This chapter seeks to unpack various research works that underpin this study. Basically, various research works related to the study were reviewed. This then provided the context upon which my study was situated. This section also provided the opportunity for the identification of gaps in existing literature. The review of literature better still facilitated the understanding of theory and method.

#### 2.2 Definition of Concepts

To better appreciate and aid the understanding of the study, certain key terminologies that were used in the study was accordingly defined.

##### 2.2.1 Accessibility

The terminology accessibility has been defined in various ways by different authors. Farmer and Lawreson (1998), perceive access to involve the assessment of barriers to care in order to ensure that people obtain the treatment they need it. They further reiterate that barriers such as cost, waiting lists, location of the service or the need to convince a general practitioner of need. Gulliford et al. 2002, in an attempt to define accessibility draws a distinction between “having access” to health care and “gaining access”. They further argue that, the former may result from the availability of services, whereas the latter refers to whether individuals have the resources to overcome financial, organisational and socio-cultural barriers and utilize that service. Access from another perspective refers to improvement in the ability of individuals to obtain required services at the right time and place (Mignone et al. 2007). All these definitions point out key variables that influence accessibility. They include availability, affordability, acceptability, waiting time at user facilities, location of the service. Access has four dimensions: availability, geographic accessibility, affordability and acceptability (O'Donnell, 2007). The study has adapted this definition of accessibility. Results will be analysed based on these variables.

### 2.2.2 Utilisation

Health care utilisation is the use of health care services by people (Awoyemi et al., 2011). It is the objective of policy makers that health facilities are used whenever necessary. The health care utilisation of a population is related to the availability, quality and cost of services, as well as to social-economic structure, and personal characteristics of the users (Chakraborty et al. 2003; Manzooret al.2009; Onah et al. 2009).

Underutilization of health services has been a bane to stakeholders in the health industry. As such, several attempts have been made over the years by successive governments at remedying the situation. The recent establishment of the National Health Insurance Scheme (NHIS) is one of the major attempts at increasing utilization of health services in the country. The expansion of health facilities, increase in enrollment at health training institutions are a few of the various steps taken by governments to make health services accessible to the people. Nonetheless, these steps have not considered equity in the distribution process. This has accounted for the sparse distribution of health facilities across the country. It is the rural dwellers who are often the worst affected in this regard. Certainly, this has a telling effect on accessibility and utilization of health facilities. This study will in this regard try to ascertain whether traditional medicine is sought for as an alternative health care option as a result of this situation.

### 2.2.3 Health

It is the general condition of a person in all aspects. According to the World Health Organisation (WHO), health is the state of complete physical, mental and social well-being of the individual, and not merely the absence of disease or infirmity (WHO, 1948). This implies that overall health is achieved through a combination of physical, mental and social well-being which, together is commonly referred to as the health triangle.

For the purpose of this research work, health is a state of balance, an equilibrium that an individual has established within himself and between himself and his social and physical environment.

#### 2.2.4 Traditional Medicine/Complementary and Alternative Medicine

The existence of traditional medicine is as old as the existence of man. Traditional medicine according to the World Health Organization (WHO) is the sum total of the knowledge, skills, and practices based on the theories, beliefs and experiences indigenous to different cultures, whether explicable or not, used in the maintenance of health as well as in prevention, diagnosis, improvement or treatment of physical and mental illnesses (WHO, 2000). In a similar vein traditional medicine “refers to health practices, approaches, knowledge and beliefs incorporating plant, animal and mineral based medicines, spiritual therapies, manual techniques and exercises, applied singularly or in combination to treat, diagnose and prevent illnesses or maintain well-being” (WHO, 2003). This definition by the WHO is all embracing and hence will be adopted for this study.

Traditional medicine is usually passed on from generation to generation thereby ensuring its preservation. Nonetheless traditional medicine (Herbal Medicine) is now taught in some medical schools.

#### 2.2.5 Community Based Health Planning Services

It is a health care concept adopted by the Ghana Health Service and its developing partners to make primary health care accessible to the people. The operation of CHPS brings health care closer to its clients. It involves community participation in primary health care and family planning Services delivery through Community Health Committees and Community Health volunteers in a health compound. It is supposed to be the first point of call during ill health based on the gate keeper system concept.

#### 2.2.6 Health Centre/Clinic

They are community-based and patient-directed organizations that serve populations with limited access to health. It is a clinic staffed by a group of general practitioners and nurses. Traditionally, the health centres have been “the first point of contact between the health delivery system and the client. It is headed by a Medical Assistant (sometimes a doctor) and staffed with program heads in the areas of midwifery, laboratory services, public health, environmental, and nutrition.

### 2.2.7 Traditional Health Facilities

These are facilities that provide traditional health services to their clients. Most of these facilities are usually informal, unrecognized by the government, and do not interact with the rest of the health system. Majority of traditional health practitioners operate in their homes but permanent structures are been built by some practitioners of late. These facilities render services such as deliveries, malaria, typhoid, arthritis treatment among others.

### 2.2.8 Hospital

They are health care institutions that have an organized medical and other professional staff, and inpatient facilities and deliver medical, nursing and related services 24 hours per day, seven days per week. A hospital could be primary, secondary or teaching. Secondary and tertiary care are classified as purely curative and offers a range of hospital services, depending on the defined status of the institutions. The secondary and tertiary health care level is sub-divided into several different categories depending on their range of service. A teaching hospital, for example, takes both referral cases and serves as a first point of contact. The Regional Hospital, Bolgatanga serves as the regional and municipal hospital.

## 2.3 Ghana's Policy on Traditional Medicine

Various governments over the years have recognized the relevance of traditional medicine in the healthcare delivery system. The emergence of the Ghana Psychic and Traditional Healers Association in 1961 and the establishment of the Centre for Scientific Research into Plant Medicine in 1975 confirm this fact (Ministry of Health, 2005). Aside this, the establishment of a unit responsible for coordination of traditional now known as Traditional and Alternative Medicine Directorate by government in 1991 was immediately followed by the setting up of the Food and Drugs Board in 1992, which among others, is to certify the sale of Traditional Medicine products to the public (Ministry of Health, 2005). In 2000, the government enacted the TMPC Act, Act 575 for the establishment of Traditional Medicine Council which is tasked with the responsibility for the registration of all Traditional Medical Practitioners.

The aforementioned legislative instruments are pointers which go to confirm the commitment of successive governments over the years towards traditional medicine. Although this may seem to be the case when considered on the surface, but what is obvious is that, there was no single document responsible for coordinating the general policy direction of government in the area of traditional medicine. The preparation of the policy guidelines on traditional medicine development in Ghana by the Ministry of Health in 2005 was appropriate in filling this gap.

Basically, this document was prepared with the view of providing a general policy direction or framework within which Government plans on Traditional Medicine would be based.

The policy document focuses on the following areas:

1. Practice of traditional medicine and regulatory legislation.
2. Re-organization and management of traditional medicine associations.
3. Intellectual Property Rights Protection
4. Professionalization of TM/CAM through formal training
5. Research and Product Development
6. Standardization, quality assurance and large scale production.
7. Documentation, information exchange and baseline data collection.
8. Biodiversity conservation and sustainable harvesting.
9. Global Networking and Collaboration
10. Technology transfer and commercialization of best products and practices.
11. Integration of TM/CAM into national health systems and commercialization.

These areas which are focal points of the policy document appear to address the myriad of challenges bedeviling traditional or complementary alternative medicine in Ghana on paper.

However, it is appropriate to note a few things since the emergence of this policy guideline in 2005. Intellectual Property Rights Protection still persists as a challenge to practitioners in the field of traditional medicine. The integration of traditional and orthodox medicines in a collective effort in delivering quality health care also remains a big challenge to stakeholders in the health sector. Another issue worth noting is the fact that, traditional or complementary and alternative medicine for now is not

covered by the National Health Insurance Scheme. This undoubtedly further compounds the issue of accessibility to traditional medicine by card bearers of NHIS.

#### **2.4 The Demand for Traditional and Modern Medicine**

The preference for a given health care delivery system has universally been acknowledged to depend not only on the type of services available, but also on the difference of the socioeconomic status of the people in specific location. That is, whether it is affordable, accessible and acceptable to them. People located in rural areas are more likely to patronize traditional medicine as compared to their counterparts in urban settings. This is due largely to their low economic status and the non-availability or inadequacy of modern health facilities and personnel.

Demand in health services is also influenced greatly by consumer tastes and preferences and the desire to purchase health care. Traditional or Complementary and Alternative Medicine provide a wide range of services to people in the developing world. The perception about traditional and orthodox differs widely between the Western and African and other developing countries. In the Western world, traditional medicine is perceived to be providing an auxiliary role to orthodox medicine. Conversely, traditional medicine has overshadowed orthodox medicine in many developing countries (Abdallah and Prinz, 2009). According to a (WHO, 2003) cited in (Abdallah and Prinz 2009: 14), “in Africa, up to 80 percent of the population uses traditional medicine for primary health care”. This certainly indicates a high patronage of traditional medicine. Probably, this can be attributed to a number of factors such as income levels, educational levels, availability of health facilities, health professionals among others.

In a study on demand for complementary and alternative medicine in Ghana, Kuunibe and Domanba (2012) indicates that, inadequate number of the already ill-equipped health facilities coupled with the limited availability of trained personnel at the facilities could make alternative medical practitioners an important part of the health care system. Certainly, this shows that the quantum of health facilities cum inadequate health professionals will have a telling effect on access to and utilization of health services.

In a study, Atindanbila (2000) found that only two percent of the psychiatric patients in the hospital used hospital drugs solely for the treatment of their disorders. The

remaining patients had visited the traditional healers in addition to the hospital therapies. This implies that though people seek orthodox medicine when taken ill they still consult traditional healers for complementary treatment. This shows the trust people have in traditional medicine.

## **2.5 Perceptions on the Efficacy of Traditional and Modern Medicine**

People carry varied perceptions regarding the efficacy of both traditional and modern medicine.

In a study on public perceptions of the role of traditional medicine in the health care delivery system in Ghana, Gyasi et al. 2011 revealed that TM offered to clients was perceived to be effective. The study indicated further that TM is efficient in the treatment of such conditions as boils, piles, broken bones/fractures, impotency, infertility, sexual weakness and malaria, typhoid fever, mental disorder, hypertension, among others. However, regarding the efficacy and safety of TM, the same study depicted that the use of TM is not safe as compared with the use of OM. Clearly this is as a result of bad sanitary conditions of most traditional medical practitioners.

A study in Ethiopia by Addis et al. (1999) revealed that about 99 percent of the healers believe that traditional medicine has acceptance by their local communities. However, 82 percent of them tended rather to opt for modern care. The main reason behind the preference of traditional to that of modern medicine was that the former is more efficacious than the later, the study added.

Also, traditional medicine is not part of the conventional medicine due to insufficient proof that CAM practices are safe and effective (Barnes et al, 2008). As such, the patronage between urban and rural settings differs widely. Due to insufficient knowledge about the safety and effectiveness of traditional medicine, the rich often shy away from its consumption. The presence of well equipped health facilities in urban centres could also be a contributory factor.

In a WHO report (WHO, 2001) cited in Obomsawin R. (2008), it revealed that, traditional and complementary/alternative medicine has demonstrated efficacy in areas such as mental health, disease prevention, treatment of non communicable diseases, and improvement of the quality of life for persons living with chronic diseases as well as for the ageing population. Although further research, clinical trials,

and evaluations are needed, traditional and complementary/alternative medicine has shown great potential to meet a broad spectrum of health care needs. What is obvious from these perceptions on the efficacy and safety of traditional and modern is that, traditional medicine is viewed to be providing a complementary role in the health delivery process.

## **2.6 Accessibility and Utilisation of Health Services**

In discussing any issues relating to accessibility and utilization of health services, the understated variables are paramount.

**Distance decay:** in most developing nations and for that matter Ghana, distance plays a key role in determining utilization of health services. Buor (2003) found that distance is the most important factor that influences the utilization of health services in the Ahafo-Ano south district of Ghana. (Awoyemi et al, 2011) in a study in rural areas in Nigeria on the effects of distance on utilization revealed that longer travel times and greater distances to health centers in rural areas constituted barriers to repeated visits. In most rural areas in Ghana, people often waste a lot of time getting to the nearest available health care center of which they have to trek long distance on many occasion because they are often faced with the problem of reliable means of transportation. This obviously will affect utilization of health services.

**Time accessibility:** The influence of time on utilisation can be examined in three perspectives, namely travel time, waiting time at the hospital, and waiting time with respect to appointments (Buor, 2004b). According to Dalinjong et al, 2012, about 76 percent of outpatients who are insured perceived the waiting times to be too long at health delivery points. In a predominantly agrarian economy like that of Ghana, seasons may influence time spent in accessing health services during periods of ill health. According to Buor (2004b), during the farming season, it would be expected that the rural farmers would not like to waste much time travelling long distances for health care. This could be a factor that is ignored by researchers in the developed world. This study will attempt to fill this gap.

**Financial accessibility:** financial barriers play a major role in obstructing people from accessing health care. This is particularly characteristic of a developing country like Ghana. Even though there is currently a national health insurance scheme, people still bear certain indirect costs that could affect utilization. According to McPake et al.

(2002), a significant part of the total cost of accessing services falls on the demand side, including indirect costs such as transport, patient food, carer accommodation (which must all be paid by the user) and opportunity costs derived from income foregone by the patient or carer due to care seeking. Most of these indirect mentioned affect utilization in Ghana.

**Social accessibility:** this deals with the situation in which people consult health personnel that they feel comfortable during times of sickness. In a study on potential barriers to the use of health services among ethnic minorities (Scheppers et al. 2006) argued that ethnic minority patients may see providers as a rather alien or distant group of people and foster too much respect for medical personnel. This may, in turn, restrain them from asking important questions about medical instructions, and this form of abstract subordination prevents them from questioning authority as they see it.

## **2.7 National Health Insurance Scheme Factor in Accessibility and Utilisation of Health Services**

Prior to the emergence of health insurance was the existence of the obnoxious cash and carry system of health delivery. As such, NHIS came as a consequence of the deleterious effects of user fees, with the primary goal of increasing affordability and utilisation of drugs and health services in general, among the poor and most vulnerable populations in particular.

The patronage of health services has improved over the years since the inception of NHIS. According to the National Health Insurance Authority (NHIA, 2011) annual report, outpatient utilization of health care services increased over forty-fold from 0.6 million in 2005 through 16.9 million in 2010 to 25.5 million in 2011.

Inpatient utilization also witnessed an upward movement over the period under review. Inpatient utilization increased over thirty-fold from 28,906 in 2005 to 973,524 in 2009 but declined to 724,440 in 2010. This decline could be attributed to the fact that primary healthcare is becoming more efficient; members are seeking early treatment thereby reducing inpatient cases (NHIA, 2011).

Notwithstanding the good picture painted about NHIS and utilization from the previous paragraph, it is worth noting certain key facts about NHIS in its quest to

deliver quality healthcare to Ghanaians. The NHIS is bedeviled with challenges such as delays in claims submission schemes for reimbursement, delays in reimbursement of claims leading to health providers being indebted to suppliers. Unreliable financial arrangements for the scheme and fraud continuous to pose a challenge to management. All these need serious attention for the intended purpose of the scheme to be accomplished.

## **2.8 Case Study: Co-Existence of Modern and Traditional Medicine in Chile**

The practice of integrating western and traditional medicines had gradually become an accepted and ever more widely used approach in health care systems throughout the world. However, debates about intercultural health approaches have raised significant concerns regarding regulation, efficacy, effectiveness, intellectual property rights, lack of cross-cultural research, access and affordability, and protection of sacred indigenous plants and knowledge (Mignone et al, 2007). Several of these issues have in one way or the other shaped the integration efforts of most countries.

This section seeks to analyse practices in healthcare that bridge indigenous medicine and western medicine, where both are considered as complementary. The basic premises are that of mutual respect, equal recognition of knowledge, willingness to interact, and flexibility to change as a result of these interactions. Chile has been selected as a case study for this study due to the fact that, their system is one of the successful ones in the world.

### **The Mapuche Medical System in Chile**

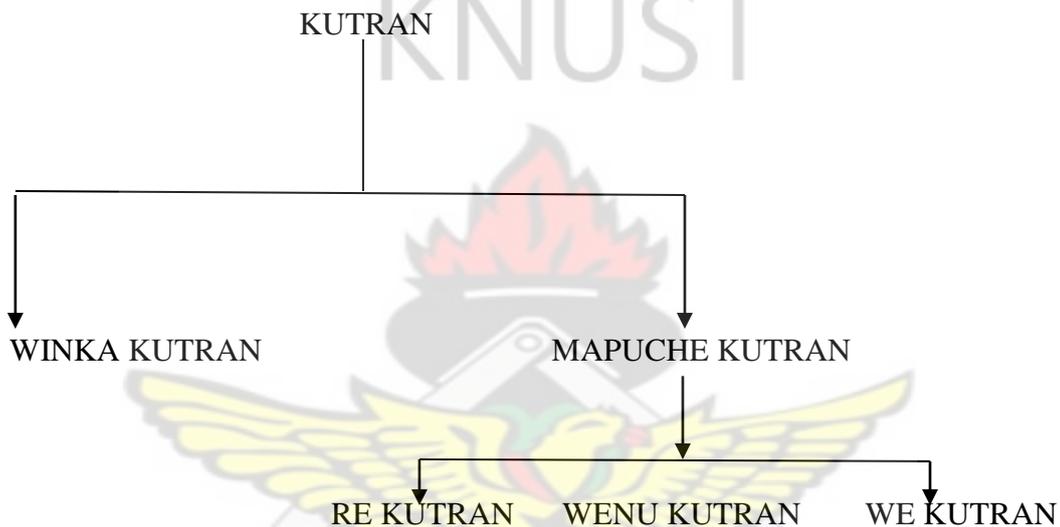
In Chile two main forms of health care are being used by both Chileans and indigenous people, the traditional and western health care system. The traditional health system can be described as a local health system where concepts like holism and integration play an important role, which have always been present in indigenous societies.

According to the *Mapuche* a human life must be in harmony. A disturbance in this harmony or balance causes disease. Diseases are divided in two sectors: *Mapuche* and *Winka* diseases. Citarella et al. 2000 give a detailed explanation of all possible kinds of diseases or *kutrana Mapuche* recognizes. Bearing in mind the perceptions of indigenous Chileans about diseases, the causes of disease are classified into three:

- *Re Kutran*: Diseases caused by nature.
- *Weda Kutran*: Diseases caused by (supernatural) magical influences.
- *Wenu Kutran*: Supernatural diseases caused by spirits.

These classifications informs treatment category to be adopted when a person is taken ill. That is, whether through western or traditional medicine. Refer to figure 2.1 for the classification of Kutran

**Figure 2.1: Classification of kutran**



Source: Citarella et al., 2000

Since *Mapuche* diseases are provoked by phenomena and forces clearly explainable and identified within the *Mapuche* culture, they therefore must be treated in accordance with the *Mapuche* medical system. *Winka* diseases belong to the western world, and should be treated in a western way. According to the cause of the disease, *Mapuche* choose whether a treatment must be done by a *machi* or a doctor. Citarella et al. 2000, state that the majority of the *Mapuche* people consider diseases as *Mapuchekutran*, but if there are biological symptoms (such as viruses or bacterial infections), people decide to go to a doctor, since these kinds of diseases are classified as being a *winka* disease.

The integration programme in Chile focuses basically on building a system where the power of traditional medicine embodied in the *Machi*(traditional healer) is offered as an equal and complementary alternative to western medicine. This vision is strongly

embedded in a context of self-determination, as the recovery of traditional medicine is directly linked to social, political, and economic development in the *Mapuche* communities in Chile.

The first initiative in this regard was undertaken in 1998. It was the development of the *Makewe* Hospital intercultural program, owned and operated by an association of *Mapuche* leaders. This association is accountable to a council of *Mapuche* community president from communities in the surrounding *Makewe* region. The *Makewe* Hospital provides a range of western health services under the direction of a western-trained *Mapuche* medical director. These include full-time physician services that are supported by nurses and nurse auxiliaries, midwives, visiting specialists, a dental clinic, and a social work department. An intercultural health worker is on staff and patients are seen by a *Mapuche* staff member and a western physician to ensure that if the patient has health needs that can only be met by traditional medicine, they are referred appropriately.

The second intercultural initiative was the development of a health centre in the community of *Boroa*, which was spearheaded by 25 *Mapuche* communities that did not have easy access to physicians and traditional services at the *Makewe* Hospital. The *Boroa-Filulawen* Health Care Centre has a *Machi* who attends the clinic one day per week but then treats patients at her home. Patients pay directly for her services similar to the system described above for the *Makewe* Hospital, although the health centre subsidizes the *Machi* with a small direct payment. Patients who have been diagnosed by either a western physician or a *Machi* have the choice of selecting herbal medicine instead of western medications, or as a complement to the latter. A third component of the intercultural initiative are a traditional clinic and a pharmacy in *Temuco* directed by the *Makewe* Hospital Association.

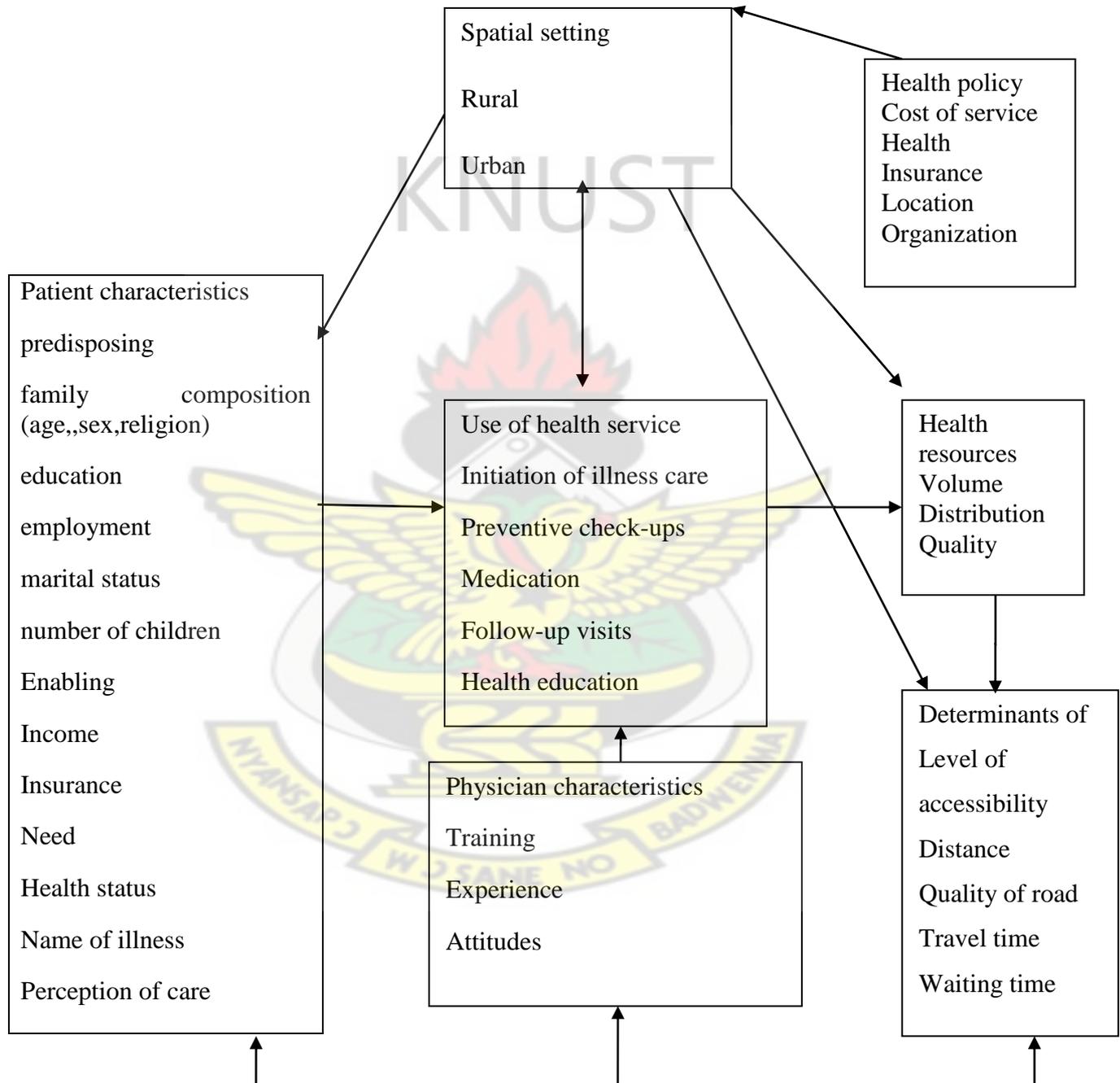
Conclusively, there are few reflections that can be made by Ghana in her quest to mainstream traditional medicine. First, the political organization of *Mapuche* communities offered enormous support in strengthening their position and has enabled them to improve access to both western and traditional medicine. Second, a department or unit within the Chilean Ministry of Health responsible for traditional medicine is worth emulating. Though this administrative structure exists within the ministry of Health, it should be decentralized to the regional and district sub-

structures. This will ensure close monitoring of activities of traditional medicine. Third, the health delivery system portrays that of demand driven. Better still the bottom up approach to planning is adopted. The development of the *Mapuche* medical system is a typical one emanating from the indigenous people. Fourth, economic sustainability is guaranteed from the analysis of Chilean intercultural effort. The role of traditional healers is perceived as a ‘calling’ rather than a profession or job. This could be a contributory factor in the sustainability of traditional medicine. In fact this continuous to make them viable and inexpensive sources of healing services. Lastly, the funding arrangements in the Chilean medical system though not quite encouraging, Ghana as a developing country can still pick up some lessons. Reviewing the *Mapuche* medical system indicates that, Non-governmental organizations serve as sources of funds. Also, local mobilization of resources and finally surpluses accruing from prudent financial management in the orthodox medical system are re-allocated to the traditional medicine are issues that could be thoughtful. All in all, the integration system in Chile may not be without challenges, what is undisputable is that, the issues pointed out above could serve as good lessons in the country’s effort to integrate modern and traditional medicine.



## 2.9 Conceptual Framework

The conceptual framework adopted for this study is that of the hypothetical model developed by Buor, (2004). It is a theoretical explanation of the various factors that influence accessibility and utilisation of modern and traditional medicines. Figure 2.2 depicts the conceptual framework adopted for this study.



**Figure 2.2: A hypothetical model for the study of access and utilization of health services**

Source: Adopted from Buor, 2004

The model displayed on Figure 2.2 has use of health services at the core. It is usually the objective of policy makers that health facilities are put to use when there is the need. Beside, service in this regard also connotes education of the public by health personnel which could facilitate in realizing the prime aim of primary health care.

It is characteristic of developing countries to find an uneven distribution of health facilities between rural and urban areas. Most social amenities in general and health facilities in particular are often skewed towards urban setting to the detriment of rural areas.

The quality of health service provided to patients is significantly determined by physician characteristics of training and experience. The attitude of health staff developing nations particularly nurses influence the utilization of health services.

Three major patient characteristics are key factors in the use of health services. They include the following:

**Predisposing factors:** an individual is more or less likely to use health services based on demographics, position within the social structure, and beliefs of health services benefits. An individual who believes health services are useful for treatment will likely utilize those services.

**Enabling factors:** this factor embraces resources found within the family and the community. Family resources comprise economic status and the location of residence. Community resources on the other hand incorporate access to health care facilities and the availability of persons for assistance.

**Need factors:** this category includes the perception of need for health services, whether individual, social, or clinically evaluated perceptions of need.

Levels of physical accessibility such as waiting time at user centres, travel time, poor nature of roads of developing countries and distance are all determining factors in the use of health services.

Policies on health are equally important issues that are worth noting. It is usually policy makers that determine the cost and distribution of health facilities, initiate good health policies.

Influencing health care use, and showing a relationship with it are the spatial setting, health policy, health resources, and levels of physical accessibility, physician characteristics, patient characteristics, and health outcomes. Indeed, health outcomes could have the potential of influencing utilisation. One is more encouraged to use health services if their efficacy in ensuring good health is guaranteed.

## **2.10 Summary**

This chapter has analysed various literature on accessibility and utilization of health services. It is evident from the review that utilization of healthcare services is an important determinant of health and has particular relevance as a public health and development issue in low income countries like Ghana. Universal access is a core strategy for achieving increased healthcare utilization and reducing the disparities therein.

The review also revealed that traditional medicine plays a major role in complementing orthodox medicine in the treatment of various diseases. Though mixed views exist with respect to the potency or otherwise of both medical systems, it has been established that their peaceful co-existence cannot be overemphasized.

Due to traditional medicine's intrinsic qualities, unique and holistic approaches as well as its accessibility and affordability, it continues to be the best alternative care available for the majority of the global population, particularly for those in the rural areas of developing countries. Experience from many countries such as those in South East Asia suggest that integration of traditional and modern health care systems can solve much of the problems by providing basic health care services for the people in developing countries like Ghana particularly the underserved majority. In these countries, both systems are equally developed and supplement each other in the endeavor of achieving optimal health care coverage.

The next chapter seeks to discuss the methodology to be adopted for this study. In order to appreciate the issues better about the study area, a profile of the Municipality will also be part of the next chapter.

## CHAPTER THREE

### PROFILE OF THE STUDY AREA AND RESEARCH METHODOLOGY

#### 3.1 Introduction

This chapter precedes the relevant literature reviewed on accessibility and utilization of health services. It captured the profile of Bolgatanga municipality. It also provided a description of the methods employed in the study. It comprises all the procedures and processes in the collection of data and their analysis.

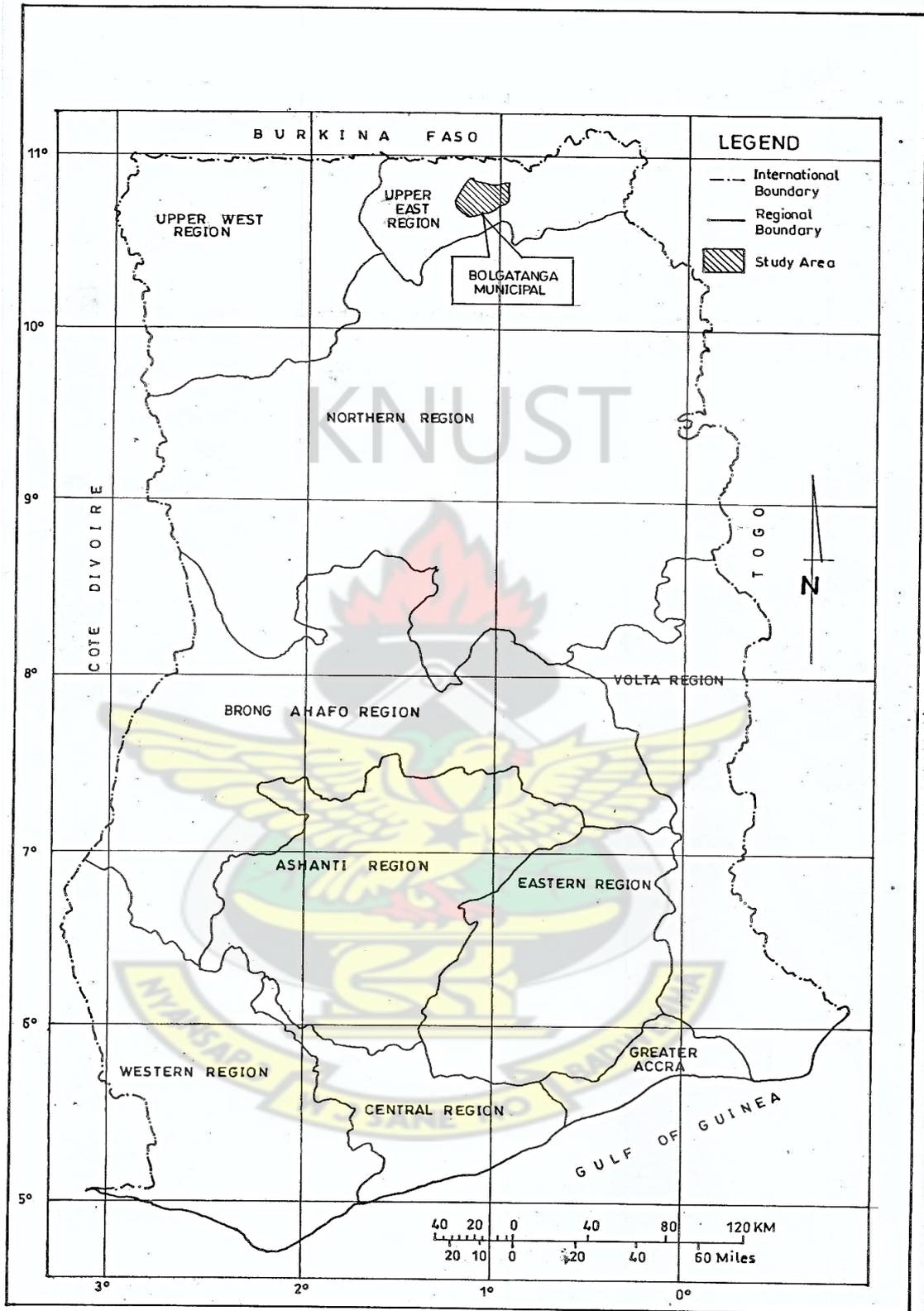
#### 3.2 Profile of Bolgatanga Municipality

##### 3.2.1 Location and Size

Bolgatanga Municipality is located in the center of the Upper East Region, and is also the regional capital. It has a total land area of 729 sq km and is bordered to the North by the Bongo District, South and East by Talensi-Nabdam District and Kassena-Nankana District to the West. It was established by LI 1797 (2004).

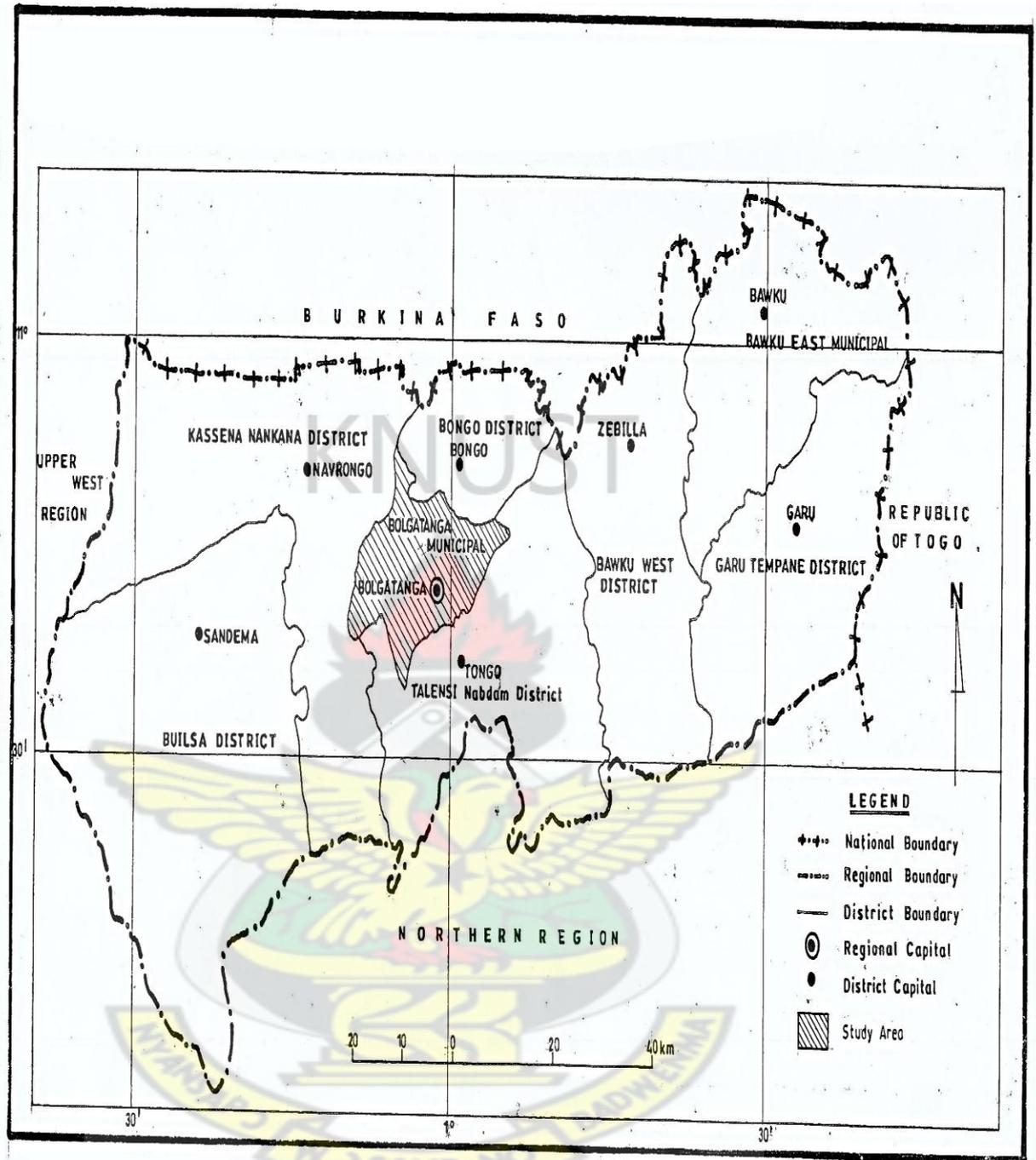
##### 3.2.2 Spatial analysis

Bolgatanga Township covers a radius of about three kilometres, and consists of suburbs such as Daporetidongo, Tanzui, Atulbabisi, Bolga-Soe, Zaare. Others include Yikene, Dulugu, Kumbosco, and Tindonmoligo which are all peri-urban in nature. Bolgatanga is the biggest settlement. The Municipal Assembly Area has about 182 towns and villages, and the settlement pattern is predominantly rural (about 95 percent) with dispersed buildings, which render service location extremely difficult.



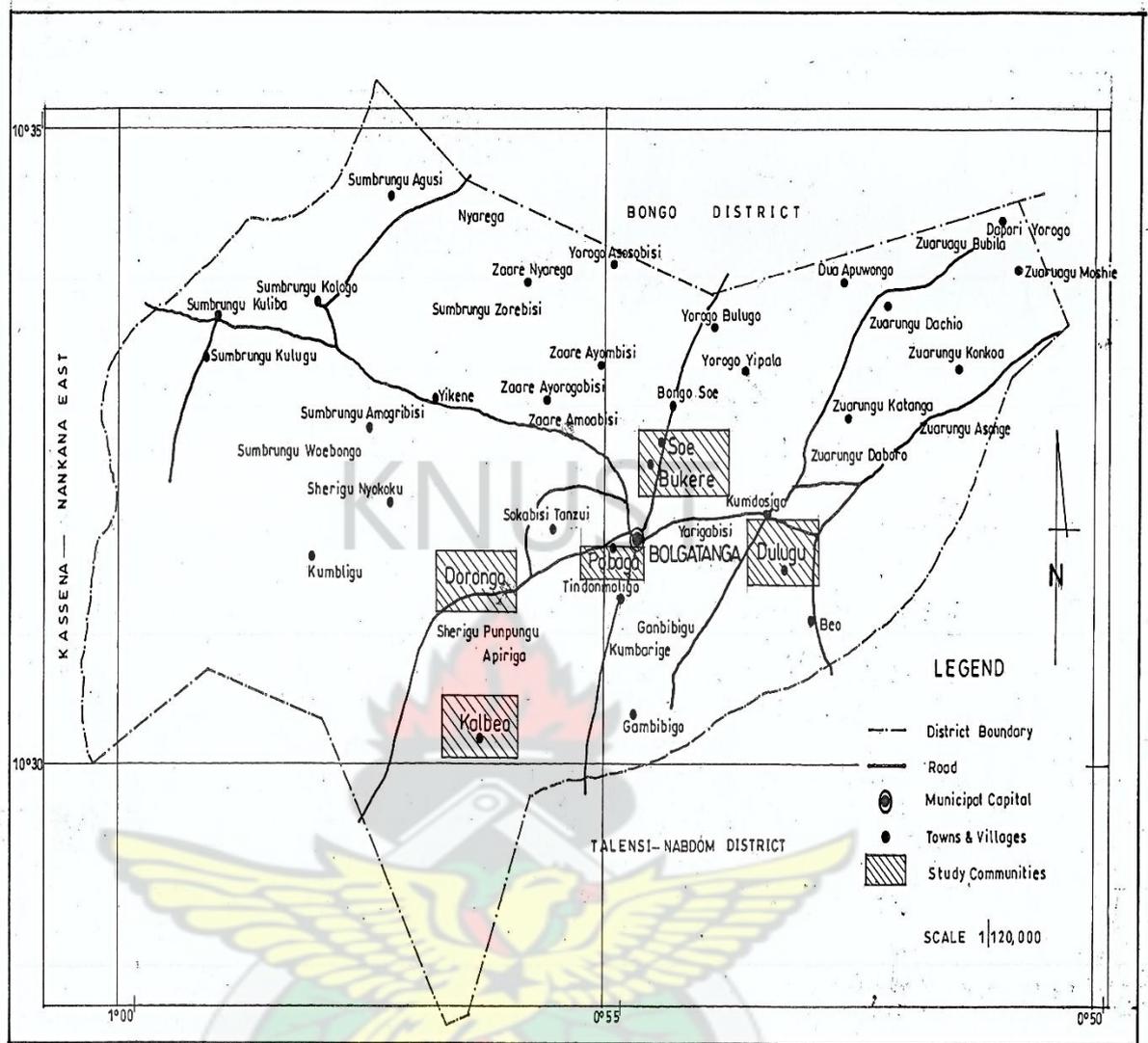
**Figure 3.1 Study area in National Context**

Source: Bolgatanga Municipal Assembly, 2012



**Figure 3.2 The Bolgatanga Municipal Assembly Area in Regional Context**

Source: Bolgatanga Municipal Assembly, 2012



**Figure 3.3 The study Communities within the Municipality Context**

Source: Bolgatanga Municipal Assembly, 2012

### 3.3 Population size

According to the GSS (2012), the population of Bolgatanga municipality is 131,550. Of this figure, females constitute 68,767 representing 52 percent against 62,783 representing 48 percent for males. This certainly reflects the female population dominance in the country. However, the population of the Municipality as indicated by the 2000 Population and Housing Census was 122,464 with a growth rate of 1.1 percent. A projection of the growth of the population indicates that the population would have been 136,622 in 2010. The study used the projected figure for 2010 because the 2010 census figures for the various communities making Bolgatanga municipality are not yet released by the statistical service. Hence, the population

figures of the sampled communities for the study were equally projected to ensure consistency and accuracy.

### **3.4 Occupational Distribution**

The people are mainly peasant farmers with few farming vegetables like tomatoes in commercial quantities during the tomato farming season. A handful of women also deal in basketry and this accounts for as much as 57 percent of the labour force, trade and commerce 19 percent, manufacturing (mainly handicrafts) 11.92 percent, community/social services 7.4 percent and others like mining, construction, utility service. (Bolgatanga Municipal Assembly, 2012)

### **3.5 Health Services**

Health services provided in the Municipality are both curative and preventive. The services provided are mainly orthodox and traditional. For the purpose of health delivery the Municipality has been divided into nine sub-municipalities namely: Bolga Central, Bolga North, Bolga South, Gambibgo, Sherigu, Sumbrungu, Zuarungu, Zuarungu-Moshie and Plaza.

There are 29 modern health facilities in the municipality actively delivering health services (Refer to Table 3.1 for the type and number of facilities in the municipality). It is important to note that the Bolgatanga municipality renders herbal medicine alongside the orthodox medical services. The Bolgatanga Regional Hospital, Amiah Hospital and the Afrikids Medical Centre are the only well-equipped facilities. The rest that are in most of the deprived parts of the municipality are poorly equipped. Three of the facilities; Afrikids Medical Centre, Amiah Hospital and Asankunde Memorial Clinic are NGO and private health institutions respectively whilst the Police Clinic is a quasi-institution.

Aside these, there are five private traditional health facilities in the municipality contributing to the delivery of quality health services. Also, there are several traditional practitioners dotted around the nook and cranny of the municipality. Most of these practitioners operate from their homes (Bolgatanga Municipal Health Administration, 2012). The type and number of health facilities in the municipality is presented in table 3.1

Table 3.1: Types of health facilities in Bolgatanga municipality

Hospital	Health Centres/Clinics	CHPS compounds	Traditional health facilities
Regional Hospital (both scientific and herbal services) Amiah Hospital Afrikids Medical Centre	Bolga H/C Coronation H/C Sumbrungu H/C Sherigu H/C Sokabisi H/C Zuarungu H/C Gambibgo Clinic Zuarungu-Moshie Clinic Nyariga Clinic Asankunde Clinic Police Clinic Presby Eye Clinic	Kalbeo Aguusi Anateem Nyokorko Dachio Madina Yarigabisi Katanga Kumbosco Yorogo Kunkua Dorongo Yikene Yipala	Unique Naturalist Care St. Francis Herbal Clinic Dr. Kaya Herbal Clinic Amen Scientific Herbal Clinic NIDA Homeopathic Clinic

Source: Bolgatanga Municipal Health Administration, 2012

#### Disease Situation

Life expectancy in the municipality is only 50 years; compared to the national figure of 55 years. The high level of illiteracy and poverty as well as the limited access to safe drinking water and the existence of poor sanitation and unhygienic practices have exposed many people to health hazards which contribute to the lowering of the living standards of the people (Bolgatanga Municipal Health Administration, 2012).

The prevalence of diseases like malaria, diarrhea, anemia, acute respiratory infections and gynecological disorders as well as the outbreak of epidemics such as cholera, anthrax and cerebro-spinal meningitis can be traced to the above factors. Other conditions such as malnutrition and micro nutrient deficiency (mostly among children) are also prevalent in the municipality (Bolgatanga Municipal Health Administration, 2012).

Malaria and anemia continue to be a disease of major public health concern. It is the number one cause of morbidity. In 2009 total malaria cases at OPD attendance was 150199. A total of 92,803 malaria cases were recorded during the year 2008. Under-5

Malaria admissions in that year was 968 in 2008, 102 deaths occurred due to malaria, 35 of which occurred in children less than five years of age. In 2013, 338,137 malaria cases were recorded which accounted for 39 percent of OPD attendance (Bolgatanga Municipal Health Administration, 2013).

#### HIV/AIDS

With regard to the HIV/AIDS menace, the municipality is as vulnerable as any other in the country. In 1999, recorded HIV positive cases stood at 120 from a figure of 22 in 1997 – an increase of about 545.5 percent. As at December 2000, the number of reported cases stood at 85. In 2003 the prevalence rate was reported to be 3 percent and it increased to 3.8 percent in 2004 and then dropped to 3 percent in 2012 (Bolgatanga Municipal Health Administration, 2012).

The annual HIV sentinel surveillance system is the main tool for monitoring the trend and the state of the epidemic at any given time. The trend for the past four years (2004-2012) has been inconsistent. The prevalent rate for 2012 is three percent. The main contributory factor which brings about the spread of the virus in the municipality is the high prevalence of poverty that compels people especially females into behavioral patterns that unduly expose them to infection (Bolgatanga Municipal Health Administration, 2012).

Due to the long dry season when traditional farming is at a low ebb a very high proportion of the youth moves out of the municipality to the southern part of the country in search of jobs. These migrants who normally end up in the big towns are drawn into unsafe behavioral patterns and as a result, become carriers of HIV/AIDS virus. In addition to the financial factor, one significant factor that mitigates against current programmes aimed at educating people on the causes of HIV/AIDS is the equating of AIDS to a disease known as “Bayapelugu” believed to be caused by supernatural factors.

#### Tuberculosis

Tuberculosis remains a disease of serious public health concern in the municipality and in Ghana as a whole. The Municipality engaged in TB control activities at facility and community levels with the DOT strategy. Case detection rate is still very low; just a little above 50 percent of the target set for the municipality (Bolgatanga Municipal

Health Administration, 2012). This low case detection rate can be attributed to the passive case detection and the few diagnostic sites in the municipality. Within the year 2013, there was an increase in all the indicators of the TB control programme. Case detection rate of 170.8 percent was achieved compared to 76.2 percent in 2012. The target for the year has been surpassed (Bolgatanga Municipal Administration, 2012).

### Family Planning

A target of 40 percent was set for Family planning services in the Bolgatanga Municipality. This was however not achieved. The coverage rather dwindled over the three year period from 49 percent in 2006 to 25 percent in 2008. Part of the reason for this low performance is the fact that Rural Health Integrated, a private organization which used to offer family planning services in rural areas ended their services in 2006 and this seriously affected the coverage in 2007 and 2008. Attempts were made to improve the coverage in 2008 through sensitization durbars on maternal care generally with emphasis on family planning and safe abortion. This however could not even help maintain the coverage. A lot more needs to be done to improve the coverage in subsequent years. However in 2009 the family planning acceptance rate further reduced to 20.7 percent, implying that in spite of a lot of sensitization durbars being carried out all did not go down well with the populace, hence the drastic reduction (Bolgatanga Municipal Health Administration, 2012).

### Maternal Deaths

Institutional maternal deaths recorded for the year under review has been on the upward trend unfortunately, in spite of interventions put in place for improvement. Eleven institutional maternal deaths were recorded within the year 2013 as compared to ten in the previous year. All the deaths were audited and causes of death recorded. The causes of maternal deaths in the Municipality include hemorrhage, unsafe abortion, anesthesia reaction and hypertensive disease (Bolgatanga Municipal Health Administration, 2012).

## Staffing

Similar to the problem of inadequate equipment in rural health facilities the distribution of medical staff is equally considered unfavorable in these areas. Apart from the two private hospitals and the regional hospital, all other health facilities are manned by medical assistants and nurses. The Doctor Patient ratio in the Municipality as at 2012 was 1:26,310 while the Nurse Patient ratio was 1:734. This falls short of the standard United Nations doctor Patient ratio of 1:5,000 (Bolgatanga Municipal Health Administration, 2012).

## Transport

The municipality depends solely on road transport to link up with the other parts of the country. Bolgatanga town, the capital of the Upper East Region is about 820kms from Accra, 540kms and 160km from Kumasi and Tamale respectively (see Figure 3.1). Bolgatanga is the pivot of road transportation in the Upper East Region with all the three major roads to the other districts radiating from it. Most of the roads linking the various communities to the Bolgatanga municipality are feeder roads. One major problem of this sector is erosion during the rainy season. This of course renders them immotorable. Bad condition of roads implies that in times of emergency, transporting people to the regional hospital and other facilities becomes a problem.

The main means of transport is motorbike with the affluent in society using personal cars. In times of ill health in the peripheral areas, motorbikes are usually used to convey patients to the hospital or health centres. It is only the regional hospital that renders ambulance services. There also exist the national ambulance services for those who can afford.

## Educational Institutions

There are about 183 educational institutions in the municipality ranging from pre-schools to a polytechnic. In addition to these educational institutions under the GES, there are three Health training institutions for the training of Diploma nurses, diploma and certificate midwives and Health Assistants (Clinical), Bolgatanga Municipal Health Administration, 2012).

## Sanitation

One of the most important challenges facing the Municipality is the disposal of solid and liquid waste. Most houses do not have bathhouse drains and where they exist there are no feeder drains to link them to major drains. This results in stagnation of wastewater from houses, which does not only breed mosquitoes but is also an eyesore in most areas. About 15 percent of the total waste generated is collected for disposal. There are about 40 refuse sites in the town and only 22 refuse containers are provided with two skip loaders. This results in high dumps serving as breeding grounds for rodents. This certainly has a direct link with the health of the people as the poor environmental situation could promote the spread of malaria, cholera among others (Bolgatanga Municipal Assembly, 2012).

### **3.6 Research Methodology**

#### 3.6.1 Research Approach

The objective of the study is to investigate the levels of accessibility and utilization of modern and traditional medicine in the Bolgatanga municipality. To achieve this objective, the study employed cross-sectional retrospective survey among representative rural and urban communities in the municipality. The study employed this type of design because it is best suited to studies aimed at finding out the prevalence of a phenomenon, situation, problem, attitude, or issue by taking a cross-section of the population. Cross-sectional surveys are useful in obtaining the overall 'picture' as it stands at the time of the study.

#### 3.6.2 Sources of Data

Both primary and secondary sources of data were employed in order to meet the objectives of the study. They are explained below;

Primary data: this constituted first hand information relating to the subject matter of this study. Both qualitative and quantitative data were obtained using mainly a questionnaire. Questionnaires were administered to sampled respondents in the selected communities, modern health professionals and traditional medical practitioners. Data generated was on the socio-demographic characteristics of respondents, the level of patronage of modern and traditional health facilities in the Municipality, factors responsible for the decision to use traditional medicine in the

municipality rather than modern medicine, perceptions on efficacy of modern and traditional Medicine, prospects and challenges of integrating traditional and modern medicine.

Secondary data: Books, journals, research reports, and other available relevant materials were consulted for the secondary data collection. Ministry of Health reports, Bolgatanga municipal health administration annual reports, among others were also reviewed.

### 3.6.3 Sample Size Determination

The sample size was determined based on the formula developed by Miller and Brewer (2003),  $n = \frac{N}{1 + N(e)^2}$ ; Where n= sample size; N= sample frame (Total number of Household Heads) and e= error margin.

N= 26,706 (GSS 2012), e=0.08 level of significance (at 92 percent confidence interval) Therefore  $n = \frac{26,706}{(26,706+1)(0.08)^2} = 156$

This sample size was proportionally allocated to the communities within the urban and rural localities and household heads from these were picked randomly and interviewed.

### 3.6.4 Sampling Techniques

Sampling is the process of selecting a few (a sample) from a bigger group (the sampling population) to become the basis for estimating or predicting the prevalence of an unknown piece of information, situation or outcome regarding the bigger group (Kumar, 2005).

#### Selection of communities

Bolgatanga Municipality is made up of 182 communities. Given this figure, there was the need to select representative communities which formed the basis for conclusions to be drawn for the entire Municipality. Below are the sampling techniques employed for this study.

**Stratified Sampling:** this technique was used to demarcate the municipality into two localities. That is urban and rural. The reference point for this classification was the population size and or household size. Localities with 5,000 or more persons were classified as urban while localities with less than 5,000 persons were classified as

rural. This technique was appropriate considering the wide differentials in the distribution of health facilities between rural and urban settings.

**Simple Random Sampling:** this method was used to select communities within each of the two localities for the study. The fishbowl draw was employed in the selection process. The names of all the communities in each locality were written on a piece of paper. The papers were afterwards folded and placed in a box. The pieces of folded papers were then mixed together and research assistants trained to help in gathering the data picked the folded papers at random from the box one by one. The communities sampled for the study included Bolga-Soe, Bukere and Pobaga/Estates for the urban locality while Dorongo, Dulugu and Kalbeo represented the rural locality.

**Snowballing:** this sampling technique was employed for the selection of Traditional Medical Practitioners (TMPs) not known to the research. Some of the TMPs located within the communities particularly the periphery could not be easily identified. As such, this technique was employed to identify these practitioners.

**Purposive Sampling:** this technique was employed for the selection of the study area for reasons of the presence of traditional medical practice. Also, health professionals such as doctors (1), Head of the Municipal Health Management Team (1), nurses (20) and traditional health practitioners (22) were purposively selected to illicit information regarding the prospects and challenges of integrating traditional and modern medical systems. These professionals constituted all those in private and public health facilities.

### 3.6.5 Data Presentation and Analysis

To provide a detailed explanation to the research work, quantitative and qualitative methods was used in the data analysis. Quantitatively, the analysis was undertaken using the Statistical Package for the Social Sciences (SPSS 16.0) which is a software programme for data analysis. Analysed data was presented in the form of frequency tables, graphs and pie charts. The qualitative data were analysed through pattern matching of the responses from the household heads and medical practitioners.

### 3.7 Summary

This chapter has placed the study area into perspective. It has indicated the number and distribution of health facilities in the municipality. It has analyzed how road connectivity affects accessibility and utilization of health services in the municipality. This chapter also discussed the approach to be employed for the study. That is, how the sample size was determined and the data gathering instruments. Having outlined the tools for the investigation and analyses of the data, the next activity is the data collection and analysis. Hence the next chapter presented the data collected and subsequently the analysis.

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## CHAPTER FOUR

### DATA ANALYSIS AND DISCUSSIONS

#### 4.1 Introduction

The previous chapter has placed the Bolgatanga Municipality into perspective. It has also brought to bear the tools employed for the study. This section discusses the statuses of household heads (HHs), traditional and modern medical practitioners interviewed. Particular emphasis or premium is placed on the socio-demographic characteristics, level of patronage of modern and traditional medicine, perceptions on the efficacy of modern and traditional medicine and the prospects and challenges of integrating both health care systems. The analysis is broadly in two parts. First, data on household heads were presented and analyzed. Those of traditional and modern medical practitioners were taken care of in the last phase.

#### 4.2 Socio-demographic Characteristics of Household Heads

Socio-demographics constitute predisposing factors according to Buor's hypothetical model of accessibility and utilisation. As the need for health care changes with age, gender, and marital status, utilization of health services also conforms accordingly. Studies in general found U-shaped relationship between age of patients and utilization of health care services.

##### 4.2.1 Gender distribution of household heads

Table 4.1 shows the gender distribution of HHs. It shows that more males than females were interviewed. Within the rural and urban dichotomy, the survey shows that 63.6 percent and 80 percent of males for rural and urban settings respectively were interviewed. The results further indicated that for rural suburb, females constituted 36.4 percent whilst 20 percent were females in the urban setting. In totality, about 73.1 percent represented male while 26.9 percent represented female of HHs interviewed. Clearly the male dominance in both the rural and urban settings in terms of heads of households was eminent from the research. This could be attributed to the fact that household heads are predominantly male in the Ghanaian context. This is not peculiar to the study communities since the Ghana Statistical Service (2008) had earlier indicated that about 70.5 per cent of all households in Ghana are headed by males. Gender or sex is one of the predisposing factors captured

by the conceptual framework adopted for this study. Women are particularly vulnerable and hence more likely to utilize health service as compared to their male counterparts.

**Table 4.1 Gender compositions of household heads**

Suburb		Sex		Total
		Male	Female	
Rural	Frequency	42	24	66
	Percent	63.6	36.4	100.0
Urban	Frequency	72	18	90
	Percent	80.0	20.0	100.04
Total	Frequency	114	42	156
	Percent	73.1	26.9	100.0

Source: Field Survey, November 2013

#### 4.2.2 Age Composition of Household Heads

Five age groups were used for the analysis. Table 4.2 demonstrates that majority of the HHs were within the age range of 40-49 in the urban (53.3 percent) as compared to 19.7 percent in the rural area. For the age category 20-29, 25.8 percent constituted rural HHs whilst that of the urban centre constituted 11.1 percent. With respect to HHs within the age bracket of 30-39, 31.8 percent represented household heads in the rural communities as compared to 23.3 percent for the urban areas. The results further demonstrate that, for the HHs within 50-59, 16.7 of them represented the rural locality as against 3.3 percent for the urban locality. Ironically, farmers within this age bracket are still in active service. It is also worth noting that with the exception of those within the retirement age, the rest of the HHs are within the working force age group. Studies in general found U-shaped relationship between age of patients and utilization of health care services. Children and the aged are usually susceptible and as such likely to utilize health service. Of course, age is also a predisposing factor according to the accessibility and utilisation model adopted for this study.

**Table 4.2 Age composition of household heads**

Suburb		Age			Total		
		20-29	30-39	40-49	50-59	60+	
Rural	Frequency	17	21	13	11	4	66
	Percent	25.8	31.8	19.7	16.7	6.1	100.0
Urban	Frequency	10	21	48	3	8	90
	Percent	11.1	23.3	53.3	3.3	8.9	100.0
Total	Frequency	27	42	61	14	12	156
	Percent	17.3	26.9	39.1	9.0	7.7	100.0

Source: Field Survey, November 2013

#### 4.2.3 Marital Status of Household Heads

Marital status is one of the predisposing factors. Table 4.3 depicts the marital status of HHs interviewed. About 57.1 percent of HHs are married as compared to 37.2 percent singles. It shows that 72.7 percent of married HHs constituted those from the rural areas against 45.6 percent from the urban areas. Couples could support themselves economically and socially during ill health. About 16.7 percent of HHs who are single were from the rural centre and that of the urban centre constituted 52.2 percent represented. The results further revealed that 4.5 percent and 2.2 percent of HHs represented divorced in the rural and urban areas respectively. About 6.1 percent widows were interviewed. These groups unlike their married counterparts have to shoulder the cost of health care and social challenges alone as they are without partners. This clearly implies that, their ability to access health services might be affected as the financial burden and social challenges are taken care off alone by themselves.

**Table 4.3 Marital statuses of household heads**

Suburb		Marital status				Total
		Married	Single	Divorced	Widowed	
Rural	Frequency	48	11	3	4	66
	Percent	72.7	16.7	4.5	6.1	100.0
Urban	Frequency	41	47	2	0	90
	Percent	45.6	52.2	2.2	.0	100.0
Total	Frequency	89	58	5	4	156
	Percent	57.1	37.2	3.2	2.6	100.0

Source: Field Survey, November 2013

#### 4.2.4 Religious Status of Household Heads

Religion plays a major role in the choice of a particular health system. Table 4.4 indicates the religious affiliations of household heads. It demonstrates that 59 percent of the household heads (HHs) are Christians as against 26.9 percent and 14.1 who practice traditional and Islam respectively. In the rural centre, 23.7 percent, 4.5 percent and 14.1 percent of HHs represented Christian, Islam and Traditional religions respectively. About 35.3 percent of HHs in the urban areas are Christians as compared to 9.6 percent Muslims and 12.8 Traditionalist. This is consistent with the national data which revealed that majority (71.2 percent) of the population professes the Christian faith, followed by Islam (17.6 percent), GSS (2012). Some Christians are not comfortable using traditional medicine as some practitioners requires a fowl to be sacrificed as a form of ritual before treatment commences. They say it is against their religious beliefs. However, Muslims and traditionalists were comfortable consuming traditional medicine regardless of the requirements in purchasing such medicines. Certainly, this shows that religion plays a role in the choice of consumption of one form of medical service or the other.

**Table 4.4 Religious affiliation of household heads**

Suburb		Religious affiliation			Total
		Christian	Muslim	Traditionalist	
Rural	Frequency	37	7	22	66
	Percent	23.7	4.5	14.1	42.3
Urban	Frequency	55	15	20	90
	Percent	35.3	9.6	12.8	57.7
Total	Frequency	92	22	42	156
	Percent	59.0	14.1	26.9	100.0

Source: Field Survey, November 2013

#### 4.2.5 Educational status of household heads and preference of health care

The educational status of household heads helps to ascertain whether or not the choice of a particular health care system is influenced by their level of education. The results revealed that in the rural areas, 45.5 percent, 34.8 percent and 19.7 percent of HHs preferred modern, traditional and both medical care systems respectively. Among the levels of education of HHs, those who have had no formal education constituted 68.2 percent. Of this figure, 30.3 percent HHs patronized MM as against 24.2 percent and 13.6 percent that preferred TM and both health systems respectively. About 16.7 percent HHs attained basic education with the preferred health system as 6.1 percent for MM, 7.6 percent for TM and nine percent for both systems. With regards to HHs that attained secondary education, 1.5 percent each patronized MM, TM and both medical services. About 7.6 percent had Vocational/Technical education with their preferred health care as 4.5 percent for MM, 1.5 percent each for TM and both traditional and modern medicine.

In the urban locality on the other hand, the study uncovered that, 72.2 percent preferred MM as compared to 15.6 percent for TM and 12.2 percent patronized both systems. This clearly shows the dominance of MM across the various age groups within the urban and rural settings. About 42.2 percent HHs had no formal education distributed as 34.4 percent for MM higher than that of the rural areas (30.3 percent), 5.6 percent for TM lower than that of the rural locality (24.2 percent) and 2.2 percent for both lower than the rural areas (13.6 percent). Those with basic education were 20 percent as against 14.4 percent each for secondary education and Vocational/Technical education. Those who have had University education were 8.9 percent.

The field study revealed that people with different educational backgrounds have different mindsets concerning the use of traditional medicine. Many of those who have had tertiary education or higher believed in the potential of traditional medicine in curing diseases, but were not so much into its use due to factors such as poor packaging, unhygienic ways of preparation (safety). These, they think render its use ineffective or inappropriate. Those with no formal education in the rural centre patronized TM than MM. However, in the urban centre, HHs patronized MM than TM (see Table 4.5). This indicates that the level of education influences the type of health service to be consumed.

**Table 4.5 Educational status of household heads and preference of health care**

Suburb				Form of medicine			Total
				Modern medicine	Traditional medicine	Both	
Rural	Educational status	No formal education	Frequency	20	16	9	45
			Percent	30.3	24.2	13.6	68.2
	Basic education	Frequency	4	5	2	11	
		Percent	6.1	7.6	3.0	16.7	
	Secondary education	Frequency	1	1	1	3	
		Percent	1.5	1.5	1.5	4.5	
	Vocational/Technical	Frequency	3	1	1	5	
		Percent	4.5	1.5	1.5	7.6	
	University	Frequency	2	0	0	2	
		Percent	3.0	.0	.0	3.0	
Total			Frequency	30	23	13	66
			Percent	45.5	34.8	19.7	100.0
Urban	Educational status	No formal education	Frequency	31	5	2	38
			Percent	34.4	5.6	2.2	42.2
	Basic education	Frequency	13	0	5	18	
		Percent	14.4	.0	5.6	20.0	
	Secondary education	Frequency	7	4	2	13	
		Percent	7.8	4.4	2.2	14.4	
	Vocational/Technical	Frequency	9	4	0	13	
		Percent	10.0	4.4	.0	14.4	
	University	Frequency	5	1	2	8	
		Percent	5.6	1.1	2.2	8.9	
Total			Frequency	65	14	11	90
			Percent	72.2	15.6	12.2	100.0

Source: Field Survey, November 2013

#### 4.2.6 Occupational Status of Household heads

Table 4.6 denotes the occupational distribution of HHs. Employment status of people in one way or the other is likely to affect their choice of health care. Whiles those who are gainfully employed, and for that matter, earning relatively ‘good’ income could decide what form of health care to choose, those who are not employed , and are not earning any income have to depend on others as to the choice of health care. Agriculture takes the lion share of the occupation of household heads across both the rural and urban settings. Within the rural areas, agriculture constituted 26.3 percent whilst commerce took 7.1 percent of household heads interviewed. Industry and others constituted 5.1 percent and 1.2 percent respectively. The urban centre on the other hand had the service (25 percent) dominating. Agriculture, 11.5 percent took the second position followed by Commerce 10.3 percent whilst Industry constituted 7.7 percent. Comparatively, the rural areas are dominated by agriculture whilst service dominated the urban centre. In totality, the study revealed that 37.8 percent are employed in the agricultural sector. Those engaged in industry, service and commerce constituted 12.8 percent, 27.6 percent and 17.3 percent respectively. These results confirm that of the GSS (2012) which shows that 41.2 percent of the Ghanaian population is engaged in agriculture whilst 21 percent are in to service sector.

**Table 4.6 Occupational status of household heads**

Occupation	Rural		Urban		Total	
	Frequency	Percent	Frequency	Percent	Frequency	Percent
Agriculture	41	26.3	18	11.5	59	37.8
Industry	8	5.1	12	7.7	20	12.8
Service	4	2.6	39	25	43	27.6
Commerce	11	7.1	16	10.3	27	17.4
Others	2	1.2	5	3.2	7	4.4
Total	66	42.3	90	57.7	156	100

Source: Field Survey, November 2013

#### 4.3 Income levels of household heads and health care seeking behaviour

Income constitutes an enabling factor according to Buor’s accessibility and utilisation model adopted for this study. They refer to family and community resources. The income level here refers to the economic status of household heads.

Responses gathered from the field survey indicates that, though a greater proportion of the people go for one form of health care or the other based on how much they earn, other factors like accessibility, type of medical facility and tastes and preferences also had a greater influence on household heads' choice of health facility. Income levels, inevitably, determine to a large extent the type of medical facility household heads use. Table 4.7 denotes that household heads in the rural locality who earn below GH¢ 300.00 constituted 66.7 percent whilst three percent earn GH¢500 and above. Out of HHs income that falls below three hundred Ghana cedis (GH¢300), 33.3 percent preferred TM as compared to 22.8 percent for MM. About 10.6 percent preferred both medical care systems. This confirms a study on the demand for Complementary and Alternative Medicine (CAM) in Ghana by Kuunibe and Domanba (2012) which revealed that households with lower incomes tend to use CAM more than those with higher incomes. Majority (34.4 percent) of HHs in the urban centre earn between GH¢300-399 with the least (5.6 percent) earning GH¢500 and above. Across all the income earning groups within the urban areas, MM was more patronized (72.2 percent) as against 15.6 percent for TM and 12.2 for both systems. In fact, traditional medicine alone was virtually none existent within income earners of 500 and above. Regarding the integration of both health care systems, household heads across the various income levels think it is the appropriate means of providing universal health care to the people. Comparatively, the results connotes that, HHs in the urban areas patronized MM (72.2 percent) more than their counterparts in the rural areas (45.5 percent). This implies that the spatial distribution of health facilities and the location of an individual affect his/her consumption of health services.

**Table 4.7 Monthly income levels of household heads and healthcare seeking behaviour**

Suburb/Form of medicine			Income levels					Total
			Below 200	200-299	300-399	400-499	500 and above	
Rural	Modern medicine	Frequency	5	10	10	4	1	30
		Percent	7.6	15.2	15.2	6.1	1.5	45.5
	Traditional medicine	Frequency	16	6	0	1	0	23
		Percent	24.2	9.1	0	1.5	0	34.8
	Both	Frequency	4	3	3	2	1	13
		Percent	6.1	4.5	4.5	3.0	1.5	19.7
Total		Frequency	15	29	13	7	2	66
		Percent	37.9	28.8	19.7	10.6	3.0	100.0
Urban	Modern medicine	Frequency	8	24	22	6	5	65
		Percent	8.9	26.7	24.4	6.7	5.6	72.2
	Traditional medicine	Frequency	0	8	4	2	0	14
		Percent		8.9	4.4	2.2	0	15.6
	Both	Frequency	2	4	5	0	0	11
		Percent	2.2	4.4	5.6	0	0	12.2
Total		Frequency	10	36	31	8	5	90
		Percent	11.1	40.0	34.4	8.9	5.6	100.0

Source: Field Survey, November 2013

#### **4.4 The National Health Insurance Scheme and Accessibility and Utilisation of Health Service**

Insurance also form part of the enabling factors of Buor's hypothetical accessibility model. The survey results revealed that majority of the household heads are insured with the National Health Insurance Scheme (NHIS) across the urban and rural settings. In the rural studied communities 81.8 percent of household heads were insured as against 18.2 percent non-insured. Out of the insured household heads, the results revealed that 40.9 percent patronised modern medicine as against 21.2 percent and 19.7 percent for traditional medicine and both medical systems respectively. Out of the 18.2 percent non-insured household heads, 1.5 percent indicated that they use modern medicine as against 13.6 for traditional medicine with three percent opting for the two medical systems (see table 4.8). It can be implied that, the high patronage of

modern medicine by insured HHs could be attributed to NHIS. With regards to household heads in the urban communities, the research uncovered that 91.1 percent of household heads were insured with NHIS as against 8.9 percent non-insured. Out of the insured household heads, 65.6 percent reported to have patronized modern medicine as compared to 6.7 percent non-insured. Also, 14.4 percent used traditional as against 11.1 percent household heads that used both health systems. The study further showed that 1.1 percent each patronized traditional and both medical systems.

Comparatively, the results revealed that, household heads in both the urban and rural areas insured with NHIS patronized modern medicine than traditional medicine. It also showed that more heads of households (91.1 percent) are insured in the urban areas as compared to 81.8 percent in the rural areas. Fewer household heads (8.9 percent) are non-insured in the urban centre as compared to the rural setting (18.2 percent). Poverty might be the reason for the dominance of non-insured HHs in the rural areas as against those of the urban centres.

**Table 4.8 NHIS status and health seeking behavior of household heads**

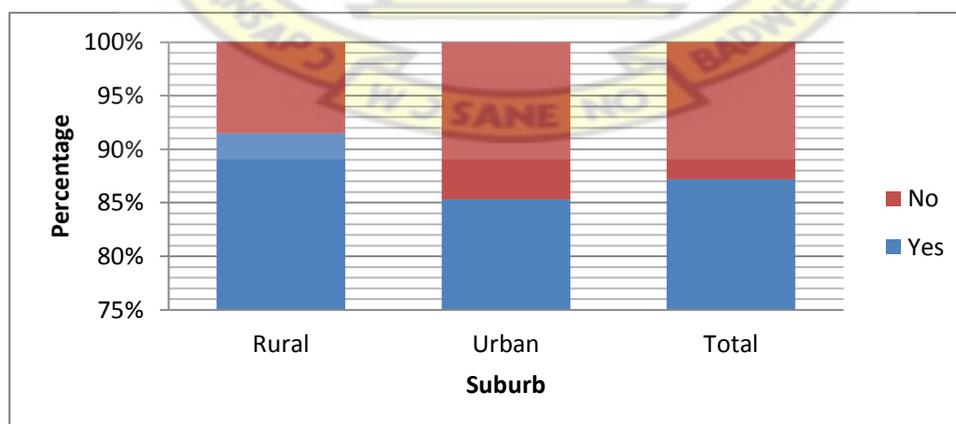
Suburb				Form of medicine			Total
				Modern medicine	Traditional medicine	Both	
Rural	NHIS status	Yes	Frequency	27	14	13	54
			Percent	40.9	21.2	19.7	81.8
	No	Frequency	1	9	2	12	
		Percent	1.5	13.6	3.0	18.2	
	Total	Frequency	28	23	15	66	
		Percent	42.4	34.8	22.7	100.0	
Urban	NHIS status	Yes	Frequency	59	13	10	82
			Percent	65.6	14.4	11.1	91.1
	No	Frequency	6	1	1	8	
		Percent	6.7	1.1	1.1	8.9	
	Total	Frequency	65	14	11	90	
		Percent	72.2	15.6	12.2	100.0	

Source: Field Survey, November 2013

#### 4.4.1 Household heads perceptions of the effect of NHIS on accessibility and utilisation

Insured household heads were also asked about their opinion on the effect of NHIS on accessibility and utilisation of health service. The survey revealed that household heads were unanimous across both centres regarding the effects of NHIS on accessibility and utilization. About 91.5 percent and 85.5 percent household heads insured with NHIS for rural and urban settings respectively felt that NHIS has a positive effect on accessibility and utilization. A greater percentage of them felt that NHIS has made health services accessible to them. They constituted 87 percent as against 13 percent (see figure 4.1) who for a number of reasons, felt otherwise.

O'Donnell, (2007) provided four key dimensions to accessibility; availability, geographic accessibility, affordability and acceptability. Geographic accessibility has to do with the service and household location that may bring about an indirect cost (transportation cost). Availability of a health service deals with the demand for the service and the availability of health workers, drugs equipment and so on. Cost and prices of services, household resources and willingness to pay (opportunity cost) constituted affordability dimension of accessibility. Acceptability constituted characteristics of health services and user's attitudes and expectations. Household heads responses were elicited bearing these parameters in mind. Household heads revealed that they can visit a health facility any time provided their NHIS card is valid. Some even felt that because of NHIS, clients do facility shopping. This trend is a threat to the sustainability of NHIS as it increases expenditure.



**Figure 4.1 Household heads perceptions of the effects of NHIS on accessibility and utilization**

Source: Field Survey, November 2013

Other NHIS insured household heads held a different view regarding NHIS and accessibility. Table 4.9 demonstrates that 40 percent of insured heads of households perceived NHIS prolong waiting time at user centres. Of this figure, 10 percent and 30 percent of rural and urban household heads respectively confirmed that NHIS has brought about multiple attendances by clients thereby increasing waiting time (average waiting time of 3.27 hours) at the health provider level. This clearly supports Dalinjong and Laar (2012, p.13), whose studies in the Bolgatanga Municipality and Builsa Districts both in the Upper East Region revealed the lamentation of patients about going to the hospital early in the morning and leaving for home in the evening. This phenomenon obviously discourages subscribers from accessing health at such facilities. About 2.5 percent NHIS insured household heads across both centres felt that NHIS compromises quality of services. About five percent of household heads who held this were from the rural areas whilst the rural areas constituted 20 percent. About 10 percent and five percent household heads from rural and urban settings respectively think delays in disbursement of reimbursement of claims made by service providers' affects service provision. NHIS does not cover all health care services as stated by 15 percent household heads from the urban areas. These issues obviously have a telling effect on accessibility and utilization. Non settlement of debts will lead to the inability of service providers to offer service and in the extreme case, the collapse of the health facility thereby affecting accessibility negatively. The fact that not all health conditions are under the package means subscribers will have to pay for such services at the point of service delivery. Clearly, once one does not have money, then access to the health service becomes a problem.

**Table 4.9 Household heads perceived negative effects of NHIS on accessibility and utilisation**

Reason		Suburb		Total
		Rural	Urban	
NHIS prolongs waiting time at provider level	Frequency	2	6	8
	Percent	10.0	30.0	40.0
Delays in disbursement affects service provision	Frequency	2	1	3
	Percent	10.0	5.0	15.0
NHIS comprises quality of service provision	Frequency	1	4	5
	Percent	5.0	20.0	25.0
NHIS does not cover all healthcare service	Frequency	0	3	3
	Percent	.	15.0	15.0
Others	Frequency	1	0	1
	Percent	5.0	.0	5.0
Total	Frequency	6	14	20
	Percent	30.0	70.0	100.0

Source: Field Survey, November 2013.

#### **4.5 How the non-insured household heads pay for their health bills**

Household heads that had not registered with the NHIS disclosed how they pay their health bills. Broadly, they operate the cash and carry system. Table 4.10 demonstrates that 50 percent of the non-insured household heads settle their health bills and that of their relatives/partners through personal savings. Of this figure, 30 percent and 20 percent constituted rural and urban centres respectively. Self-medication is been practiced by 30 percent household heads and 20 percent said in times of ill health they rely on their partners or relatives to pay for their health service. About 20 percent represented household heads in rural communities out of those that practice self-medication whilst the urban communities constituted 10 percent. With regards to heads of households that rely on savings from relatives or partners, five percent represented rural household heads whilst three percent represented the urban areas. In sum, social capital or resources play a kingpin role in the payment of health bills by the non-insured.

**Table 4.10 How household heads pay for their health bills**

Form of payment	Rural		Urban		Total	
	Frequency	Percent	Frequency	Percent	Frequency	Percent
Personal savings	6	30	4	20	10	50
Savings from relatives	2	10	2	10	4	20
self medication	4	20	2	10	6	30
Total	12	60	8	40	20	100

Source: Field Survey, November 2013

#### **4.6 Physical and financial access to health service**

The study also established the physical and financial access to both traditional and modern health services by household heads. Table 4.11 depicts that 98.5 percent as compared to 90 percent of household heads in the urban and rural settings respectively responded that they have access to health services. Out of the 98.5 percent, 42.4 percent, 34.8 percent and 21.2 percent said they have access to modern, traditional and or both medical systems respectively. The results for Household heads in the urban communities on the other hand show that 65.6 percent represented those that have access to modern health services as against 34.8 percent for traditional medicine. About 22.7 percent said they have access to both systems. Comparatively, the results show that majority of household heads have access to modern medicine as compared to that of traditional medicine within the urban and the rural localities. This implies that MM is accessible to the people as compared to TM.

**Table 4.11 Physical and Financial Accessibility to modern and traditional medicine by household heads**

Suburb/Access to health care			Form of medicine			Total
			Modern medicine	Traditional medicine	Both	
Rural	Yes	Frequency	28	23	14	65
		Percent	42.4	34.8	21.2	98.5
	No	Frequency	0	0	1	1
		Percent	0	0	1.5	1.5
	Total	Frequency	28	23	15	66
		Percent	42.4	34.8	22.7	100.0
Urban	Yes	Frequency	59	13	9	81
		Percent	65.6	14.4	10.0	90.0
	No	Frequency	6	1	2	9
		Percent				10.0
	Total	Frequency	65	14	11	90
		Percent	72.2	15.6	12.2	100.0

Source: Field Survey, November 2013

#### **4.7 Factors affecting accessibility to health services**

Several factors affect one's potential access to and use of health service. Key amongst them is distance and time (travel and waiting). The research findings on Table 4.12 show that 36.5 percent are denied access to a health facility of their choice because of distance constraints across communities within the rural and urban centres. Distance poses a constraint to household heads access to health service in the rural centre than in the urban areas. About 26.9 percent heads of households in the rural setting felt distance (average distance of 2.4 km and 1.44 km to a modern and traditional health facility respectively) is an essential factor affecting accessibility as compared to 9.7 percent for the urban centre.

Household heads claim that covering longer distances to a facility of choice is very discouraging. The situation of distance is further aggravated when patients choose medical facilities (whether modern or traditional) far from their residences in the name of tastes and preferences. Some patients have developed love and built trust in some health facilities or practitioners to the extent that they overlook distance. The findings are in tandem with Buor (2003) studies which uncovered that distance is the

most important factor that influences the utilization of health services in the Ahafo-Ano south district of Ghana.

The study further revealed that 26.3 percent of household heads felt that time constraints influence their access to a health provider. The rural communities' share of this figure is 16 percent whilst that of the urban setting is 10.3 percent. Apart from longer travel time spent by household heads, many of these potential users say more annoying is the waiting time at the medical facilities especially modern health facilities. This is consistent with Dalinjong and Laar (2012), whose studies in the Bolgatanga Municipality and the Builsa District both in the Upper East region revealed the cry of patients about going to the hospital early in the morning and leaving for home in the evening. Financial considerations constituted 10.3 percent each for the urban and rural areas. Of course, heads of households in both centres perceive finance to play a kingpin role in the choice of whether traditional or modern medical facilities.

However, the NHIS factor has lessened the financial burden though one needs some money to enroll and re-enroll when the card expires. This is however different at the traditional health facilities as clients are required to pay for their services be it in cash or kind. Taste and preference accounted for 10.3 percent; 3.2 percent for rural and 7.1 percent for the urban communities. Once an individual develops love and trust for a service, the distance and money no longer matters much. About 6.4 percent of household heads perceived social accessibility to influence their choice of medical services. About 1.9 percent represented respondents in the rural and 4.5 percent for those in the urban communities.

**Table 4.12 Factors affecting household heads accessibility to health service**

Factor of accessibility			Suburb		Total
			Rural	Urban	
Distance	Frequency		42	15	57
	Percent		26.9	9.7	36.5
Time	Frequency		25	16	41
	Percent		16.0	10.3	26.3
Financial	Frequency		16	16	32
	Percent		10.3	10.3	20.5
Taste and preference	Frequency		5	11	16
	Percent		3.2	7.1	10.3
Social accessibility	Frequency		3	7	10
	Percent		1.9	4.5	6.4
Total	Frequency		66	90	156
	Percent		42.3	57.7	100.0

Source: Field Survey, November 2013

#### 4.7.1 Distance

Distance plays an undisputable role in the choice of a health facility. Holding all factors constant, patients will patronise health facilities closer to them than those far from them. Buor (2003) found that distance is the most important factor that influences the utilization of health services in the Ahafo-Ano south district of Ghana. The effect of travel time on utilization reflects that of distance and utilization. An average distance of 2.4 km is covered by HHs to a modern health facility. The survey results show that about 58.1 percent of HHs travel 3 to 5 km to access modern health care services. About 10.9 percent cover distance ranging 6 to 8 km before receiving modern health care services. About 5.5 percent accounted for distances 9 km or more and distances below three km were made of 25.8 percent. Within the rural communities, 15.4 percent cover distance 3 to 5 km to receive medical care. About 10.9 percent travel 6 to 8 km for MM. For distances below three km and nine km or more, HHs were made of 5.5 percent and 6.4 percent respectively. Distance seem not to be a problem HHs in the urban areas has none of them travel beyond five km. Majority (42.7 percent) cover within 3 to 5 km whilst 19.1 percent of them travel distances below 3 km. The establishment of CHPS compounds and health centres in

most of the communities in the municipality has in a way reduced the longer distances that people cover in order to receive treatment at a modern health facility (Refer to Table 4.13 for details). This denotes that distance is not so much a stumbling block to accessibility of health services.

**Table 4.13 Distance to a Modern Health facility by household heads**

Suburb		Distance in kilometers				Total
		Below 3	3-5	6-8	9 or more	
Rural	Frequency	7	17	12	6	42
	Percent	6.4	15.4	10.9	5.5	38.2
Urban	Frequency	21	47	0	0	68
	Percent	19.1	42.7	0	0	61.8
Total	Frequency	28	64	12	6	110
	Percent	25.5	58.1	10.9	5.5	100

Source: Field Survey, November 2013

#### 4.7.2 Waiting time at a Modern Facility by household heads

Waiting time at modern health facilities is a major problem for most household heads in their quest to access health services. It is one of the factors that determine the level of accessibility as captured by Buor's hypothetical model of accessibility. This phenomenon is particularly prevalent at government owned health providers. The results revealed an average time of 3.27 hours at modern health facilities. The survey findings evident on Table 4.14 show that 38.2 percent of HHs spent between 181-240 minutes or 4 hours to access health at user centres. About 26.4 percent of heads of households said they spend three hours at health provider centres before services are rendered to them. The research further indicated that 18.2 percent of HHs waits for two hours as against five percent who said they spend below one hour at user centres. About 10.9 percent of HHs spend five hours and above in order to access health services. Most HHs who said they spend two hours and below claim one needs to visit the health provider early in the morning; either than that the hours spent will exceed the ones stated. Within the rural communities, waiting time seems to be much better as compared to the urban communities. From Table 4.14 the survey results indicate that, 27.3 percent and 10.9 percent of HHs for the urban and rural areas respectively spend 181-240 minutes at health facilities. Waiting time 121-180 minutes accounted for 9.1 percent HHs in the rural areas and 17.3 percent HHs in the urban areas. About

5.4 percent of HHs in the rural communities spends less than 60 minutes as against 0.9 percent in the urban setting. Five hours or more had 2.7 percent and 8.2 percent HHs in the rural and urban areas respectively. Facilities at the urban areas as revealed are usually crowded due to the large population, abuse of the gate keeper system, taste and preference. NHIS factor has also increased utilisation at health facilities thereby prolonging waiting time at these centres. More facilities and health personnel are needed in this regard to reduce long queues at service centres. Public education will also help in the adherence to the gate keeper system.

**Table 4.14 Waiting time at a Modern Health facility by household heads**

Suburb	Waiting time in minutes					Total	
	Less than 60	61-120	121-180	181-240	241+		
Rural	Frequency	6	11	10	12	3	42
	Percent	5.4	10	9.1	10.9	2.7	38.1
Urban	Frequency	1	9	19	30	9	68
	Percent	0.9	8.2	17.3	27.3	8.2	61.9
Total	Frequency	7	20	29	42	12	110
	Percent	6.3	18.2	26.4	38.2	10.9	100

Source: Field Survey, November 2013

#### 4.7.3 Distance to a Traditional Health Facility by household heads

Table 4.15 demonstrates that distance is not a major problem to household heads in their quest to access a traditional health facility. An average distance of 1.59 km was discovered as distance covered by HHs to a traditional health facility. The fact that 54.2 percent of HHs travels below three km to access traditional medicine is an evident that the people are so close to traditional medical facilities and therefore in terms of potential accessibility, there is no problem for users. Some HHs, when asked, said they get medicinal herbs and other plant parts from their houses and backyards for preventive and curative purposes. Comparison between the core and the periphery indicates that there is no much difference between them. Table 4.16 shows distance taken to access traditional medicine by urban and rural communities. The results indicate that 33.9 of HHs in the rural areas travel below three km to access TM as against 20.3 percent in the urban centre. In furtherance 18.6 percent HHs in the rural areas cover distance 3 to 5 km as compared to 18.2 percent in the urban centre. About

8.5 percent of HHs in the rural communities travel 6 to 8km as compared to 1.7 percent in the urban communities. This invariably means that TM is closer to the people in the Bolgatanga municipality. Juxtaposing distance covered by household heads to a modern health facility against a traditional health facility, it is evident that the former is closer than the latter to the people.

**Table 4.15 Distance to a Traditional Health facility by household heads**

Suburb		Distance in Kilometres				Total
		Below 3km	3km-5km	6km-8km	9km or more	
Rural	Frequency	20	11	5	1	37
	Percent	33.9	18.6	8.5	1.7	62.7
Urban	Frequency	12	9	1	0	22
	Percent	20.3	15.3	1.7	.0	37.3
Total	Frequency	32	20	6	1	59
	Percent	54.2	33.9	10.2	1.7	100.0

Source: Field Survey, November 2013

#### 4.7.4 Waiting Time at a Traditional Health Facility by Household Heads

Table 4.16 depicts that a larger number (55.9 percent) of HHs spend less than 60 minutes at a traditional health facility whilst 44.1 percent have to wait between 61 to 120 minutes to access TM. In the rural communities, 30.5 percent of HHs need to wait for less than an hour to access TM as compared to 25.4 percent HHs in the urban areas. In furtherance, the research uncovered that 32.2 percent and 11.9 percent HHs respectively spend 60 to 120 minutes in order to access TM. None of the HHs said they spend above two hours at a traditional health facility. The average time spent at a traditional health is 1.44 hours. The few hours spent at traditional health facilities could be attributed to the low patronage as well as the dominance of traditional medical facilities. The processes to be followed by patients at modern facilities are longer as compared to those at traditional health facilities. This could also affect the waiting time at modern health facilities thereby affecting accessibility negatively. This implies that both systems should be made available at all public health facilities.

**Table 4.16 Waiting time at a Traditional Health facility by household heads**

Suburb		Waiting time in minutes		Total
		Less than 60 minutes	61-120 minutes	
Rural	Frequency	18	19	37
	Percent	30.5	32.2	62.7
Urban	Frequency	15	7	22
	Percent	25.4	11.9	37.3
Total	Frequency	33	26	59
	Percent	55.9	44.1	100.0

Source: Field Survey, November 2013

#### **4.8 Mode of Transport to a Health Facility**

Transportation to a health provider whether traditional or modern is a major concern during ill health. From the research, it was evident that 46.2 percent of household heads walk to seek health care whenever they are sick. Out of this figure, the rural household heads were made of 26.3 percent as against 19.9 percent for the urban household heads. This is in conformity with Heyen-Perschon (2005) whose report on current situation in the health sector of Ghana and possible roles for appropriate transport technology and transport related communication interventions denotes that the rural population is relying on walking as the dominant mode of transport. About 11.5 percent as compared to 19.9 percent of rural and urban household heads use bicycles to access health services whether traditional or modern. The use of bicycles in totality constituted 31.4 percent. In furtherance, Heyen-Perschon's report confirms that bicycles are common in the country-especially northern Ghana. Women and children who can ride use bicycles to visit health providers whenever taken ill. The affluent in society use motorbikes and private cars during ill health. Motorbikes and private cars constituted 17.9 percent and 1.9 percent respectively. Others said (2.6 percent) they hire 'motor kings' (tricycles), or volunteers could pick them to the health provider (See table 4.17). Majority of the people trekking to access health services will put utilisation in jeopardy as people will be discouraged to cover such distances. Women and children will be the hardest hit in this regard.

**Table 4.17 Household heads mode of transport to a modern or traditional health facility**

Means of transport	Rural		Urban		Total	
	Frequency	Percent	Frequency	Percent	Frequency	Percent
Foot	41	26.3	31	19.9	46.2	72
Bicycle	18	11.5	31	19.9	31.4	49
Motorbike	5	3.2	23	14.7	17.9	28
Private cars	0	0	3	1.9	1.9	3
Others	2	1.3	2	1.3	2.6	4
Total	66	42.3	90	57.7	100	156

Source: Field Survey, November 2013

#### **4.9 Number of times household heads fell sick and reported to a modern or traditional health facility (Utilisation)**

Regarding the number of times household heads fell sick within the last three months and reported to either a modern or traditional health facility, the study discovered that 18.6 percent have not fallen sick. About 7.7 percent and 10.9 percent represented rural and urban household heads respectively. The research further revealed that, 46.8 percent have fallen sick once whilst 27.6 percent reported sick twice. About 3.2 percent fell sick thrice. Others also reported to have taken ill for four times or even more. They formed 3.8 percent (see table 4.18 for details).

Comparatively 34.6 percent of household heads in the rural communities fell sick once or twice or thrice or four times and even more as against 46.8 percent in the urban areas. This certainly shows that more household heads in the urban areas fell sick and reported to a modern or traditional health facility. Clearly given incidence of reported cases at a health facility shows high (81.4 percent) utilisation among heads of households. The implication of this obviously is that, more people have access to health services in the municipality.

**Table 4.18 Number of times household heads fell sick and reported to a traditional or modern health provider within the last three months**

Number of times	Rural		Urban		Total	
	Frequency	Percent	Frequency	Percent	Frequency	Percent
Once	28	17.9	45	28.8	73	46.7
Twice	19	12.2	24	15.4	43	27.6
Thrice	2	1.3	3	1.9	5	3.2
Four times or more	5	3.2	1	0.6	6	3.8
None	12	7.7	17	10.9	29	18.6
Total	66	42.3	90	57.7	156	100

Source: Field survey November, 2013

#### **4.10 Household heads reasons for the patronage of traditional and modern medicine**

The preference for a given health care delivery system has universally been acknowledged to depend not only on the type of services available, but also on the difference of the socio-economic status of the people in specific location. That is, whether it is affordable, accessible and acceptable to them. The ultimate goal for using any form of medicine is either for preventive or curative purposes. To realize this goal, different people use either type of medicine taking some factors into consideration. These factors are as follows (See table 4.19);

Among all the factors influencing the patronage of the two medical systems, majority (33.6 percent) of HHs indicated that, their demand for medical services is greatly influenced by the effectiveness of that system in curing diseases. In the rural setting, 6.4 percent and four percent HHs indicated that they use TM and MM respectively due to their efficacy in treating illnesses. Majority (20.8 percent) of HHs in the core prefer MM as against TM due to its effectiveness (2.4 percent). Some HHs think that traditional medicine is natural and therefore considered more potent in the treatment of diseases as compared to MM. According to household heads, MM evolved from TM and adulterated thereby rendering it ineffective. Therefore, they believe it is prudent to go for the natural one.

Convenience (28 percent) was also a factor that lures HHs to consume the two medical systems. About eight percent of HHs in the rural areas said that it is more convenient to use traditional medicine as compared to modern medicine (4.8 percent).

This was what a household head had to say “unlike the modern health system where patients are under obligation to follow strict procedure at hospitals and clinics, traditional medicine allows for less restrictive measures for accessing health care.” In the urban centre, the story was different as most (14.4) of the HHs felt it is convenient to use MM as compared to TM (0.8 percent). Household heads explained that, dosage schedules appropriately labeled on the medicines makes them consume as compared to TM.

Another factor that influences the use of traditional and modern medicine is taste and preference which represented eight percent. About 2.4 percent and 0.8 percent of HHs patronized modern and traditional medical services respectively because of taste and preference. The urban communities were not different as majority (four percent) use MM as compared to 0.8 percent who indicated they demand TM due to taste and preference.

Accessibility is another factor that influences the choice of TM over MM. About 6.4 percent of household heads in the rural centres who patronized TM support this opinion. Heads of holds that use MM in favour of this view constituted 4.8 percent. In the core, eight percent and 0.8 percent preferred modern and traditional medicine respectively because of accessibility. Household heads that are of this opinion said that traditional medicine is on their door step. Physical and financial accessibility are considered in this regard. Traditional healers are found in remote areas that modern health facilities are sometimes non-existent. In instances that they exist they lack the requisite facilities that can propel quality health care delivery.

WHO (2003), suggests that traditional health facilities are found in every nook and cranny of rural areas where hospitals are not found. Obviously, people are more likely to patronize them given their proximity. Affordability equally lures household heads to the consumption of traditional medicine. Heads of households felt that since some practitioners are relatives and friends they could access traditional medicine free of charge or can even settle the bill in piecemeal till it is defrayed. The WHO (2003) further supports this assertion with the studies which says that traditional medicine cost is cheaper and flexible than allopathic medicine. It affords the clients the opportunity to settle their bills when they can afford. More often than not, they pay the bills only when they are fully recovered and can work towards paying the bills.

Better still, one needs a fowl or bowl of cereals to access traditional medicine as compared to premium payment for registration of NHIS and the fact that you may have to pay for certain laboratory investigations and medicines not covered by NHIS.

Attitude of health staff is part of physician characteristics as captured by the conceptual framework for this study. Hence, its influence on the choice of a particular medicine cannot be overemphasized. About 7.2 percent of HHs demand either medical system because of this factor. They claim the friendly nature of most health staff lures them to consume modern medical facilities. Others such as respect attracted 3.2 percent of the HHs. People hold negative perception regarding traditional medicine; they think TM is meant for the poor and as such makes some people to shun away from its use.

**Table 4.19 Reasons for the patronage of modern and traditional medicine by household heads**

Suburb	Form of medicine		Reason					Total	
			Convenience	Taste and preference	Accessibility	Effectiveness	Attitude of staff		Others
Rural	Traditional	Frequency	10	1	8	5	2	1	27
		Percent	8.0	0.8	6.4	4.0	1.6	0.8	21.6
	Modern	Frequency	6	3	6	8	4	1	28
		Percent	4.8	2.4	4.8	6.4	3.2	0.8	22.4
Urban	Traditional	Frequency	1	1	1	3	0	0	6
		Percent	0.8	0.8	0.8	2.4	0	0	4.8
	Modern	Frequency	18	5	10	26	3	2	64
		Percent	14.4	4.0	8.0	20.8	2.4	1.6	51.2
Total	Frequency	35	10	25	42	9	4	125	
	Percent	28.0	8.0	20.0	33.6	7.2	3.2	100.0	

Source: Field Survey, November 2013

#### **4.11 Household heads perceptions on the efficacy of traditional and modern medicine**

Table 4.20 indicates the HHs perceptions on the efficacy of traditional and modern medicine in the Bolgatanga municipality. It demonstrates that in the rural communities about 13.6 percent of household heads said MM is tried and tested but not based on any experiments as compared to 4.5 percent HHs who felt TM is natural and hence effective than MM. In the urban areas, 31.1 percent perceived MM to be effective as against 8.9 percent HHs in favour of MM. Household heads who

supported the idea that MM is effective than TM said it is scientifically proven. Those in favour of TM claim that TM is from a natural source; therefore it is devoid of any chemicals. They stated further that the 'original' is often best than the adulterated. Modern medicines are adulterated from TM thereby introducing chemicals that are harmful when consumed.

The study also revealed that in the rural areas, 12.1 percent of household heads said the thorough diagnosis usually carried out by modern medical practitioners makes it effective than TM as against 16.7 percent who supported TM. In the rural communities on the other hand, 10 percent perceived MM as effective as compared to 6.7 for TM. According to HHs, TM involves try and error and hence does not effectively treat conditions that people report to them. MM has got sophisticated equipment that is used to diagnose patients before treatment. Traditional medicine has not got such equipment. About 18.2 percent of household heads in the rural communities felt that MM is effective than TM because it offers complete healing as against 12.1 percent for TM. Whilst in the urban centres, 16.7 percent and 5.5 percent respectively perceive MM and TM to be effective. Household heads were of the opinion that diseases treated by traditional medical practitioners recurs often times. This implies that one does not receive complete healing. However, MM targets the specific disease with the right medicine for it resulting in complete healing. Household heads who perceived otherwise said the 'original' nature of TM ensures that one receives complete healing when one uses them. Another perception of HHs with regards to the effectiveness of MM had to do with quicker treatment that patient's receive. About 12.1 percent of household heads in the rural areas felt that when they use medicines prescribed by a traditional medical practitioner, they receive quick healing as compared to MM (6.1 percent). Household heads claim that TM has a quicker impact than MM in terms of relieving them of certain conditions. Others constituted 2.2 percent for MM and 1.1 percent for TM in the urban communities.

**Table 4.20 Household heads perception about the effectiveness of modern and traditional medicine**

Reason		Rural			Urban		
		TM	MM	Total	TM	MM	Total
Quicker treatment	Frequency	8	4	12	2	14	16
	Percent	12.1	6.1	18.2	2.2	15.6	17.8
Complete healing	Frequency	11	12	23	5	15	20
	Percent	16.7	18.2	34.8	5.5	16.7	22.2
Thorough diagnosis of diseases	Frequency	3	8	11	6	9	15
	Percent	4.5	12.1	16.67	6.7	10.0	16.7
Scientific/ Natural	Frequency	11	9	20	8	28	36
	Percent	16.7	13.6	30.30	8.9	31.1	40.0
Others	Frequency	0	0	0	1	2	3
	Percent	0	0	0	1.1	2.2	3.3
Total	Frequency	33	33	66	22	68	90
	Percent	50.0	50.00	100.00	24.4	75.6	100.00

Source: Field Survey, November 2013

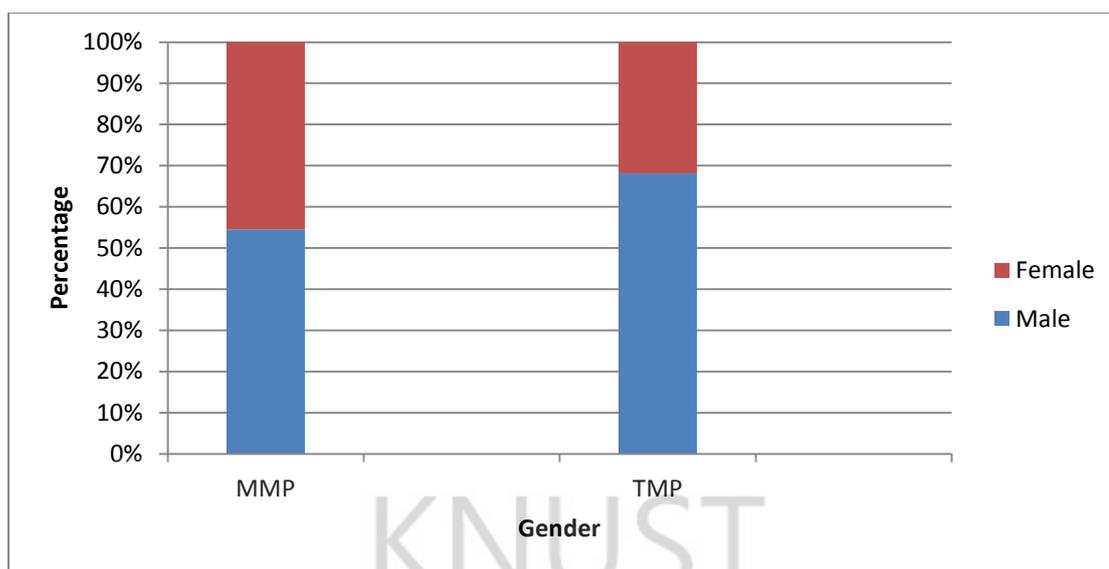
#### **4.12 Modern and Traditional Medical Practitioners**

##### **4.12.1 Socio-demographic characteristics of modern and traditional health practitioners**

Socio-demographics constitute predisposing factors according to Buor's hypothetical model of accessibility and utilisation. As the need for health care changes with age, gender, and marital status, utilization of health services also conforms accordingly.

##### **Gender distribution of MMP and TMP**

The survey results indicate that majority of practitioners in both medical systems are males. Figure 4.2 denotes that males constitute 54 percent and 68 percent for MMP and TMP respectively. The female composition of practitioners was made up of 46 percent and 32 percent for MMP and TMP respectively. Apart from traditional birth attendants (TBAs), women are hardly found practicing traditional medicine. Of course, this reflected the dominance of males in the practice of TM as revealed from the study. Most of the in-charges of the MMP were males and hence reflections of that on Figure 4.2.



**Figure 4.2 Gender compositions of practitioners**

Source: Field Survey, November 2013

#### Age distribution of practitioners

The results of the age composition of practitioners as shown in Table 4.21 revealed that majority of the MMPs are within the age group 30-39. About 45.5 percent (see table 4.21) accounted for this whilst TMPs were 18.2 percent. The survey results further revealed that for practitioners within the ages of 20-29 and 40-49, both TMPs and MMPs constituted 9.1 percent each. For the age category 50-59, MMPs were made of 9.1 percent as compared to 22.7 percent for TMPs. None of the MMPs were aged 60+ as that is the retirement age for workers in the formal sector. However, 13.6 percent of TMPs were 60+. This implies that most of the practitioners are within the active work age bracket which is a good phenomenon.

**Table 4.21 Age composition of practitioners**

Age	MMPs		TMPs	
	Frequency	Percent	Frequency	Percent
20-29	2	9.1	2	9.1
30-39	10	45.5	4	18.2
40-49	8	36.4	8	36.4
50-59	2	9.1	5	22.7
60+	0	0	3	13.6
Total	22	100	22	100

Source: Field Survey, November 2013

## Educational status of practitioners

Table 4.22 demonstrates the educational levels of practitioners. It indicates that none of MMPs who were made up of heads of medical institutions did not fall within the educational levels; basic, secondary and no formal education. This implies that only TMPs constituted these levels on table 4.22. None of the TMPs were certificate/diploma holders. About 81.8 percent of MMPs had a Certificate and Diploma. About 18.2 percent of MMPs were degree holders as compared to 4.5 percent TMPs. Given the low level of education of TMPs, one can easily raise questions about the quality of services they render.

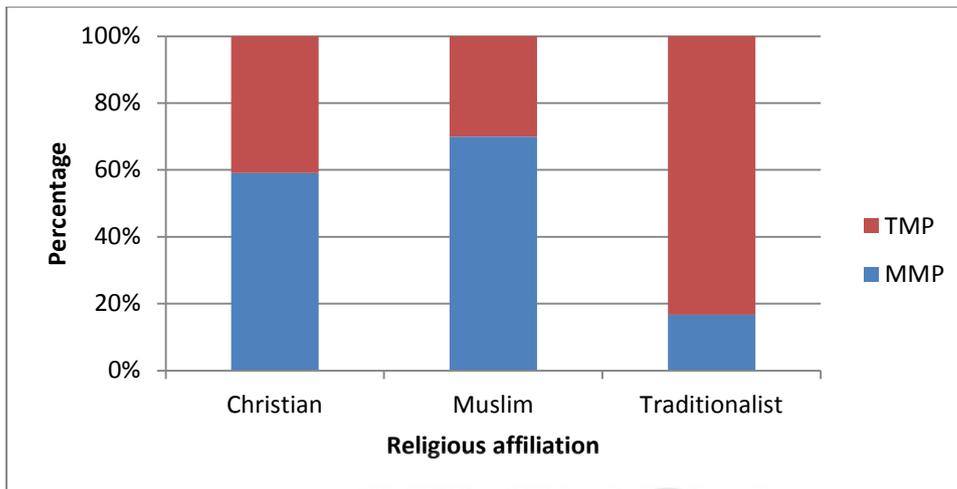
**Table 4.22 Educational levels of practitioners**

Educational status	MMP		TMP	
	Frequency	Percentage	Frequency	Percentage
No formal education	0	0	13	59.1
Basic education	0	0	5	22.7
Secondary education	0	0	3	13.6
Certificate/Diploma	18	81.8	0	0.0
Degree and above	4	18.2	1	4.5
Total	22	100.0	22	100.0

Source: Filed Survey, November 2013

## Religious affiliation of practitioners

The religious affiliation of practitioners is shown in Figure 4.3. It shows that 59 percent of MMPs practice Christianity as against 41 percent TMPs. With regards to Islam, about 70 percent of them are MMPs and 30 percent TMPs. Majority of the TMPs are traditionalists, 84 percent whilst 14 percent belong to MMPs.



**Figure 4.3 Religious affiliations of practitioners**

Source: Field Survey, November 2013

#### **4.13 Perceptions of Modern Medical Practitioners about TMPs**

The field survey results on Table 4.23 shows that 90.9 percent of MMPs endorsed the practice of TM as against 9.1 percent who opposed it. Majority of the practitioners (77.3 percent) have never visited a TMP in their life as compared to 22.3 percent who accessed health care from a TMP. As regards to collaboration between the two systems, the findings show that there is little collaboration. About 95.5 percent of the practitioners said there is no collaboration between them and their counterparts at TM. About 45.5 percent of them encountered patients who first visited traditional healers for the same illness episode before visiting a modern health facility. The results further demonstrated that 54.5 percent of the modern health practitioners prefer modern health care services compared to the traditional, 31.8 percent of them were in favor of collaboration of modern and traditional practitioners; integration of the two systems.

The relevance of scientific research in to TM for its promotion was noted by MMPs. About 40.9 percent of practitioners felt that premium should be placed on scientific research in order to improve the operation of TM. Training of TMPs (18.2 percent) was strongly felt to be important for the improvement of the service and should focus on dosage determination and side effects (40.9), while stated hygienic preparation and administration of traditional medical preparations (9.1 percent) as equally important. The other areas that training needs to focus on are diagnosis of health conditions (22.7 percent) and sustainable utilisation of medicinal plants (27.3 percent). The field

survey also indicated that 86.4 percent felt that government needs to support TMPs in the areas of training, scientific research among other things. This denotes that practitioners are in full support of TM, albeit felt that government can do a lot in the area of training, scientific research and development of traditional medical practice.

**Table 4.23 Perception of modern medical practitioners about traditional medicine**

Issues	Response N=22
Acceptance of traditional health care practice	
Yes	20 (90.9)
No	2 (9.1)
Visit to a Traditional Medical Practice	
Yes	5 (22.7)
No	17(77.3)
Collaboration with traditional medical practitioners	
Yes	1(4.5)
No	21 (95.5)
An encounter with patients who visited modern health care service soon after visiting TMP	
Yes	10(45.5)
No	12 (54.5)
Preference of health care service	
Modern	12(54.5)
Traditional	3(13.6)
Both	7(31.8)
Solutions for the improvement of traditional medical practitioners	
Scientific research	9(40.9)
Training traditional medical practitioners	4(18.2)
Government assistance to traditional medical practitioner	3(13.6)
Provision of license to TMP	3(13.6)
Others (specify)	3(13.6)
Training of traditional medical practitioners for the improvement of the practice	
Yes	20(90.9)
No	2(9.1)
Areas of training of Traditional Medical Practitioners	
Dosage and side effect	9(40.9)
Hygienic preparation and administration of medicaments	2(9.1)
Diagnosis of health problems	5(22.7)
Sustainable utilization of medicinal plants	6(27.3)
Government support to traditional medical practitioners	
Yes	19(86.4)
No	3(13.6)

Source: Field Survey, November 2013

#### **4.14 Traditional Medical Practitioners Perception about Traditional Medicine**

Table 4.24 shows that about 81.8 percent of practitioners are not registered as compared to 18.2 percent who are registered. The few practitioners who have registered are those found within the township of the municipality with permanent

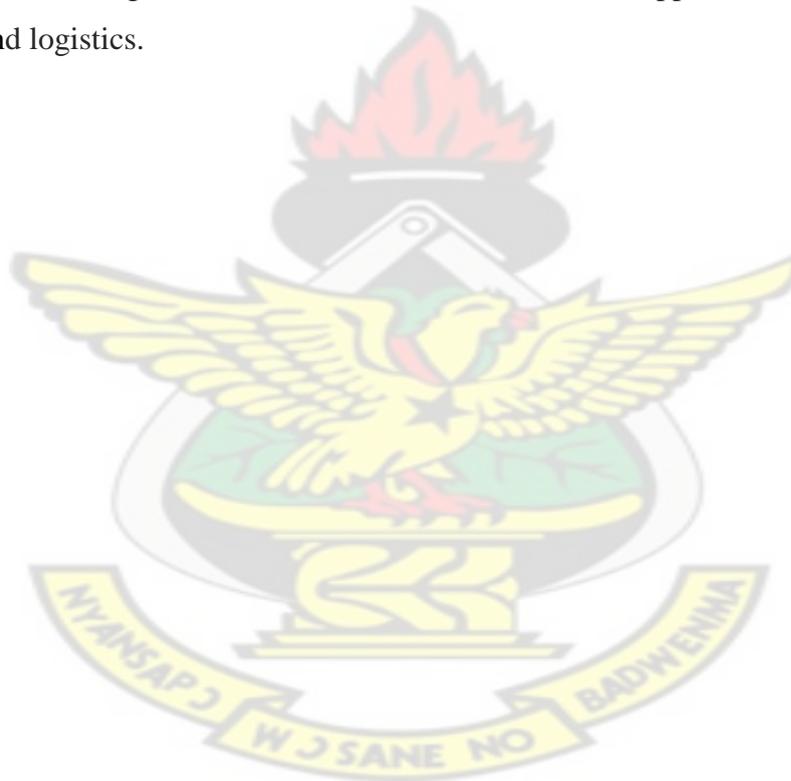
places of operation. About 50 percent of practitioners prefer TM as against 9.1 percent and 40.9 percent for MM and both respectively.

The results further indicate that about 18.2 percent belong to the Ghana Association of Traditional Healers whilst 81.8 percent does not belong to any association. The association is responsible for ensuring compliance to the regulations governing TM (9.1 percent), promoting quality of care (4.5 percent) and ensuring efficacy and safety of care given (4.5 percent). Various reasons were given for the preference of TM over MM. Practitioners, 36.4 percent indicated that TM is convenient to consume as compared to MM. About 27.3 percent of practitioners felt that TM is efficacious and hence the preference over MM. About 18.2 percent each prefer TM because of cost, accessibility and taste. Furthermore, those who believe in the acceptance of traditional medicine (72.7 percent) by the municipality as a result of its effectiveness accounted for 36.4 percent whilst 18.2 percent of practitioners felt that TM is accepted because of a combination of factors; effectiveness, affordability and inadequate modern health facilities.

As characteristic of most TMPs, the survey revealed that practitioners claim to treat a wide range of diseases. They include malaria, impotency/infertility, typhoid fever, jaundice, bone setting among others. Traditional Birth Attendants also carry out deliveries. Majority of practitioners have operated for six to 15 years. About 72.8 percent accounted for this. Among the practitioners, 50 percent obtained their knowledge from relatives as against 18.2 who had it from formal education. Regarding the safety of patients, practitioners said there is constant increased patient awareness about safe usage (54.6 percent). Regular training to upgrade skills and knowledge, maintaining confidentiality of patients' information accounted for 27.3 percent each. None of the traditional health facilities accept NHIS subscribers. Patrons of TM according to the practitioners have to offer a chicken or its equivalent before treatment commences. About 54.4 percent of practitioners accept chicken as a form of payment whilst 36.4 percent accepts cash payments. Cereals and installments are other forms of payment according to practitioners. Majority of the practitioners (86.4 percent) felt that training will go a long way to improve upon the quality of service they provide to their clientele whilst 72.7 expressed their willingness to cooperate with their counterparts at MM.

Waiting time at traditional health facility is low as compared to modern medical facility. The results show that about 54.5 percent of clients receive their treatment in less than 60 minutes whilst 45.5 percent wait for between 61 to 120 minutes before accessing services. This waiting time is low as compared to those at the modern health facility.

Most of the practitioners (90.9 percent) said they face various operational challenges. Figure 4.4 demonstrates that 54 percent of the practitioners face financial challenges. About 18 percent of them face logistics problems as against 14 percent each who said inadequate personnel coupled with their low educational levels affect their operations. These challenges definitely will have an effect on the provision of quality health service. As such, government and other institutions can support with the provision of funds and logistics.



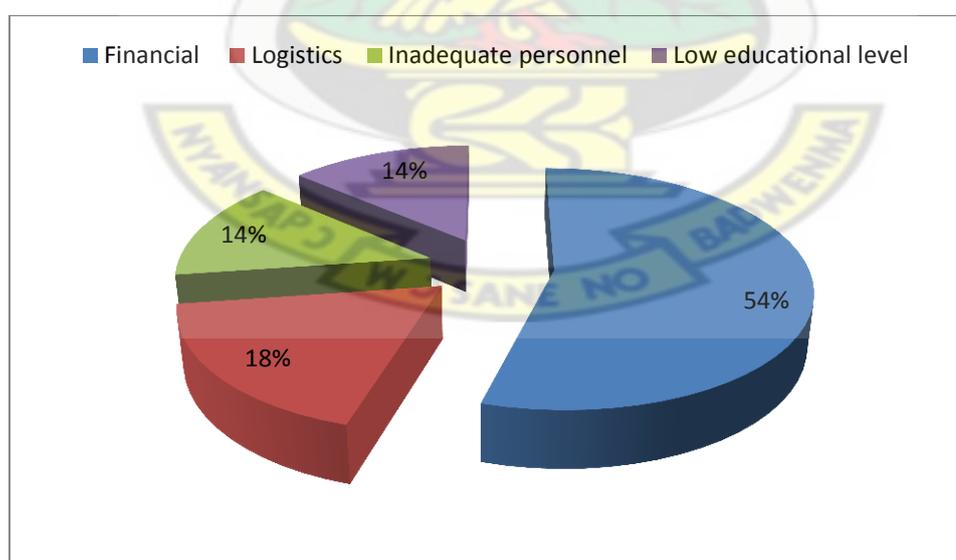
**Table 4.24 Traditional medical practitioners' perception about traditional medicine**

Issues	Response N=22
Registration status	
Registered	4(18.2)
Not-registered	18(81.8)
Preference of system of health care service	
Traditional	11(50)
Modern	2(9.1)
Both	9(40.9)
Membership of association	
Yes	4(18.2)
No	18(81.8)
Name of association	Ghana Association of Traditional Healers
Role of the association	
To ensure compliance of the regulations governing traditional medicine	2(9.1)
Promote quality of care	1(4.5)
Ensure efficacy and safety of care	1(4.5)
Reasons why patients prefer traditional medicine as compared to orthodox medicine	
Convenience	8 (36.4)
Affordability	4(18.2)
Efficiency	6(27.3)
Accessibility/Good taste	4(18.2)
Acceptance of traditional medicine by people in the Municipality	
Yes	16(72.7)
No	6(27.3)
Reasons for the acceptance of traditional medicine in the Municipality	
Effective	8(36.4)
Cheap	2(9.1)
Lack of modern health centres	2(9.1)
All the three combined	4(18.2)
Types of services offered by traditional medical practitioners	
Malaria	16(72.7)
Typhoid fever	15(68.2)
Impotency/Infertility	13(59.1)
Jaundice	10(45.50)
Bone setting	4(18.2)
Delivery of babies	2(9.1)
Years of practice of traditional medicine	
5 years and below	2(9.1)
6-10 years	8(36.4)
11-15 years	8(36.4)
16-20 years	2(9.1)
21 years and above	2(9.1)

**Con't: Table 4.24 Traditional medical practitioners' perception about traditional medicine**

Items	Response N=22
Measures to ensure safety of clients	
Regular training to upgrade skills and knowledge	(27.3)
Maintaining confidentiality of patients' information	6(27.3)
Increased patient awareness about safe usage	8(36.4)
Others specify	2(9)
Payment arrangements	
Cash	8(36.4)
Installment	1(4.5)
Chicken	12(54.5)
Cereals	1(4.5)
Training of Traditional Medical Practitioners for their practice	
Yes	19(86.4)
No	3(13.6)
Cooperation with modern health practitioners	
Yes	16(72.7)
No	6(27.3)
Waiting time at your facility	
Less than 60 minutes	12(54.5)
61-120 minutes	10(45.5)
121-180 minutes	0
181-240 minutes	0
241+	0

Source: Field Survey, November 2013

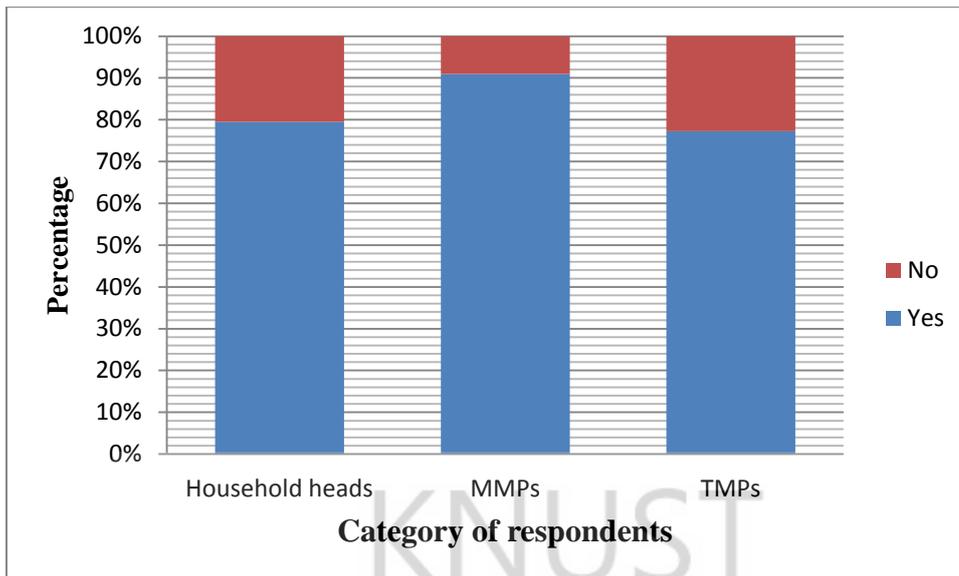


**Figure 4.4 Operational challenges of practitioners**

Source: Field Survey, November 2013

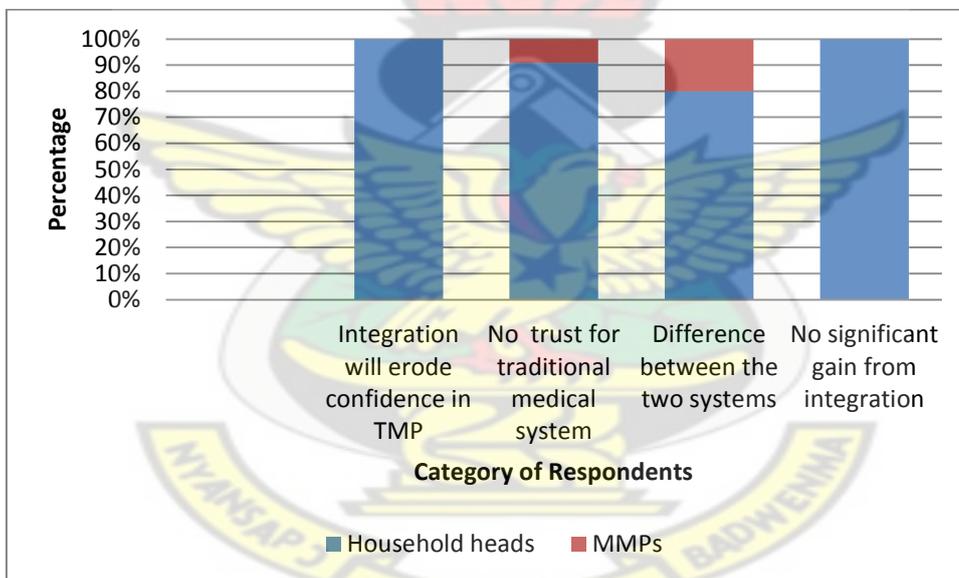
#### **4.15 The Prospects and Challenges of Integrating Traditional and Modern Medicine**

Many argue that it is improbable that modern medicine can unilaterally provide the necessary solutions to many of the health problems in the developing countries like Ghana. Devising an affordable health care system is, therefore, suggested. Integrating or linking, therefore, of the ubiquitous traditional health care system to the conventional care is recommended. Figure 4.5 indicates that majority of the respondents are in support of the integration of traditional and modern medicine. It shows that 78 percent household heads, 90 percent MMPs and 76 percent TMPs are in support of this opinion. Those against the integration were 22 percent household heads, 10 percent MMPs and 24 percent of TMPs. Varied reasons were given for their opposing view. From Figure 4.6, it is evident that 87 percent of household heads and 13 percent of TMPs are afraid that integration will lead to the erosion of confidence in traditional or traditional medical practitioners. It is presumed that the belief in the dependence of the healing powers of TM on secrecy and mysticism is shared by the consumers and, therefore, may erode consumers' faith and confidence in the efficacy of traditional medicine and thereby providing the basis for an outright resistance to integration. Trust of traditional medical system poses a concern to some household heads and medical practitioners. Due to the lack of trust, 76 percent household heads, eight percent MMPs and 19 percent TMPs felt that the integration will not yield the desired results. Some respondents who are against the integration said that there exist significant differences in the philosophy and practice of the two health systems; 65 percent heads of households, 17 percent MMPs and 18 TMPs supported this notion. Only a few household heads held the opinion that there might even be no significant gain from the integration effort (see Figure 4.6).



**Figure 4.5 Integration of traditional and modern medicine**

Source: Field Survey, November 2013



**Figure 4.6 Why traditional medicine should not be integrated into MM**

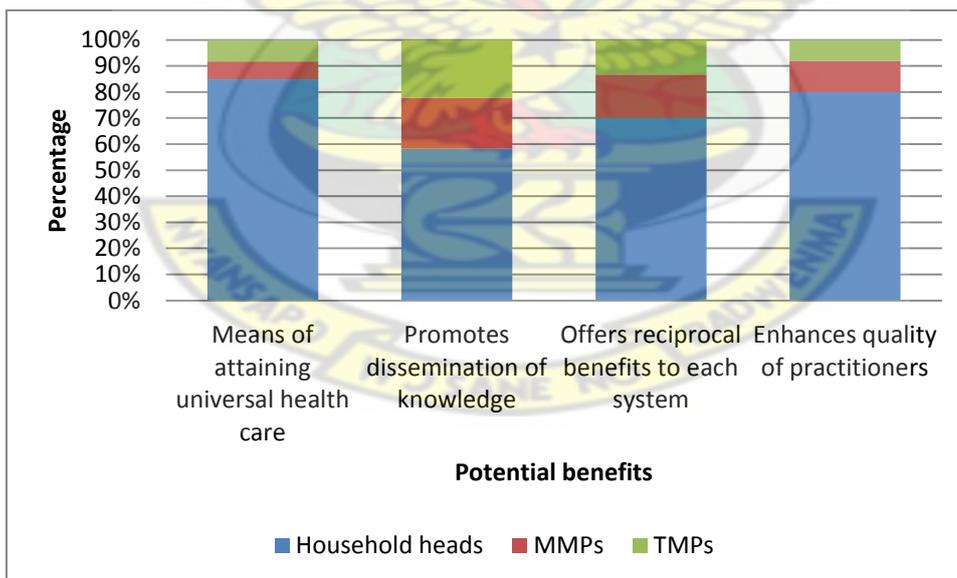
Source: Field Survey, November 2013

#### 4.15.1 Benefits/prospects of integration of traditional and modern medicine

The peaceful co-existence of traditional and modern medicine will indisputably yield certain dividends. From the research, majority of the respondents felt that integration will offer the best means of attaining universal health care for the population. With regards to the issue of attaining universal health care, 84 percent of household heads, seven percent of MMPs and nine percent supported this view. According to

respondents, TM is found in every nook and cranny of society where modern medical facilities are non-existent or better still ill equipped. In such situations, TM provides an alternative to the population. Respondents believe that particularly the underserved rural population will receive health services at a relatively reasonable cost.

The findings further indicated that (see Figure 4.7), integration of the two medical systems stand the chance of promoting the dissemination of knowledge. About 59 percent, 20 percent and 21 percent of household heads, MMPs and TMPs respectively advanced this point. Heads of household (HHs), MMPs and TMPs argued that the dissemination of knowledge will offer reciprocal benefits to each system. Household heads (70 percent), MMPs (15 percent) and TMPs (15 percent) advocated for this point. Also, 80 percent of household heads, 11 percent of MMPs and nine percent of TMPs were of the view that integration will enhance the quality as well as the numbers of traditional practitioners. Given this situation, the integration efforts should be strengthened among the various stakeholders in order to derive the appropriate benefits. It also implies that TM occupies a space in the health delivery system and hence should be given the necessary attention to ensure universal access to health services to people in the country.

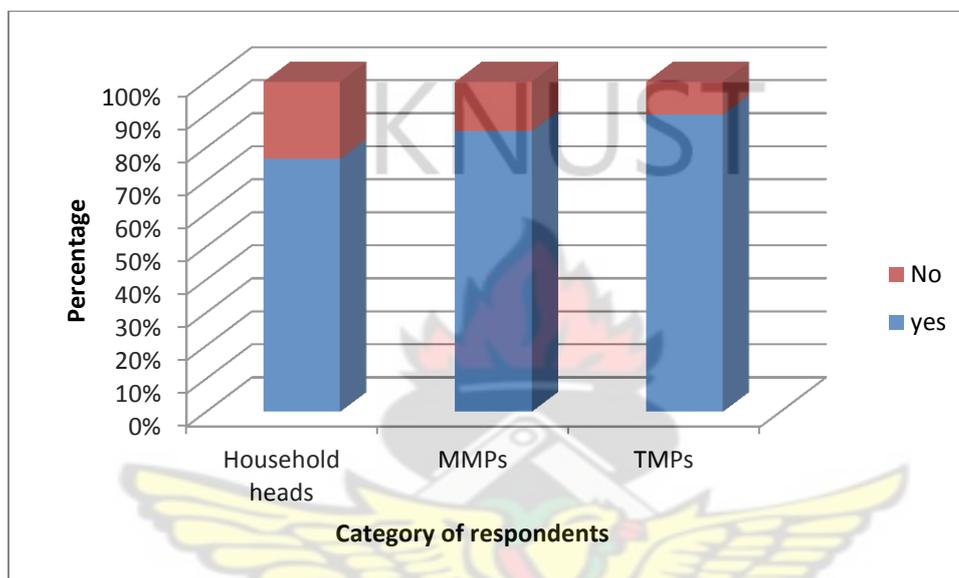


**Figure 4.7 Prospects of integrating traditional medicine into modern medicine**

Source: Field Survey, November 2013

#### 4.15.2 Possible challenges inhibiting the integration efforts

The efforts at integrating traditional and modern medicine according to the survey will possibly be faced by certain challenges. Household heads who believed that there will be challenges in an effort to integrate both systems were made of 68 percent as against 32 percent who held a contrary opinion. About 75 percent of MMPs indicated that the amalgamation of the two systems is likely to be obstructed by certain challenges as compared to 90 percent of TMPs who held this similar view.

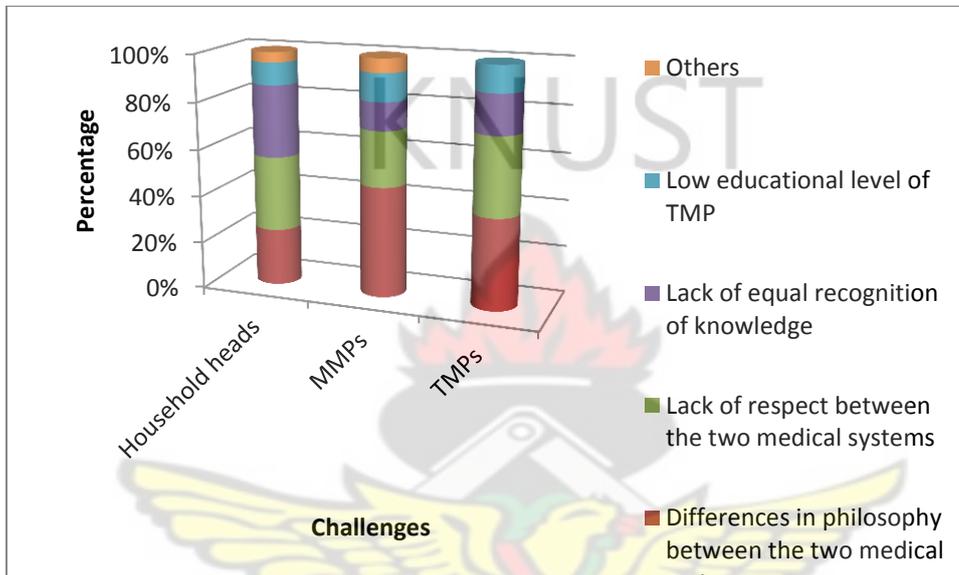


**Figure 4.8 Anticipation of challenges in the integration effort**

Source: Field Survey, November 2013

Figure 4.9 provides the anticipated challenges in an effort to integrate the two medical systems. It demonstrates that 15 percent of HHs, 40 percent of MMPs and 31 percent of TMPs felt the differences in philosophy and practices of the two systems will affect the initiative towards the peaceful co-existence of the two health systems. It further revealed lack of respect between practitioners of both systems as a problem to contend with. Of respondents supporting this notion, HHs represented 35 percent against 25 percent and 35 percent for MMPs and TMPs respectively. Respondents claim that practitioners in the modern health system do not respect their counterparts at the traditional medical care system because of the educational status they have attained. Lack of equal recognition of knowledge, is perceived by 31 percent of HHs, 13 percent of MMPs and 35 percent of TMPs to be a stumbling block to this integration agenda. Modern medical practitioners such as doctors, nurses are of the

opinion that they acquired more knowledge than TMPs and as such doubt their competence levels. This invariably confirms the low level of education of practitioners as problem. About 10 percent HHs, 12 percent MMPs and 16 percent TMPs felt the low level of TMPs will also have a telling effect on the integration process. Other household heads, about nine percent and 10 percent MMPs think that the unwillingness to interact and the rigidity to change will undoubtedly affect this process.



**Figure 4.9 Possible inhibiting factors to the integration effort**

Source: Field Survey, November 2013

#### 4.16 The way forward

Regarding the way forward, the respondents felt that there need to be mutual respect among practitioners within the two systems. This according to them will ensure equal recognition of knowledge which plays a major role in the integration process. Government needs to regularly conduct training sessions for TMPs to improve their skills since low level of education has been identified as a stumbling block to integration efforts.

#### 4.17 Summary

This chapter has analysed accessibility and utilisation of modern and traditional medicine in the Bolgatanga municipality. Furthermore, it covered a litany of issues ranging from respondents profile, which contain the following; age and sex distribution or gender, occupation, marital, religious status, and level of education of

the respondents. Issues such as level of patronage of both medical systems, perceptions on their efficacies, factors influencing the demand or preference for both health systems were considered. The prospects and challenges of the integration efforts formed the last part of this chapter.

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## CHAPTER FIVE

### SUMMARY OF FINDINGS, RECOMMENDATIONS AND CONCLUSION

#### 5.1 Introduction

The previous chapter has analysed comparatively, accessibility and utilisation of modern and traditional medicine in the Bolgatanga municipality. This chapter provides a summary of the major findings and recommendations towards appropriate integrative mechanisms of both medical systems.

#### 5.2 Summary of findings

The main objective of this study was to examine comparatively access to and utilisation of modern and traditional medicine by inhabitants of the Bolgatanga municipality. The major findings from the study are summarized below;

##### 5.2.1 Significance of the need, predisposing, enabling factors and utilisation

The socio-demographic characteristics of respondents relate to levels of utilisation, which invariably means that, aside the provider's characteristics, user characteristics are determinants of health care use. The survey has established that the need factor is as significant as the predisposing, enabling factors, as captured by Buor's model adopted for this study. People will go to hospital only when they have the means to do so and when the cost is affordable and the facility, easily accessible.

##### 5.2.2 NHIS has impacted positively on accessibility and utilisation to modern health services

On the issue of NHIS and utilisation, the results indicated that a greater percentage of respondents (87 percent) felt that NHIS has made health services accessible to them. O'Donnell, (2007) provided four key dimensions to accessibility; availability, geographic accessibility, affordability and acceptability. Household heads were interrogated bearing these parameters in mind. Though some reservations were made on waiting time at facility level (availability) and a few distance to be covered, they alluded to the fact that NHIS has improved access. One can visit a health facility any time provided his/her NHIS card is valid. Some even felt that because of NHIS, clients do facility shopping.

### 5.2.3 High level of patronage of modern medicine than traditional medicine

The results revealed that utilization of modern health care is high in the municipality. The survey unfolded a high patronage of modern medicine across both the rural and the urban areas. About 72.2 percent of HHs patronised modern medicine as compared to 15.6 percent who said they sought a traditional health facility during time of ill health. About 12.2 percent patronized both medical systems. This implies that the patronage of modern medicine is high as compared to traditional medicine in the municipality.

### 5.2.4 Factors responsible for the demand of modern and traditional medicine

The research uncovered varied factors influencing the choice of a particular health care system. The clientele of TM and MM said their consumption is influenced by the following factors; convenience (28 percent), taste and preference (8 percent), accessibility/affordability (20 percent), attitude of staff (7.2), effectiveness (33.6 percent) and others (3.2 percent) such as respect influence their choice of medical care. According to the clients, these factors lure them to patronize either of the health care systems.

### 5.2.5 Perceptions on the efficacy of modern and traditional medicine

In furtherance, the survey uncovered that majority of household heads are of the perception that modern medicine is most effective in the treatment of various diseases than TM. From the survey it was revealed that varied reasons were offered as regards to the perception of the efficacy of both systems. Reasons such as complete healing, quicker treatments of diseases among others were offered.

### 5.2.6 Prospects of integration of modern and traditional medicine

From the research, majority of the respondents felt that integration will offer the best means of attaining universal health care for the population (84 percent of HHs). Seven percent and nine percent of modern health and traditional health practitioners respectively supported this opinion. Respondents believe that particularly the underserved rural population will receive health services at a relatively reasonable cost. The findings further indicated that, integration of the two medical systems stand the chance of promoting the dissemination of knowledge (59 percent HHs, 20 percent MMPs and 21 percent TMPs) and hence offering reciprocal benefits to each system. Also, 80 percent of HHs, 11 percent of MMPs and nine percent TMPs were of

the view that integration will enhance the quality as well as the numbers of traditional practitioners.

#### 5.2.7 Possible challenges inhibiting the integration process

The study also revealed the anticipated challenges in an effort to integrate the two medical systems. The study discovered that 15 percent of HHs, 40 percent of MMPs and 31 percent of TMPs felt the differences in philosophy and practices of the two systems will affect the initiative towards the peaceful co-existence of the two health systems. It further revealed lack of respect between practitioners of both systems as a problem to contend with. Of respondents supporting this notion, HHs represented 35 percent against 25 percent and 35 percent for MMPs and TMPs respectively. Respondents claim that practitioners in the modern health system do not respect their counterparts at the traditional medical care system because of the educational status they have attained. Lack of equal recognition of knowledge, is perceived by 31 percent of HHs, 13 percent of MMPs and 35 percent of TMPs to be a stumbling block to this integration agenda. Modern medical practitioners such as doctors, nurses are of the opinion that they acquired more knowledge than TMPs and as such doubt their competence levels. This invariably confirms the low level of education of practitioners as a problem. About 10 percent HHs, 12 percent MMPs and 16 percent TMPs felt the low level of education of TMPs will also have a telling effect on the integration process. Nine percent of household heads and 10 percent MMPs think that the unwillingness to interact and the rigidity to change will undoubtedly affect this process.

### **5.3 Recommendations**

This part of the chapter makes proposals to address the challenges identified by this study in the Bolgatanga municipality. These recommendations if implemented within the next five to ten years, accessibility to and utilisation of modern and traditional medicine will be significantly improved. The recommendations are stated below;

The best alternative government can help with the improvement and utilization of traditional medicine is strengthening the incorporation process with regards to Primary Health Care (PHC). With this strengthened incorporation, the best of both TM and MM will be seen and the inferiority stigma will be minimised. Also when incorporated, the same modern technology used in the field of MM will be used in the

dispensation of TM. The National Health Insurance Scheme (NHIS) should also incorporate some aspects of traditional medicine, especially, herbal medicine into its essential drug list. There must be a balance between the two systems to create an affordable health care system that will be relished by all.

As it is now, the prospects of integrating TM into mainstream medicine is low as it might turn out to be waste of time and resources. If the idea must be considered as proposed by advocates of TM, then there is the need to put in deliberate effort by all stakeholders particularly government in the health sector aimed primarily at making the system more acceptable in the first place. It is only then that integration could make some economic meaning.

Government can also help improve traditional medicine by strengthening the policy frameworks. By instituting measures to regulate the activities of traditional medical practitioners, will yield dividends that can improve the quality of TM. This can be achieved by firstly making sure that all practitioners are working within identifiable groups with licence to operate; this will help reduce the menace of quack practitioners operating in the system. Within these working groups, members should be initiated only after their medicines have been tested and approved by qualified personnel.

The nationwide rollout of capitation under NHIS should be vigorously carried out. This will ensure that the gate keeper system is adhered to thereby limiting the pressure at some few health facilities.

#### **5.4 Conclusion**

From the research findings, it became obvious that people in the municipality placed premium on the relevance of the two main forms of health care. The results further uncovered that discrimination of one form against the other is based on many reasons apart from efficacy. Despite the fact that the patronage of traditional medicine is low in the municipality, the potential of traditional medicine in treating diseases was acknowledged by household heads and practitioners both in modern and traditional medicine. As such, traditional medicine undoubtedly occupies so much space in the health care delivery system in the country.

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**APPENDICES**  
**DEPARTMENT OF PLANNING**

**COLLEGE OF ARCHITECTURE AND PLANNING**

**Kwame Nkrumah University of Science and Technology, Kumasi.**  
**TOPIC: Accessibility and Utilisation of Health Services in Northern Ghana: A**  
**Comparative Study of Modern and Traditional Health Facilities in the**  
**Bolgatanga Municipality.**

**APPENDIX 1: HOUSEHOLD QUESTIONNAIRE**

The research is part of a survey being conducted in partial fulfillment of the award of a Masters Degree in Development Policy and Planning from KNUST. This questionnaire has been designed to gather data from household heads of selected communities within the Bolgatanga municipality and it is solely for academic purpose. Information given will be treated with utmost confidentiality.

Name of enumerator:.....  
Date of interview:.....  
Name of Community.....

**Socio-Demographic Characteristics**

1. Gender: Male [ ] Female [ ]
2. Age(a) 20-30 [ ] (b) 31-40 [ ] (c) 41-50 [ ] (d) 51-60 [ ] (e) 60 and above [ ]
3. Marital status: (a) Married [ ] (b) Single [ ] (c) Divorced [ ] (d) Widowed [ ]
4. Religious status of respondents: (a) Christian [ ] (b) Islam [ ] (c) Traditionalist [ ]  
Others specify [ ]
5. Educational Status: (a) No Formal Education [ ] (b) Basic education [ ]  
(c) Secondary education [ ] (d) Vocational/Technical [ ] (e) University [ ]
6. What work do you do for a living? (a) Agriculture [ ] (b) Industry [ ] (c) Service [ ]  
(d) Commerce [ ] (f) others (specify) .....
7. How much do you earn in a month? (a) Below GH¢200.00 (b) GH¢200-299 (c)  
GH¢300-399 (d) GH¢400-499 (e) GH¢500 and more

8. Are you insured with the National Health Insurance Scheme? a. Yes [ ] b. No [ ]  
skip to Q 11 if no

9. If yes, do you think NHIS has any effect on your access to health services?

a. Yes [ ] b. No [ ]

10. If no, why?

(a) NHIS prolongs waiting time at the provider level [ ]

(b) Delays in disbursement affects service provision [ ]

(c) NHIS comprises quality of service provision [ ]

(d) NHIS does not cover all healthcare services [ ]

(e) Others specify [ ]

11. If no, how do you pay for your healthcare services?

(a) Preventive checkups [ ] (b) Personal savings [ ] (c) Savings from relatives [ ] (d) self-medication [ ] (e) Others (specify).....

### **Physical and Financial Access to Health Services**

12. Do you have access to health care? a. Yes [ ] b. No [ ]

13. If yes, what form? a. Modern medicine [ ] b. Traditional medicine [ ] c. Both [ ] d. Others (Specify).....

14. Factor of accessibility you will consider most when seeking medical care:

a. Distance [ ] b. Time (Travel and Waiting) [ ] c. Financial ability [ ] d. Tastes and Preferences

(e) Social accessibility [ ] (f) others (specify).....

15. Distance of a modern health facility from your house: a. 2km and below [ ] b. 3km-5km [ ] c. 6km-8km [ ] d. 9km or more

16. What is the waiting time that you observe before gaining access to a modern health facility? a. Less than 60 minutes [ ] b. 60-120 minutes [ ] c. 121-180 minutes d. 181-240 minutes (e) 241 minutes or more [ ]

17. Distance of a traditional health facility from your house: a. 2km and below [ ] b. 3km-5km [ ] C. 6km-8km [ ] d. 9km or more

18. What is the waiting time that you observe before gaining access to a traditional health facility: a. Less than 60 minutes [ ] b. 60-120 minutes [ ] c. 121-180 minutes d. 181-240 minutes (e ) 241 minutes or more [ ]

19. What means of transport do you usually use to visit a health facility? On foot [ ] (b) Bicycle [ ] (c) Motorbike [ ] (d) Ambulance [ ] (e) other cars [ ] (f) others (specify).....

20. Number of times fallen sick in the last 3 months: a. Once [ ] b. Twice [ ] c. Thrice [ ] d.3 times and above [ ] (e) None [ ]

**Level of Patronage of Modern and Traditional Facilities in the Bolgatanga Municipality**

22. Have you been to any health facility within the past one year? Yes [ ] No [ ]

24. If modern medicine, what reason accounted for that choice?

(a) Proper diagnosis of diseases [ ] (b) Accessible and cheaper [ ] (c) Effectiveness [ ] ( d)Attitude of health staff [ ] (e) Others specify.....

25. If traditional medicine, what reason accounted for that choice?

a. Convenience [ ] b. Taste and preference [ ] c. Accessibility [ ] d. Effectiveness [ ]

**Perceptions on the efficacy of Modern and Traditional Medicine**

26. Which form of medical system do you consider most effective in treating diseases?

(a) Modern [ ] (b) Traditional [ ]

27. If modern medicine is considered effective, what reason accounted for that?

(a) Treatment is quicker than traditional medicine [ ] (b) Complete healing [ ] (c) Thorough diagnosis before treatment [ ] (d) Modern medicine is tried and tested [ ] (e) others specify .....

28. If traditional medicine is considered effective, what reason accounted for that?

- (a) Treatment is quicker than modern medicine [ ] (b) Complete healing [ ] (c) Thorough diagnosis before treatment [ ] (d) Traditional medicine is natural [ ] (e) others specify .....

### **The Prospects and Challenges of integrating Traditional and Modern Medicine**

29. Do you support integration of traditional and modern health care services systems?

- (a) Yes [ ] (b) No [ ]

30. If no, why?

- (a) Integration will erode confidence in traditional medicine or traditional medical practitioners [ ] (b) Do not trust the traditional medical system [ ] (c) The philosophy and practice of traditional medicine is different from that of modern medicine [ ] (d) No significant gain from integration [ ] (e) Others specify.....

31. If yes, what do you think is the benefit of integration of traditional and modern health care services systems?

- (a) Offers the best means of attaining universal health care for the population [ ]  
(b) Promotes the dissemination of knowledge relating to primary health care [ ]  
(c) Offers reciprocal benefits to each system [ ]  
(d) Enhances the quality of the practitioners as well as their numbers [ ]  
(e) Others specify.....

32. Do you think there will be any challenges in an effort to integrate traditional and modern health care services systems?

- (a) Yes [ ] (b) No [ ]

33. If yes, what are the challenges?

- (a) The philosophy and practice of traditional medicine is different from that of modern medicine  
(b) Lack of mutual respect between the two medical systems [ ]  
(c) Lack of equal recognition of knowledge [ ]

(d) Low level of education of traditional medical practitioners [ ]

(a) Others specify [ ]

34. In your opinion how do you think these challenges can be solved?

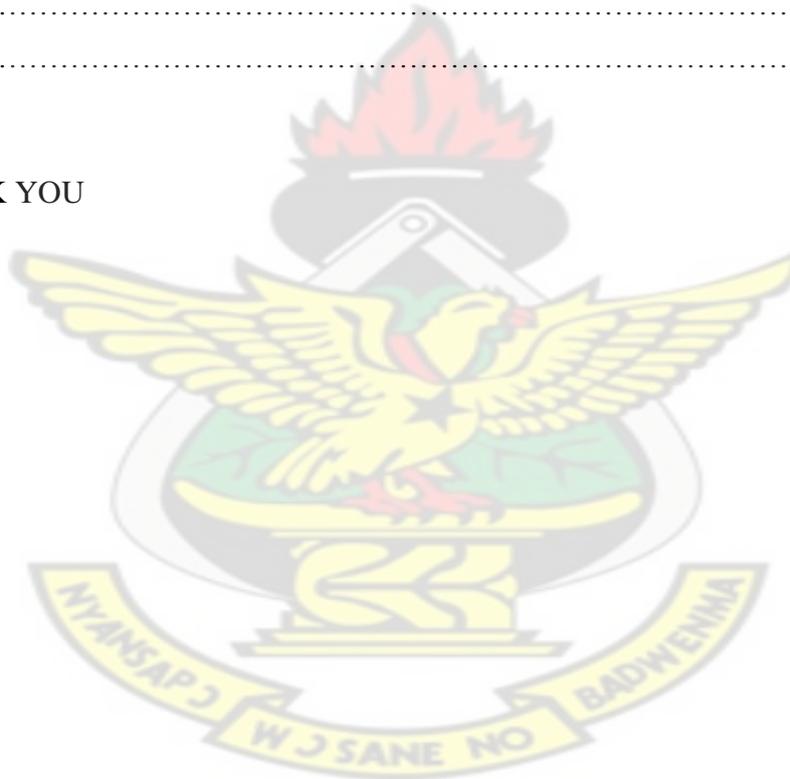
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35. Do you have any other information you think is relevant and you can share which did not cover by the questionnaire?

.....  
.....

THANK YOU

/



**DEPARTMENT OF PLANNING**

**COLLEGE OF ARCHITECTURE AND PLANNING**

**Kwame Nkrumah University of Science and Technology, Kumasi.**

**TOPIC: Accessibility and Utilisation of Health Services in Northern Ghana: A Comparative Study of Modern and Traditional Health Facilities in the Bolgatanga Municipality**

**APPENDIX 2: QUESTIONNAIRE FOR TRADITIONAL MEDICAL PRACTITIONERS**

The research is part of a survey being conducted in partial fulfillment of the award of a Master of Science Degree in Development Policy and Planning from KNUST. This questionnaire has been designed to gather data from traditional medical practitioners on their perceptions about traditional medicine. It is solely for academic purpose and as such information given will be treated with utmost confidentiality.

Name of enumerator:.....

Date of interview:.....

Name of Facility if any (optional).....

Registration status: .....

**Socio-demographic characteristics of practitioners**

1. Gender: Male [ ] Female [ ]
2. Age: (a) 20-30 [ ] (b) 31-40 [ ] (c) 41-50 [ ] (d) 51-60 [ ] (e) 60 and above [ ]
3. Marital status: Married [ ] Single [ ] Divorced [ ] Widowed [ ]
4. Religious affiliation: (a) Christian [ ] (b) Muslim [ ] (c) Traditionalist [ ] others specify
5. Educational Status: (a) No Formal Education [ ] (b) Basic education [ ] (c) Secondary education [ ] (d) Vocational/Technical [ ] (e) University [ ]
6. Which health care service system do you prefer?  
(a) Traditional [ ] (b) Modern [ ] (c) Both [ ]
7. Do you belong to an association? Yes [ ] No [ ] if no, Skip to Q10
8. If yes, what is the name of the association? .....

9. What is the role of the association? (a) To ensure compliance of the regulations governing traditional medicine [ ] (b) promote quality of care [ ] (c) ensure efficacy and safety of care [ ]  
 (d) Others specify.....
10. Why do patients prefer traditional medicine as compared to orthodox medicine?  
 (a) Convenience [ ] (b) Affordability [ ] (c) Efficiency [ ] (d) Accessibility/ Good taste [ ]  
 (e) Others (specify).....
11. Do you believe that traditional medicine is accepted by people in the Municipality? Yes [ ] No [ ] if no skip to Q13
12. What are the main reasons for the acceptance of traditional medicine in the Municipality?  
 (a) Effective [ ] (b) Cheap [ ] (c) Lack of modern health centres [ ] (d) All the three combined [ ]
13. What are the types of diseases treated by traditional medical practitioners?  
 (a) Malaria [ ] (b) Typhoid fever [ ] (c) Impotency/Infertility [ ] (d) Jaundice [ ] (e) Others specify.....
14. How many years have you been practicing traditional medicine? (a) 5 years and below [ ] (b) 6-10 years [ ] (c) 11-15 years [ ] (d) 16-20 years [ ] (e) 21 years and above [ ]
15. How did you acquire those skills?  
 a. Relative [ ] b. Traditional healer [ ] c. Myself [ ] d. Formal educational [ ] e. Others specify.....
16. How do you ensure safety of patients?  
 (a) Regular training to upgrade skills and knowledge  
 (b) Maintaining confidentiality of patients' information  
 (c) Increased patient awareness about safe usage  
 (d) Others specify.....
17. Do you accept NHIS? Yes [ ] No [ ] if no why?  
 .....
18. What is the payment arrangement usually made by clients? (a) By cash [ ] (b) a fowl [ ] (c) cereals [ ] (d) Installments [ ] (e) Others specify.....
19. Do you recommend training of Traditional Medical Practitioners for their practice?  
 (a) Yes [ ] (b) No [ ]
20. Are you willing to cooperate with modern health practitioners?  
 (a) Yes [ ] (b) No [ ]

21. What is the waiting time that you take in treating a patient? a. Less than 60 minutes [ ] b. 60-120 minutes [ ] c. 121-180 minutes [ ] d. 181-240 minutes [ ] (e ) 241 minutes or more [ ]

22. Do you face any operational challenges? If no skip to Q25

(a) Yes [ ] (b) No

23. If yes, what are these challenges?

(a) Financial challenges (b) Logistics (c) Personnel (d) Low educational level (e )  
Others specify.....

24. In your opinion how do you think these challenges can be solved?

.....  
.....

25. Do you support integration of traditional and modern health care services systems?

(a) Yes [ ] (b) No [ ]

26. What do you think is the benefit of integration of traditional and modern health care services systems?

(a) Offers the best means of attaining universal health care for the population [ ]

(b) Promotes the dissemination of knowledge relating to primary health care [ ]

(c) Offers reciprocal benefits to each system [ ]

(d) Enhances the quality of the practitioners as well as their numbers [ ]

(e) Others specify.....

27. Do you think there will be any challenges in an effort to integrate traditional and modern health care services systems?(a) Yes [ ] (b) No

38. If yes, what are the challenges?

(a) The philosophy and practice of traditional medicine is different from that of modern medicine

(b) Lack of mutual respect between the two medical systems [ ]

(c) Lack of equal recognition of knowledge [ ]

(d) Low level of education of traditional medical practitioners [ ]

(a) Others specify [ ]

39. In your opinion how do you think these challenges can be solved?

.....

40. Do you have any other information you think is relevant and you can share which did not cover by the questionnaire?

.....

THANK YOU



## DEPARTMENT OF PLANNING

### COLLEGE OF ARCHITECTURE AND PLANNING

**Kwame Nkrumah University of Science and Technology, Kumasi.**

**TOPIC: Accessibility and Utilisation of Health Services in Northern Ghana: A Comparative Study of Modern and Traditional Health Facilities in the Bolgatanga Municipality**

#### **APPENDIX 3: QUESTIONNAIRE FOR MODERN HEALTH PROFESSIONALS**

The research is part of a survey being conducted in partial fulfillment of the award of a Master of Science Degree in Development Policy and Planning from KNUST. This questionnaire has been designed to gather data from modern medical practitioners located in the Municipality. It is solely for academic purpose. Information given will be treated with utmost confidentiality.

Name of enumerator:.....

Date of interview:.....

Name of facility:.....

1. Gender: Male [ ] Female [ ]
2. Age: (a) 20-30 [ ] (b) 31-40 [ ] (c) 41-50 [ ] (d) 51-60 [ ] (e) 60 and above
3. Marital status: (a) Married [ ] (b) Single [ ] (c) Divorced [ ] (d) Widowed [ ]
4. Educational Status: (a) No Formal Education [ ] (b) Basic education [ ] (c) Secondary education [ ] (d) Certificate/diploma [ ] (e) Degree and above [ ]
5. Religious affiliation: (a) Christian [ ] (b) Muslim [ ] (c) Traditionalist [ ] others specify
6. Do you accept traditional health care practice? (a) Yes [ ] (b) No [ ]
7. Have you ever visited a traditional medical practitioner? (a) Yes [ ] (b) No [ ]
8. Do you have any collaboration with traditional medical practitioners? (a) Yes [ ] (b) No [ ]
9. Have you come across patients who visited modern health care service soon after visiting TMP? (a) Yes [ ] (b) No [ ]
10. Have you ever treated patients referred by Traditional Medical Practitioners? (a) Yes [ ] (b) No [ ]

11. Which health care service do you prefer? (a) Modern  (b) Traditional  (c) Both
12. What are the solutions you sought for the improvement of traditional medical practitioners?
- (a) Scientific research
- (b) Training traditional medical practitioners
- (c) Sustainable utilization of medicinal plants
- (d) Government assistance to traditional medical practitioners
- (e) Provision of license to traditional medical practitioners
13. Do you agree with training of traditional medical practitioners for the improvement of the practice?
- (a) Yes  (b) No
14. What are the important areas of training Traditional Medical Practitioners?
- (a) Dosage and side effect
- (b) Hygienic preparation and administration of medicaments
- (c) Diagnosis of health problems
- (d) Revealing indigenous knowledge
- (e) Sustainable utilization of medicinal plants
15. Do you agree with government support to traditional medical practitioners? (a) Yes  (b) No
16. If yes or no, why?
- .....
17. Do you support integration of traditional and modern health care services systems?
- (a) Yes  (b) No  (c) No opinion
18. What do you think is the benefit of integration of traditional and modern health care services systems?
- (a) Offers the best means of attaining universal health care for the population
- (b) Promotes the dissemination of knowledge relating to primary health care
- (c) Offers reciprocal benefits to each system
- (d) Enhances the quality of the practitioners as well as their numbers
- (e) Others specify.....

19. Do you think there will be any challenge(s) in an effort to integrate traditional and modern health care services systems?

(a) Yes [ ] (b) No

20. If yes, what are the challenges?

(a) The philosophy and practice of traditional medicine is different from that of modern medicine

(b) Lack of mutual respect between the two medical systems [ ]

(c) Lack of equal recognition of knowledge [ ]

(d) Low level of education of traditional medical practitioners [ ]

(e) Others specify [ ]

21. In your opinion how do you think these challenges can be solved?

.....

22. Do you have any other information you think is relevant and you can share which did not cover by the questionnaire?

.....

.....

.....

THANK YOU

