UNIVERSITY OF GHANA

UTILISATION OF HEALTH CARE SERVICES IN THE OBUASI MUNICIPALITY

BY

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THIS THESIS IS SUBMITTED TO THE UNIVERSITY OF GHANA, LEGON IN PARTIAL FULFILLMENT OF THE REQUIREMENTS FOR THE AWARD OF MPHIL GEOGRAPHY AND RESOURCE DEVELOPMENT DEGREE

DECEMBER, 2014

DECLARATION

This is to certify that this thesis is the result of research undertaken by Ebenezer Odame Darkwah towards the award of the Master of Philosophy in Geography and Resource Development in the Department of Geography and Resource Development, University of Ghana.

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ABSTRACT

Globally, attention and investments towards demand-side strategies to enhance health care utilisation have improved over the years. Despite this significant investment in health care, its utilisation is far from adequate. Against this backdrop, this study examined the utilisation of health services in the Obuasi Municipality. Drawing on Kroeger's (1983) health behavioural model, it specifically examined the incidence of major diseases and people's perception about disease causation. The study also assessed the kinds of health facilities often utilised by different socio-economic groups and factors influencing the use of these health facilities in the Obuasi Municipality. Lastly, the modes through which people in the study area finance their health care were also examined. A multi-stage cluster sampling method was used in selecting 210 respondents for a household survey whiles a respondents for the qualitative facet of the study were purposively selected.

The study reports that malaria is the most prevalent disease among diseases reported by the respondents. Respondents gave much credence to the natural aetiological model and the epidemiological triad of disease causation. The study showed higher utilisation of hospitals and health clinics than health centres and traditional health centres. The proximity of health facilities, quality of health services rendered, adequacy of equipment and personnel, social accessibility are some of the factors that influence utilisation of specific health facilities in the Obuasi Municipality. Nonetheless, the study reports self-medication as a significant intervening health care resource whereas NHIS, out-of-pocket and private insurance are the main modes of health care financing in the study area. The study concludes that there is a direct positive link between perceived morbidity, illness response, access to and use of health care services, as reported by Kroeger (1983). The study therefore recommends a revamp of most of the health facilities and provision of mobile or outreach clinical services to dispersed rural communities, which do not have the threshold population to merit Community-based Health Planning Services (CHPS).

ACKNOWLEDGEMENTS

I wish to thank all those who have offered assistance and advice in diverse ways during my course of study and in preparation of this Thesis. I am most grateful, first of all to the Almighty God who through His Infinite Love and Grace taught me the principles of life. I have come this far in my pursuit of knowledge just by His abundant grace and mercy. My sincere thanks go to Dr. Joseph K. Teye and Dr. Charlotte Wrigley-Asante for their invaluable comments and constructive suggestions.

I am very grateful to my father Mr. Samuel Darkwah for his continuous support, love and valuable suggestions from the beginning of my studies to the end. My sincere gratitude goes to my mother Ms. Comfort Ansomah and siblings: Barbara Odame Darkwah, Jennifer Odame Darkwah and Kwaku Asante Darkwah, for their support.

I want to sincerely thank Wendelina Acheampomah Boakye, Faustina Obeng Adoma, Kwabena Asare and all my friends for the significant role they played during the primary data collection. Again, Mr. James Kofi Gyimah, Mrs. Felicia Amofa, Mr Felix Achew, Mr. Vincent Adiamah, Mr Yawson, Mrs. Edna Gyau Baffuor and Mr. Kwabena Kyeremanteng, all deserve words of appreciation for their support during my field work.

DEDICATION

This thesis is dedicated to my parents Mr. Samuel Darkwah, Ms Comfort Ansomah and all parents who strive to make a better life for their children.

TABLE OF CONTENTS

LIST OF TABLES

LIST OF FIGURES

LIST OF ABBREVIATIONS

AGA	-	AngloGold Ashanti
AIDS	-	Acquired Immune Deficiency Syndrome
CBOs	-	Community Based Organisations
EA	-	Enumerated Area
GNHP	-	Ghana National Health Policy
GSGDA	-	Ghana Shared Growth and Development Agenda
HIV	-	Human Immunodeficiency Virus
HSB	-	Health Seeking Behaviour
HRU	-	Health Research Unit
NGOs	-	Non-Governmental Organisations
NHIS	-	National Health Insurance Scheme
OGH	-	Obuasi Government Hospital
OMA	-	Obuasi Municipal Assembly
OMHD	-	Obuasi Municipal Health Directorate
OMTDP	-	Obuasi Medium Term Development Plan
SPSS	-	Statistical Package for Social Sciences
WHO	-	World Health Organisation
UN	-	United Nation
USAID	-	United States Agency for International Development

CHAPTER ONE

1.1 Introduction

It has been widely acknowledged that an improvement in the health status of a population is ultimately reflected in the progress of that group's socio-economic development (Aregbeyen, 1992; Conner & Norman, 1996). Good health is essential to human well-being and an underlying objective to development (Omotoso, 2010) whiles poverty and underdevelopments are associated with an ailing population (Philips, 1990). As a result, productivity is inextricably linked to the health of any workforce in any country.

As a result, global approaches and efforts are being made by governments and international organisations in ensuring an improvement in the health status of people (Prosser, 2007). This is evident in the three health goals, namely reduce child mortality rates, improve maternal health and combat HIV/AIDS, malaria and other diseases championed through the Millennium Development Goals of the United Nations (United General Assembly, 2000; Gender & Development group, 2003). Against this backdrop, attention towards demand-side strategies to enhance utilisation of health services has gained much attention, especially in developing countries (Grundy & Annear, 2010). Nevertheless, there exist variations in availability of health care services, its utilisation and associated behavioural patterns for different socio-economic, ethnic, urban-rural and intra-urban groups (Philips, 1990). The disparity in terms of resource availability between the urban and rural populace is further advanced and made lucid in Lipton's urban bias thesis (Lipton, 1977).

There is however evidence to suggest that an individual's characteristics predisposes him or her to make wholesome decision in the choice and use of a particular health care in the presence of a perceived health condition or disorder (Kroeger, 1983). In this regard, spatial

residence, sex, education, income and other socio-cultural factors are noted to be recurring themes in several studies conducted in many developing countries, especially in Asia and Africa (see for instance, Segall et al., 2000; Ahmed et al., 2001; Hoeven et al., 2012, Stekenlenburg, 2004; Omotoso, 2010). Socio-demographic factors significantly account for patterns of health care utilisation. Some studies report utilisation of public health facilities to be associated with rural areas and poverty, while the use of private hospitals are allied to urban areas, better education and higher income (Mushtaq et al., 2011).

In addition, the type of health care resources stemming from its place and scale of operation, shape an individual's decision making in the choice and use of health care services (Mckinlay, 1972; Tiping & Segall, 1995; Mazzilli & Davies, 2009). Thus, these factors are noted to predispose, enable or prevent the individual from making wholesome choices in utilising medical services (Andersen & Newman, 1973; Aday & Andersen, 1974), and their behavioural patterns in terms of their response to illness (Mckinlay, 1972; Anderson, 1995; Omotoso, 2010).

Also, need factors like illness type and its severity is known to influence the utilisation pattern of health services (Andersen, 1995; Omotoso, 2010, Orubuloye, 1999). Some studies suggest a direct positive link between perceived morbidity and the kind of treatment option an individual opts for (Kroeger, 1983; Hedge, 2009). Thus, whiles others may prefer to utilise traditional medicine for some illness episode others prefer to utilise modern health care (Orubuloye, 1999; Hedge, 2009).

In addition, irrespective of predisposing, enabling and need factors, Zwi and Yach (2002) argue that income disparity between the urban and rural populace accounts for the dichotomy in their utilisation of health services. Individuals in urban areas with regular income source are more likely to seek treatment and prefer formal and private health contrary to those in the rural areas with a relatively irregular income source (Needham et

al., 2001; Prosser, 2007). Even though income has been established as an integral factor that influences utilisation of health services (Mustaq et al., 2011; Muriithi, 2013), some studies suggest that the mode through which an individual finances health care also plays a major role in their illness response and utilisation of health services (Saeed et al., 2013; Blanchet et al., 2012). This has being reported to either mitigate the financial conundrum faced by users of health care facilities (Blanchet et al., (2012) or deepen their financial woes at the end point utilisation of health services (Ensor and Cooper, 2004). Although the advent of the National Health Insurance Scheme (NHIS) has enhanced accessibility and utilisation of health services in Ghana (SEND-Ghana, 2010), its achievements are far-fetched.

Ghana places health at the centre of socio-economic development as a key engine of development and wealth creation (GNHP, 2007). It has for instance gone beyond policy to implementation of the national health quality programme. This is mainly because improving the quality of health care and enhancing equity in accessibility and utilization of health care are key objectives of the Health Ministry (Offei et al., 2004). There however exists a disparity between the urban and rural communities in terms of health care accessibility and utilisation (GSGDA, 2010); while the rural communities are noted to use informal health care, such as traditional healers, drug peddlers, and drugstores to save time and money the urban populace utilise formal care (Buor, 2003; Danso-Appiah et al., 2004). There is inadequate knowledge of what attracts individuals to seek care at orthodox health providers and even less knowledge about what keeps individuals away from those health providers (Ensor et al., 2004). This study seeks to address this issue and bring to the fore how perceived morbidity and perception about disease aetiology influence choice and utilisation of health services.

1.2 Problem statement

Ideally, the utilisation of health services by a population is largely dependent on the health seeking behaviour of that group. First of all, acknowledging a health problem is often recognised as the need for health care. Apart from recognition of health problem, access to health care has been noted to determine the utilisation of health care (Andersen, 1995). These factors include availability and affordability of care, health consciousness of the population, cost of services and perceived quality of care (Peters et al., 2002). There exist a direct link between perceived morbidity, illness response, access to and use of health care (Kroeger, 1983; Majumder, 2006; Hedge, 2009; Majaj et al., 2013).

It is axiomatic that perception about a disease with regards to its aetiology influences response to it and the need to use health services (Chi-Yung et al., 2006). This is noted to account for low or high utilisation of health services. There are reported cases of low utilisation of services in instances where individuals attribute the causes of illness to religious or cultural forces relative to natural causative factors (Olurinola, 2002; Obidiya et al., 2011). This is noted to result in deteriorating health conditions, mortality and other related health complications, especially when formal and appropriate health care is not sought. This has been reported to affect end point utilisation of health services. Most health utilisation studies focus specifically on the determining factors (see for instance Majumder, 2006; Pariyo et al., 2009, Saeed et al., 2013; Muriithi, 2013), without taking into consideration how perceived morbidity and perception about disease causation influence pattern of health care utilisation. Different studies have addressed this issue with varying results. (Mahmood & Ali 2002; Stekenlenburg, 2004; Rahman et al., 2011).

In view of this, bridging the health care utilisation gap between the urban and rural setting has formed the crux of many debates on health care. Such debates are often predicated on the polarized nature of health service distribution and its resulting influence on the

utilisation of health services by the urban and rural populace (Thompson et al., 2003; Iyalomhe & Iyalomhe, 2012; Hoeven et al., 2012). Disparity in the distribution of health facilities among the rural and urban communities often results in the rural populace relying on intervening options. These intervening options include self-medication and resorting to "quack doctors", which sometimes result in serious health implications and mortalities (Buor, 2004). In most instances, this results in a delay in seeking appropriate health care from formal health providers (Malik et al., 2006). Despite considerable investment in health care, its utilisation is far from adequate (Peters et al., 2002).

In the case of the Obuasi Municipality, the current proliferation of health care facilities, skewed towards the core areas of the municipality has engendered disparity between the urban and rural populace in terms of their illness response, accessibility and utilization of health care (OMTDP, 2010). Given that disparity in health service distribution influences utilisation of health services and also accounts for poor health seeking behaviour (see for instance Buor, 2004; Maik et al., 2006; Hoeven et al., 2012; Muriithi, 2013), this study deems it necessary to ascertain the kind of health facilities the urban and rural populace resort to when ill, and the various factors that influence their choice and use of these health facilities. Such information is crucial for addressing the health needs of the specific population and in the evaluation of health services in the study area. Clearly, there has long been an interest in what influences people's behaviour in relation to their health and what prompts people to use health facilities. In the light of this, the study intends to assess utilization of health care services among urban and rural communities in the Obuasi Municipality.

1.3 Objectives

The main objective of this study was to assess the utilisation of health care services in the Obuasi Municipality.

The specific objectives include:

1. To describe the incidence of major diseases and people's perception about disease causation in the Obuasi Municipality
2. To examine the type of health facilities used by different socio-economic groups in the Obuasi Municipality.
3. To assess the factors that influence the use of specific health facilities in the study area
4. To examine the modes of health care financing in the Obuasi Municipality.

1.4 Hypothesis

1. Ho: There is no significant relationship between socio-demographic characteristics of respondents and the type of health facilities often utilised**.**

   H_A: There is a significant relationship between socio-demographic characteristics of respondents and the type of health facilities often utilised.

2. H_O: There is no significant relationship between disease severity and the type of health care resource urban and rural communities often utilised.

   H_A: There is a significant relationship between disease severity and the type of health care resource urban and rural communities often utilised.

3. Ho: There is no significant relationship between respondents' mode of health financing and place of residence.

   H_A: There is a significant relationship between respondents' mode of health financing and place of residence**.**

1.5 Justification of the study

The significance of this study is in two-folds. First of all, understanding the pattern of utilisation of health care services provides a basis on which governments can reform health policy and tailor appropriate health measures to meet the needs of the people. Drawing on the dichotomy between the urban and rural populace will enable the researcher gain deeper insights into variations and similarities in their choice of health care, the various factors that influence their choices and the problems they are confronted with. This will in the long run inform health care providers of the various disparities and ways of bridging it in the Obuasi Municipality.

Secondly, it seeks to add to the existing body of knowledge on the health utilisation discourse in developing countries and Ghana to be specific. This is done by taking into consideration the broader contextual issues regarding the disease pattern and perception about disease causation, urban and rural populace choice of health facility coupled with its influencing factors, and ways they finance their health care. Clearly, situating it in these contexts is meant to improve previous health utilisation studies that focused on disease-specific, under-five mortality and health reforms. This will help improve existing theories and models by giving it a spatial dimension.

It is anticipated that a broader understanding of health care utilisation pattern in the Obuasi Municipality will allow a better appreciation of how the urban and rural populace interact with health service providers, i.e. formal and informal, private and public, modern or traditional, and the process of illness response by the intended target population.

1.6 Definition of concepts

Utilisation is defined as the ways in which individuals convert potential access into realised access (Aday & Andersen, 1981).

Formal health care and treatment is any conventional medicine, which is officially in a registered setting such as government or private hospitals, health centres, authorised clinics and dispensaries (Birungi et al., 2001 as cited in Prosser, 2007).

Informal health care encompasses self-treatment, traditional healers and remedies and other non-sanctioned health services (Msiska et al., 1997 as cited in Prosser, 2007). Informal health care in this context denotes traditional form of health care.

Accessibility of services implies the geographical location of the health facility, its sphere of influence in its catchment area, minimum and maximum distance travelled to patronise the services and other physical barriers like time and distance. Its acceptability denotes the kind of services it provides and how its services suit the health needs of the people and quality indicates its attractiveness and worth through its service delivery.

Chronic illness in the context of this study involves diseases that ail an individual for a very long time, regardless of seeking health care, for instance, hypertension; stroke; heart disease (Correa-Rotter et al., 2004); diabetes mellitus (Naicker, 2003); bone disease or osteoporosis (Woolf & Pfleger, 2005), as well as some eye and ear infections.

Acute illness on the other hand, refers to less severe diseases that do not ail an individual for long after health care is sought.

1.7 Organisation of chapters

Chapter one provides a background to the issues examined. It gives an overview of the problem under study and the set of specific objectives that form the basis of the study. It also provides an insight to the thesis of the study and justification for the study

Chapter two provides a thorough review of related literature for the study. These were reviewed in the context of the Kroeger's theoretical model that underpinned the focus of this study. Some of the major themes covered include: health and its significance, factors that influence health service utilisation, and the effect of urban-rural disparity in health service distribution. The theoretical models and conceptual framework adapted are reviewed and discussed in this chapter.

Chapter three focuses on the study area and research methods adopted for the study. The background characteristics of the study area, namely the physical, social and economic features are discussed in this section. The research methods used are explicitly discussed in this section. The mixed method strategy adopted for the study is further explained together with the data sources and research limitations.

The results and discussions are presented in chapters four, five and six. Chapter four provides background characteristics of respondents, disease incidence and respondents' perception about disease causation. Chapter five accounts for the type of health facility respondent utilise and factors that influence their choice of health care facility. The various factors that influence their health service utilisation are further explored and discussed. Again, chapter six provides an analysis into the various modes through which respondents finance health care in the Obuasi municipality.

The study provides a summary of its findings in relation to its objectives in the seventh chapter. Also, conclusions are drawn based on the literature, theoretical models and conceptual framework adapted for the study. In view of this, various recommendations are presented in this chapter.

CHAPTER TWO

THEORETICAL PERSPECTIVES AND LITERATURE REVIEW

2.0 Introduction

This chapter presents the theoretical perspectives and a review of relevant literature on health service utilisation. The various models that underpin the focus and context of the study are discussed in this chapter. These models include Andersen and Newman's (1973) health utilisation model and Kroeger's (1983) health behavioural model. The review of relevant literature was situated within the theoretical ambit of Kroeger's model. It provides an outline of literature on health and its significance. Again, factors that influence the use of health care resources are further discussed theoretically and empirically. Lastly, this chapter discusses the key dimensions of the conceptual framework (adapted from Kroeger's health behavioural model) that shapes the focus of the study.

2.1 Theoretical Models

In recent decades, the use of models in research to analyse health responses and utilisation of health care services has gained much prominence. Models by themselves help us in identifying problematic areas among the determining factors and thereby aid in devising intervention strategies. By using models, attempts have been made to organise the many different determining factors into one explanatory concept. The majority of models have been concerned with identifying variables that determine whether the use of health care resource will occur and its associated frequency (Philips, 1990). Two influential models were developed in this field: Andersen's socio-behavioural model (Andersen, 1968; Andersen & Newman 1973) and Kroeger's health behavioural model (Kroeger, 1983)

2.1.1 Andersen's Health Utilisation Model

This conceptual model was initially developed in the late 1960's to help understand why families use health services and to further define and measure equitable access to health care and to aid in developing policies geared towards enhancing equitable access (Andersen, 1995). The model states that an individual's use of health services is a function of his or her predisposition to use the services, factors that enables or impedes his use of such services and the need for care. The initial unit of analysis was the household, but due to heterogeneity of household members, the individual became the unit of analysis in the subsequent revised model by Andersen. According to Andersen & Newman (1973), the purpose of the model is to predict levels of health care utilisation and describe various patterns and also account for the use of health services. It mainly centres on treatment selection.

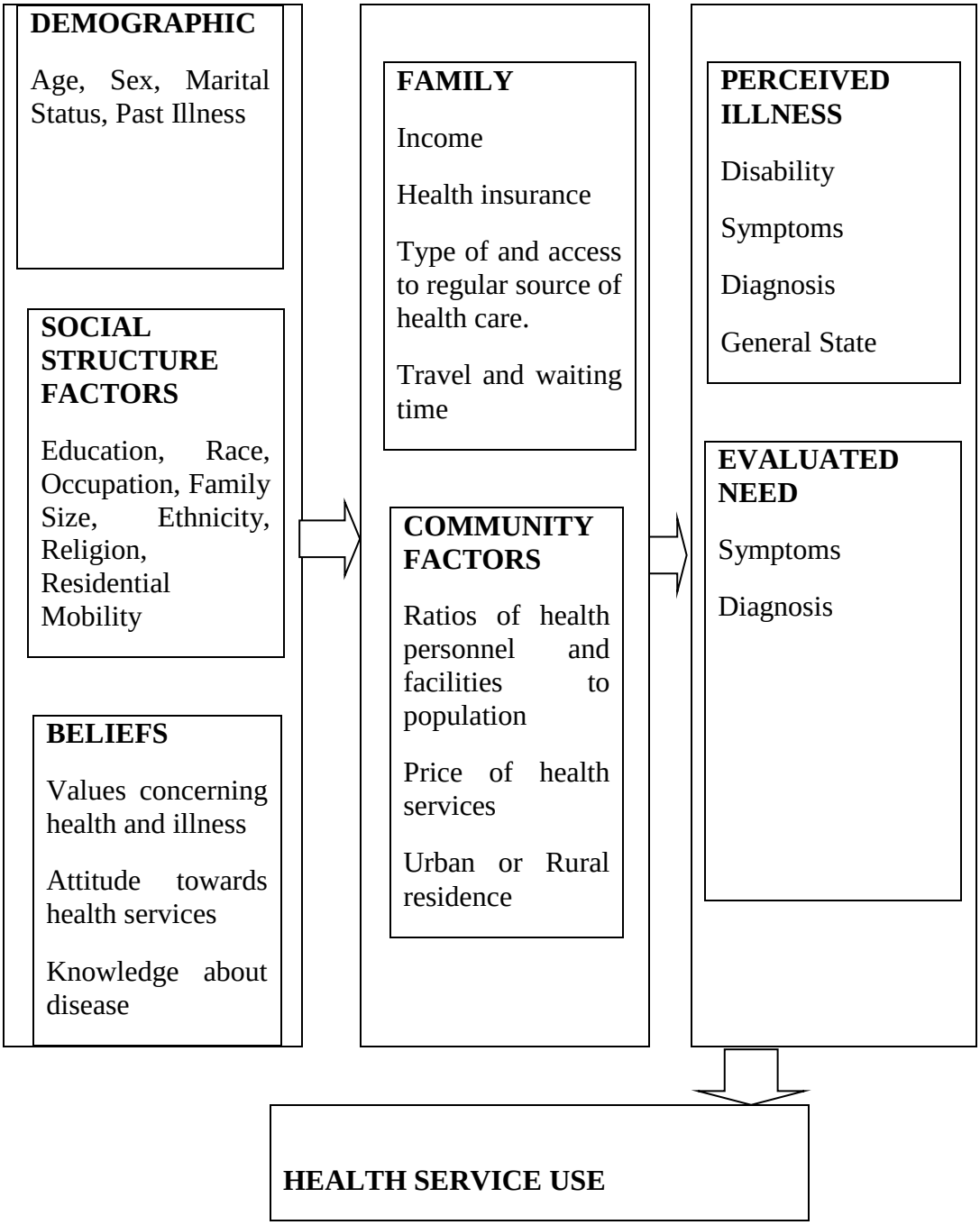
This model was formed around three main tenets namely, predisposing factors, enabling factors and need factors. Predisposing factors included demographic factors like age, sex, marital status, past illness; social structure factors like education, race, occupation, family size, ethnicity, religion, residential mobility; and beliefs like values concerning health and illness, attitude toward health services and knowledge about disease. These factors, he noted influences an individual in the use of health service and help predict the pattern and level of utilisation.

Andersen & Newman (1973) further indicated that the enabling factors include factors that enhances or enables one to utilise a particular health service, but these factors can also act as barriers to deter an individual from utilising a particular health facility. These included family related factors like income, health insurance, type and access to regular source of health care; and community factors like ratios of health personnel and facilities to

population, affordability of health services, urban/rural residence, travel and waiting time. Predisposing and enabling factors have being reported in several studies in developing countries to have a greater effect on utilisation than need as reported by Andersen (1995) (Buor, 2004)

Lastly, Andersen & Newman (1973) reported need for health care also termed as illness level factors in his model, as a more significant factor that influences the use of health care. He was of the view that need for health care was a social construct thus the need to distinguish between perceived need based on the client or patient's experience and evaluated need, the professionally established need. This characterisation was as a result of criticisms levelled against him over his emphasis on need as a major significant factor in health care utilisation. Evaluated need included symptoms of the health condition and its associated diagnosis, while perceived need encapsulated perception of the severity of the illness, days lost due to illness, perception about the health facility, symptoms of the illness, perceived diagnosis etc.

Figure 2.1: Schematic Representation of Andersen's Health Utilisation Model



Source: Andersen & Newman (1973)

Andersen's socio-behavioural model has been criticised for a lack of attention to social relationships and cultural aspects since health care interactions are synonymous with social interactions, and the social relationship of the patient with the health worker can also influence the utilisation of health care. On an empirical basis, unfriendly attitude of

nurses and health workers has been reported in several studies in developing countries to be a determinant of under-utilisation of health services (Majaj et al., 2013). This denotes the relevance of social relationships in the use of health care. Andersen (1995) however emphasised that such relationship were captured under the social structure factors among the predisposing factors.

Secondly, the model places a lot of emphasis on need factors as a major determining factor in the use of health. This is mostly because the model was initially developed to suit the context of developed countries where enabling and restrictive factors do not significantly affect the accessibility and utilisation of health care. Nonetheless, this is not the case in most African countries and Ghana to be precise where predisposing, enabling factors and restrictive factors like distance, poor nature of the roads and unavailable transport facilities tend to have a greater effect on utilisation than need (Buor 2004). Andersen however justified his stand by acknowledging need as a social construct and thus represented it as both perceived need i.e. personally experienced and evaluated need .i.e. professionally established (Andersen, 1995).

Lastly, another deficiency in the model lies in its inability to predict utilisation pattern irrespective of its predictiveness. The main areas of interest of research in health care utilisation studies are mostly the volume of use, the type of use and lastly the outcome of the use of health care services (Stekelenburg, 2004). The type of use is not captured by the model, thus its inability to predict patterns of health care utilisation.

2.1.2 Kroeger's health behavioural model

Kroeger (1983) proposed a new model which Stekelenburg (2004) described as a socio-behavioural model. He proposed a modification of Andersen's model on health care utilisation by categorising the factors into three groups of explanatory variables, all of which are affected by perceived morbidity. He combined most of Andersen's need, enabling and predisposing factors, which he called independent variables, with so-called dependent variables reflecting the availability of different resources of health care, to predict individual choice of health care resource and patterns of health care utilisation. These explanatory variables included predisposing factors or characteristics of the subject, characteristics of the disorder and the perception of the subject, and characteristics of the health service. He described these factors as independent variables that influence one's choice of a health care resource.

As posited by Andersen and Newman (1973), Kroeger (1983) was also of the view that an individual's characteristics predisposes him to make wholesome decision in the choice and use of a particular health care resource in the presence of perceived health condition or disorder. These predisposing factors encompass age, sex, marital status, and status in the household, education, assets, occupation, income and household size which together characterize the traits of the individual. As reported in numerous studies in most developing countries, these traits are known to influence one's use of health care services in case of an illness episode (Kroeger, 1983; Philips, 1990; Mackian, 2003; Muriithi, 2013).

Again, Kroeger modified the need for health care into the characteristics of the disorder and their perception of the illness in case of perceived morbidity. He noted that the characteristics of the perceived illness tend to have an influence on the need to use a

particular and kind of health care facility one opts for. This included whether the disease is acute or chronic, minor or major, the expected benefits or outcomes of treatment, whether psychosomatic or somatic, the aetiological model .i.e. whether natural or supernatural. Empirically, studies by Mazzilli and Davies (2009), Omotoso (2010) and Obidiya et al. (2011) corroborate the claims made by Kroeger (1983) and Andersen & Newman (1973) that trait of the perceived illness and perception influences the choice and use of health care. This is also the case of the health belief model.

Kroeger (1983) acknowledged the influence of organisational factors in the use of health care as reported by Mckinlay (1972) and further modelled by Tanahashi (1978). Kroeger (1983) was of the view that the characteristics of the health service and enabling factors have an impact on the choice and use of a particular health resource. To him, these factors include the accessibility of the particular health facility, its acceptability by the people that patronise it, the quality of the services rendered by the health institutions, its cost of care and its health service information or ability to communicate well with its consumers (Kroeger 1983). These factors are explicitly modelled by Tanahashi (1978) to include service availability, accessibility, acceptability, contact and effectiveness of the service provided.

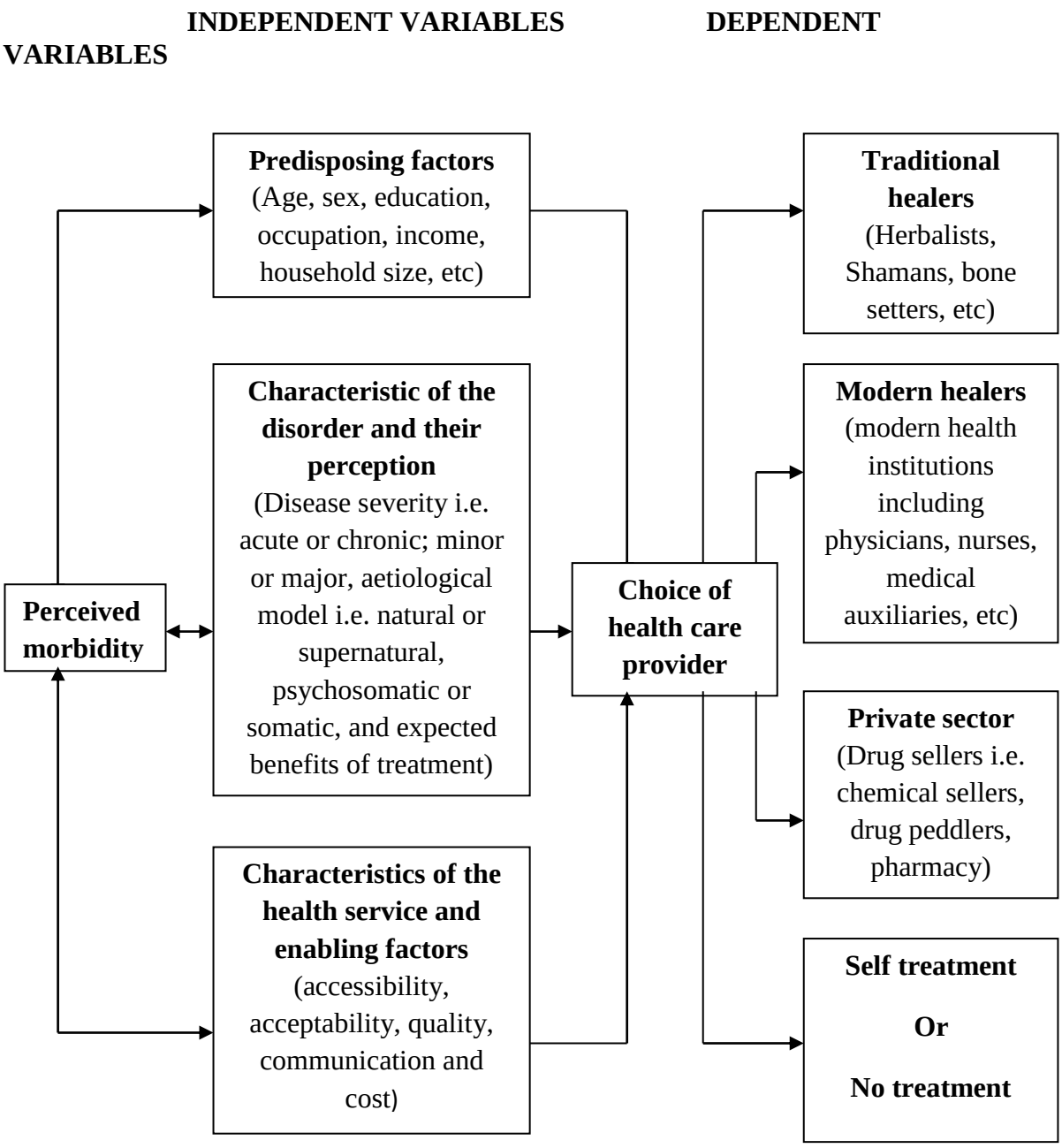
Moreover, he was of the view that these three explanatory or independent variables discussed influence the choice of a particular health care resource and thus determine patterns of health utilisation. The health care resource includes traditional healers like herbalists, shamans and bone-setters; modern health institutions like mission or government hospitals, doctors, nurses and clinical officers; private sector like drug-sellers and clinics; lastly self-treatment or no treatment sought. Most studies conducted in developing countries, especially in the context of health care utilisation among urban and rural populace reports self-medication as an important alternative for most rural women in

case of acute health condition for them and their children (Delgado et al., 1994; Majaj et al., 2013). He categorized these health care resources into independent variables.

However the model fails to acknowledge the impact of spatial residence or urban-rural residence on the choice and use of health care since that has been reported to be a major contributing factor and recurrent theme in most studies on health care utilisation in most developing countries especially in Africa (Thompson et al., 2003; Buor 2004; Iyalomhe & Iyalomhe, 2012; Hoeven et al., 2012).

Again, the role of health policy is not clearly defined in his model as this inadvertently affects the characteristics of the health service and the characteristics of the individual. Certain health policies have been reported to impact positively and negatively on the utilisation pattern of health services. Buor (2004) for instance, in his study, reports on the change in utilisation pattern of health services before and after the inception of the National Health Insurance Scheme (NHIS) in Ghana. This was further corroborated by Blanchet et al (2012) in his study on the effect of NHIS on health care utilisation in Ghana.

Figure 2.2: Conceptual Framework of Kroeger's Health Behavioural Model



Source: Kroeger (1983)

Review of relevant literature in the context of Kroeger's health behavioural model

2.2 Health and its Significance

The World Health Organisation defined health as state of complete physical, mental, and social, well-being and not merely the absence of disease or infirmity. Thus, the absence of illness does not necessarily mean one is healthy, but a complete physical, mental and social well-being. Health thus denotes a reflection of our behaviour and what we do and fail to do concerning our health (Obidiya et al., 2011).

Health in particular has been regarded as an integral aspect of the human life. Generally, low level of morbidity, reduced illness, reduced over burden of disease and mortality in a given population epitomize better and improved health status of individuals and households in that region (Mahmood & Ali, 2002). It has further been widely acknowledged to impact positively on human resource development and economic growth in any country (World Bank, 1994), since "*a sound mind lives in a healthy body".* This implies that a healthy population and workforce favour economic development whilst an unhealthy population has been associated with poverty and underdevelopment (Philips, 1990; Omotoso, 2010).

The 'life span' approach by the Institute of Medicine (1996) acknowledges human health and illness as an accumulation of conditions that begin early in life and sometimes even before birth, and recognizes these as dynamic and on a continuum of risk over the entire course of a lifetime. The World Bank (1993) thus regards *"health as the sum of genetic determinism and a combination of physiological, psychological and environmental factors".*

In line with the above, it can be argued out unequivocally that people's utilisation of health services is mostly contingent on their understanding and interpretation of what

caused their ailment. In circumstances where the germ theory and epidemiological triad of disease causation are given recognition and accepted, attitude towards the search for a cure or remedy to the disease will inevitably vary from the attitude of those who attribute the disease to a supernatural cause (Awusabo-Asare & Anarfi, 1997). The World Health Organisation in their study remained adamant about the fact that positive health seeking behaviour could help ameliorate the health status of most in deprived areas and reduce mortality as a whole (WHO, 1997).

However, the choice of treatment depends on a myriad of factors related to illness type and severity, one's pre-existing or prior knowledge as well as beliefs about illness causation (Obidiya et al., 2011). It also encompasses the range and accessibility of health care services available and their perceived potency or efficiency, their convenience and acceptability, opportunity costs, quality of service, staff attitudes as well as the age, sex and social circumstances of the sick individual (Buor, 2004; Saeed et al., 2013; Muriithi, 2013). All these are vividly captured within Andersen's health behavioural model of predisposing, enabling, need and institutional factors and also in tandem with Kroeger's health behavioural model.

2.3 Factors Influencing Utilisation of Health Services

The utilisation of health services are influenced by a myriad of factors. In certain instances, how meaningful the services of the health institution are to the potential user and the quality of the services provided mostly determines the level of utilization.

Stekenlenburg (2004, p.73) defines *"Utilisation as a measure of the relationship between service capacity and service output, expressed as the ratio between output and capacity, assuming that the capacity of the service is known".* Aday &Andersen (1981) opined that utilisation reflects the extent to which "potential access" is converted into "realised

access" (Aday &Andersen, 1981). Also, Philip (1990, p.195) is of the view that *"health care utilisation can be considered first, as a dynamic process made of different stages whereby the patient makes decisions about usage; and secondly, as the outcome of the complex interactions of determining variables"*

McKinlay (1972) in his study outlined six different perspectives to account for variance in the use of health services. He opined that the use of services can be studied from an economic perspective, focusing on factors such as income, insurance, cost and availability of medical care. Again, from a socio-demographic standpoint primarily narrowing down on age, sex, education, religion, ethnicity and socio-economic status variance in health care utilization can be understudied.

Also, from a geographical viewpoint the distance to services can also be studied. Furthermore, from socio-psychological point of view, the patient's decision-making process when symptoms occur can also be given consideration. Factors such as knowledge of diseases, the perceived threat of illness, and also the support of social networks play a role during the decision-making process. Differences in the use of health care services can also be studied from a socio-cultural point of view. Illness behaviour is influenced by the values and norms of the culture in the patient's country of origin. Finally, he indicated that differences in the use of health care services can also be studied from an organizational point of view. The use of services is not only closely related to the quantity and quality of the services that are offered, but also their accessibility to the different people needing care.

Based on inferences made from related studies on health service utilisation, it remains apparent that most of these factors do not act in isolation but tend to interplay with each other to influence the choice and use of health care. As indicated earlier on, Kroeger (1983) and Andersen & Newman (1973) make this more explicit in their health seeking

behavioural model. Andersen & Newman (1973) opined that an individual's use of health services is a function of his predisposition to use services, factors that enables or impedes the use of these services, and the need for care. Kroeger (1983) on the other hand modified Andersen's model by categorizing these factors into three explanatory variables viz. predisposing factors, characteristics and perception of the disorder and lastly characteristics of the health service and enabling factors. He was of the view that perceived morbidity affected these three explanatory variables in an individual's choice of a particular health facility.

As a result, this study definitively rooted itself in the theoretical ambit of Kroeger's model in order to provide a thorough and context specific understanding of the utilization of health services among the urban and rural communities in the Obuasi Municipality.

Against this backdrop, empirical findings from relevant studies on health care utilization from other countries will be provided by situating it within the confines of the theoretical perspectives provided by Kroeger (1983) and Andersen & Newman (1973). This will mostly be based on perceived morbidity which influences predisposing factors, characteristics of the disorder and perception and the characteristics of the health service and enabling factors and account for differences in the choice and use of health care resources.

2.3.1 Predisposing Factors that Influence Health Service Utilisation

Ideally, an individual's response to an illness episode and the choice and use of a particular health care resource has been reported in several studies to be mostly dependent on the individual's predisposition (Kroeger, 1983; Andersen, 1995; Stekelenburg, 2004). These factors are reported to either enhance or hinder one's response to an illness and the choice and use of a particular health facility. These predisposing factors include age, sex, and marital status, status in the household, household size, education, assets, occupation,

income, ethnicity, religion, prior knowledge and experience about the illness. Kroeger (1983) is of the view that the influence of such factors on the choice of health care resource is mostly contingent on perceived morbidity. The following attempts to provide a theoretical and empirical review of literature on how these factors influence one's illness response and the choice and use of health care facility.

2.3.1.1 Age

Age as an independent determinant or interplay with other independent determinants has been reported in numerous studies to have an influence on the choice and use of particular types of health care resource. Its impact on the choice and use of health care resources can be a as result of variations in socio-economic status (Mishra et al., 2002). It somehow distinguishes whether traditional or modern-type health facilities are resorted to in terms of any health condition. This has often been the case in situations where the elderly are noted to likely prefer traditional or informal health care (Eisenberg et al., 1998; de-Graft Aikins, 2005). It is often at times preconceived that increasing age or the aged are high users of health services. Conversely, this is mostly not the case as most studies suggest that the aged proportionally represents non-attendees and infrequent users of health care resources (Philip, 1990).

The impact of age on the demand for health care is significant in the choice of health care provider. This indicates that one's response to an illness episode and the kind of health care one patronises relative to self-treatment increases with age (Muriithi, 2013). Muriithi (2013) indicated however that this is mostly the case when age is simultaneously adjusted with education and income. Thus such findings and conclusions can be puzzled by other variables such as education and income which are likely to increase with age. The findings by Muriithi (2013) differ from the conventional belief that as people get older they seek

treatment from traditional medical practitioners. The result is in tandem with the notion that households headed by older people have a higher propensity of seeking professional health care rather than to self-medicate. This to a large extent implies that the head of the household still controls economic resources even in poor communities.

2.3.1.2 Sex

Sex has been known to be a recurring theme in most health service utilization studies. It is noted to play a key role in health care utilization dynamics. Several studies have sought to address this issue with varying results (Needham et al., 2001; Sahn et al., 2003; Majunder, 2006, Muriithi, 2013). The study and findings of how sex influences the use of health care are well documented and are to a larger extent numerous but tends to provide various contrasting results. This mostly stems from the interrelatedness of sex and other variables like education and socio-economic status as indicated by Ahmed et al. (2005).

It has widely been established in most health care utilisation studies that females are more sensitive to their health needs and are more likely to seek professional health care from all types of formal health providers relative to self-treatment (Mwabu et al., 1993; Sahn et al., 2003; Ahmed et al., 2000; Hartigan, 2001; Needham et al., 2001). This is in consonance with the findings of Muriithi (2013) where females are more likely to visit public health facilities than males in the slum areas of Nairobi. This situation is also mirrored in the case of private health facilities' accessibility and utilisation. He further attributed this to resource constraints on the part of females to enhance easy utilisation of private health facilities.

Several studies indicate that most women are more likely and happy to commute farther to attend a private more expensive service that is perceived to be of very good quality (Majumder, 2006; Mackian, 2003). Rahman (2000) demonstrates that a woman's decision

to attend a particular health care facility is the composite result of personal need, social forces, the actions of health care providers, the location of services, the unofficial practices of doctors, and has very little to do with physical facilities at a particular service point in some context. Also, Hutchinson (1999) in his study on health care in Uganda found that individuals in households with women with higher levels of education were more likely to use curative care.

Sex has been reported to account for variance in access to health care and perceived quality of care. In their study more men reported need and more access to health care than women (Okolo et al, 2011). Again the study reported more children to have needed more care and to have accessed more care than adults as against previous studies where adults' health seeking and utilization of health outweighed that of the children. The case of unavailability of health services, geographical barriers, economic or cost barrier in the health seeking and utilization of health services by children mirrored the case of the adults, where cost of treatments deters adults from making wholesome choices for their children when they are ill, but rather resort to self-medication or use of informal forms of care which is detrimental to the health of the child.

Again, sex difference is noted to account for variance in the use of health care with respect to illness type and perceived severity of the illness. For example, Yamasaki-Nakagawa et al (2001) found women in Nepal were more likely than men to seek help from traditional healers first. The scale of this study is mirrored in findings from a study by Rahman (2000) in rural Bangladesh, where 86% of women received health care from non-qualified healthcare providers.

Pokhrel et al. (2005) reported in their study on gender role and child health care utilisation in Nepal that gender does not only affect illness reporting for general health issues, but also the decision to choose a health care provider and how much to spend on a sick child

(Pokhrel et al., 2005). In terms of specific conditions such as tuberculosis, women were more likely to delay in seeking treatment than men(Yamasaki-Nakagawa et al., 2001), while perceptions of illness were found to be different between men and women (Pokhrel &Sauerborn, 2004). Pokhrel and Sauerborn (2004) suggested that this may be explained by other socio-demographic factors like difference in level of education or literacy and income.

In the Ghanaian context, Buor (2004) in his study on gender and the utilization of health services in the Ashanti region reported that males utilise health services more regularly than females who are noted to have greater health needs considering their comparatively weaker health status. He further attributed income disparity between men and women to account for such variance. Again, poverty, illiteracy and long distance to health facilities were recurrent themes to such differences in health care utilization among the men and women in the Kumasi Metropolis. The study concluded that this has serious implication for gender equity in health care (Buor, 2004)

2.3.1.3 Education

Several studies suggest that education has a positive and statistically significant impact on health seeking behaviour and choice of health care, thus educated individuals are more likely to seek professional care from formal health care providers relative to self-treatment (Omotoso, 2010; Buor, 2003; Hedge, 2009; Mushtaq, 2011; Stekelenburg, 2004). There is reported association between education, socio-economic status and sex as influential determinants in the use of health services. Hutchinson (1999) in his study in Uganda found more educated women to have a higher likelihood of seeking health care than less educated ones. In a study by Orubuloye (1999) on how people respond to illness episode, he concluded that rural women who had no formal education respond differently from urban women who had formal education on matters relating to their health treatment and

that of their children. A similar finding was reported by Needham et al (2001) in Zambia, where the rich and educated women in urban areas access the formal and mostly private health care whiles the illiterate and poor in rural areas access the informal and public health care.

Poverty and illiteracy have been reported in numerous studies to affect the utilisation of health services in Ghana (Buor, 2004: Danso-Appiah et al., 2004). These factors are noted to override physical accessibility in terms of health service use. This stems from the fact that with lack of enabling resource and high illiteracy, especially in rural communities the inhabitants do not perceive the need to utilise any formal health facilities in case of any illness (Buor, 2004). In a study by Saeed et al (2013), on the influential factors on the use of health care in Ghana, education, insurance, employment, income and health status were integral factors in the use of health care in Ghana. Those with no formal education were noted to be very susceptible in the health seeking behaviour and their utilisation of health care.

Moreover, the study by Saeed et al (2013) showed that mass illiteracy affects perception of health care needs and knowledge of health services, especially the education of women. This has been known as important as it affects the use of primary care services and the health outcomes of their children. Prasad (2009) in his study on the challenges and opportunities of urban health in Uttar Pradesh reported that lack of education and lack of health service information; low status of women and lack of family support for women results in low self-worth; abject poverty that pushes health to a low priority. Again, prevalence of culturally influenced practices may in certain situations be detrimental to health, which is among the crucial factors that determine the health-seeking behaviour in rural Uttar Pradesh (Prasad, 2009).

A study on health-seeking behaviour in Rural Uttar Pradesh by the USAID (2009) reports that aside lower priority given to the health needs of women by themselves and their family, rural and uneducated women were less likely to seek health care for themselves and that of their children. This is in consonance with the qualitative study by Majaj et al (2013) among rural Palestinian women which showed that uneducated and less educated women were less concerned about their health needs and less likely to seek health care. This was relative to the educated women who had greater concern for their health needs, discussed it more openly and sought health care from professional and modern health providers. These uneducated women thus resort to self-treatment relative to seeking professional health care.

The findings from Muriithi (2013) indicated that education tends to have a positive influence on the choice of health. This is in tandem with the study by Sahn *et al* (2003), where demand for public health facilities is greater than in the private health facilities when adjusted for level of education. Cisse (2011) for example noted that education positively affects demand for health care in Cote d'Ivoire. This is also in line with the general notion that the pattern of reporting morbidity and contacting a health professional tends to increase with the level of education (Muriithi, 2013). Stemming from the previous literature indicated so far, it is obvious that educated people could distinguish the quality of health care by observing the qualifications of the health care providers and the kind of services they provide. It is again apparent in most cases that public health facility is assured of quality and trained health personnel, compared with private clinics where the qualification of the health personnel is not readily known.

2.3.1.4 Occupation and income

Income is noted as an indicator of socio-economic status which is more often than not used as an indicator for ascertaining health status. Income is thus used in several studies as a principal determinant of health seeking behaviour (Philips, 1990; Ahmed et al., 2005; Muriithi, 2013), barrier to health care utilisation (Buor, 2004), types of treatment sought (Mushtaq et al., 2011) and reasons for the delay in the utilisation of a particular health care resource (Majaj et al., 2013). An urban and rural variation in health service utilisation has been a major concern for myriads of studies in developing countries (Thompson et al., 2003).

Income and socio-economic status are widely noted as recurring themes that confound comparison of studies on reported illness between the rural and urban population (Omotoso, 2010; Stekelenburg, 2004; Thompson et al., 2003). Most studies emphasize how income impacts or affects utilization of health services without critically focusing on its relative influence or linking it with other enabling factors like service cost and insurance, distance, transport cost, travel time, and waiting time to ascertain its relative importance.

It is most often preconceived that people with higher income tend to utilise higher order services or seek quality health care at the expense of those with low income. Such assumptions are contentious and cannot be accepted as a norm in certain situations where misplaced priorities may cause someone with high income to spend high income on other things than health (Buor, 2004). In a study by Adanu et al, (2008) on sexually transmitted infections and health seeking behaviour among Ghanaian women in Accra, it was reported that income level alone do not affect health seeking behaviour, but the significance of utilising any formal health facility in case of any sexually transmitted disease was highly associated with increasing socioeconomic status.

Muriithi (2013) in his study also indicated that the occupation of the household did not have a significant impact on the choice of health facility, but indicated that preference for private clinics relative to self-treatment was positively related to persons with formal employment. This resonates with the widely held assumption and practices that those formally employed in any organisation or institution would prefer professional health care for their household members as compared to self-treatment, especially since they are enrolled in a mandatory health insurance that mostly pays for formal health care for them and their household dependents.

Thompson et al (2003) in their study of rural-urban variations in health seeking behaviour in Kazakhstan revealed that declining health status indicators, poverty, poor-quality government health care and increased individual responsibility for health care financing clearly brings about several concerns regarding equity in health care for which the rural communities mostly bear its brunt. Most of the literature clearly underscores the fact that richer groups have a higher prospect of receiving health care when sick, are more likely to be attended to by a professional doctor, and a higher likelihood of obtaining drugs when ill than the poor (Balarajan, 1987; Carr-Hill, 1995; Bichmann, 1991; Thompson, 2003; Segall et al., 2000).

In a study by Yesudian (1988) on health seeking behaviour of the urban poor in India, the study reported that variations in income level, polarity in the location of health facilities and perceived quality of services influenced the utilisation of health services by the people. The study reported that while higher income groups sought quality health care, lower income groups looked for free or subsidized health care. Distance was also a major determining factor. He further concluded that the health seeking behaviour of the urban poor in India is as a result of morbidity pattern, income level, type of health system and

location of the facility. Cultural factors, illness and health service perception and informal consultation played a lesser role.

2.3.1.5 Household size

Household size has often been acknowledged to influence health seeking behaviour and utilisation of health care and thus affects the choice of health care (Sahn et al., 2003; Muriithi, 2013; Bolduc et al., 1996). This implies that large family size often increases the chances of visiting both public and private health facilities as compared to engaging in self-medication. Bolduc et al (1996) in their study of the choice of medical providers in rural Benin reported household size to have a positive relationship with the probability of seeking formal health care. Again, the study by Sahn et al (2003) on the demand for health care services in rural Tanzania couldn't agree much and reported household size to positively affect the demand for health care in public facilities. In certain instances, it has been hypothesised that members in large household size are susceptible to illness and overall disease burden because of limited attention given to nutritional needs, thereby increasing their probability of seeking medical care.

2.4 Characteristics and Perception of the Disorder

The need for care has also been widely reported and acknowledged in numerous studies on health care utilization to influence the choice of health care resource (Kroeger, 1983; Andersen & Newman 1973; Buor, 2004; Danso-Appiah et al., 2004). This mostly depends on the influence of acknowledging the fact that one is ill, thus perceived morbidity has an influence on the perception and characteristics of the disorder. As clearly underscored by Kroeger's (1983) health behavioural model, threat perception about the impact of an illness and its associated consequences; mostly contingent on the perceived susceptibility and severity of the illness, guides the actions of a sick individual in seeking health care

from available options (Kroeger, 1983; Hedge, 2009). These mostly include whether the ailment or disease is acute or chronic, severe or trivial, the expected benefits or outcome of treatment, psychosomatic or somatic, and aetiological model (natural or supernatural) (Kroeger, 1983).

Again, most studies conducted in developing countries epitomize mass use of self-treatment relative to seeking formal health in case of acute illness, irrespective of their proximity to health facilities (Hedge 2009; Omotoso, 2010). The converse is reported in case of chronic illness (Mazzilli & Davies, 2009). The following sub-sections summarise studies conducted in most countries to empirically show how the characteristics and perception of ailments impact on the choice of health care and accounts for variance in the use of health care institutions and resources.

2.4.1 Type, severity, and perception of ailment or disorder

Several studies conducted in most developing countries show perceived need to be an integral factor in the utilisation of health services. Danso-Appiah et al. (2010) indicated that perceived severity of an ailment is a significant determinant in the utilisation of health services in Ghana. In certain instances, the type of ailment determines the kind of facility one uses. It is worth noting that most of the literature on the health behaviour and choice of health facilities reports perceived severity of disease or illness as a major determining factor. For instance, the study by Danso-Appiah et al. (2004) on health seeking behaviour and health service utilisation for schistosomiasis-related symptoms in Ghana indicated in their findings that perceived severity of the disease was an important determinant of health seeking behaviour and choice of health service provider for schistosomiasis-related symptoms. This is in tandem with Kroeger's health behavioural model where perceived morbidity tends to influence choice of health care provider. They further indicated that

socio-economic status tends to play an integral role in the utilisation of health services. Thus, whiles people with higher socio-economic status frequently sought health care and utilise health facilities, the converse was achieved with respect to those with low socio-economic status (Danso-Appiah et al., 2004).

According to Rahman et al. (2011), the type of symptoms experienced for the illness and the numbers of days of illness are major determinants of health seeking behaviour and choice of care provider. For instance, Sadiq and Muynck (2002) in their study on health care seeking behaviour of pulmonary tuberculosis concluded that in case of a mild single symptom such as fever, home remedies or folk prescriptions are used, whereas with multiple symptoms and longer period of illness, biomedical health provider is more likely to be consulted. Mattson (2010) in his study on variance in health care utilization between the rural and urban communities concluded that the need for care, stemming from the severity of ailment was the most significant variable determining utilization of health care though enabling and predisposing factors tended to influence health care use at certain instances.

Chirmulay (1997) in his study on factors affecting health seeking behaviour and utilization of curative health care in 3,000 households in five Indian states using the key indicators of sickness suck as inability to move and work and loss of appetite or interest in the surroundings, the study found out that perception of health needs influenced the people's choice of provider and their treatment-seeking behaviour. Ahmed et al (2005) in his study identified disease type as a significant predictor for accessing and utilising any type of formal health care whiles Rahman et al (2011) found illness type, sex, occupation and literacy of the household head as significant predictors for not seeking professional health care.

Irrespective of education and socio-economic status of most individuals, numerous studies conducted in most developing countries report cases where the aetiology of diseases is attributed to religious and cultural forces (Obidiya et al., 2011). In their study on health seeking behaviour among adult residents of Yenegoa in Nigeria, Obidiya et al (2011) showed that most of the respondents attributed the causes of illness to religious or cultural forces. This is in tandem with studies by Olurinola, (2002) and Chi-Yung et al, (2006) where religious/cultural issues were reported to still play a prominent role in the perceived/actual aetiology of diseases. It is in this light that one can establish the fact that perceptions about a disease with regards to its aetiology influences responses to it and the need to use health services. As indicated earlier, situations where the germ theory and epidemiological triad of disease causation are given no recognition and thus unaccepted, attitude towards the search for a cure or remedy to the disease will inevitably vary.

Buor (2004) reported an antithesis to the findings of other studies regarding the need for health care as an important determinant in the utilisation of health care in his study on access and utilisation of health care in Ghana. The study established that with respect to developing countries, especially the Ghanaian context, need factors are not as significant as the predisposing and enabling factors as reported by Andersen and Newman (1973). He reiterated the fact that in developing countries, the predisposing and enabling factors as well as restrictive factor of distance tend to have a greater effect on the utilisation of health care than need. The veracity of Buor's claim lies in the myriads of studies reported in Africa and most developing countries where factors like education, income and occupation, cost and health insurance, and geographical barriers like distance tend to have greater influence on the choice and use of health services relative to the need (Stekelenburg, 2004; Rahman et al., 2011; Muriithi, 2013).

A study on health-seeking behaviour in Rural Uttar Pradesh by the USAID (2009), using antenatal and postnatal care, institutional deliveries, anaemia, child immunization, and treatment of childhood diseases as key indicators showed that women and children are more likely to seek health care for emergency and urgent needs than for those that were non urgent or preventive. The study further indicated that children with acute health needs like diarrhoea, fever and acute respiratory infections, access and utilize health facilities more frequently than for other health needs.

This indicates that the perception about an ailment or health condition, the type and severity of it influence an individual's response towards it and the use of health services in seeking remedy for it. In certain instances, these factors interrelate with an individual's predisposition in order to influence their health seeking behaviour. These include, age, sex, education, income etc.

2.5 Characteristics of the Health Service and Enabling Factors

The characteristics of health services provided by an institution have been noted to influence its use (Tanahashi, 1978; Kroeger, 1983; Andersen, 1995). Such institutional or organizational factors are noted to enhance utilisation and influence an individual's response to an ailment or impede it (Stekenlenburg, 2004; Buor, 2004). According to Kroeger (1983) these factors include accessibility, acceptability, communication, cost, and quality of service.

Tanahashi's (1978) model of health system characteristics helps to gain deeper insight into the characteristics any health service institution should possess to enable its utilization by potential users. He developed five separate levels of service coverage. The final level with the lowest percentage is the effective coverage. He was of the opinion that only if services are available, accessible and acceptable, and the patient has actually visited the health

service institution, can the service be effective. Again, he emphasized on the fact that service can only be deemed as effective if the patients' needs are met; if the patients are satisfied. Annis's study on Physical access and utilisation of health services in rural Guatemala, also indicated that users will be willing to bridge the distance decay factor and travel long distance to access and utilize any health facility when the effective coverage of a facility is high (Annis 1981). As a matter of fact, quality health care births effective health care.

Against this backdrop, it can be acknowledged that certain economic, geographical, and organizational or institutional barriers as posited by McKinlay (1972), influence illness response, choice and use of health care resource. The following reviewed literature provides empirical understanding and insights into how factors such as distance, trust, convenience and service quality, as well as mode of health financing influence health care utilization and account for variance in the use of health care resources.

2.5.1 Accessibility (Distance)

Physical accessibility of health facilities has often been established as a significant independent determinant in the choice and use of health facilities. In most instances, the type of health facility that is most available or closest to prospective consumers is given much recognition. One can succinctly argue out that distance to health services measured in terms of, travel time, waiting time, appointment time with a doctor, nature of the means of transport, and cost, have effects on revealed accessibility (utilisation). This mostly takes on a significant influence either as a barrier or permissive factor to health care utilisation.

It is of key note as exemplified by the distance decay factor that distance, generally has an inverse relationship with utilisation: the greater the distance, the lower the utilisation (Buor, 2004; Muriithi, 2013). However, other studies indicate that certain socio-economic and demographic variables tend to override this barrier (Annis 1981). Again, the nature of

roads linking communities and health facilities can also hinder or enhance utilisation of health services. Buor (2004) in his study reported that the poor nature of roads, especially in the rural areas of Ghana, serves as a barrier to health service utilisation. Most of the rural roads are not motorable especially during the rainy season. This inevitably results in either very high transport costs or non-use of vehicles.

Muriithi (2013) in his analysis on the determinants of health seeking behaviour in Kenya with specific reference to Nairobi slum, further advanced the debate on distance as a significant factor in the choice of health facility, thus increasing distance increases the likelihood of an individual or household opting for self-treatment relative to seeking formal care from health providers as clearly reported in studies by Mwabu et al (1993), Buor (2003), and Cisse (2011). With respect to the utilisation of both public and private facilities, the study reported that distance tends to have a higher negative impact on public facilities relative to the private ones. This is mostly because the perceived quality of service, less waiting time, trust, and confidential nature of services provided in these private health facilities, tends to override the distance barrier. Thus, patients were willing to spend extra money on transport in order to access quality health care provided in these institutions irrespective of low user charges and proximity to most public facilities.

In the same vein, a similar study by Pariyo et al. (2009) in Uganda on changes in utilization of health services among the poor and rural indicated that geographical barriers were reported by the rural residents as a potential barrier for lack of seeking health care. However, variations in the socio-economic status of the rural residents showed that those from less poor household did not report distance as a barrier to health service utilisation which ultimately impacted on their health seeking behaviour. Thus whiles those from poor households couldn't afford the cost of transport others from less poor rural homes reported the converse of it.

Buor (2004) in his study attributed geographical barriers like long distances to health centres, an urban-bias in the distribution of health services, inadequate budgetary allocation to the health sector, high transport cost, poor roads from homes to some facilities, especially in rural areas, long hours spent in travelling to health centres and long hours of waiting, and the considerable time mothers spend in caring for the health needs of their children as proximate barriers to health care accessibility and utilisation in Ghana. He further indicated that over-utilisation of drugs in medical care, wide use of untested traditional medicine, and no health insurance for a greater part of the population were also remote barriers which consequently affect the use of health services in Ghana.

Reportedly, distance to a reliable health care provider has been acknowledged to either constrain or enhance utilisation of health services, especially in the treatment seeking for under-five children (Sekule, 2007). Due to long distance to the reliable health institution, services and transport costs, many residents in Sub-Saharan Africa receive initial treatment of febrile illness at home. More so, they depend on using local herbs or modern drugs bought without prescription in local shops despite their lack of adequate knowledge on how to use them.

In Sudan, Malik et al. (2006) found that the availability and accessibility of the health institutions were determining factors in the choice of treatment among caretakers of under-five children. Caretakers have a number of options ranging from home-based treatment practice to local herbs use for treatment at health institutions. Exposure of caretakers to a number of options was obviously ending up with late health seeking. Similar results were found also in Ngorongoro district, Tanzania, where the burden of seeking treatment was great due to the fact that the majority of the people (60%) had to travel for more than 4 kilometres through areas with wild animals to get medical attention (Mboera et al., 2005).

Due to this long distance, unaffordable transport costs and low socio-economic status, majority preferred home-based treatment practice using drugs bought from retail market outlets. However, others resort to traditional healers which delay effective treatment. Poverty and inaccessible health institutions were also found to be barriers to access modern health institutions in Korogwe district, Tanzania (Mubyazi, 2005). As a result of long distance to reliable health institutions, home based treatment practice and poverty plays a significant role in treatment seeking delays in the majority of communities in malaria endemic areas.

In certain instances, geographical accessibility as reported by Majaj et al. (2013) also affects the choice of health care provider by the rural women of Palestine. He indicated that women complained of lack of availability of secondary health care services in the villages, because they perceived distance and the time needed to travel to the main cities as additional obstacles to access given their busy lives. These meant women of higher socio-economic status had easier access to private transportation means and were thus more inclined to use services in the main cities relative to those with lower socioeconomic status.

Furthermore, the study reported delays in seeking appropriate care, difficulties in physically accessing services, and facing serious breakdowns in services at the facility level as the three crucial barriers that inhibit access to health care in this area. Several other deterrents, such as bad roads, the unreliability of finding the health provider, costs for transport, and wages foregone, make it cheaper for a villager to get some treatment from the local practitioner or "quack doctor", who may have limited knowledge and skills in either modern or traditional medicine.

Theoretically, it is noted that proximity to certain health facilities influences its accessibility and utilisation; however a baseline survey done by United Nation and

Republic of Kenya (2005) in Kibera slum under the slum upgrading project reported the converse of this. The study showed that over seventy (70) per cent of the respondents did not visit government health facilities irrespective of its proximity to them, but rather opted for alternative facilities, albeit the alternative facilities were more expensive than the government facilities in money and time cost terms. Interestingly, those that accessed it reported no difficulty in using the government facilities.

Mattson (2010) reported in his study that a negative relationship existed between distance and health care use. In addition, distance and transportation variables did not significantly influence the use of health care institutions implying that people accessed and utilised health care irrespective of its remoteness. This was an antithesis to several findings reported in numerous studies by Philips (1990) and Buor (2004).

2.5.2 Acceptability, Trust and Quality of Service

Evidently, quality of care is a complex term. Several studies indicate that patients can be satisfied even after receiving treatment in a health system which does not offer the quality of care according to professional standards (Stekenlenburg, 2004). Donabedian developed a framework for defining quality of care and differentiated between observed quality of care and perceived quality of care. The observed quality of care focuses merely on the structure, the process and the outcome. Structure refers to facilities, personnel and organisation. Process refers to interaction between provider and consumer. Outcome measures the extent to which the service interaction meets the consumers' expectations. The observed quality of care relates to professionally define standards of care and the perceived quality of care reflects the views of the patients (Donabedian 1988).

Against this background, Chirmulay (1997) in his study of factors affecting health seeking and utilization of curative health care in 3,000 households in five Indian states, using the

key indicators of sickness, where inability to move, work and loss of appetite or interest in the surroundings reported that perceived quality of services played an integral role in the pattern of utilization of health facilities in these Indian states. Again, private practitioners were perceived to be providing better services because they included injections as part of every treatment and were willing to make home visits which were convenient, especially where transportation was inadequate. Also, the findings indicated that public or government health services were underutilized by most of the populace in these states because of the long waiting period involved, the attitude and behaviour of the staff, and lack of medicines (Chirmulay, 1997). These findings by Chirmulay (1997) were in consonance with the findings of USAID (2009) in the rural Uttar Pradesh.

Again, quality of health care has been shown in several studies in developing countries to override distance as a barrier to utilization of health services especially in rural communities. Some studies focusing on rural health-seeking behaviour in low-income countries indicates that if the quality of service rendered in rural health facilities are adequate, then accessibility of such facilities will be higher regardless of its distance (NoorAli, 1999). Thus, people will be willing to commute and patronize it if the quality of service is assured. This is in consonance with a study on the utilization of rural maternal and child health services in Nepal, where the acceptance and use of antenatal services was 6.6 times higher in facilities providing high quality of services in rural areas than those providing low quality of service.

Most of the literature reviewed has established the fact that the quality of health care tends to have a statistically significant impact on demand for health care (Stekelenburg, 2004; Mazzili & Davies, 2009; Mushtaq et al., 2011).). This is in consonance with findings by Sahn et al. (2003) in Tanzania, Mwabu et al (1993) in Kenya, and Ellis et al. (1994) in Egypt, who also found that medical quality, assessed in terms of both health staff

qualifications and by the availability of drugs increases the probability of a visit to both private clinics and public hospitals.

However, the study by Muriithi (2013) established such impact to be statistically smaller in public hospitals. Nevertheless, such impacts are statistically higher in private facilities denoting higher utilization relative to self-treatment by the populace in the Nairobi slum of Kenya. This mostly stems from the profit oriented nature of the activities of the private health institutions influencing them to improve their services in order to attract patients (Aregbeyen, 1992; Prosser, 2007; Grundy & Annear, 2010; Muriithi, 2013). Muriithi (2013) further argued that previous experience with the poor services rendered out to most of the households included in the study by public health facilities had influenced their choice of health care discouraging them from utilising public health facilities even though they recently offer good quality services.

It can also be established that patient's trust in the health providers or services provided also has a significant impact on the demand for health care as reported by Muriithi (2013) in the slum areas of Kibera. Trust in this sense can be construed in terms of the assurance of offering quality services to a patient, confidentiality with and in the treatment of certain ailments by a patient and the health outcomes after seeking health care from a health provider (Muriithi, (2013). It is imminent that there will be an increase in the utilisation of health facilities relative to self-treatment when the relationship between health providers and patients are built on trust. In certain instances, patients tend to build their trust in the use of over-the-counter drugs, thus self-medicating when they do not receive the expected health outcomes or believe in the confidentiality with and in the treatment of certain ailments by some health providers. This results in the high patronage of private health facilities that are perceived to provide quality and confidential health care as reported by Muriithi (2013) in the slum areas of Nairobi.

Again, patient's information about a health facility and the services it renders significantly impacts on the choice of a health facility. Undoubtedly, increasing information about the health service quality increases the probability of visiting health provider relative to self-treatment (Muriithi, 2013). Muriithi in his study in the slum areas of Nairobi reported that private health facilities benefit more from the information set that households have about the quality of health care being offered as against ill perception about service quality in public facilities. This finding is in consonance with that of Thompson et al. (2003), who found that lack of adequate health information was associated with variations in health care utilization at various health facilities, and especially between rural and urban areas. His findings is in line with the study by Kenkel (1990) who used probit model and reported that the information patients possess on health services influences health care seeking behaviour.

Moreover, the finding by Hsiech and Lin (1997) in their study of health information and demand for preventive care among elderly in Taiwan is in line with the findings of Muriithi (2013), Thompson et al. (2003) and Kenkel (1990) that the information available about health services is a key determinant of health care demand. Moreover, having stayed in the same area for a long time is likely to improve the information possessed about the social amenities, including health facilities. Thus, patient's information about a health facility and the quality of service it renders is mostly contingent on how long one has lived of stay in that community or region.

2.5.3. Mode of health financing

Mode of health financing has been credited by several studies as one of the major determinants of health seeking behaviour and utilisation of health services (Muriithi. 2013). The probability of a person seeking health care from qualified personnel is

dependent on the income he earns (Seeberg et al., 2013). The main sources of health financing globally, are out-of-pocket financing and health insurance. The wealthiest nations in the world have universal coverage plans with the exception of USA due to political opposition (Robin & Ferranti, 2012). In recent years, several developing countries have deemed it necessary to reform their health care financing policies due to the later deposition by the World Health Assembly (WHA), urging its members to aim at paying for universal health coverage and enhance access to health care services (WHA, 2011). Universal health insurance coverage is gradually becoming the key source of health financing in most third world countries (Carrin & DeGraeve, 1999) and Ghana is no exception.

Undoubtedly, user charges or out-of-pocket payment tends to have a negative effect on health seeking behaviour and utilisation of health services, especially among the rural and urban poor (Ensor & Cooper, 2004) which is highly significant among all the health care providers. The direct implication is that increasing user charges decreases the likelihood of seeking health care from the formal health provider relative to self-treatment. This implies that those that can't afford cost of treatment in a formal health institution may resort to self-medication as the only option. There have been several studies where out of pocket payment worsens the disparity gap in health care utilization among the urban and rural inhabitants (Gwatkin, 2000) especially the poor. Evidently and per the literature, the poor mostly reside in these rural communities.

The findings of Muriithi (2013) in the slum areas of Nairobi indicated that user charges resulted in the low utilisation of formal health care among the poor inhabitants of Kibera. There was a high preference for self-treatment to paying of higher user fees at these formal health institutions especially the private health facilities. This contradicts studies by Schwartz et al. (1980) in Philippines and Akin et al (1986) in Nigeria who found user fees

to be insignificant determinants of choice of health care providers. The findings of Muriithi (2013) are in line with those reported in Mwabu et al. (1993), Yoder (1989), Philips (1990), Dow (1995), Cisse (2011) and Prosser (2007) who all found user fees to be key in determining health seeking behaviour of sick individuals. This represents a line of argument where increasing service cost or the cost of treatment mostly serves as a bane for the rural inhabitants and urban poor who mostly resort to self-medication relative to use of formal health care in case of any health condition.

After the introduction of the Structural Adjustment Programme in the 1980's, Ghana's mode of health financing was based on the out-of pocket payment system referred to as "cash and carry" in Ghana (Mills et al., 2012) which created a lot of equity concern (Sekyi & Domanban, 2012). As a result, the National Health Insurance Scheme was instigated by the government in 2004 to cover the formal and informal sector, and majority of inpatient and outpatient services (Mills et al., 2012). The National Health Insurance Scheme (NHIS) was institutionalised as a mechanism of health care financing which does not deter the poor and vulnerable from seeking health care when the need arises. It is aimed at addressing the problem of financial barriers to health care access within the context of the Ghana Poverty Reduction Strategy (GPRS).

The NHIS was implemented as a response to the declining rate of health service utilization as a result of the "Cash and Carry" policy (Blanchet et al., 2012). The design of the NHIS exempts the extreme poor from contributing and provides for the poor to pay less than the rich, apparently to enhance access of the poor (SEND-Ghana, 2010). Services provided under this scheme include, out-patient services, in-patient services, oral health services, eye care services, maternity care, pharmaceutical and emergency services. Drugs covered by the scheme are provided to patients at a zero cost (NHIA, 2011). According to the NHIA (2011), premium set is at a minimum of GH₵7.20 and a maximum of GH₵48,

which varies directly with the income status of the operating district (Gobah & Zhang, 2011). SSNIT contributors are however required to pay for only the processing fees. Financing for the NHIS comes from the 2.5 percent tax charge on selected goods and services (which accounts for about 70 percent of revenues); from the 2.5 percent transfers from existing SSNIT contributions by formal health workers (around 23% of revenues); and from individual premiums and miscellaneous other funds from investment returns from National Health Insurance Council, parliament or donors (SEND-Ghana, 2010).

Even though the National Health Insurance Scheme Act asserts that it is a requirement for every Ghanaian, an estimated 60% of Ghanaians had coverage by 2009 (Mills et al., 2012) There has been an increase in the use of formal treatment and a decrease in out-of-pocket payment with the introduction of this scheme (Witter & Garshong, 2009). However, studies have shown that about 52% of the upper-income earners have enrolled whereas the poorest sections of the population have only 18% enrolment (Chankova et al., 2010). This is the case because formal-sector workers who comprise of the middle and upper income earners pay automatically through deductions from their social security, whereas payment is voluntary for those in the informal sector (Mills et al., 2012). This indicates that the majority of the upper and middle income earners seek formal treatment as compared to the lower income earners.

Also, studies have proven that upper income earners prefer private health care services, compared to lower income earners who use public health facilities (Mills et al., 2012). In view of this, the main policy objective of the scheme is far from achieved since about 60% of the population are still not active members of the scheme. Some studies however, attribute this low enrolment onto the scheme to factors such as perceived high annual premium, perceived poor quality of care for subscribers and long distance to registration centres (Buor, 2004; GSS, 2012a)

Ghana's health insurance scheme is at the intermediate stage of the universal coverage reform process and thus, too early to ascertain success, however, its progress can be assessed to identify challenges (Lagomarsino et al., 2012). Ghana's Insurance Scheme was challenged in 2010 when expenditure overtook revenues due to the scheme's comprehensive benefit package (Witter & Garshong, 2009; Chankova et al., 2010; Reddy et al., 2011). Another major challenge associated with this scheme is the quality of health care provided (Das, 2011). However, government is introducing claims-audit to deny payment for services below the national treatment protocol (Lagomarsino et al, 2012).

Blanchet et al (2012) in their study on effect of NHIS on health care utilisation in Ghana reported that even though their findings corroborates the theoretical priors that insurance increases health care accessibility and utilisation, some unobservable characteristics have a positive impact on utilisation rather than NHIS. They therefore called for further probing in order to ascertain the true causal impact of NHIS on health service utilisation. Again, some equity concerns with regards to enrolment were raised when premiums that were hitherto supposed to vary by income level are now fixed constraining the poor to enrol and enhancing enrolment on the part of the better-off (Jehu-Appiah et al., 2011; Blanchet et al. 2012).

A study carried out in selected rural communities revealed that other factors such as traditional beliefs, social stigma, poverty and illiteracy still stand in the way of proper health care delivery. For example, in a study on payment of health insurance conducted in the Kassena-Nankana District in Northern Ghana, some of the respondents said that contributing money for illnesses yet to come was not appropriate as that in itself could invite more illnesses (HRU, 2005a). Another study in a district hospital revealed that people with leprosy and tuberculosis defaulted treatments due to social stigma, lack of funds and/or the need to fend for themselves or others (HRU, 2005b).

In a study by Saeed et al. (2013) on the influential factors on the use of health care in Ghana, education, insurance, employment, income and health status were integral factors in the use of health care in Ghana. Those with no formal education were noted to be very susceptible in the health seeking behaviour and their utilisation of health care. On the insurance front, Ghanaians who have no insurance coverage are 36% more likely to utilize health care than those who have voluntary coverage. This indicates that those with no insurance mostly utilise health relative to those with insurance. This finding is at variance with most studies that show higher accessibility and utilisation with insurance compared to those with no insurance (Jehu-Appiah et al., 2011).

Studies have shown that the NHIS subscribers or members face a lot of challenges at the end point of utilisation of health services (SEND-GHANA, 2010; GSS, 2012a). These challenges are as a result of negative service providers' attitude towards NHIS clients, inability of clients to access some services, and charging of unapproved fees by some service providers (Gajate-Garrido & Owusua, 2013). Some studies revealed that there are situations where drugs prescribed to patients using NHIS cards are generally of lower quality which most often deterred some patients from financing health care through the NHIS system (Adei et al., 2012; Teye et al., 2014). Even in situations or instances where care is free under most insurance schemes, most of the patients do not have access to drugs needed to cure ailment and thus have to resort to buying them at private pharmacies. This is mostly the case of the National Health Insurance Scheme (NHIS) of Ghana (Blanchet et al., 2012).

Closely related to this are the poor attitude some health workers exhibit towards patients via harsh communication and insults (Teye et al., 2014). There are also reported incidences of preferential treatment of patients who finance health care through the "cash and carry system" (Blanchet et al 2012; Adei et al., 2012; Gajate-Garrido & Owusua,

2013). Again, some studies report instances where patients are made to pay informal fees by some health providers (Teye et al., 2014). Also, the service coverage of the scheme has been noted to affect utilisation of health services. In most instances, patients are not able to access some services. It should be noted however that irrespective of these challenges, some equity concerns with health care utilisation has been bridged with the NHIS mode of health financing, especially by the poor who were hitherto, confronted with financial barriers to health care access and use (SEND-Ghana, 2010).

2.6 Type and Choice of Health Care Resource

2.6.1 Formal (Modern) or Informal (Traditional) Health Care Resource

Birungi et al. (2001) defines formal health care and treatment as any conventional medicine, which is official in a registered setting such as government or private hospitals, health centres, authorised clinics and dispensaries whiles Msiska et al (1997) defines informal health care to encompass self-treatment, self-medication, traditional healers and remedies, and other non-sanctioned health services. The choice and use of any of these alternatives are proximately linked to issues of socio-economic status (Ahmed et al., 2005), disease severity (Yamasaki-Nakagawa et al., 2001) and remotely associated with the characteristics of the health service provider (Witter & Osiga, 2004). Both formal and informal health care services are resorted to in most developing countries and its choice and use, is most often contingent on the disease severity and the perception about the ailment (Rahman et al., 2011). The study relies heavily on the definition of Birungi et al (2001) and Msiska et al (1997) respectively in contextualising what constitutes formal or modern and informal or traditional health services

2.6.2 Private or Public Health Care Services

Public health care services encapsulates all health service providers that are owned and funded by the government (Birungi et al., 2001) whiles private health care services denotes those that are not. This includes hospital, clinics, health centres and dispensaries which are privately-owned by companies, individuals, missions etc. By extension, it also includes chemical sellers, pharmacies or drug sellers, traditional health centres and herbalists. In a nutshell, private health care providers encompass both qualified and unqualified health care providers who constitute majority source of health service providers in Africa (Ager & Pepper, 2005)

2.6.3 Factors that Influence Choice of Health Care Resources

Ideally, it is often required of an individual to respond to an illness by first and foremost seeking help from a trained doctor in a formally recognized health care setting. Yet consistent finding in numerous studies show that for some illnesses, people chose traditional healers, village homeopaths, or untrained allopathic doctors above formally trained practitioners or government health facility (Ahmed, 2001). These variations are imminent in most developing countries especially Africa.

Numerous studies report a significant relationship between socio-economic status and the choice and use of a particular health care resource. These health care resources include private health care institutions like hospitals, clinics, pharmacies or chemical shops, health centres; public health care facilities like hospitals, clinic, health centres, CHPS; traditional health centres, self-treatment or medication (Kroeger 1983). Malik et al. (2006) found in his study in Sudan that majority of mothers or caretakers delayed in seeking health care at a formal health institution for their children because they preferred home-based treatment to seeking professional health care at a formal medical health facility.

A study by Mahmood and Ali (2002) on disease pattern and utilisation of health care services in Pakistan reported high preference for private health facilities, even though public or government health facilities had increased over time and were either free or highly subsidized. The reasons for such pattern as given by the rural populace included absence of doctors and paramedic staff, poor quality of service and medicine shortage and distant location of these public health facilities. Again, the study indicated that availability and access to health services alone does not affect people's health seeking behaviour but mostly poverty and apathy or casual attitude towards health are precipitating factors that hinders utilisation of health facilities (Mahmood & Ali, 2002)

The comprehensive nature of the activities of these health institutions has an effect on the overall disease burden in any locality. In a study by Mushtaq et al. (2011) in Pakistan, where the main focus was on socio-demographic correlates of health seeking behaviour with emphasis on two geographically distinct districts, public health facilities that provided both preventive and curative care were noted to be utilised mostly by the rural populace whiles the urban inhabitants having a better education and income were more likely to utilise private health facilities that provides standardize services. These private health facilities stemming from the profit orientation of their activities are mostly into curative care. Nonetheless, lack of preventive services at these health facilities has been argued out by Mushtaq et al. (2011) to have an adverse effect on the overall disease burden. The poor were more likely to utilize public health facilities whiles the rich utilise private health facility. The study reported that costs, dissatisfaction with the quality of care and distance or transportation difficulties accounted for low utilisation of public health facilities. Again poor health seeking behaviour was equated with poverty and vice versa (Mushtaq et al., 2011).

Again, quality of health care was reported by Majaj et al. (2013) as a major determinant in the choice of health care provider among Palestinian women. In addition, with quality of health care defined subjectively by the women in terms of respectful provider-patient interactions, shorter waiting times, and good reputation in the community, all the women included in the study agreed private providers offered higher quality services than the public or government facilities (Majaj et al., 2013). However, cost of treatment in most of these private health facilities impeded their choice and usage among the poor, in spite of the quality of care given. Most of these women resorted to the use of public or government health facilities for chronic and surgical related ailments because of insurance.

More often than not, arguments have been made that waiting time at any health facility tends to have a significant impact on utilization of that facility or formal health care as a whole. Thus patients will rather opt for self-treatment than spend more time waiting for treatment. This is often not the case of private health facilities where patients trust in the services they provide and where the quality of health care is guaranteed. This implies that patients may prefer to wait for treatment from a health provider they trust (Muriithi, 2013). However, the converse was reported in the case of low income groups by Muriithi (2013) in his study on determinants of health-seeking behaviour in Kibera, where low user fees tend to influence individuals to spend so much time waiting for treatment.

On the subject of how education and gender influence the choice and use of a particular health services, Jaurez (2002) and Wong et al (1987), found that for both rural and urban mothers, the likelihood of choosing a public clinic as the most frequently used option increases as education level increases. The findings by USAID in the rural Uttar Pradesh emphasized that preference for private health providers in this study area did not significantly vary in terms of socio-demographic factors like age, urban or rural residency, education, marital status or overall standard of living (USAID, 2009). Be that as it may,

one can clarify such findings by setting it on the premise that private health service providers varies and ranges from local healers or traditional healers to the formal specialized clinics and hospitals. Thus socioeconomic factors and place of residence play a role in determining the category of private providers that are accessed by different socio-economic groups.

2.6.4 Self Medication

This refers to situations where an individual without the advice or medical instruction from a qualified physician resort to medication in an attempt to cure an ailment. This mostly includes the use of herbal medicine usually purchased from various traditional or herbal shops or prepared at home; buying and using of un-prescribed drugs or over-the-counter drugs; and resorting to use of other materials like illegal drugs, alcohol or other medicine at home in an attempt to seek better health.

As indicated by Kroeger in his health seeking behavioural model, self-treatment or self-medication has been widely established as a form of health care resource to seek remedy to a health condition when the need arises (Kroeger, 1983). This has been reported to cause delay in the seeking of appropriate health care from formal health care facilities (Delgado et al., 1994). A qualitative study by Majaj et al (2013) among rural Palestinian women, showed that majority of them delay in seeking health care from professional or modern health institutions. This finding is similar to reports in the studies by Chirmulay (1997), Prasad (2009) and USAID (2009) that were of the view that culturally rooted health beliefs cause the delay in seeking professional health care thus influencing their health seeking behaviour and utilization of health services. They however attributed these delays to resorting to self-medication as the first alternative in case of any illness episode.

Again, trust in the effectiveness of herbal remedies induced women to frequently prefer them to modern medications as first-line treatment. Again the study showed that most of these women resorted to the use of over-the-counter drugs and herbal remedies as first line alternative remedies in the treatment of most common diseases like seasonal flu and urinary tract infection because of their previous experience and knowledge of the diseases and the potency of the drugs. Moreover, the religious belief that the health and health needs of one should be entrusted in the hands of God was deeply rooted among all the rural Palestinian women of all educational and socio-economic status. As a result, trust in Allah made women less worried about their ill health and made many health services, especially education and preventive ones appear of secondary importance (Majaj et al., 2013).

Again, the use of patent medicine stores and pharmacies was reported to be the first preferred choice of health care than patronizing any formal health care in this study. Arguably, economic, readily availability of drugs and prior knowledge of illness and efficacy of the drugs to cure it are reasons associated with such trend. Also, majority of the respondents resorted to the use of herbal or native medicine relative to orthodox clinic or hospital. Majaj et al further attributed this to economic reasons as well as the emergence of herbal medicines as a veritable alternative in effective health delivery. The use of religious or spiritual mode of healing was of key note in this study, as most of the respondents also resorted to faith-based healing when ill. They concluded by calling for the integration of traditional and religious mode of healing into the broad spectrum of modern medicine in the health delivery.

Delgado et al (1994) in their study on how women in rural Guatemala sought health care for common childhood symptoms, it became known that with respect to diseases like diarrhoea and fever mothers usually sought help and advice from older women in the their

family. Also, seeking advice from a pharmacy or drug peddler preceded the act of seeking professional health care from a formal health institution. Again, in circumstances where these rural women relied on self-treatment for their children, western medicine was preferred to traditional or herbal medicine, although herbal medicine were sometimes relied on for treating common ailments like cough and intestinal worm infection. According to Delgado et al. (1994), some of the reasons the rural women attributed to low utilisation of formal medical health services included dissatisfaction with services provided at the various clinics, preference for home remedies or self-medication and accessibility conundrums like distance, cost and unavailability of transport facilities and lack of time.

2.7 Effect of Rural-Urban Disparity in Health Service Distribution

Most health care facilities in developing countries are often urban-based, thus making urban inhabitants enjoy the physical availability and proximity to health care resources compared to non-availability and remoteness to health care resources in rural areas (Philip, 1990). This disparity in health service distribution historically stems from colonialism where health care resources were primarily provided to serve the health needs of the colonial masters who mostly inhabited the main towns and cities. Again, most of these urban towns and cities, mostly serve as the central place which most often become major areas for development, leaving the rural areas underserved or to be served mostly by the activities of missionaries (Philip, 1990).

It has often been argued that within a pluralistic medical milieu as imminent in most African countries, most of the rural dwellers are confounded with the decision to seek health care, type of health facility, and the form of care perceived as appropriate. These are usually influenced by a myriad of factors relating to the individual, the socio-cultural

environment and the kind of health facility (Iyalomhe & Iyalomhe, 2012). This implies that the decision to seek health care when several options are available with respect to the rural populace in the African context mostly depends on individual predisposing, enabling and need factors (Andersen, 1995); the socio-cultural environment that either inhibits or enhances accessibility and utilisation; and institutional factors that either acts as a barrier or promotes easy accessibility and utilisation (Mckinlay, 1972). This is further corroborated by Tanahashi (1978) in his study on health services coverage and its evaluation. He indicated that the level at which a health facility or service functions can be measured by the degree to which it can be readily accessible, affordable, acceptable and available to its users.

In some instances, rural dwellers are reported to shop around for health care on the basis of their perception of the illness, sex, position in the family and their socioeconomic status (Kroeger, 1983; Olujimi, 2006 as cited in Iyalomhe & Iyalomhe, 2012). A study by Hoeven et al. (2012) in South Africa, focusing on differences in health care seeking behaviour between the rural and urban communities reported that financial considerations, perceived quality of health care provider and geographic location of the health care provider as important factors that influences one's choice of health care provider just as reported in previous studies by Belli et al. (2004), Ahmed et al. (2005) and Tanser et al. (2006).

Hoeven et al. (2012) reported lower rates of health care utilization and expenditure among the rural residence relative to those in the urban areas. This was attributed to the polarized nature of health care infrastructure where most of them are skewed to the urban areas leaving the rural areas underserved. In situations where they are provided, poor quality of service makes its accessibility and utilization very difficult. In most rural areas for example, access to and utilisation of health care is a major issue because the poor quality

of service and lack of formal health facilities are further compounded by lack of alternative providers.

Apparently, the choice of health care facilities in most rural areas is often at times left to state clinic, health centre or CHPS and a monopolistic chemical seller, whereas a range of alternatives including private specialists exist in urban areas (Thompson et al., 2003). This is mostly as a result of the need to enjoy economies of scale and profit, mostly by the private health institutions that are reluctant to establish alternative health centres or clinics in these rural areas because of the socio-economic status of the area and limited population threshold to ensure its patronage and enhance profit maximization.

A study by van den Boom et al. (2004) in Ghana, noted that medical facilities were not evenly distributed across the country, with most rural areas lacking basic facilities such as hospitals and clinics as well as doctors and nurses. The study further indicated that Ghanaians on average live about 16 km from a health care facility where they can consult a doctor, but half of the population live within a 5 km radius. By the same token, the other half cannot consult a doctor within 5 km, which corresponds to a 1 hour walking distance, and one quarter, even lives more than 15 km from a facility where a doctor can be consulted. The Government of Ghana embarked on a health sector reform in the early 1990s to improve the accessibility and quality of services. However, the health situation in Ghana is still far from satisfactory as many people in the country still rely on self-medication (van den Boom et al., 2004).

2.8 Conceptual framework

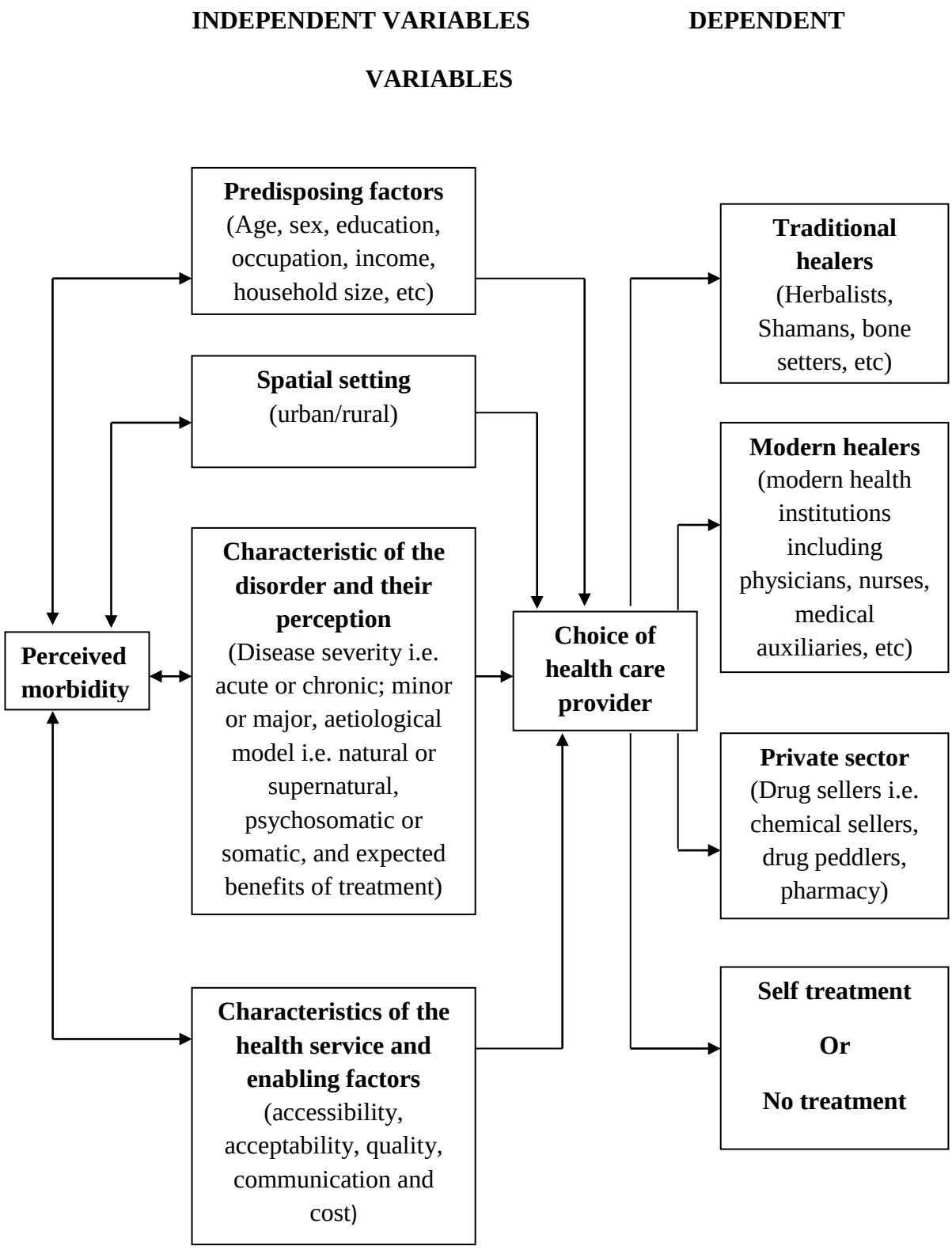
This study adapted Kroeger's health seeking behavioural model to assess the utilisation of health services in the Obuasi municipality. This model has been indicated by Stekelenburg (2004), Majumder (2006) and Hedge (2009) as useful in predicting patterns of health care

utilisation. The deficiencies of Kroeger's model when applied in the context of most developing countries as indicated earlier on are incorporated into the adapted model. This will aid in determining utilisation patterns of health services and account for similarities and variance in the choice and use of health care resources among the urban and rural communities. The model was given a spatial dimension by incorporating spatial setting (urban/rural) to the adopted model.

Again, this model fits the objectives of this study as it holistically assesses the various factors that generally influence an individual's illness response and the kind of health care resource chosen and utilised. All the need factors viz. disease severity, aetiological model and expected benefits of intended treatment that influences the choice and use of health care resources are duly accounted for. Again, other enabling factors like health service characteristics viz. service accessibility, availability, acceptability, quality of care, communication and cost are also accounted for. In addition, an individual's predisposing factors as indicated earlier on also influences his or her illness response and the kind of health care resource they resort to in case of any illness

In summary, Andersen and Newman (1973) health behavioural model represents both enabling, predisposing and need factors by considering other institutional actors. Kroeger's (1983) model depicts a holistic perspective of the various explanatory factors that influence an individual's illness response and utilisation of health care. The figure below shows the adapted form of Kroeger's (1983) model for this study.

Figure 2.3: Conceptual Model



Source: Adapted from Kroeger (1983)

2.9 Summary

This chapter provided a review of relevant literature on utilisation of health services. This was done in the context of Andersen & Newman (1973) health care utilisation model and Kroger's (1983) health seeking behavioural model. The various factors which influence an individual's illness response and choice of health care were reviewed. These were in the context of the various predisposing factors, need and enabling factors that influence an individual's choice of health care.

It further discussed the various models the study relied on in assessing utilisation of health services in the Obuasi Municipality.

CHAPTER THREE

STUDY AREA AND RESEARCH METHODOLOGY

3.0 Introduction

This chapter provides insight into the background characteristics of the study area. These include the physical and demographic characteristics of the area, including population size and age composition, spatial distribution of settlement patterns, population density and household characteristics. It again describes the economic background of the municipality and the various social services it can boast of.

Also, this chapter also provides insight into the methodology adopted for the study. The cross-sectional research design adopted for the study as well as the mixed method approach of data sourcing are further explained in details in this chapter. The mode of data presentation and analysis are well presented in this chapter. Lastly, the various challenges encountered in the data collection process are thoroughly discussed.

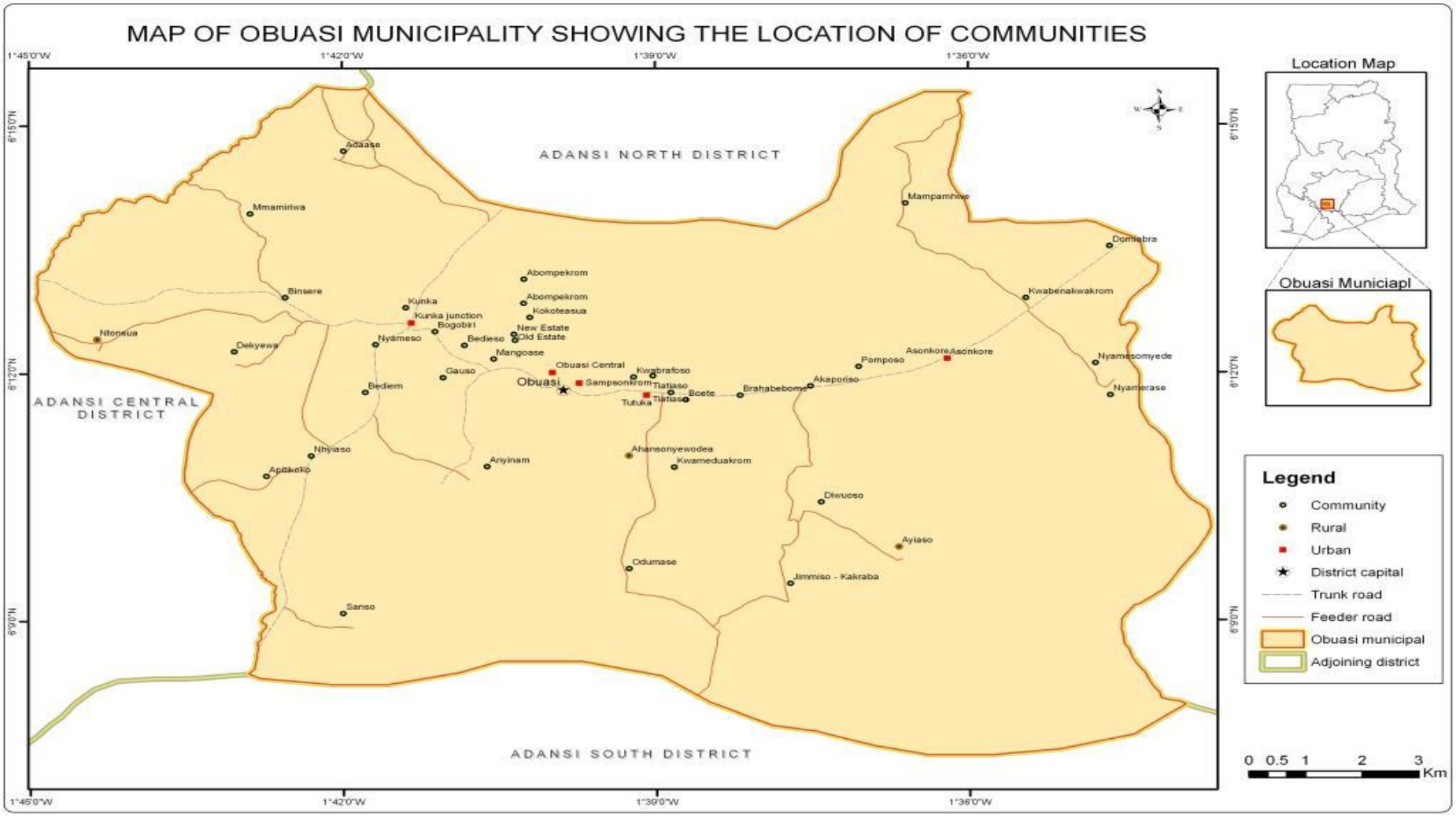
3.1 Background of research area

The Obuasi Municipal Assembly, which used to be part of the former Adansi West District Assembly, came into being by virtue of the Executive Instrument No. (E.I. 15) of 15th December 2003 and Legislative Instrument (L.I. 1795) of 17th March, 2004.

3.1.1 Location and Size

The Municipality is located between latitudes 5º35'N and 5 º65N, and longitudes 6º35'W and 6º90'W and covers a total land area of 162.4 square km. It is located in the Southern part of Ashanti Region of Ghana, about 64km from Kumasi, the regional capital. There are sixty-two communities in the municipality with thirty Electoral Areas and one zonal council. The Municipality that has Obuasi as its capital is bounded on the south by Upper Denkyira District of the Central Region, East by Adansi South, West by Amansie Central, and North by Adansi North.

Figure 3.1.1: Map showing Obuasi Municipality in the Ashanti region



Source: CERSGIS (2014)

3.1.2 Demographic characteristics

Ideally, the objective of development is not the provision of infrastructure or the realisation of favourable economic indicators but the improvement of human lives. Human beings have basic needs such as food, shelter, education, health, security among others and that all development efforts should be geared towards enhancing people's access to these basic needs. Against this background, there is therefore the need to consider the dynamics of population growth, basic demographic characteristics like population size, structure, growth rate and their implications for the development of health care services in the Municipality.

3.1.2.1 Population Size, Growth and Density

According to the 2010 population and housing census, the population of the Obuasi Municipality is 168,641 and accounts for 3.5 percent of the total population in the Ashanti region. This comprises of 81,015 males and 87,626 females (GSS, 2012b). This is attributed to the influx of migrants who are in search of jobs with the mining and other related companies. It is however anticipated that this figure may drop due to changes in migration trend and mass retrenchment over the years from the mines.

The population density based on the land surface of 162.4km² was 1292.6 persons per square km in 2008 and this is expected to stand at 1396 persons per square km in 2010. This really puts a lot of pressure on socio-economic facilities and land for both housing and other economic activities.

Approximately four (4) houses are built on every acre. The implication for physical planning is that the Municipality has already exhausted the required or ideal Housing Density of four (4) per acre. Invariably, the heart of the Municipality is a built –up area

and if further development is not directed at the peripherals it may pose security and environmental threat to a lot of people (OMTDP, 2010).

3.1.2.2 Age and Sex Composition

According to the 2010 Population and Housing Census, the population distribution of the Obuasi Municipality shows that about 43% (73,804) of the population are below 18 years groups, while the remaining 57% (94,837) are above 18 years and constitute the potential labour force and aged in the Municipality.

3.1.2 Spatial Distribution of Settlement Pattern

With a population of 168,641, the Municipality has 63 settlements with most communities concentrated in the urban areas such as Tutuka, Obuasi central, Akaporiso, Sanso with few rural communities at the periphery of the Municipality. There are sixteen urban settlements which have 77.40% of the total population of the Municipality. This implies high concentration at the core of the Municipality which has severe effects on the provision and accessibility of basic infrastructure.

Conversely, the dispersed nature of the rural settlements with their small population size makes the equitable provision of infrastructural facilities difficult. Since most of them do not meet the required threshold population for the provision of some facilities.

Table 3.1.1: The ten (10) largest settlements in the Obuasi Municipality in terms of Population

NO.	TOWN	POPULATION
1.	TUTUKA	14,768
2.	OBUASI CENTRAL	14,223
3.	AKAPORISO	13,921
4.	BOSSMAN	13,921
5.	SANSO	10,097
6.	GAUSU	8,940
7.	BRAHABEBOME	7,622
8.	ZONGO	7,410
9.	WAWASE	7,410
10.	NYAMESO	6,970

Source: MPCU construct 2009

3.1.3 Household Sizes and Characteristics

The average household size in the Municipality is 4.0. The Municipality has 41,312 households compared to 24,729 in 2005 (GSS, 2012b). The Municipality can boost of 165,052 household population in the Municipality. This means between 80 – 90% of the dwelling are compound houses with about 5-6 households per house. The composition and structure of household in the Municipality are a reflection of the social structure of the Ghanaian society. The extended family system is the predominant family set up in the Municipality.

3.1.4 Migration Trends

Migration is a critical factor of population growth in the Municipality. The urban nature of the Municipality and the vibrant mining activity with its related industries including trading has continued to attract people from all walks of life into the Municipality.

Nearly 99% of the populace are normal residents and 1% are non-residents including expatriates. This means that 1 in 100 persons come in to stay for some time or transact

business and leave the Municipality. Such migrants come to the Municipality with the objective of engaging in one or two of the following activities: galamsey (illegal mining activities), learn a trade, trading, establish small scale industries. The trend is expected to continue due the intensification of activities of illegal miners who have even extended their activities to the underground mines.

3.1.5 Rural – Urban Split

According to the Population and housing census, the urban population of the Municipality is 143,644 compared to 24,997 of the rural areas. In view if this the Population distribution in the municipality is mainly urban. Important urban communities in the Municipality include following; Kunka Junction; Bongobiri; Mensakrom; Nyameso; Koffekrom; Anyinam; Gausu; Mangoase; Bedieso; Abompekrom; Kokoteasua; Estates; Central; Antoboase; Emuye; Wawase; Anyimadukrom; Kwabrafoso; Tutuka; Boete; Brahabebome; Tutuka; Sam Jonah, Wawase, Obuasi; Kreeki; Boete and Bossman.

Key rural/peripheral communities also include: Sansu, Anglo, Apitiso, Apitikoko, Nhyiaeso, Mamiriwa 1&2, Binsere, Dokyiwa, Ntonsua, Abaam, Pomposo, Asonkore, Kwabenakwa, Mampanhwe, Nyanfrase, Nyamesomyede, Odumase, Jams, Diawuoso, Ahansoyewodea, Ayease, and Domeabra. These are also the main agricultural farming communities in the municipality.

3.1.6 The Municipal Economic Background

3.1.6.1 Economic Infrastructure

A number of roads traverse the municipality linking up the core townships to all the suburbs of the municipality and other areas of the country. Out of the 63 communities 41 are connected to the national electricity grid. In the area of telecommunication, almost all the mobile phone networks are in the municipality in addition to fixed or land lines. The

municipality has a total of thirteen daily markets which include eight satellite markets. The markets are easily accessible to all the communities.

3.1.6.2 The Structure of the Municipal Economy

In the Municipality, the service and commercial sector takes the lead in terms of employment (55%). However mining and its related activities, second in terms of employment (35%) is the mainstay of the municipal economy. The municipality is well known globally of its rich gold and mining industry, currently operated by AngloGold Ashanti (AGA). AGA was created in April 2004 as a result of the business combination of erstwhile Ashanti Goldfields Company of Ghana and erstwhile AngloGold of South Africa. AGA is the only underground company in Ghana currently and it employs over six thousand (6000) Ghanaians. Agriculture is the third important sector of the municipal economy employing 10% of the labour force in the municipality. Agriculture is predominantly on small basis in the municipality. About 90% of farm holdings are less than two hectares in size. However, there are some large farms and plantations. About 18% of the populace get their source of livelihood from illegal mining activities basically due to the relatively high youth unemployment (64%).

3.1.7 Social services

3.1.7.1 Health

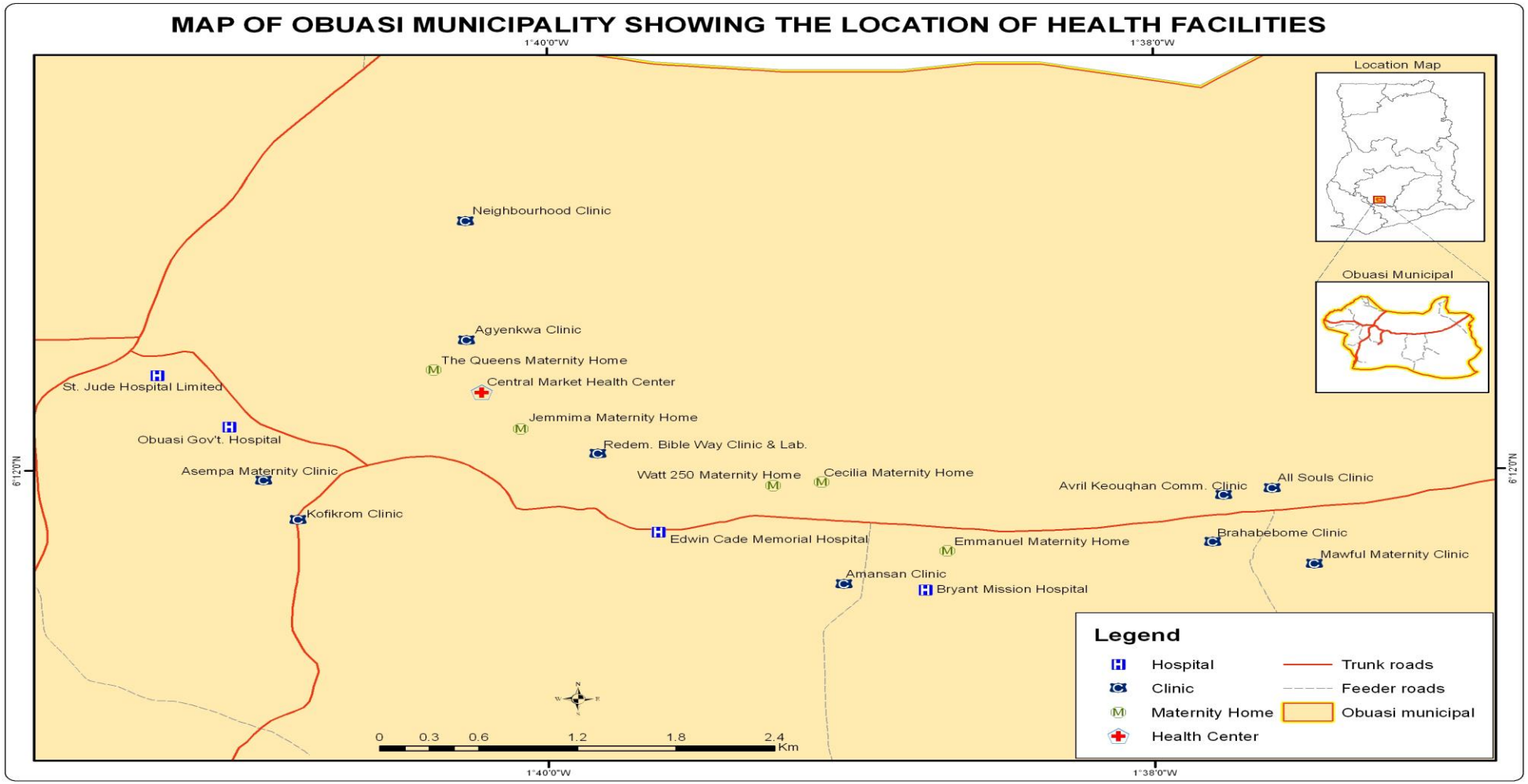
The Municipal health system follows a three-tier service delivery system that is from the community (community clinic) through the Sub-municipal and the Municipal level. There are twenty-two health facilities in the Municipality which consist seven hospitals, two (2) health centres, eight clinics, four maternity homes and one CHPS centre. Table 3.1.3 shows the health facilities in the Municipality and their locations. This however, does not include the various traditional health centres.

Table 3.1.3: Location of health facilities in the Municipality, 2009

Community/location	Hospital	Health Centre	Maternity Home	Clinic	CHPS
Abompekrom	*				
Anyinam				*	
Bediem				*	
Bedieso	*				
Estates(old\ new)			*	*	
Gausu	*			*	
Koffekrom				*	
Kunka Junction		*			
Mensakrom	*			*	
Aboagyekrom				*	
Boete	*		*		
Brahabebome	*				
Sampsonkrom			*		
Wawase	*				
Akaporiso				**	
Obuasi central		*			
Kwabrafoso			*		
Adaase					*

Source: Municipal Health Directorate 2009

Figure 3.1.2: Map of Obuasi Municipality showing health facilities



Source: CERSGIS (2014)

This situation shows tremendous increase in the number of health facilities in the Municipality from twelve in 2005 to twenty-two in 2009. This increment can be attributed to private participation in the delivery of health services. Despite this increment some of the populace especially communities at the periphery of the Municipality complain of the relatively long distance they have to travel to access health services. This is due to the fact that most of these facilities are skewed to the centre of the Municipality. This coupled with relatively poor road network in some parts of the Municipality makes access to health care quite difficult especially for the rural communities.

Malaria still tops the list of top ten (10) diseases in the Municipality despite the on-going AGA/OMA malaria control programme. Other top diseases include Hypertension, Rheumatism and so on. There has been slight reduction in the HIV/AIDS prevalence rate of 0.3%. In Ghana for instance, the common diseases include malaria, HIV/AIDS, diarrhoeal diseases, lower respiratory infections and perinatal conditions. According to the World resource institute (2008), these are the five most common diseases and account for 50 per cent of all deaths in Ghana and 68 per cent of deaths among children under 14 years. Table 3.1.4 shows the list of top ten (10) diseases in the Municipality.

Table 3.1.4: Top ten Diseases in the Municipality, 2012

NO.	DISEASES	NUMBER OF CASES
1.	Malaria	79,438
2.	Hypertension	19,928
3.	Other ARI	13,729
4.	Rheumatism/Joint pains	11,325
5.	Skin Disease/Ulcers	7,642
6.	Diarrhoea	6,533
7.	Anaemia	5,343
8.	Diabetes Mellitus	5,088
9.	Intestinal Worm	4,775
10.	Acute Urinary Tract Infection	3,736
	Total	

Source: Obuasi Municipal Health Directorate 2012

The Municipality is on the fortunate side with respect to availability of health personnel especially doctors (OMHD, 2008). The current population require twelve (12) doctors thus with respect to standard doctor/population ratio of 1:20,000, there are however twenty-one (21) doctors with doctor/population ratio of 1:10,796. The efforts of these doctors are supplemented by one hundred and sixty-five (165) nurses and two hundred and twenty-three (223) paramedics.

3.1.7.2 Water

The municipality abounds in water sources with streams, rivers and ponds in most parts of the municipality. However these water sources are heavily polluted by the mining activities of AngloGold Ashanti and illegal miners popularly called galamsey. This situation is further compounded by human activities like sand winning, indiscriminate defecation into rivers and streams. The non-availability of dumping sites in some communities has resulted in the use of some of these water bodies as dumping sites. Thirty-two (32) communities with a population of 162,166 have access to pipe borne water whiles the remaining 30 communities with a population of 166,000 have their sources from either bore hole or hand dug well. In the thirty-two (32) communities with pipe borne water, people have pipe borne water in their individual homes. The percentage coverage in these thirty three (33) communities is 100%. However the utilisation of the pipe borne water is very low and limited to washing and other domestic uses instead of drinking purposes due to the fact that the water is contaminated by mining activities especially illegal mining and domestic waste.

3.1.7.3 Education

Currently there are one hundred and twenty-nine (129) public institutions and two hundred and thirty-two (232) private institutions ranging from KGs to SHS level making three hundred and sixty-one (361) educational facilities in the municipality. However, another

issue which needs attention is the drop-out rate of girls as the educational ladder moves up. For instance at the KG and primary levels, the girls enrolment was 108 and742 respectively higher than the boys enrolment in the 2008/2009 academic year. Conversely, at the JHS and SHS levels the boy's enrolment was 212 and 2,393 respectively higher than the girl's enrolment. The trend with girl/boy enrolment is the same with that of the public schools for the KGs, primary schools and SHS but only differs with JHS and TECH/VOC schools. There is constant increase in access to education in Obuasi for the last three (3) years in both public and private enterprises at the basic level. With the high rate of increase in enrolment, there is the need for a correspondence increase in infrastructure. Teacher supply in the Municipality is considerably good. The public schools have good supply of trained teachers with the exception of the KG.

3.2 Research Methodology

3.2.1: Selection of Study Sites

Given the wide rural-urban split in the Municipality, the study sought the need to select the various communities using a random sampling method. This was to give every community an equal opportunity of being selected for the study. The sixty-three (63) communities were categorised into rural and urban communities. This was based on the data from the Obuasi Municipal Assembly where population, major economic activity and functionality are used to categorize the communities into urban and rural. At the second stage, simple random sampling was used in selecting five communities from the urban cluster and three communities from the rural cluster.

This was done in order to give a fair representation to the communities sampled and as such this probability sampling method is best suited in the presence of a sampling frame and also aid in generalization. The five (5) urban communities' sampled were Wawase, Tutuka, Obuasi Central, Asonkore, and Kunka Junction whiles the three (3) rural

communities were Ntonsua, Ayease and Ahansoyewodea. In each of the communities selected, they were clustered into zones. This ensured easy classification of each area into various enumerated areas. Each community was demarcated into four zones based on location and settlement pattern. One zone was selected from each community to represent a designated enumerated area.

Out of Twenty-two (22) formal health care providers in the Municipality, five (5) were selected for the study. These included three hospitals, a clinic and a health centre viz. Edwin Cade Memorial hospital formally AGA hospital (private), Obuasi Government hospital (Public), Bryant Mission hospital (Mission-based), Amansan clinic (private) and Central Market Health Centre (public). The selection of these health facilities was informed by results from the household survey where these health facilities were mostly utilised and under-utilised by respondents from both urban and rural communities and also based on its type, location and scale of operation. Also, certain traditional health centres were initially selected for the study but findings from the household survey indicated that its inclusion did not merit probing since those that resorted to the use of herbal medicine consisted of the smallest fraction of the sample population. They self-prepared them at home and depended less on the centres. Again, the Obuasi Municipal Health Directorate (OMHD) and the Mutual Health Insurance Directorate (OMMHID) were purposively selected for the study.

3.2.2 Research Design

The study adopted a population-based cross-sectional study design to assess the utilisation of health services in the Obuasi Municipality. Cross-sectional design entails the collection of data on more than one case and at a single point in time. It is thus good for determining variation, patterns of associations, and may indicate causation by examining relationships between variables. As noted by Abramson (1985), it is more effectual to adopt this design

if the data will be collected on more than one case and will relate to a single specified time, and will also include some historical information. In view of this, the cross-sectional study design was adopted for the study

This study adopted the mixed method approach in order to gain a comprehensive understanding of the issues examined. This approach has been acknowledged by Teye (2012) as very useful in examining complex phenomena. This implies that both quantitative and qualitative data sources were relied on to achieve the objectives set out by this study. The quantitative approach resonates within the positive paradigm which states that science is value-free, neutral and objective, that aims is to explain generic behaviour pattern (Teye, 2012). Conversely, the qualitative approach resonates within the interpretive paradigm which gives priority to subjective interpretation relative to objective fact. Thus, social reality is complex and must be seen from the perspective of the social actor. This implies that much relevance is given to comprehending the subjective opinions, actions and behaviour of a group instead of the objective way championed by positivism. In view of this the study adopted both approaches to aid in unravelling the complexities of the issues understudy.

The mixed method approach has been asserted by Tipping and Segall (1995) and further corroborated by Grundy and Annear (2010) as more useful for studies on health service utilisation, where priority is given to the need to explain causations and patterns. This includes both the qualitative and quantitative methods of data collection. Grundy and Annear (2010) stated that “the mixed method approaches are more likely to capture prevalence of behaviours according to specific health conditions and the rationale for specific health seeking behaviour and health service utilisation pathways”. Tipping and Segall (1995) in their study on health care seeking behaviour in developing countries underscored the fact that a number of methodological factors compromised the

comparison of studies on Health care seeking behaviour and use of health services. In their study, qualitative interviews were used to identify the patterns after which questionnaire survey determined the frequencies associated with this pattern. They reiterated the fact that health behavioural studies which complement quantitative methods with qualitative dimension would facilitate an understanding of their illness response and the process by which people access healthcare services (Tipping & Segall, 1995).

With regards to this study, this was done via the sequential explanatory strategy. This means that the quantitative method of data sourcing preceded the qualitative approach to better aid in explaining the various issues and themes that warranted further probing. This form of data sourcing was argued out unequivocally and recommended by Grundy and Annear (2010) and further reiterated by Hedge (2009) and Prosser (2007) as more useful in health utilisation studies.

The questionnaire survey was first used in sourcing respondents' behaviour towards their health and the treatment options they opted for. This was done in order to determine frequencies, patterns, associations and predicting of illness response and the kind of health care services they utilise while qualitative method was used in garnering a thorough and comprehensive understanding of the issues examined. More so, this was done to unravel some of the themes that emanated from the quantitative study that warranted further probing at the institutional level.

Again, the study used statistical techniques to test for causalities and establish relationships among some selected variables. These are highly characteristic of the quantitative approach, which entails the use of statistical techniques for analysing quantifiable data and thus useful for generalizations and predictions. It also has the capacity for model specification and the establishment of the nature of correlations between different variables (Castro et al., 2010 as cited in Teye, 2012). With reference to

this study, it can be useful in examining contextual influence on health care seeking, outcomes and patterns of utilisation. Also, it sought to generate detailed data on the experiences, perceptions, emotions, beliefs and behaviour of respondents but the quantitative research approach is not very good for explaining behaviours and perceptions (Brannen, 1992). So there was the need to complement it with the qualitative approach which is very good for generating detailed data on the experiences, perceptions, emotions, beliefs, and behaviours of respondents. Against this backdrop, the mixed method approach was adopted in order to gain complete understanding of the issue to be unravelled.

Table 3.2.1: Research Design

Research Tool	**Target Population**	**Sample size**	**Intended outcome**	**Test**
Questionnaire	Household respondents (Persons above 18 years)	210	• Health seeking behaviour • Utilisation of health services • Choice of health care • Mode of health financing	Cross tabulation, chi-square test of significance and logistic regression
In-depth Interviews	Health Administrators of selected health institutions	5	• Morbidity and Mortality • Service coverage • Health service delivery	Frequency and perceptionist approach
Personal Interview	Household respondents	15	• Perception about disease causation • Reasons associated with choice and use of health care facility • Mode of health financing	Frequency and perceptionist approach

3.2.3 Primary data sources

Against the backdrop of providing a comprehensive understanding of the issues examined, primary data sources were relied on. As the design for the study is cross-sectional survey using self-reported information, it was more effectual to use a questionnaire (McColl et al., 2002). The primary data for this study therefore were the quantitative and qualitative data collected via the use of the questionnaire and in-depth interviews respectively. A semi-structured questionnaire was used for this study. The study further conducted fifteen in-depth interviews with the various respondents in order to obtain detailed information about their utilisation pattern of health care services. The decision to select fifteen respondents for the qualitative facet of the study was partly based on limited time and budgetary constraints and wholly because the information given were relevant and reflective of the issues examined

3.2.3.1 Household Survey

The study was based on a household survey which is basically the most common method used for health service utilisation studies, usually within the domain of Knowledge, Attitude and practice (KAP) studies (Grundy and Annear, 2010). The overall population sourced were persons aged 18 years and above living within the geographic boundaries of any of the eight communities selected. Adults were selected because their relevant health, demographic and socio-economic information were applicable. The decision to exclude children is partly due to issues of consent and the assumption that children are also less likely to be making their own health decisions so information from them will be reflective of the adult's decision.

Clearly, the argument supports the fact that in developing countries, there is still inadequate understanding of how gender influences health itself (AbouZahr et al., 1996., as cited in Omotoso, 2010), access to health information and services (AbouZahr et al,

1996), health seeking behaviour (Ahmed et al., 2000) and the use of services, treatment and attitudes of providers (Hartigan, 2001) and health outcomes (AbouZahr et al., 1996; Hjortsberg 2003). It is against this backdrop that this study factored sex into the mainstream of utilisation pattern of health care. This study therefore included both male and females in order to examine differences and similarities in their utilisation of health care services across the various geographical locations.

A semi-structured questionnaire was used in sourcing information from respondents during the survey. Two Hundred and Ten (210) respondents from the various urban and rural communities were sampled for the study. This consisted of one hundred and fifty (150) respondents from the various urban communities and sixty (60) from the rural communities. This was done in order to have a fair representation since the urban population far exceeds that of the rural communities and thus, this is commensurate with the variation in population distribution across the urban and rural divide.

The semi-structured questionnaire was purposely designed to give room for respondents to answer various questions regarding their socio-demographic background, their health seeking behaviour, utilisation of specific health services, and the modes through which they finance their health care. The comprehensive nature of the research instrument made it possible for the study to garner a lot of useful data. The research instrument was pretested in two different communities, an urban and rural community in the Adansi North Municipality. The field assistants were taking through two days of training to acquaint themselves with the research instrument before the pretesting was done. This provided room for correction of certain errors, rephrasing of certain questions and identifying local names for certain terms that needed translation in the local dialect before the actual survey. The actual data collection was done in both English and Twi with the assistance of two field assistants.

The data collection was done within three months, from November 2013 to January 2014. Though the data collection phase was initially anticipated to be done within two months, administering the questionnaire to rural respondents and garnering of other institutional data resulted in the data collection taking place within three months. The initial phase began with a reconnaissance survey of the various selected urban and rural communities. With the assistance of two research assistants, the various households were sampled for the study. Given that the various study sites and EA's were already selected (see for instance, section 3.2.1, page 74-75), a systematic random sampling was used in selecting the various households for this study. For each of these enumerated area, various houses within the EA were listed for selection. This was to aid in getting a sample frame for the study. Various houses were selected and listed systematically. After the first house was randomly selected and listed, each fifth house was selected for the survey. In addition, the various households within each house were listed for selection. This gave equal opportunity to the various households within a dwelling unit to be selected, given that a dwelling unit may house more than one household. In situations where there was only one household as pertained within the rural areas, that household was only selected for the household survey.

In addition, a simple random sampling method was then used in selecting the respondent for the study. In instances where both male and female adults were present, a simple random sampling method was employed to select respondent for the study. These respondents consented to partake in the study and were forthcoming with most of the issues affecting their health and utilization of health services. This brought to the fore certain interesting themes that warranted further probing at the institutional level.

3.2.3.2 In-depth interview

Most studies on health service utilisation have been criticized for providing obvious and partial explanation to most health problems due to its narrow focus on the individual and communities, albeit relevant for health system development (Grundy & Annear, 2010). This study therefore engaged the various health providers and health institutions in the study in order to ascertain the various ways their activities impacts or shape the health service utilisation pattern of the population in the Obuasi municipality. Hence involving the individuals, communities, health institutions and the wider socio-cultural environment provided a comprehensive understanding of the complex variations and similarities of utilisation pattern of health care services (Mackian, 2003). This included the various formal health care providers, Municipal Health Directorate, the Obuasi Health Service Division, and the Municipal Mutual Health Insurance Directorate. An interview was conducted with each respective head of these health institutions.

The interview guide were in two forms; one for the various respondents selected for the qualitative facet of the study and those for the health institutions selected. The institutional interview guide mainly looked at issues of morbidity and mortality, service coverage, health service delivery and mode of health financing. This was to aid the study in deciphering how certain institutional factors and health service characteristics influence health care utilisation in the Municipality. This was done via in-depth interviews with the various health administrators in the respective health institutions. Again, the director and scheme manager at the OMHD and OMMHID were interviewed respectively. Issues of service availability and accessibility; general health service delivery in the Municipality and NHIS enrolment, progress and delivery pivoted the major themes of the interviews. The interview guide for the respondents mostly dealt with issues of disease burden, environmental and social threat to communities, preferred health facility and mode of

health financing, specifically on NHIS enrolment and challenges in accessing health care with it. The study conducted fifteen in-depth interviews with the various respondents in order to obtain detailed information about their health seeking behaviour and utilisation pattern of health care services.

3.2.4 Secondary data sources

The secondary data were sourced from books, journals, articles, periodicals, Obuasi health service (OHS), Obuasi Municipal Health Directorate (OMHD), Ghana Health Service (GHS), Obuasi Municipal Mutual Health Insurance Directorate (OMMHID), various hospitals, health centres and clinics selected for the study. Data on morbidity and mortality statistics were sourced from the health directorates and health institutions selected for the study; also information on OPD and in-patient attendance was also collected. Again, information on NHIS registration and enrolment were sourced from the OMMHID. Other relevant information was sourced from written publications, books and internet sources.

3.2.5 Data Analysis and Presentation

The quantitative data was analysed using SPSS version 20. The data collected were manually coded and entered into SPSS and various frequencies and tables were generated to assist in the analysis and discussion. Again, Pearson's Chi-square test was used to test level of associations or variations among the variables while logistic regression was used in predicting pattern of illness response and health care utilisation. Lastly, qualitative data sourced were analysed manually by categorising them into specific themes.

3.2.6 Challenges Encountered in the Fieldwork

The sensitive nature of the questionnaire made data collection difficult during the initial phase of the data collection within the rural areas. This was partly because most respondents digressed from the major issues that needed clarification and largely engaged

in issues of disparity in resource distribution among the urban and rural communities. This resulted in delays in the initial phase of the study. Again, most of the rural participants were not forthcoming with issues about their health and this was largely because they wanted to ascertain how beneficial such studies will be to their health needs since previous researches conducted in their communities have not resulted in any significant improvement in their health needs. Against this backdrop, some souvenirs like University of Ghana pens and exercise books were given out to these participants to motivate them. Again getting data from the various health institutions was a major challenge.

More so, some of the institutional data were aggregated and thus made it very difficult to disaggregate them for context specific analysis. Where the data were in disaggregated form, some portions of it were not available to ascertain patterns and thus enhance trend analysis.

3.3 Summary

This chapter discussed the background of the study area. This was to provide a general overview of the physical, economic and social environment of the study area. The location, size and demographic characteristics of the study area were discussed. Also, the spatial distributions of settlement pattern, population were also discussed. The various social services and economic background of the Municipality were also discussed. It also discussed the methodology used in achieving the various objectives set by the study.

CHAPTER FOUR

BACKGROUND CHARACTERISTICS OF RESPONDENTS, PERCEPTIONS ABOUT DISEASE CAUSATION AND CHOICE OF HEALTH CARE FACILITY

4.0 Introduction

Given that socio-demographic variables have significant influence on utilisation of health services (Kroeger, 1983; Andersen, 1995; Stekelenburg, 2004; Mushtaq et al., 2011), this section examines the distribution of respondents according to their socio-demographic variables. These socio-demographic variables include sex, age, and level of education, religion, household size, occupation, and income. This chapter also examines disease incidence and patterns in the study area and assesses respondents' knowledge about the causes of diseases. This was to assist the study in unravelling participants' ideas and knowledge about disease causation. It also sought to establish the relationship between respondents' knowledge about the causes of disease and their response to its effect in terms of seeking for health care. In view of this, respondents' choice of health care facility was examined. This was done in the context of the types of health care facilities they resort to in case of acute and chronic ailments.

4.1 Socio-demographic characteristics of respondents

Table 4.1.1 shows the distribution of respondents according to selected socio-demographic variables, namely sex, age, level of education, and religion. About 76.2 percent of respondents from urban areas and 68.5 percent of those from rural areas were males. Consequently, 62 percent of the 210 survey respondents were males.

Majority of the respondents were within the ages of 35-54 years whiles those less than 25 years formed the least age group of the study. The mean age of the respondents sampled was 42 years.

Again, seventy-five percent had received some form of formal education whiles 25 percent had received no formal education. In general, respondents from the urban areas had high level of education relative to respondents from the rural areas. Elementary or primary education is the highest level of education attained by respondents from the rural areas compared with those from the urban communities who have attained secondary or tertiary education.

Also, 64 percent of the respondents were Christians while 11 percent were traditionalists. This is basically because Christianity is the most dominant religion in the Municipality. Again, 15.7 percent of the total population sampled had no household dependants whiles 9 percent had 7-10 household dependants (see Table 4.1.2).

From Table 4.1.2, 71.3 percent of the urban respondents and 29 percent of the rural respondents were employed and earning some income as at the time of the study, whiles 7.1 percent respondents had no jobs and earned no form of income. In all, 93 percent out of the total respondents sampled were employed and earning some income as at the time of the study. Majority of the employed respondents were artisans, traders, farmers and legal miners. In addition, majority of the respondents from the rural areas were mostly farmers or artisans. Again, 50 of the respondents indicated they engage in additional income earning occupation. This accounted of 44 percent and 56 percent of the urban and rural communities respectively. These additional earning occupations included artisanal work, farming, teaching and trading.

Out of 195 respondents, 12 percent earns below GH ₵300 which is highly characteristic of the rural populace who forms about 92 percent of that income group. Also, 30 percent respondents earn between GH ₵300- GH ₵600 whiles 29 percent earn between GH ₵601- GH ₵1000. Again, 21 percent of the respondents earn between GH ₵1001- GH ₵2000) which is highly characteristic of the respondents from the urban communities who formed 100% of that income group. This was also the case of 2 percent that earned from GH ₵2001- GH ₵3000.

Table 4.1.1: Distribution of respondents by sex, age, level of education and religion

Socio-demographic variables	Frequency	Place of residence		Total
		Urban	Rural	
Sex				
Female	80(38.1%)	61(76.2%)	19(23.8%)	80(100%)
Male	130(61.9%)	89(68.5%)	41(31.5%)	130(100%)
Total	**210(100%)**	**150(71.4%)**	**60(28.6%)**	**210(100%)**
Age				
Less than 25 years	5(2.4%)	5(100%)	0(0.0%)	5(100%)
25-34 years	47(22.4%)	43(91.5%)	4(8.5%)	47(100%)
35-44 years	79(37.6%)	54(68.4%)	25 (31.6%)	79 (100%)
45-54 years	59(28.1%)	37(62.7%)	22 (37.3%)	59 (100%)
55-64 years	20(9.5%)	11(55.0%)	9(45.0%)	20(100%)
Total	**210(100%)**	**150(71.4%)**	**60(28.6%)**	**210 (100%)**
Level of Education				
No formal education	52 (24.8%)	7 (13.5%)	45 (86.5%)	52 (100%)
Elementary/ Primary education	36 (17.1%)	21 (58.3%)	15 (41.7%)	36 (100%)
JSS/ Middle school	35 (16.7%)	35 (100%)	0 (0.0%)	35 (100%)
SSS/ O level/A level/Vocational	44 (21.0%)	44 (100%)	0 (0.0%)	44 (100%)
Tertiary	43 (20.5%)	43 (100%)	0 (0.0%)	43 (100%)
Total	**210 (100%)**	**150 (71.4 %)**	**60 (28.6%)**	**210 (100%)**
Religion				
Christianity	135 (64.3%)	109 (80.7%)	26 (19.3%)	135 (100%)
Islam	50 (23.8%)	33 (66.0%)	17 (34.0%)	50 (100%)
Traditional	24 (11.4%)	7 (29.2%)	17 (70.8%)	24 (100%)
Other	1 (0.5%)	1 (100%)	0 (0.0%)	1 (100%)
Total	**210 (100%)**	**150 (71.4%)**	**60 (28.6%)**	**210 (100%)**

Source: Field work, 2014. (Figures in bracket represent percentages in a row except the ones at the frequency section which is in a column)

Table 4.1.2: Distribution of respondents by household size, occupation and average monthly income

Socio-demographic variables	Frequency	Place of residence		Total
		Urban	Rural	
Household Size				
None	33 (15.7%)	28 (84.8%)	5 (15.2%)	33 (100%)
1-3	82 (39.0%)	67 (81.7%)	15 (18.3%)	82 (100%)
4-6	76 (36.2%)	46 (60.5%)	30 (39.5%)	76 (100%)
7-10	19 (9.0%)	9 (47.4%)	10 (52.6%)	19 (100%)
Total	**210 (100%)**	**150 (71.4%)**	**60 (28.6%)**	**210 (100%)**
Occupation				
Artisan	60 (28.6%)	40(66.7%)	20 (33.3%)	60 (100%)
Teaching	23 (11.0%)	22(95.7%)	1 (4.3%)	1 (4.3%)
Mining	23 (11.0%)	23(100%)	0 (0.0%)	23 (100%)
Farming	28 (13.3%)	3 (10.7%)	25 (89.3%)	28 (100%)
Trading	37 (17.6%)	27 (73.0%)	10 (27.0%)	37 (100%)
Health service personnel	14 (6.7%)	14 (100%)	0 (0.0%)	14 (100%)
Security service	4 (1.9%)	4 (100%)	0 (0.0%)	4 (100%)
Bank employees	6 (2.9%)	6 (100%)	0 (0.0%)	6 (100%)
Total	**195 (100%)**	**139 (71.3%)**	**56 (28.7%)**	**195 (100%)**
Average monthly income (GH ₵)				
Less than GH ₵300	25 (11.9%)	2(8.0%)	23 (92.0%)	25(100%)
GH ₵300- GH ₵600	63 (30.0%)	36 (57.1%)	27 (42.9%)	63 (100%)
GH ₵601- GH ₵1000	60 (28.6%)	54 (90.0%)	6 (10.0%)	60 (100%)
GH ₵1001- GH ₵2000	43 (20.5%)	43 (100%)	0 (0.0%)	43 (100%)
GH ₵2001- GH ₵3000	4 (1.9%)	4 (100%)	0 (0.0%)	4 (100%)
Total	**195 (100%)**	**139 (71.3%)**	**56 (28.7%)**	**195(100%)**

Source: Field work, 2014. (Figures in bracket represent percentages in a row except the ones at the frequency section which is in a column)

4.2 General Disease Pattern

As a way of ascertaining the various diseases that confront various respondents in the study area and to also obtain data on general disease pattern across the various places of residence, respondents were asked to indicate if they had been ill for the past three years. Two Hundred and two (202) respondents representing 96.2% indicated they had been ill within this period. These respondents were further asked to indicate the various disease(s) that accounted for their morbid status. Some participants gave multiple diseases as the cause of their ailment while others restricted themselves to particular types of disease(s). In totality, Twenty-One (21) diseases were reported by the various respondents in the respective communities sampled for the study (see Table 4.1.3)

Malaria was the most prevalent among the disease types accounting for 21.67% of reported diseases in totality. In addition, data from health institutions suggest that malaria is the major prevalent disease reported from 2010-2012, though there were also reported incidences of hypertension, respiratory and urinary tract infections and gastro enteritis (see Table 4.2.2). This mirrored the report by the OMHD (2010), where malaria was reported as the most prevalent disease type reported at most health institutions. Again, it corroborates the report by the World Resource Institute (2008), where Malaria was reported among the five most common diseases which accounts for 50 per cent of all deaths in Ghana and 68 per cent of deaths among children under-14 years. Also, hypertension; respiratory tract infection; rheumatism and joint pains; and skin diseases and ulcers respectively accounted for 12.3%, 8.33%, 7.08 and 6.46% of diseases reported by the various respondents.

Again, diarrhoea; diabetes mellitus; acute urinary tract infection; injury or accident and anaemia were reported frequently by the various respondents to account for their ailment.

Moreover, issues of intestinal worm infestation, gynaecological disorders like vaginal discharge, stomach ache, typhoid and cataract were acknowledged by some respondents as definite cause of their ailment. There were minor reported cases of dysentery, cholera, stroke, ear infection and dental issues. There were some differences in reported disease pattern especially the case of respiratory tract infection, diabetes mellitus and malaria. In sum, chronic diseases like hypertension, diabetes mellitus, and respiratory related diseases were reported by respondents both within the urban and rural communities respectively.

Also, diseases like cholera and dysentery were more confined to the urban areas than rural areas. It was brought to the fore during the in-depth interview with the Municipal Health Director that most reported cases of cholera were mostly in the urban areas. These cases were reported in poor highly populated areas. On the other hand, diabetes mellitus was prominent among the respondents from the urban communities (92.6 %) than the rural communities (7.4%).

Also, diseases like malaria, anaemia, fever, typhoid, gastro enteritis and eye and ear infection were reported both by the urban and rural communities sampled for the study. Both chronic and acute illnesses in this context were not limited only to the urban communities as reported by Yesudian (1999) in his study in India, where reported cases of chronic and acute illnesses were mostly dominant in the urban areas. This indicates that disease distribution is not specific to a defined geographical location remotely because, the Municipality is to a larger extent confounded by similar disease causation and environmentally induced factors. However, diseases like intestinal worm infection were highly characteristic of those inhabiting the rural communities (see Table 4.2.1). This can be attributed to the poor drinking water and living conditions that bedevil those inhabiting most rural areas of the Municipality.

Table 4.2.1: Diseases reported by respondents in both urban and rural areas

Disease	Frequency	Place of residence		Total
		Urban	Rural	
Malaria	104 (21.7%)	81 (77.9%)	23 (22.1%)	104 (100%)
Hypertension	59 (12.3%)	39 (66.1%)	20 (33.9%)	59 (100%)
Respiratory tract infection	40 (8.33%)	35 (87.5%)	5 (12.5%)	40 (100%)
Rheumatism and joint pains	34 (7.08%)	18 (52.9%)	16 (47.1%)	34 (100%)
Skin diseases and ulcer	31 (6.46%)	10 (32.3%)	21 (67.7%)	31 (100%)
Diarrhoea	28 (5.83%)	19 (67.86%)	9 (32.14%)	28 (100%)
Diabetes Mellitus	27 (5.63%)	25 (92.6%)	2 (7.4%)	27 (100%)
Anaemia	22 (4.58%)	14 (63.6%)	8 (36.4%)	22 (100%)
Intestinal worm infestation	14 (2.92%)	1 (7%)	13 (93%)	14 (100%)
Acute urinary tract infection	24 (5%)	15 (62.5%)	9 (37.5%)	24 (100%)
Fever	11 (2.3%)	5 (45.5%)	6 (54.5%)	11 (100%)
Ear infection	5 (1.04)	2 (40%)	3 (60%)	5 (100%)
Eye problems/Cataract	12 (2.5%)	7 (58.3%)	5 (41.7%)	12 (100%)
Cholera	2 (0.42%)	2 (100%)	0 (0.0%)	2 (100%)
Stomach ache	13 (2.71%)	5 (38.5%)	8 (61.5%)	13 (100%)
Dysentery	1 (0.21%)	1 (100%)	0 (0.0%)	1 (100%)
Typhoid	9 (1.9%)	2 (22.2%)	7 (77.8%)	9 (100%)
Injury or Accident	20 (4.17%)	13 (65%)	7 (35%)	20 (100%)
Vaginal discharge	17 (3.54%)	9 (52.9%)	8 (47.1%)	17 (100%)
Stroke	3 (0.63%)	2 (66.6%)	1 (33.4%)	3 (100%)
Dental problems	4 (0.83%)	3 (75%)	1 (25%)	7 (100%
Total **	**480 (100%)**	**308 (64.2%)**	**172(35.8%)**	**480 (100%)**

Source: Field work, 2014.

****-Total disease frequency**

4.3: Perceptions about the Causes of Diseases

As indicated in the literature and Kroeger's health behavioural model, respondents' subjective views of what constitute disease causation have a significant influence on their

choice of health care services (Oberlander & Elverdan 2000; Danso-Appiah et al., 2004; Obidiya et al., 2011). Hedge (2009) in his study concluded that an individual's perception of what accounts for his or her morbid status has a significant influence on whether they seek health care from formal health care sources or rather resort to no treatment or self-medication. There is thus empirical quantitative evidence from related studies to suggest that this has a significant influence on how individuals' respond to an illness and the treatment options they resort to (Danso-Appiah et al., 2004; Chi-Yung et al., 2006; Obidiya et al., 2011).

In view of this, the study sought the need to assess respondents' perception about the causes of diseases in their respective place of residence. This was once again to aid in establishing similarities and differences in opinions regarding the causes of diseases across the respective places of residence. This is noted to remotely or proximately influence an individual's attitude towards the search for cure or remedy in case of any acute or chronic illness (Rosenstock, 1974; Kroeger, 1983; Awusabo-Asare & Anarfi, 1997). Respondents from the various communities attributed malnutrition, lack of exercise, poor drinking water and eating habit, hereditary traits, polluted environment, sedentary lifestyles, promiscuity, overcrowding, poverty and accidents as both remote and proximate causes of diseases in their respective communities. For instance, 42.7% of the urban respondents indicated polluted environment as a major cause of diseases likewise 41.7% of respondents from the rural areas. This can largely be attributed to the activities of mining companies in the Municipality and the adverse effect of small scale illegal mining or "galamsey" in the region. One interviewee stated:

> *"Even though we are located far from the mining company, most of our sources of drinking water and lands have been polluted by the activities of the mining company. They come to dump most of their waste here. We either depend on the*

boreholes they have sunk for us or walk to the other community (Aboagyekrom) to fetch water. We know that unclean water or polluted water can make us ill. We are also aware malaria is common in this community because we pollute the environment and this breeds mosquitoes" (42 year old farmer at Ahansoyewodea, individual interview)

In line with the views shared by the respondent from Ahansoyewodea, some of the inhabitants whose main occupation is farming, shared similar views but attributed most of their ailments to the working conditions they face as farmers. They were of the view that even though poor drinking water and polluted environment account for most disease occurrence in their community, most of the injury, accidents, waist and joint pains that confronts them are as a results of the nature of their occupation. This is evident in a statement by one of the interviewees.

"Majority of us here are farmers and we only work with hoes and cutlasses and so we bend most of the time. When in farm we can bend down to weed for long periods of time before standing to stretch a bit a go back into bending again. It is the major reason why most of us have waist and knee pain" (53 year old farmer at Ntonsua, individual interview)

In certain instances, respondents attributed the high prevalence of malaria to the building of a waste dumping site close to their community by AngloGold Ashanti Company, whiles others attributed it to the weedy nature of their surroundings. This was especially the case of respondents from Ahansoyewodea. One trader indicated that:

"Previously malaria wasn't a major problem in this community but now it is. As for me, I blame the waste dumping site which has been built close to us. It mostly overflows and ends up breeding a lot of mosquitoes. So we get malaria because we

pollute our environment. Again, our environment is too weedy. We do not clear the weeds regularly and I think that is also a reason why we get malaria often. Because we have realised that unclean environment is the major thing that causes malaria, we should organise communal labour often in order to clean the environment regularly" (34 year old trader at Ahansoyewodea, individual interview)

Again, 7.3% of respondents from the urban communities attributed disease causation to malnutrition likewise 8.3% of the respondents from the rural areas. Even though there are variations in the level of education among the urban and rural communities (see Table 4.1.1), respondents from the rural areas attributed the causes of diseases and their morbid statuses to natural factors like malnutrition and polluted environment rather than supernatural causes. This finding is contrary to the study by Obidiya et al. (2011) among adult residents of Yenegoa in Nigeria. Even in situations where the natural aetiology is given credence as reported by Oberlander and Elverdan (2000), socio-cultural perceptions influence people to develop false perception on the causes of diseases. This was however not the case in the various urban and rural communities in the Municipality.

Also, 10% and 6.7% of respondents from the urban and rural communities respectively indicated that hereditary traits accounts for disease causation in their respective communities. Most of these respondents alluded to the fact that major chronic diseases like hypertension and diabetes mellitus are most often than not passed on through hereditary. Moreover, 22.7% of respondents from the urban communities mentioned poor eating habits as the cause of diseases as well as 20% of the respondents from the rural communities (see Table 4.3.1). They indicated that the occurrence of chronic diseases like hypertension, diabetes mellitus and stroke were as a result of poor eating habits. A 32 year old seamstress indicated:

"I think we get ill because of some of the food we eat. Some of the food we eat are very bad and causes a lot of sickness. For instance, too much intake of salt and fatty foods can cause hypertension though others can get it because it is in their family even if they don't take too much of it. However, if they control the way they eat that can help prevent it. My mother has diabetes so I don't even take sugar at all because I don't want to get it" (32 year old seamstress at Asonkore, individual interview)

This resonates with the argument made my some researchers that in situations where the cause of an ailment is perceived by an individual as natural and preventive (Danso-Appiah et al., 2004; Chi-Yung et al., 2006), efforts are made to prevent its occurrence or recurrence especially when there has been prior experience of such ailment (Malik et al., 2006).

Table 4.3.1: Respondents knowledge about the causes of diseases by place of residence

Factors	Place of Residence		Total
	Urban	Rural	
Malnutrition	11 (7.3%)	5 (8.3%)	**16 (7.6%)**
Polluted Environment	64 (42.7%)	25 (41.7%)	**89 (42.4%)**
High Cost of living	10 (6.7%)	4 (6.7%)	**14 (6.7%)**
Poverty	11 (7.3%)	8 (13.3%)	**19 (9.0%)**
Hereditary Traits	15 (10.0%)	4 (6.7%)	**19 (9.0%)**
Poor Eating Habits	34 (22.7%)	12 (20.0%)	**46 (21.9%)**
Others	5 (3.4%)	2 (3.4%)	**7 (3.4%)**
Total	**150 (100%)**	**60 (100%)**	**210(100%)**

Source: Field work, 2014. (Figures in bracket for the place of residence represent percentages in a row whiles the total is represented in a column)

Generally, individuals in both urban and rural communities attributed causes of diseases and their morbid status to natural causes. This indicates that individuals within the Municipality attribute the causes of their ailment to environmentally and socially induced

factors. This represents an antithesis to the findings of Obidiya et al. (2011) among adult residents of Yenegoa in Nigeria where most of the respondents attributed the causes of illness to religious or cultural forces. This also contradicts studies by Olurinola (2002) and Chi-Yung et al. (2006) where religious and cultural factors still played prominent roles in the perceived or actual aetiology of diseases which ultimately influence illness response and health care choice. In such instances, individuals usually resort to traditional or spiritual remedies instead of seeking appropriate health care from formal health care providers. Against this backdrop, the study sought the need to ascertain how respondents from the urban and rural communities respond to chronic and acute illness.

4.4 Choice of Health Care Facilities in Case of Acute and Chronic Ailments

As reported by Andersen and Newman (1973) and further emphasised by Kroeger (1983), the characteristics of perceived illness of an individual tends to be influential in the response to that particular illness and the need to utilise a particular type of health care resource. These include the severity of the ailment, whether acute or chronic, minor or major, psychosomatic or somatic or whether the individual believes in the germ theory of disease causation or attributes it to a supernatural or spiritual cause (Harrison et al., 1992).

The study by Danso-Appiah et al. (2010) concluded that perceived severity of diseases is the most significant determining factor in seeking health care at health facilities in Ghana. Hedge (2009) in his health behavioural studies acknowledged the fact that assessing health care utilisation in the context of disease severity brings to the fore various dynamics in illness response. It is therefore relevant to acknowledge that response to an ailment and use of health services vary considerably according to the nature of the illness or ailment and its duration.

A thorough review of literature on health service utilisation from various spatial settings show that a number of factors as recurrent themes which influence utilisation of health services (Andersen, 1995; Prosser, 2007; Muriithi, 2013). In view of this an attempt was then made to examine relationship between these predisposing and enabling variables, and the kinds of health care facility utilise in case of chronic and acute illnesses. These variables include respondents' place of residence, sex, age, level of education, average monthly income, distance and travel time to nearest health facility, and their NHIS enrolment status. The results are shown in Table 4.4.2 and Table 4.4.4.

Of the 210 respondents sampled, 78.6 percent indicated they seek health care in case of acute health while 21.4 percent do not (see Table 4.4.1). This showed no significant relationship between place of residence and seeking of health care (Chi square value of 12.863, df (1), p value of 0.242). Respondents who do not respond to acute illness were of the view that these are sometimes minor ailment and do heal by themselves with time. They further indicated that they only seek medical attention in situations where the severity of the ailment augments.

> *"I don't see the need to go to the hospital or buy drugs from the pharmacy when I have a headache or stomach ache. I sometimes drink enough water when I have a headache or take in a lot of fruits. I don't believe we have to take in medicine anytime we are in pain. It is sometimes better to let it take its natural course" (42 year old teacher at Wawase, individual interview)*

Table 4.4.1: Acute illness response

Variables	Do you seek health care in case of acute illness			Chi square value (X^2)	P value (5% level of significance)
	Yes	No	Total		
Place Of Residence					
Urban	121 (80.7%)	29 (19.3%)	150 (100%)	**12.86**	**0.242**
Rural	44 (73.3%)	16 (26.7%)	60 (100%)		
Total	**165 (78.6%)**	**45 (21.4%)**	**210(100%)**		

Source: Field work, 2014. (Figures in bracket represent percentages in a row)

Most studies report on the significant role between certain variables and choice of health care services. Juarez (2002) and Muriithi (2013) indicated that education and sex has a significant relationship with an individual's choice of health care. Juarez (2002) for instance indicated that for both urban and rural mothers, the likelihood of seeking formal health (modern) in case of any acute ailment increases as education level increases. Similar study by Rahman et al. (2011) found illness type, sex, occupation and literacy of the household head as significant predictors for not seeking formal health care. Conversely, the findings by USAID (2009) showed that utilisation of health services do not vary significantly in terms of socio-demographic factors like age, urban or rural residency, education, marital status or standard of living.

Given that respondents' response towards acute illness is known, the study examined the relationship between certain variables and the kind of health care facilities they utilise. These were categorised into formal (modern) and informal health services (traditional). Formal or modern health care resource as used in this context includes all government and private hospitals, health centres, clinics or dispensaries and CHPS whiles informal or traditional health care includes seeking spiritual or religious help, and resorting to

traditional or herbal healing (Kroeger, 1983). Respondents were asked to indicate the kind of health care services they most often resort to in case of any acute illness (Table 4.4.2)

Of the One Hundred and Sixty-Five (165) respondents who seek health care in case of any acute illness, 35.8 percent utilise formal or modern health care while 64.2 pecent utilise traditional or informal health care. Forty-five percent of the urban respondents indicated they often utilise formal health care services likewise 11 percent of the respondents from the rural areas. Even though studies by USAID (2009) suggests that place of residence does not have any significant relationship with preference of modern health care services, findings from this study (see Table 4.4.2) suggests a significant relationship between place of residence and the choice of health care services in case of acute illness (Chi square value of 15.543 df (1), p value of 0.0000). This may be explained by the fact that majority of the respondents resort to informal health care relative to formal health care in case of acute illness.

Also, sex has been noted to have a significant relationship with choice of health care resource with respect to illness type and perceived severity (Yamasaki-Nakagawa et al., 2001; Pokhrel et al., 2005). Evidence from this study suggests that sex has no significant relationship with the kind of health services sought in case of acute illness (Chi square value of 21.81, df (1), p value of 0.344). Again, studies by Sahn et al. (2003), Ahmed et al. (2005) and Okolo et al. (2011) report significant relationship between choice of health care resource alternatives and sex, where females were more likely to access formal health care resources relative to men. However, findings from this study indicates that with respect to sex, both males and females utilise both formal and informal health resource in case of any acute illness and thus represents no statistically significant relationship with a specific sex.

Table 4.4.2: Type of health care resource most often sought for acute illness by background characteristics

Variables	Health care resource Alternatives		Total	Chi square value (X^2)	P value (5% level of significance)
	Formal Health Care **(Modern)**	Informal Health Care **(Traditional)**			
Place Of Residence					
Urban	54 (45%)	67 (55.%)	121 (100%)		
Rural	5 (11%)	39 (89%)	44 (100%)	**15.543**	**0.000**
Total	**59 (35.8%)**	**106 (64.2%)**	**165 (100%)**	**Df (1)**	
Sex					
Male	40 (38.5%)	64 (61.5%)	104 (100%)		
Female	19 (31.1%)	42 (68.9%)	61 (100%)	**21.81**	**0.344**
Total	**59 (35.8%)**	**106 (64.2%)**	**165 (100%)**	**Df (1)**	
Age (years)					
Less than 25	0 (0.0%)	2 (100%)	2 (100%)		
25-34	17 (47.2%)	19 (52.8%)	36 (100%)	**3.616**	
35-44	21 (32.8%)	43 (67.2%)	64 (100%)	**Df (4)**	**0.460**
45-54	16 (34.0%)	31 (66.0%)	47 (100%)		
55-64	5 (31.2&)	11 (68.8%)	16 (100%)		
Total	**59 (35.8%)**	**106 (64.2%)**	**165 (100%)**		
Education					
No formal	5 (12.5%)	35 (87.5%)	40 (100%)		
Elementary/ primary	6 (27.3%)	16 (72.7%)	22 (100%)		
JSS/ middle school	14 (46.7%)	16 (53.3%)	30 (100%)	**15.394**	**0.004**
SSS/ O level/A level/Vocational	17 (45.9%)	20 (54.1%)	37 (100%)	**Df (4)**	
Tertiary	17 (47.2%)	19 (52.8%)	36 (100%)		
Total	**59 (35.8%)**	**106 (64.2%)**	**165 (100%)**		

Source: Field work, 2014. (Figures in bracket represent percentages in a row)

Table 4.4.2: Type of health care resource most often sought for acute illness by background characteristics (Continuation)

Variables	Health care resource Alternatives		Total	Chi square value (X^2)	P value (5% level of significance)
	Formal Health Care **(Modern)**	Informal Health Care **(Traditional)**			
Average Monthly Income (GH ₵)					
Less than 300	4 (22.2%)	14 (77.8%)	18 (100%)		
300-600	13 (26.5%)	36 (73.5%)	49 (100%)	**8.369**	**0.79**
601-1000	24 (46.2%)	28 (53.8%)	52 (100%)	**Df (4)**	
1001-2000	13 (37.1%)	22 (62.9%)	35 (100%)		
2001-3000	3 (75%)	1 (25%)	4 (100%)		
Total	**57(36.1%)**	**101(63.9%)**	**158(100%)**		
Distance to nearest modern health facility					
Less than5km	54 (38.8%)	85 (61.2%)	139 (100%)	**9.30**	
More than 5km	5 (19.2%)	21 (80.8%)	26 (100%)	**Df (1)**	**0.55**
Total	**59 (35.8%)**	**106 (64.2%)**	**165 (100%)**		
Travel time (Minutes)					
Less than 30	59 (38.3%)	95 (61.7%)	154 (100%)		
More than 30	0 (0.0%)	11 (100%)	11 (100%)	**6.560**	**0.10**
Total	**59 (35.8%)**	**106 (64.2%)**	**165(100%)**		
NHIS Enrolment					
Enrolled	40 (35.4%)	73 (64.6%)	113(100%)	**18.59**	**0.887**
Not enrolled	19 (36.5%)	33 (63.5%)	52 (100%)	**Df (1)**	
Total	**59 (35.8%)**	**106 (64.2%)**	**165 (100%)**		

Source: Field work, 2014. (Figures in bracket represent percentages in a row)

Age also for instance shows no significant relationship with the choice of health care services (Chi square value of 3.616 df (4), p value of 0.460). Studies by Eisenberg et al. (1998) and De-Graft Aikins, (2005) suggest a significant variation between age and choice of health care services. The aged were noted to prefer informal health care. This represents an antithesis of the study by Muriithi (2013) in the slum areas of Nairobi where impact of age on the demand for health care in case of minor ailments was statistically significant and positive in the choice of formal health care providers.

Interestingly, majority of respondents who had no formal education mentioned that they utilise informal health care (87.5%) relative to formal health care (12.5%) in case of acute illness. The study reports a significant relationship between level of education and choice of health care alternatives in case of acute illness (chi square value of 15.394 df (4), p value of 0.004). This is in consonance with the study by Stekenlenburg (2004), Hedge (2009), Omotoso (2010) and Saeed et al. (2013), where education was established to have a positive and statistically significant relationship with the choice of health care resource. Kroeger's (1983) health behavioural model clearly shows the extent to which education plays an influential role in an individual's choice of health care. Most of the respondents from the rural areas were of the view that they preferred to utilise informal health services because of its convenience and availability relative to seeking professional help for minor health related problems.

It has often been argued that income has a significant relationship with an individual's choice of health care (Stekelenburg, 2004; Ahmed et al., 2005; Mushtaq et al., 2011). The study then saw the need to examine the relationship between income and respondents choice of health care resources in terms of acute illness. From table 4.4.2, income shows no significant variation across the choice and use of formal and informal health care resources (Chi square Value of 8.369 df (4), p value of 0.45). This indicates that income

does not vary significantly across the various health care resource alternatives in case of seeking health care for acute illness in the Obuasi Municipality. This finding is contrary to studies by Yesudian (1999), Ahmed et al. (2005) and Mushtaq et al. (2011), where various average income levels showed significant variations across use of formal and informal health care.

Also, distance has been reported as a significant barrier that influences utilisation of health services (Buor, 2003; Pariyo et al., 2009). Out of the 139 respondents who travel less than 5 kilometres to access the nearest health facility in case of any illness health, 54 (3.8%) resort to formal health care in case of acute illness whiles 85 (61.2%) utilise informal health care services. Also, of the 26 respondents who travel more than 5 kilometres to access health care, 5 (19.2%) utilise formal health care whiles 21 (80.8%) utilise informal health care. In view of this, distance showed no significant relationship across the various treatment alternatives (chi square value of 9.30 df (1), p value of 0.55). In line with Kroeger's (1983) argument, distance may interplay with several factors to influence an individual's choice and use of a particular health care service. Most of the respondents attributed the severity of the ailment as the reason why they resort to informal health care.

> *"For me, I don't see the need to go to the hospital or clinic when I have a stomach ache or sometimes malaria, whiles I can either go and buy drugs from the chemical seller shop or boil some herbs. It is just waste of time to travel all the way to Amansan clinic and even be given the same medicine I can buy from the chemical seller shop" (37 year old trader at Ntonsua, personal interview)*

Other researchers have also suggested that other enabling factors like insurance plays a significant role in an individual's choice and use of health services (Kroeger, 1983; Okolo et al., 2011). The study sought the need to ascertain its relationship across respondents'

choice of health care in case of any acute illness. Respondents were asked to indicate if they had enrolled on the NHIS and accessed health care with it. The study showed that respondents who had enrolled preferred to utilise informal health care (64.6%) relative to formal health care (35.4%) in case of acute illness. This showed no significant relationship across the use of either formal or informal health care resources (X^2 value of 18.59,df(1), p value of 0.89). This clearly indicates that whether one opts for formal health care or informal health care in case of an acute illness does not vary with an individual's proximity or remoteness to a health facility, neither does it vary in case individuals are medically insured by NHIS or not. Issues of personal preference for a certain health care option or other factors like social accessibility were some of the probable reasons respondents gave when further queried through personal interview. One man indicated that:

> *"I registered for the NHIS in 2008 but I do not even use it. I prefer to buy drugs from the chemical shop because I don't have time to go to the hospital. I am a driver and have to work every day to survive. The woman who sells drugs at the shop nearby (Watt 250 chemical sellers shop) is a close friend and as such gives me the right drugs when I am in pain" (42 year old driver at Tutuka, personal interview)*

Most of the respondents exhibit difference health seeking behaviour and choice of health care services. The Table 4.4.2 gives a summary of the relationship between certain variables and respondents choice of health care resources in case of acute illness

In order to predict the kind of health care resource respondents resort to in case of acute illness, a logistic regression analysis was performed. The results are indicated in Table 4.4.3

The residual Chi square statistics of 21.762 which is significant (p=0.005) at p<0.05 shows that the addition of one or more predictive variables to the model will significantly affect its predictive power. The Nagelkerke R^2value of 0.207 indicates that the model accounts for 21% of variance in the type of health care resource an individual resort to in terms of acute illness whiles Hosmer and Lemeshow which is p>0.05 shows that a set of independent or the predictor variables will better predict the actual probabilities of either utilising formal or informal health care options.

Nonetheless, the Omnibus tests of model coefficient rejects the null hypothesis that the model is not a significant fit of the data and further indicates that the model is a significant fit of the data (X^2=25.837, p<0.01).The overall predictive accuracy of the model is 65.2%, with 42.1 % sensitivity of prediction and 78.2% specificity of prediction. Again, variables like sex (p=0.219), NHIS enrolment status (p=0.636) and age (p=0.206) did not significantly predict the outcome of the model whiles place of residence (p=0.000), level of education (p=0.000), income (p=0.031), distance to nearest health facility (p=0.003) and travel time (p=0.000) significantly predicted the outcome of the model.

Table 4.4.3: Logistic regression coefficients for independent variables of predictors of the kind of health care resource respondents resort to in case of acute illness

Independent variables	B	(S.E)	95% CI for Odds ratio		
			Lower	Odds Ratio	Upper
Constant	-1.025	(1.753)		0.359	
Place of residence	1.591*	(1.067)	0.606	0.907	39.725
Urban				1.00	
Rural				0.64	
Sex	-383*	(.382)	0.322	0.682	1.443
Male				1.00	
Female				0.91	
Level of education	-476*	(0.795)	0.131	0.621	2.952
No Formal				0.80	
Formal				1.00	
Average monthly income	-094*	(0.224)	0.587	0.911	1.412
Less than 600				1.20	
More than 600				1.00	
NHIS enrolment Status	0.276*	(0.393)	0.610	1.317	2.846
Enrolled				1.00	
Not Enrolled				0.76	
Distance from closest health facility	0.319*	(0.298)	0.766	0.285	2.467
Less than 5 Km				1.00	
More than 5 Km				0.82	
Age	0.013*	(0.198)	0.687	1.013	1.494
Less than 25				1.00	
26-35				1.32	
36-45				0.74	
More than 45				1.2	
Travel time	-0.698**	(0.304)	0.274	0.498	0.904
Less than 30 Minutes				1.00	
More than 30 minutes				0.91	

Note: $R^{2=}$0.912 (Hosmer and Lemeshow), 0.151 (Cox & Snell), 0.207 (Nagelkerke). Model X^2 (8) =25.837, p<0.01. *p>0.01,**p<0.05.

The results indicates that both the urban and rural populace were less likely to resort to the use of modern health care alternative in case of any acute illness (OR=0.907, CI= 0.606-39.725, p>0.05). Again, there is no significant difference between male and female when it comes to the use of formal or modern health care in case of any acute illness episode

(OR=0.682, CI=0.322-1.443, p>0.05), likewise respondents with formal or no formal education (OR=0.621, CI=0.131-2.952, p>0.05). However, respondents who travel more than 30 minutes to any health facility were less likely to utilise modern health care relative to traditional health care resource (OR=0.274, CI=0.498-0.904, p<0.05).

In general terms, respondents were 0.564 times less likely to utilise modern health care services in case of any acute illness episode (OR=0.564, p<0.01). This mirrors studies by Kamat (2006), Mattson (2010) and Rahman et al. (2011), where disease severity influence the type of health care resource an individual opts for and thus, majority resorted to use of informal health services when they perceive ailment to be less severe.

The argument has often been made that in case of mild single symptoms, home remedies are sought, whereas with multiple symptoms and longer period of illness, biomedical health providers are more likely to be consulted (Rahman et al., 2011; Sadiq and Muynck, 2002). Given that there are variations in choice of health care with respect to disease severity, an attempt was made to ascertain how respondents respond to chronic illness and the various treatment options they resort to. As indicated previously, this plays a significant role in an individual's choice and use of health care resources (Kroeger, 1983; Majumder, 2006; Hedge, 2009).

One hundred and Twenty-Seven respondents representing 60.5 percent of the total population utilise formal health care whiles 39.5 percent opts for informal or traditional health care. Again, of the one hundred and ninety-five (195) respondents who receive monthly income from their respective jobs, 61 percent resorts to formal health care options in case of any chronic illness while 39 percent utilise informal care. Table 4.4.4 shows the relationship between certain variables and respondents choice of health care resources. These variables include respondents' place of residence, sex, age, sex, level of education,

income, distance and time taken to commute to nearest health facility, and NHIS enrolment status.

The results indicate that the type of health care resource an individual seeks, varies significantly across respondents place of residence i.e. urban or rural (Chi square value of 32.641 df (1), P value of 0.00) and various levels of education (Chi square value of 19.410 df (4), p value of 0.001). This is not the case with sex (chi square value of 31.62 df (1) (P value of 0.638) and age (chi square value of 3.423 df (4), P value of 0.490) which shows no significant variations across the various health care options.

Again, the distance from the nearest place of abode of respondents which has been categorised into dichotomous variable of less than Five (5) kilometres and more than Five (5) kilometres also varies significantly (chi square value of 16.378 df (1), P value of 0.00) across the kind of treatment options an individual takes in case of any illness episode. Also, there is a significant relationship (chi square value of 26.48 df (1), P value of 0.048) between NHIS enrolment and the kind of health care an individual opts for in case of any chronic diseases, thus one's accessibility and utilisation of either modern or traditional health care differ with respect to their enrolment on NHIS in the study area.

Table 4.4.4: Type of health care resources most often sought for chronic illness by background characteristics

Variables	**Health care resources**		Total	**Chi square value (X^2)**	**P value**
	Formal Health Care **(Modern)**	Informal Health Care **(Traditional)**			
Place Of Residence					
Urban	109 (72.7%)	41 (27.3%)	150(100%)	**32.641**	**0.000**
Rural	18 (30%)	42 (70%)	60 (100%)	**Df (1)**	
Total	**127(60.5%)**	**83 (39.5%)**	**21 (100%)**		
Sex					
Male	77 (59.2%)	53 (40.8%)	130(100%)	**31.62**	**0.638**
Female	50 (62.5%)	30 (37.5%)	80(100%)	**Df (1)**	
Total	**127(60.5%)**	**83 (39.5%)**	**210(100%)**		
Age (years)					
Less than 25	3 (60.0%)	2 (40.0%)	5(100%)		
25-34	32 (68.1%)	15(31.9%)	47 (100%)	**3.423**	**0.490**
35-44	49 (62.0%)	30 (38.0%)	79 (100%)	**Df (4)**	
45-54	34 (57.6%)	25(42.4%)	59 (100%)		
55-64	9 (45.0%)	11(55.0%)	20 (100%)		
Total	**127(60.5%)**	**83(39.5%)**	210(100%)		
Education					
No formal	22 (42.3%)	30 (57.7%)	52(100%)		
Elementary/ primary	17 (47.2%)	19 (52.8%)	36(100%)	**19.410** **Df (4)**	**0.001**
JSS/ middle school	26 (74.3%)	9 (25.7%)	35(100%)		
SSS/ O level/A level/Vocational	35 (79.5%)	9 (20.5%)	44(100%)		
Tertiary	27 (62.8%)	16 (37.2%)	43(100%)		
Total	**127(60.5%)**	**83(39.5%)**	**210(100%)**		

Source: Field work, 2014. (Figures in bracket represent percentages in a row)

Table 4.4.4: Type of health care resources most often sought for chronic illness by background characteristics

Variables	**Health care resources**		Total	**Chi square value (X^2)**	**P value (5% level of significance)**
	Formal Health Care **(Modern)**	Informal Health Care **(Traditional)**			
Average Monthly Income (GH ₵)					
Less than 300	7 (28%)	18 (72%)	25(100%)	**18.561**	**0.001**
300-600	35(55.6%)	28 (44.4%)	63 (100%)	**Df (4)**	
601-1000	43(71.7%)	17 (28.3%)	60 (100%)		
1001-2000	32(74.4%)	11 (25.6%)	43 (100%)		
2001-3000	2 (50%)	2 (50%)	4 (100%)		
Total	**119 (61.0%)**	**76 (39.0%)**	**195(100%)**		
Distance to nearest modern health facility					
Less than5km	117 (66.5%)	59 (33.5%)	176(100%)	**16.378**	
More than 5km	10 (29.4%)	24 (70.6%)	34(100%)	**Df (1)**	**0.000**
Total	**127 (60.5%)**	**83(39.5%)**	**210(100%)**		
Travel time (Minutes)					
Less than 30	122 (63.5%)	70 (36.5%)	192 (100%)	**8.806**	**0.003**
More than 30	5(27.8%)	13 (72.2%)	18 (100%)	**Df (1)**	
Total	**127 (60.5%)**	**83 (39.5%)**	210 (100%)		
NHIS Enrolment					
Enrolled	93 (65%)	50(35%)	143(100%)	**26.48**	**0.048**
Not enrolled	34 (50.7%)	33 (49.3%)	67(100%)	**Df (1)**	
Total	**127(60.5%)**	**83 (39.5%)**	**210 (100%)**		

Source: Field work, 2014. (Figures in bracket represent percentages in a row)

Moreover, in order to predict the kind of health care resources respondents resort to in case of chronic illness, logistic regression analysis was performed. The results are shown in table 4.4.5. The model depicts a residual Chi square statistics of 37.513 which is very significant (p=0.00) at p<0.001which shows that the addition of one or more predictive variables to the model will significantly affect its predictive power. The Nagelkerke R^2 value of 0.252 indicates that the model accounts for 25% of variance in the type of health care resource an individual resort to in terms of acute illness whiles Hosmer and Lemeshow which is p>0.05 shows that a set of independent or the predictor variables will better predict the actual probabilities of either utilising modern or traditional health care options.

Nonetheless, the Omnibus tests of model coefficient rejects the null hypothesis that the model is not a significant fit of the data (X^2=39.658, p<0.001). The overall predictive accuracy of the model is 72%, with 85.8% sensitivity of prediction and 48.1% specificity of prediction. Also, variables like age (p>0.05), sex (p>0.05) and NHIS enrolment status (p>0.05) do not significantly predict the outcome of the model but place of residence (p=0.000), level of education (p=0.009), distance (p=0.00), time travel (p=0.004) and income (p=0.001) significantly predict the model's outcome

Table 4.4.5 Logistic regression coefficients for independent variables of predictors of the kind of health care resource respondents resort to, in case of chronic illness

Independent variables	B	(S.E)	95% CI for Odds ratio		
			Lower	Odds Ratio	Upper
Constant	-3.316	(1.347)		0.036	
Place of residence	2.754*	(0.919)	2.592	15.712	95.235
Urban				1.00	
Rural				0.45	
Sex	0.053**	(0.346)	0.535	1.054	2.076
Male				1.00	
Female				1.20	
Level of education	1.794*	(0.810)	1.230	6.012	29.388
No Formal				0.67	
Formal				1.00	
Average monthly income	0.075**	(0.213)	0.710	1.078	1.637
Less than 600				0.87	
More than 600				1.00	
NHIS enrolment Status	0.705*	(0.355)	1.010	2.023	4.053
Enrolled				1.00	
Not Enrolled				0.91	
Distance between closest health facility	0.217*	(0.637)	1.356	1.733	4.334
Less than 5 Km				1.00	
More than 5 Km				1.3	
Age	-0.089**	(0.182)	0.640	0.915	1.307
Less than 25				1.00	
26-35				1.12	
36-45				0.74	
More than 45				1,23	
Travel time	0.870*	(0.710)	1.594	2.388	9.605
Less than 30 minutes				1.00	
More than 30 minutes				1.13	

Note: $R^{2=}$0.90 (Hosmer and Lemeshow), 0.19 (Cox & Snell), 0.252 (Nagelkerke). Model X^2 (8) =39.658, p<0.001. *p<0.05,**p>0.05.

The logistic regression analysis results shows that respondents from the urban communities were more likely to utilise modern or formal health services than resort to traditional or informal health services when seeking treatment for chronic ailments (OR=15.712, CI=2.592-95.235, p<0.05). Again, individuals with some form of formal

education were also more likely to seek modern or formal health in case of chronic ailment than those with no formal education (OR=6.012, CI=1.230-29.388, p<0.05). In addition, respondents who possessed a valid and active NHIS card were also more likely to seek health care from formal health care sources than informal facilities (OR=2.023, CI=1.010-4.053, P<0.05).

Nevertheless, sex of respondents did not show any significant difference across the kind of health care resource they resort to, as both males and females were more likely to seek health care from modern health care sources in case of chronic illness than traditional sources (OR=1.054, CI=0.535-2.076, p>0.05). Again, the distance and time taken by respondents to access the closest health facility shows dichotomy in terms of the treatment options an individual resort to in case of any chronic illness. Respondents who travel less than Five (5) kilometres to access the nearest health care resource were both more likely to choose and utilise a modern health care resource in case of any chronic illness (OR=1.733, CI=1.356-4334, p<0.05). Also, Individuals who travel less than 30 minutes to access the closest health resource were more likely to utilise formal or modern health care in case of any chronic illness (OR=2.388, CI=1.594-9.605, p<0.05).

In general, individuals were 1.608 times more likely to utilise modern health care services in case of any chronic illness episode than traditional health services (OR=1.608, p<0.01). This is consistent with study by Yesudian (1999) in India, Mumbai and Bhopal to be precise, where there is high patronage of private and public health services for chronic ailment with the former mostly patronised. Findings from both logistic regression analyses indicate that individuals with no formal education are less likely to seek health care from modern health care providers. This finding is consistent with the study by Saeed et al. (2013) in Ghana, where individuals with no formal education were less likely to utilise formal or modern health care services.

4.5 Summary

This chapter examined the incidence of major diseases in the Obuasi Municipality. It also examined respondents' perception about disease causation in their respective place of residence. An attempt was made to assess how populace of urban and rural communities respond to these ailments. Also, this was to aid in ascertaining their choice of health care resources in case of acute and chronic illness. Malaria, a curable illness, was reported as the common disease that affects the populace in the Obuasi municipality. In general, both chronic and acute illnesses were reported across both urban and rural communities, thus chronic illness was not limited only to the urban communities as reported by Yesudian (1999) in his study in Mumbai and Bhopal.

Respondents gave much credence to the natural aetiological model and the germ theory of disease causation (Awusabo-Asare & Anarfi, 1997), and thus attributed causes of diseases and their morbid status to natural causes viz. polluted environment, malnutrition, lack of exercise and sedentary lifestyles, hereditary traits; poor drinking and eating habits, promiscuity, overcrowding, poverty and accidents (Danso-Appiah et al., 2004; Chi-Yung et al., 2006).

Consistent with the findings of Danso-Appiah et al., (2010), perceived severity of a disease tends to play a significant role in seeking health care at health facilities. There were variations in the illness response and utilisation of health services among the urban and rural communities. Again, majority of respondents sought health care in case of acute illness but usually resorted to the use of informal or traditional health resource relative to formal or modern health care facilities. This showed significant relationship with respondent's place of residence and education. In predicting the pattern of health care utilisation, the logistic regression analysis shows urban populace were more likely to seek

modern health care than rural inhabitants and distance was a significant predictor in the use of formal or modern health care. Conversely, majority of respondents sought modern health care in case of chronic illness and this significantly varied across place of residence, education, income, distance and insurance. In the logistic regression analysis, the urban populace, those with formal education and insurance were more likely to seek formal or modern health care in case of chronic illness. The study thus fails to accept the null hypothesis that there is no significant relationship between disease severity and the types of health care resources the urban and rural populace utilise.

CHAPTER FIVE

UTILISATION OF HEALTH FACILITIES IN THE OBUASI MUNICIPALITY

5.0 Introduction

This chapter examines the type of health care facilities respondents often utilise and the various factors that influence their health care utilisation pattern. These were assessed in relation to the various predisposing and enabling factors that influence utilisation of health services. These factors include respondents' place of residence, sex, age, level of education, occupation and income, distance and insurance. Thus, the various enabling and impeding factors to health care utilisation emphasised by Andersen & Newman (1973) and Kroeger (1983) and reported by several studies (Andersen, 1995; Ahmed at al., 2000; Buor, 2004; Muriithi, 2013) are given priority and further discussed.

Again, the various factors that influence utilisation of these health facilities, as reported by the respondents and further reiterated in the various interviews conducted are given much cognisance. Also, the various barriers to health care utilisation in the Municipality and self-medication as an intervening health care resource are presented in this chapter. They are presented here with much reference to the spatial setting of the respondents.

5.1 Utilisation of Health Facilities in the Obuasi Municipality

Several studies report on variations in the choice and use of health facilities (Thompson et al., 2003). The choice and use of these health facilities are most often than not, influenced by myriads of enabling and predisposing factors (Kroeger, 1983; Andersen, 1995; Stekelenburg, 2004). These factors have been reported to have significant relationship with the type of health facility an individual resorts to when ill (Stekelenburg, 2004). For instance, Hoevan et al. (2012) in his study on health seeking behaviour between rural and urban communities indicated that the two groups differ in their preference for health care

provider based on quality of care; whereas the urban participants were more likely to prefer a medical physician from a hospital, the rural participants preferred a health clinic. This study therefore sought the need to examine the type of health care facility respondents from both urban and rural communities resort to. This was done in relation to respondents' place of residence, sex, age, level of education, average monthly income, distance from respondents' home to the nearest health facility and whether they access health care using NHIS or not (Table 5.1.1).

Table 5.1.1: Types of health facility respondents utilise

Variables	Hospital	Clinic	Health centre	Traditional Health Centre	Total
Place of residence					
Urban	95 (63.3%)	47 (31.3%)	4 (2.7%)	4 (2.7%)	150 (100%)
Rural	17 (28.3%)	35 (58.3%)	4 (6.7%)	4 (6.7%)	60(100%)
Total	**112 (53.3%)**	**82 (39%)**	**8 (3.8%)**	**8 (3.8%)**	**210 (100%)**
	Chi square value (X^2)= 21.445, df (1), p <0.01				
Sex					
Male	73 (56.2%)	46 (35.4%)	6 (4.6%)	5 (3.8%)	130 (100%)
Female	39 (48.8%)	36 (45%)	2 (2.5%)	3 (3.8%)	80 (100%)
Total	**112 (53.3%)**	**82 (39%)**	**8 (3.8%)**	**8 (3.8%)**	**210 (100%)**
Age (years)					
Less than 25	3 (60.7%)	2 (40%)	0 (0%)	0 (0%)	5 (100%)
25-34	29 (61.7%)	16 (34%)	1 (2.1%)	1 (2.1%)	47 (100%)
35-44	38 (48.1%)	34 (43%)	4 (5.1%)	3 (3.8%)	79 (100%)
45-54	30 (50.8%)	22 (37.3%)	3 (5.1%)	4 (6.8%)	59 (100%)
55-64	12 (60 %)	8 (40%)	0 (0%)	0 (0.0%)	20 (100%)
Total	**112 (53.3%)**	**82 (39%)**	**8 (3.8%)**	**8 (3.8%)**	**210 (100%)**

Source: Field work, 2014. ***(Figures in bracket represent percentages in a row)***

Table 5.1.1: Types of health facility respondents utilise (Continuation)

Socio-demographic Variables	Hospital	Clinic	Health centre	Traditional Health Centre	Total
Level of Education					
No formal	16(30.5%)	31(59.6%)	2(3.8%)	3 (5.8%)	52 (100%)
Elementary/ primary	20(55.6%)	13(36.1%)	2 (5.6%)	1 (2.8%)	36(100%)
JSS/ middle school	18(51.4%)	15(42.9%)	1 (2.3%)	1 (2.9%)	35(100%)
SSS/ O level/A level/Vocational	31(70.5%)	11(25.0%)	1 (2.3%)	1 (2.3%)	44(100%)
Tertiary	27(62.8%)	12(27.9%)	2 (4.7%)	2 (4.7%)	43(100%)
Total	**112(53.3%)**	**82(39.0%)**	**8(3.8%)**	**8(3.8%)**	**210(100%)**
	Chi square value (X^2)= 19.38, df (12), p >0.05				
Average Monthly Income (GH₵)					
Less than 300	8 (32.0%)	12 (48.0%)	4(16.0%)	1 (4.0%)	25(100%)
300-600	36 (57.1%)	21 (33.3%)	0 (0.0%)	6 (9.5%)	63(100%)
601-1000	38 (63.3%)	21 (35.0%)	1 (1.7%)	0 (0.0%)	60(100%)
1001-2000	23 (53.5%)	18 (41.9%)	1 (2.3%)	1 (2.3%)	43(100%)
2001-3000	2 (50.0%)	1(25.0%)	1(25.0%)	0 (0.0%)	4(100%)
Total	**107 (54.9%)**	**73(37.4%)**	**7 (3.6%)**	**8 (4.1%)**	**195(100%)**
	Chi square value (X^2)= 31.147, df (12), p <0.01				
Distance to nearest health facility					
Less than 5kms	105 (59.7%)	60 (34.1%)	5 (2.8%)	6 (3.4%)	176 (100%)
More than 5kms	7 (20.6%)	22 (64.7%)	3 (8.8%)	2 (5.9%)	34 (100%)
Total	**112 (53.3%)**	**82 (39.0%)**	**8(3.8%)**	**8(3.8%)**	**210 (100%)**
	Chi square value (X^2)= 18.131, df (3), p <0.01				
NHIS enrolment					
Enrolled	78 (54.5%)	57 (39.9%)	5 (3.5%)	3 (2.1%)	143 (100%)
Not enrolled	34 (50.7%)	25 (37.3%)	3 (4.5%)	5 (7.5%)	67 (100%)
Total	**112 (53.3%)**	**82 (39.0%)**	**8 (3.8%)**	**8 (3.8%)**	**210 (100%)**
	Chi square value (X^2)= 3.71, df (3), p >0.05				

Source: Field work, 2014. (Figures in bracket represent percentages in a row)

In general, majority of respondents utilise hospital services (53.3%) relative to the use of clinic (39%), health centre (3.8%) and traditional health centre (3.8%). Unsurprisingly, majority of the urban populace utilise the hospital (63.3%) as a point of health care relative to the rural respondents (28.3%). On the other hand, majority of the rural populace often utilise clinics as a point of health care relative to the urban populace (see table 5.1.1). Place of residence showed significant relationship across the various health care facilities respondents' resorts to in case of any ailment (X^2 value of 21.445, df (1), p value of 0.000). This finding is in consonance with the study by Hoevan et al. (2012) in South Africa, where the urban participants preferred a medical physician from a hospital whereas the rural participants preferred a health clinic. This indicates that there are variations in the type of health facilities respondents resort to.

Again, when equally adjusted for person's who had received some form of formal education and those who had received no formal education at all, there exists a significant relationship (X^2 value of 14.782, df (3), P value of 0.002) between the use of any health care resource alternative such as hospital, clinic, health centre or CHPS and the educational status of respondents in the study area. However, when the various levels of education i.e. no formal, primary, secondary and tertiary are equally adjusted with the various health care resource alternatives, there exists no significant relationship (X^2 value of 19.380, df (12), P value of 0.08) between the various levels of education and the kind of health facility one opts for.

Again, from the Table 5.1.1, out of 195 respondents who earn income, 107 (54.9%) mostly utilise hospital as a point of health care whiles 73 (37.4%) often utilise the clinic. Also, 7 (3.6%) and 8 (4.1%) respondents often utilise health centres and traditional health centres respectively. Be that as it may, the choice and use of a certain health care facility by

respondents in the study area shows a significant variation (X^2 value of 31.147, df (12), P value of 0.002) across the average monthly income earned by various respondents. This suggests that whether one chooses to use a hospital, clinic or health centre varies with the amount of income earned in the Obuasi Municipality. The case of the rural populace can be attributed to the disparity in income earned from respective occupations among the urban and rural communities thereby showing no relationship in the rural communities.

Proximity to health facilities has been reported as a key factor in the kind of health facility an individual resorts to or utilise. Some studies report that an individual's remoteness to a health facility usually influences them to opt for intervening options. As epitomized by the distance decay factor, distance generally has an inverse relationship with utilisation; the greater the distance, the lower the utilisation (Buor, 2004; Muriithi, 2013). In view of this, the study sought the need to ascertain the kind of health facilities respondents that live less or more than five (5) kilometres from a health facility utilise when ill. The results showed that 59.7% of respondents that live less than five kilometres from a health facility usually utilise the hospital whiles 2.8% often resort to using health centres as a point of health care. Nevertheless, 64.7% of respondents that travel more than five kilometres to access health care often utilise health clinics whereas 20.6% usually utilise hospitals when ill (see table 5.1.1). Unsurprisingly, the utilisation of health facilities in the municipality showed a significant relationship with the distance respondents commute to access health care (X^2 value of 18.131. df (3), p value of 0.000). This finding represents an antithesis to the study by Mattson (2010), where distance did not have a statistically significant relationship with the type f health care institution individuals resort to.

Some studies suggest that insurance tends to increase utilisation of health services (Jehu-Appiah et al., 2011; Blanchet et al., 2012). In most situations, individuals opt for the best available medical care (Mills et al., 2012). In view of this, the study sought the need to

ascertain the kind of health facilities respondents often utilise, given that they possess an active NHIS card and thus access health care with it. The results from table 5.1.1 showed that 54.5% of respondents who had enrolled on the NHIS often utilise the hospital as a point of health care whiles 2.1% usually utilise traditional health centres as a point of health care when ill. On the other hand, 50.7% of the respondents who had not enrolled on the scheme often resort to use of hospitals as a point of health care when ill whiles 4.5% often utilise health centres as a point of health care. Unsurprisingly, the utilisation of health facilities in the Municipality showed no significant relationship with the NHIS enrolment status of respondents (X^2 value of 3.71, df (3), p value of 0.288).

Majority of the urban respondents who often utilise the hospital services were of the view that they preferred to utilise the hospital because laboratory attendance precedes diagnoses and drug prescription by most physicians (see Table 5.1.2). In addition, most of the respondents were of the view that they often seek health care at hospitals because of the adequacy of health equipment and qualified health personnel. They also indicated that they prefer to wait longer hours if only they are made to go to the laboratory. One woman interviewed was of the view that

> *"I usually go to A.G.A hospital (now Edwin Cade hospital) even though you are made to wait for longer hours before a doctor attends to you. I still go there because the doctors don't just prescribe any drug for you when you tell them the symptoms of your ailment. They rather make you go to the laboratory before they write any drug for you. That is why I think going to the hospital is always the best, because you get the best health care (38 years old trader at Tutuka, individual interview)*

Similar to the views shared above, the study by Chirmulay (1997) in five Indian states reported that there was higher utilisation of private health facilities because patients perceived private practitioners to be providing better services because they included injections as part of every treatment. Against this backdrop, most of the respondents indicated that laboratory services should thus become mandatory for every health care resource since lack of laboratory facilities serves as a major barrier to effective health care use. For instance, users of Amansan clinic and Central market health centre indicated that absence of laboratory facilities at the clinic and health centre compounds their plight and makes health care utilisation difficult. Some were of the view that the additional transport and service cost they bear in accessing a diagnostic centre or hospital for laboratory services whenever they utilise these health facilities poses a major barrier to the effective use of health care. In view of this they rather opt to travel farther to access a health facility that provides laboratory services. One of the respondents from Ahansoyewodea, a rural area indicated that

> *"Amansan clinic is close to me so I often use it. However they don't have any laboratory so I am forced to go for my laboratory services at S.D.A hospital, Edwin Cade hospital or Obuasi diagnostic centre which are very far from Ahansoyewodea. I have to pay for transport fare and the laboratory services. This mostly affects me financially and worsens my illness. As a result, I prefer to go to these hospitals rather when I am ill" (41 years old trader at Ahansoyewodea, individual interview)*

Table 5.1.2: Factors influencing respondents' choice and use of health care facilities

Reasons	**Place Of Residence**		**Total**
	Urban	Rural	
Accepts NHIS	14 (63.6%)	8 (36.4%)	**22 (100%)**
Proximity	40 (66.7%)	20 (33.3%)	**60 (100%)**
Adequacy of health equipment and qualified health personnel	31 (88.6%)	4 (11.4%)	**35 (100%)**
Quality of health care rendered	24 (88.9%)	3 (11.1%)	**27 (100%)**
Social Accessibility	14 (87.5%)	2 (12.5%)	**16 (100%)**
Laboratory attendance precedes diagnoses	22 (66.7%)	11 (33.3%)	**33 (100%)**
Medically Insured by A.G.A company	5 (100%)	0 (0.0%)	**5 (100%)**
Total	**50 (75.8%)**	**48 (24.2%)**	**198 (100%)**

Source: Field work, 2014. (Figures in bracket represent percentages in a row)

Some of the respondents from both urban (63.6%) and rural (36.4%) communities were of the view that they prefer to utilise most hospitals in the Municipality because they accept NHIS as a mode of payment for health care. They indicated this makes it easy to access health care even though they most often than not, contend with longer waiting hours at these hospitals especially at the Obuasi Government Hospital. Mode of health care financing has thus been established as influencing factor in the utilisation of health care services (Okolo et al., 2011; Sekyi & Domanban, 2012). In view of this, a detailed discussion about it is presented in the next chapter.

Again, the issue of social accessibility is one interesting theme this study unravelled with respect to reasons why they opt for a certain type of health facility. This involves accessing and utilising a particular health care provider based on relationship with a health care personnel or doctor, acquaintance with personnel(s) in that facility or having a relative working there. It denotes accessing a particular facility on social bases. Most of the respondents from the urban communities indicated that they usually seek health care

from the hospital because they get to access health care with much ease. Most of them were of the view that building up certain relationships and social networks with some health workers make it very easy for them to access health care from most health facilities. In these instances, they prefer to utilise these health institutions because of the lesser time they spend to be attended to by a physician and sometimes because of the special treatment they are given. One of the respondents interviewed at Asonkore indicated that:

> *"I like to visit Bryant Mission Hospital every time I get sick because I have a cousin working there so I get better attention and care when I go there, and it takes me lesser minutes to be seen by a doctor" (24 years old teacher at Asonkore, individual interview)*

Closely related to the views shared above, some respondents indicated that they feel very comfortable sharing issues related to their morbid status with these individuals working at the health facilities. They indicated that such relationship enables them to receive better care when they utilise these facilities. This finding corroborates Kroeger's (1983) health seeking behavioural model, where social bonds and interaction were reported as significant factors in the choice and use of health care resources. In his view, interactions with social networks are relevant in the choice of health care resources, thus family bonds, social relationships and support facilitates use of health services (Kroeger, 1983). Apparently, the case of Obuasi municipality is no exception.

In addition, most of the rural respondents (58.3%) rather utilise services rendered by most health clinics. Majority of the rural respondents attributed proximity to this health facility as the principal reason why they utilise it. For most of the respondents at Ahansoyewodea, the proximity of Amansan clinic makes it easier for them to access health care. As a result, they often prefer to utilise that health care facility though it does not accept NHIS as a

mode of payment for health care. During the in-depth interviews, it became evident that most of the participants from the rural areas preferred to utilise a particular health care facility base on its proximity or because NHIS is accepted as mode of payment for health care. One of the participants from Ayease indicated:

> *"I like going to Bryant Mission Hospital because they accept NHIS and it's the closest hospital to this community. Even though, you have to wait for some time before you are attended to I prefer that place. It is a mission-based hospital so you get to enjoy other benefits too" (35 years old farmer at Ayease, individual interview)*

This finding is consistent with studies by Buor (2003) and Majaj et al. (2013), where proximity to a health facility increases the likelihood of its utilisation, especially in situations where there are less health care options available.

On the contrary, some respondents from the rural areas also indicated that they prefer to seek health care from hospitals because of the kind of special services they provide and the quality of service they provide, irrespective of how remote they are from the health facility (see table 5.2). Some participants from Ntonsua indicated that they prefer to travel long distance to access health care from Bryant Mission Hospital because of the special ophthalmological and gynaecological services they render.

> *"Though Ntonsua is very far from Boete, I usually travel this long distance to see the eye specialist who has been my doctor for quiet sometime now, and I see no problem with that so far as I receive the right treatment I want" (51 years old farmer at Ntonsua, individual interview)*

This supports the argument made by Mattson (2010). He was of the view that distance in most cases do not pose as a major barrier to health care use, thus distance does not significantly influence the use of health care institutions. This implies people access and utilise health care irrespective of its remoteness, if only they get to experience their desired health care. This can largely be attributed to preference for a particular type of health facility base on quality of service (Majaj et al., 2013), acceptability and trust of their services (Tanahashi, 1978; Kroeger, 1983; Mazzili, 2009) and cost (Ensor & Cooper, 2004; Prosser, 2007). In some situations, the characteristics of health services, stemming from its scale of operation, service attractiveness and quality tend to override other barriers in terms of health services utilisation. For instance, some health managers indicated that they have wide service coverage and even receive other patients from the Central Region of Ghana. They attributed this to the kind of services they provide and the quality with which these services are rendered.

> *"I think most patients prefer to access health care at this hospital because of the kind of services we provide. We have the eye clinic, the normal OPDs, the in-patients and we also have a visiting gynaecologist who also comes around ones a month and he spends two days whenever he comes. Women are really accessing this service and will come to utilise this service no matter where they are. You see, with the eye clinic we have an ophthalmologist so our catchment area even extends to New Edubiase because the only other place I know of is Assin Fosu. With AGA, they only have eye nurses and obviously, when people want their eyes to be operated on they need a specialist to do that (Health Administrator, Bryant Mission Hospital).*

This suggests that though predisposing and need factors play significant roles in the kind of health facility an individual resorts to (Andersen & Newman, 1973; Andersen, 1995),

other organisational or enabling factors play an integral role in influencing an individual's choice and use of health services (Mckinlay, 1972; Tanahashi, 1978; Kroeger 1983; Philip 1990; Stekelenburg, 2004). In most instances, users' awareness of available services and service quality often correlate with increase in health service utilisation (Mustaq et al., 2011; Muriithi, 2013). Shopping for healers or health care resources based on their service availability, acceptability, attractiveness and quality is a widely known phenomenon. This is noted to influence users' choice and use of a particular health facility.

Clearly, evidence from this study corroborates Andersen & Newman (1973) and more importantly, Kroeger's (1983) theoretical model of health service utilisation. The utilisation of health services is thus influenced by health service characteristics and enabling factors like distance, service acceptability and quality. Again, choice of health care provider is mostly contingent on the mode of payment for health care received at the health institution. Also, another influencing factor like social accessibility which mostly depends on an individual's social networks influences the type of health facility an individual often utilises. These factors interplay to influence the type of health care facility an individual often use, as clearly indicated within the theoretical ambit of Kroeger's (1983) model.

5.2 Barriers to health care utilisation in the Obuasi Municipality

Evidently, most studies suggest various barriers hinder health care utilisation by patients in developing and developed countries (Philip, 1990; Andersen, 1995; Stekelenburg 2004; Prosser 2007; Muriithi 2013; Yiran et al., 2014). Most of these barriers are situated in the context of provider characteristics that constrains patients in effectively using health care whiles others are as a result of various consumer or patient induced factors that

inadvertently affects utilisation of health care (Kroeger, 1983; Bour 2004; Pariyo et al., 2009; Grundy and Annear, 2010; Yiran et al., 2014). Some are attributed to inequalities in distribution of services, low education and literacy, poverty and ignorance on the part of patients, ethnicity and cultural differences, religious determinants, weak health policy and other problems associated with structural adjustment programmes like "cash and carry", introduction of user fees etc. (Buor 2003; Blanchet et al., 2012). All these factors accounts for poor health care utilisation in Africa.

An attempt was made to ascertain the various barriers that hinder effective utilisation of health services in the Obuasi Municipality. However, in the context of ascertaining the various barriers that confronts health care utilisation in the Obuasi Municipality, this study subjectively relied on the perceived health care utilisation barriers accounted for by the various respondents and organisational barriers acknowledged by the various health care institutions selected for the study. This was to aid in establishing the difficulty that confronts respondents in their use of health care resources and factors which affects health care providers in their service delivery.

Given that every respondent utilise a particular health care facility (see Table 5.1.1), the study sought the need to ascertain if respondents face any difficulty in getting to these health facility. Only 45.7 percent of the respondents indicated that they face certain barriers in accessing health care while 54.3 percent do not. This showed significant variation across respondents' place of residence (chi square value of 52.241, df (1), p value less than 0.01). This can be explained by the fact that majority of the rural respondents 85 percent indicated that they face barriers in accessing a formal health care facility relative to the urban participants (30%) in the Municipality (see Table 5.2.1)

Table 5.1.3: Difficulty in assessing health facilities

Place of residence	Have you faced any difficulty in getting to a formal health facility		Total
	Yes	No	
Urban	45 (30%)	105 (70%)	150 (100%)
Rural	51 (85%)	9 (15%)	60 (100%)
Total	**96 (45.7%)**	**114 (54.3%)**	**210 (100%)**

Source: Field work (2014) Chi square value (X2) = 52.24 df (1) p value=0.000

Again, respondents were asked to indicate the kind of barriers they face when they utilise health facilities in the Municipality. During the qualitative facet of the study, most of the respondents in the rural areas indicated that long distance to most of these health facilities poses a major challenge to access and use of health care facilities. During the in-depth interview, most of the respondents especially those in the rural areas were of the view that they mostly opt for any available health care alternative close to them especially when the severity of the ailment worsens and thus needs urgent care. This mostly accounts for the reason why they often resort to self-medication. The skewed nature of the various health facilities to the core of the Municipality poses as a major barrier to those inhabiting the peripheral and rural areas. This is known to influence the kind of health facility an individual opts for. A retired teacher at Ntonsua indicated that

> *"It is very unfair that most of us in the rural areas have no health facility. We have to travel all the way to Mensakrom to access health care. This makes it very difficult for some of us who are old and can't walk that long to the main route before we get a car to the main station. We are sometimes forced to resort to self-mediation as the first point of care before we take the person to Adaase CHPS compound or the government hospital. Most of the aged, children and pregnant*

women suffer a lot and some even die in some instances" (65 years old retired teacher at Ntonsua, individual interview)

It became known during the interview with personnel from the various health care institutions that long distance from various rural and peripheral communities to the health facilities remotely or proximately accounts for some mortality issues they are confronted with. They were of the view that a lot of maternal deaths results from this. Most of these pregnant women are not brought in early which results in a lot of complication and deaths at certain times. Again, they indicated such barriers often exacerbate the health conditions of children who are rushed to the facilities after parents or relatives opt to self-medicate before rushing them to the health facility when the health condition deteriorates. One of the health administrators indicated:

"I believe the long distance it takes for most of those in the peripheral areas to access health care in this hospital often influences people to engage in self-medication. Sometimes children are rushed in here at the last moment when their health conditions have deteriorated after mothers diagnose their children themselves and buy drugs to cure diseases they have no idea of. This is mostly the case with illness like malaria and typhoid fever which usually have the same symptoms. As a result most of these children end up dying". (Health Administrator of Obuasi Government Hospital, personal l interview)

This is consistent with the findings by Yiran et al. (2014) where long distance to health facilities poses a major challenge to use of maternal health services by poor migrant female head porters in Accra, Ghana. In these instances, long distance negatively influences their health seeking behaviour and they either opt for available intervening options or seek no formal health care.

Also, most of the respondents from the rural communities attributed poor road networks and inadequate transport facilities as the bane of the long hours they spend travelling in order to access health care resource. In instances where there is a clinic, CHPS or health centre close to them, they are usually obligated to walk long distances to access it. Also, their plights are mostly exacerbated during the raining season when most of the routes that link their respective communities to the health care resource are made un-motorable and impossible to commute on. One of the interviewees stated:

> *"It takes me almost two hours or sometimes more than that to get to the hospital. Getting a car to take to a health centre or hospital is very difficult sometimes. I sometimes have to use various modes of transport in order to get to any health care resource. I walk for long hours before I get to Ahansoyewodea and from there take a "trotro" to Boete and then walk again or take a taxi in order to get to Bryant Mission Hospital which is the closest hospital to me and which I usually patronise when ill. This is why I take very long in getting to visit the hospital. Sometimes walking from Ayease to Ahansoyewodea even becomes very difficult especially when it rains sets in and the place becomes muddy" (53 years old farmer at Ayease, individual interview)*

This is consistent with the findings by Buor (2003) in the Ahafo-Ano South District where poor nature of roads linking homes to some facilities, especially in rural areas posed a major barrier to health care accessibility and utilisation. This is also supports the argument made by Mubyazi (2005) that long distance and poor nature of roads that link some settlements to most health facilities inhibit and affects effective use of health facilities.

Moreover, an attempt was then made to ascertain the various utilisation barriers that respondents face when they utilise the various health facilities. The results are presented in

Table 5.2.2. Of the 210 respondents sampled, 60.5 percent indicated that they face no barrier in the use of health care resources while 39.5 percent reported facing difficulty in the use of health care. Only 26.7 percent of the urban population indicated that some factors inhibit their use of formal health care whiles 71.7 percent of the rural population reported same. This showed significant variation across place of residence (Chi square value of 36.308, df (1), P value < 0.01). This implies that difficulty in the use of health care resource has a significant relationship with respondents' place of residence, thus majority of the rural population face major challenges when they utilise formal health care.

Table 5.1.4: Difficulty in using health facilities

Place of residence	Have you faced any difficulty in utilising a formal health facility		Total
	Yes	No	
Urban	40 (26.7%)	110 (73.3%)	150 (100%)
Rural	43 (71.7%)	17 (28.3%)	60 (100%)
Total	**83 (39.5%)**	**127 (60.5%)**	**210 (100%)**

Source: Field work (2014) Chi square value (X^2) = 36.308 df (1) p value<0.01

Out of the 83 respondents who reported facing difficulty in using health care resources, 21 percent indicated longer waiting time spent at the various health facilities as a barrier to their effective use of health care resource whiles 35 percent reported inadequate attention and care given by the health care provider as a barrier that influences use of health care resources (see Table 5.1.5). Also, 26 percent indicated that lack of laboratory facilities at some clinics and health centres posed a barrier to effective health care utilisation since they sometimes ought to travel to other diagnostic centres and hospitals for laboratory services coupled with its additional transport and service cost whiles 13 percent attributed

poor quality of service rendered them as some of the difficulty they face in the use of health care resources. Lastly, 6 percent were of the view that unfriendly attitude of health service workers poses a major barrier to their effective use of health care resources and this has evidently been the case in most African countries where poor attitude of health service workers hinders effective utilisation of health facilities.

Table 5.1.4 Various barriers to health care utilisation

Utilisation Barriers	**Frequency**	**Percentage**
Longer waiting time	18	21%
Inadequate attention and care by medical personnel	30	35%
Lack of laboratory equipment	22	26%
Poor quality of services	11	13%
Unfriendly attitude of health service workers	5	6%

Evidence from the qualitative facet of the study showed that some respondents opt to utilise private health clinics or buy drugs from pharmacies because of the longer waiting hours they spend in most government health facilities, even though they accept NHIS as a mode of payment for health care. One of the respondents indicated that

> *"I admire the services rendered by Edwin Cade and Bryant Mission Hospital but I don't like going there, especially Bryant Mission Hospital because I spend a lot of time waiting to be seen by a doctor. So I go there when the ailment is very serious. I spend almost Eight hours (8hrs) there whenever I go to seek health care. I sometimes leave and go to a private clinic or buy drugs from the pharmacy without seeing a doctor" (45 years old teacher at Asonkore, individual interview)*

This is consistent with the findings made by Muriithi (2013) in the slum areas of Nairobi, where longer waiting time at health facilities often influences individuals to opt for self-treatment than spend more time waiting to be treated. Again, this resonates with the study by Yiran et al. (2014), where long hours of waiting at health facilities prevented most migrant female porter heads from utilising maternal health care services at government hospitals. Again, some of the people were of the view that in most cases the records section of the hospitals takes very long in calling out their names. This they believe amounts to the longer waiting time they spend there. One of the women indicated that:

> *"I sometimes come as early as 5:00 am but the people from the records take my card at 9:00 am and I sometimes get to see a doctor at 1:00 pm. When you complain to them about this they rather subject you to insults and may even delay your card which means you get to see the doctor very late that is if they allow you" (34 years old seamstress at Wawase, individual interview)*

Most of the respondents indicated that laboratory services should become mandatory for every health care facility since lack of laboratory facilities serves as a major barrier to effective health care use. Users of Amansan clinic and Central market health centre indicated that absence of laboratory facilities at the clinic and health centre compounds their plight and makes health care utilisation difficult. Some were of the view that the additional transport and service cost they bear in accessing a diagnostic centre or hospital for laboratory services whenever they utilise these health facilities pose a major barrier to the effective use of health care. One of the women from Ahansoyewodea reported that:

> *"Amansan clinic is close to me so I often use it. However they don't have any laboratory so I am forced to go for my laboratory services at S.D.A hospital, Edwin Cade hospital or Obuasi diagnostic centre which are very far from*

Ahansoyewodea. I have to pay for transport fare and the laboratory services. This mostly affects me financially and worsens my illness" (41-year-old trader, individual interview)

Again, unfriendly attitude of health service workers such as doctors, nurses, health service administrators, pharmacists, dieticians, laboratory technicians, ward Assistants and orderlies also influence patients' satisfaction and ultimately enables or poses difficulty in their use of health care. This is the case in most public health facilities even though private hospitals also exhibit traits of these unfriendly attitudes. Most of the respondents especially women, bemoaned the attitude of most female health workers towards pregnant women at the government hospital. . In an attempt to ascertain the veracity of the claims made by the respondents some health service workers like nurses and ward assistants were interviewed who indicated that the attitude of most pregnant women warranted the attitude they exhibited towards them. They reported that patients do not adhere to the basic rules and instructions given them and thus warranted such treatments from them.

In view of the various barriers that hinder effective use of health facilities, it became apparent that self-medication was an integral aspect of the health service provision in the municipality. In view of this, the study sought the need to assess self-medication or self-treatment in the study area and the reason why they often resort this form of health care resource.

5.3 Self-medication

This has mostly been regarded as one of the basic decisions patients take whether to utilise an existing formal health care options or resort to informal health care services or in some instances seek no treatment at all (Kroeger, 1983). Against this background, self-medication has thus been established as an integral health resource that most patients

resort to irrespective of the risk associated with such health care option (Majaj et al., 2013). Again, this has been reported to cause delay in the seeking of formal health care (Delgado et al., 1994). This refers to situations where an individual without the advice or medical instruction from a qualified physician resort to medication in an attempt to cure an ailment. This mostly include the use of herbal medicine mostly purchased from various traditional or herbal shops or mostly prepared at home; buying and using of un-prescribed drugs or over-the-counter drugs; resorting to the use of other materials like illegal drugs, alcohol or other medicine at home in an attempt to seek good health.

Majaj et al (2013) suggest that lot of factors interplay to influence an individual in resorting to self-medication as a health care resource. They were of the view that poverty, ignorance, cultural beliefs, disease severity and inaccessibility of formal health services influence self-medication. In view of this, the study attempts to ascertain the reasons why individuals resort to self-medication relative to seeking formal health care from professional health care facilities. Given that self-medication denotes using drugs without appropriate prescription from a physician, respondents were asked to indicate if they had used any drug without prescription within the past three years. The result are presented in Table 5.3.1

Out of the total population, 83.8 percent indicated that they had used a drug without prescription within the past 3 years while 16.2 percent had not. This is highly representative of respondents who had either purchased or used over-the-counter drugs from a pharmacy or chemical seller without prescription or any herbal or traditional medicine. Comparatively, respondents from the rural areas (93.3%) engage in the act relative to those from the urban areas (80%). Evident from Table 5.2.1, respondents who had no formal education constitute a greater percentage of those that use drugs without prescription while respondents who have attained tertiary educational status were few.

Table 5.2.1: Purchase of drug without prescription within the past three years

Variables	Have you used any drug without prescription (2010-2012)				Total	
	Yes		No			
Place of Residence						
Urban	120	(80%)	30	(20%)	150	(100%)
Rural	56	(93.3%)	4	(6.7%)	60	(100%)
Total	**176**	**(83.8%)**	**34**	**(16.2%)**	**210**	**(100%)**
Sex						
Male	106	(81.5%)	24	(18.5%)	130	(100%)
Female	70	(87.5%)	10	(12.5%)	80	(100%)
Total	**176**	**(83.8%)**	**34**	**(16.2%)**	**210**	**(100%)**
Education						
No formal	49	(94.2%)	3	(5.8%)	52	(100%)
Elementary/ primary	31	(86.1%)	5	(13.9%)	36	(100%)
JSS/ middle school	30	(85.7%)	5	(14.3%)	35	(100%)
SSS/ O level/A level/Vocational	37	(84.1%)	7	(15.9%)	44	(100%)
Tertiary	29	(67.4%)	14	(32.6%)	43	(100%)
Total	**176**	**(83.8%)**	**34**	**(16.2%)**	**210**	**(100%)**

Source: Field work, 2014. (Figures in bracket represent percentages in a row)

Again, respondents attributed several reasons to why they purchased the drug(s) without prescription. Out of the One Hundred and Seventy-Six (176) respondents who had purchased drug without prescription before, 48 indicated that severity of the ailment accounted for their action and thus the urgency to seek help made them purchase drugs without prescription. Some respondents were of the view that they often resorted to use of over-the-counter drugs in case of less severe ailments like headache, stomach ache, cold, and joint pains. Some indicated that there are common malaria drugs around so they purchase and use them in case of any malaria symptoms.

> *"I only go to the hospital or clinic when the illness is very serious. Whenever I get malaria or cold, I just buy the common malaria drug called coartem from the pharmacy or procold for the cold. These are not very serious illness that I have to go to the hospital and waste time" (31-year-old miner at Wawase, individual interview)*

Other respondents shared similar views as those above. In situations where herbal medicine were used, respondents were of the view that they prepare them every day at home and usually drink it every day even if they are not ill. Some claim they are used as food supplement. These findings support the argument made by Majaj et al. (2013) and also consistent with the findings of Prasad (2009). They were of the view that individuals most often resort to self-medication as the first treatment options in situation where they perceive the disease to be less severe or acute (Majaj et al., 2013). Prasad (2009) concluded that this causes delay in seeking appropriate health care especially in situations where the severity of the ailment augments. The situation in Obuasi is not different, as reported cases of under-five mortality were most often attributed to delay in appropriate health seeking for the children. This became more apparent during the in-depth interview with the various health administrators

> *"I can say most of mortality issues regarding children and even some elderly mostly result from self-medication which causes delay in seeking formal health care from the hospital. Sometimes children are rushed in here at the last moment when their health conditions have deteriorated. Some parents diagnose their children themselves and buy drugs to cure diseases they have no idea of. As a result most of these children end up dying" (Health Administrator of Edwin Cade Memorial Hospital, Individual interview)*

Again, 45 of the respondents, comprising of 84.4% of respondents from the urban area and 15.6% of respondents from the rural areas also reported prior knowledge and experience gained using the drug as reasons why they resorted to purchasing drugs without prescription. Some of the respondents indicated that they usually resort to buying the same drug they were given during their previous visit to the hospital when they start experiencing the same symptoms. On the other hand, some indicated that they often self-medicate in situations where they have fair knowledge of the potency of the herbs they need to cure them. One woman indicated:

> *"I know the symptoms of malaria and the drugs I need to use to cure me. I also have a fair knowledge of drugs that can cure common flu and joint pains because I usually get them from the doctor when I use to visit the hospital. I just go to the licensed chemical seller to buy them whenever I start experiencing the symptoms" (34-year-old seamstress at Wawase, individual interview)*

Consistent with this finding are the study by Delgado et al. (1994) and Majaj et al. (2013), where prior experience and knowledge of common diseases like seasonal flu and urinary tract infection influence mothers to resort to the use of over-the-counter drugs and herbal remedies as first line alternatives instead of seeking formal and appropriate health care. In the context of this study, severity of the ailment and prior experience and knowledge of it where key factors that interplay to cause self-medication among the urban and rural respondents. In the context of Kroeger's (1983) model, these explanatory factors tend to influence an individual's response in either seeking no treatment or resorting to self-medication.

Again, trust and convenience of the pharmacy or chemical seller shop has been widely established as one of the major reasons why people resort to self-medication (Kroeger, 1983; Delgado et al., 1994; Prasad, 2009; Majaj et al., 2013). Majaj et al (2013) for

instance reported that trust in the effectiveness of home-based remedies induce most people to prefer self-medication as the first line of treatment. In line with this, respondents from both urban and rural communities indicated that trust and convenience of the pharmacy or chemical seller shop influence them to purchase and use drugs without prescription instead of resorting to using health care facilities. This comprised of 14 (93.3%) of respondents from the urban areas and 1(6.7%) of respondents from the rural areas. This could be explained by the fact that respondents from the urban communities engage more with the pharmacists or chemical sellers because there are clusters of chemical seller shops and pharmacies in the urban areas relative to those in the rural areas.

> *"From my house to Watt 250 (Pharmacy) is not far and I have been buying drugs from there since I was young. I trust the kind of drugs they sell there and I am always certain it will cure me. That is why I always prefer to go there when I am ill" (43-year-old seamstress at Wawase, individual interview)*

This resonates with the argument made by several researchers that an individual's trust in a particular health care resource influences their choice of that health care alternative (Kroeger, 1983; Malik et al., 2006). Stekelenburg (2004) and Muriithi (2013) suggest that self-medication is mostly influenced by the trust in the efficacy of the drug and the person rendering the services. This argument is in line with findings from this study which show that most respondents preferred to self-medicate using over-the-counter drugs or herbal medicine base on trust and convenience of it. Again this is mostly influenced by health service information where drugs are mostly advertised on the radio.

On the other hand, inaccessibility of any formal health facility at the time the ailment presents itself was one of the major cause of self-medication, especially among respondents from the rural areas (see Table 5.2.2). This thus depicts the extent to which inaccessibility of formal health care influences the use of informal health care alternatives.

Delgado et al. (1994) for instance reported that accessibility conundrums like distance, cost and unavailability of transport facilities account for reasons why most women prefer home-based remedies or self-medication to seeking health care from appropriate health facilities. Most of the respondents in the Obuasi Municipality attributed long distance from their homes to various health facilities as the factor which restricts them from seeking health care from appropriate health care facilities. They thus resort to buying and using over-the-counter drugs. This is consistent with the findings by Muriithi (2013) in the Nairobi slums of Kenya where increasing distance increases the likelihood of an individual or household opting for self-treatment.

Table 5.2.2: Reasons for using drugs without prescription

Reasons	Place of residence				Total	
	Urban		Rural			
Severity of illness	40	(83.3%)	8	(16.7%)	48	(100%)
Recommended by someone	11	(44.0%)	14	(56.0%)	25	(100%)
Prior knowledge and experience	38	(84.4%)	7	(15.6%)	45	(100%)
Inaccessibility of any formal health facility	12	(34.3%)	23	(65.7%)	35	(100%)
Trust and convenience of the pharmacy or chemical shop	14	(93.3%)	1	(6.7%)	15	(100%)
Saw its advertisement	5	(62.5%)	3	(37.5%)	8	(100%)
Total	**120**	**(100%)**	**56**	**(31.8%)**	**176**	**(100%)**

Source: Field work, 2014. (Figures in bracket represent percentages in a row)

5.4 Summary

This chapter examined the utilisation of health facilities in the Obuasi Municipality. It examined the type of health facilities respondents often utilise and the various factors that influence utilisation of these specific health facilities. In general, majority of respondents sought health care from hospitals whiles health centres and traditional health centres were the least utilised. The choice and utilisation of health facilities showed significant relationship across the urban and rural communities and income. Social accessibility,

quality of health care rendered as well as adequacy of equipment and health personnel were some of the reasons that largely influence individuals' choice and use of a particular health care facility. Also, individuals opted to utilise hospitals because laboratory attendance most often precedes diagnoses and drug prescription by most physicians. Majority of the rural respondents attributed proximity to clinics as the principal reason why they utilise this health facility. Evidence from this study were synonymous with Andersen and Newman (1973) and Kroeger's (1983) health utilisation models.

Again, the skewed nature of health facilities and restrictive factors like long distance, poor nature of roads linking settlements to the various health facilities, inadequate transport facilities, and longer waiting hours served as a bane to health care accessibility and utilisation in the Municipality. Majority of the brunt of these barriers are widely felt across the rural communities than the urban areas. The study reports self-medication as an integral health care resource and barrier to appropriate health seeking behaviour and utilisation of health services among the urban and rural communities (Kroeger, 1983; Majaj et al., 2013). Majority of respondents, resort to the use of over-the-counter drugs and herbal medicine as the first line of treatment instead of seeking health care from appropriate health care facilities. It became apparent during the survey and in-depth interview that severity of ailment; prior knowledge and experience of the disease; trust and convenience of the pharmacies and chemical shops; and inaccessibility of formal health facilities were some of the reasons why respondents often resort to self-medication.

CHAPTER SIX

MODES OF HEALTH FINANCING IN THE OBUASI MUNICIPALITY

6.1 Introduction

This chapter provides insight into the various modes of health care financing in the Obuasi Municipality. Given that modes of health care financing influence utilisation of health services (Asenso-Okyere et al., 1998; Sekyi & Domanban, 2012; Seeberg et al., 2013), an attempt was made to assess the various ways through which respondents finance health care. This was done in relation to socio-demographic factors like sex, age and income. Also discussed in this chapter is the state of NHIS in the Municipality. Again, an attempt was made at assessing NHIS enrolment in the Municipality and reasons for non-enrolment or renewal. Lastly, the various challenges associated with the use of NHIS were identified and discussed.

6.2 Most Significant Modes of Health Care Financing by Respondents

Financial barriers pose a major challenge to appropriate and effective health care utilisation (Andersen 1995; Stekelenburg, 2004; Ensor & Cooper, 2004). Against this backdrop, mode of payment for health care has been acknowledged by several studies as one of the major influencing factors in appropriate health seeking behaviour and utilisation of health services (Blanchet et al., 2012). Studies by Saeed et al. (2013) and Okolo et al. (2011) suggest that this has a significant influence on an individual's choice and use of health services. Globally, the main modes health financing are out-of-pocket financing and health insurance. In view of this, an attempt was made at assessing how respondents often finance health care in the municipality. The results are presented in Table 6.1.1

6.1.1: Most significant modes of health financing as reported by respondents

Variables	Mode of health financing				Total
	Out-of-pocket	NHIS	Private insurance	Other welfare schemes	
Place of residence					
Urban	39 (26%)	86 (57.3%)	22 (14.7%)	3 (2%)	150 (100%)
Rural	24 (40%)	36 (60%)	0 (0%)	0 (0%)	60 (100%)
Total	**63 (30%)**	**120(58.1%)**	**22(10.5%)**	**3 (1.4%)**	**210(100%)**
	Chi-square value (X^2) = 12.852, df (3), p<0.05				
Sex					
Female	24 (30%)	44 (55%)	11 (13.8%)	1 (1.2%)	80 (100%)
Male	39 (30%)	78 (60%)	11 (8.5%)	2 (1.5%)	130 (100%)
Total	**63 (30%)**	**122(58.1%)**	**22(10.5%)**	**3 (1.4%)**	**210(100%)**
	Chi-square value (X^2) = 25.52, df (1), p>0.05				
Age (years)					
Less than 25	2 (40%)	3 (60%)	0 (0%)	0 (0%)	5 (100%)
25-34	12 (25.5%)	28 (59.6%)	7 (14.9%)	0 (0%)	47 (100%)
35-44	30 (38%)	42 (53.2%)	6 (7.6%)	1 (1.3%)	79 (100%)
45-54	14 (23.7%)	36 (61%)	7 (11.9%)	2 (3.4%)	59 (100%)
55-64	5 (25%)	13 (65%)	2 (10%)	0 (0%)	20 (100%)
Total	**63 (30%)**	**122(58.1%)**	**22(10.5%)**	**3 (1.4%)**	**210(100%)**
Average Monthly Income (GH ₵)					
Less than 300	11 (44%)	14 (56%)	0 (0%)	0 (0%)	25 (100%)
300-600	16 (25.4%)	43 (68.3%)	4 (6.3%)	0 (0%)	63 (100%)
601-1000	20 (33.3%)	33 (55%)	7 (11.7%)	0 (0%)	60 (100%)
1001-2000	10 (23.3%)	20 (46.5%)	10 (23.3%)	3 (7.0%)	43 (100%)
2001-3000	1 (25.0%)	3 (75%)	0 (0%)	0 (0.0%0	4 (100%)
Total	**58 (29.7%)**	**113(57.9%)**	**21(10.8%)**	**3 (1.5%)**	**195(100%)**
	Chi-square value (X^2) = 26.508, df (12), p<0.05				

Source: Field work, 2014. . (Figures in bracket represent percentages in a row)

Generally, there are two modes of payment for health care provided by health care service providers in the Municipality. These involve the use of insurance either private health insurance or NHIS and out-of-pocket payment. Several studies suggest that these modes of payment for health care influence health seeking behaviour and account for utilisation pattern of health care services (Cisse, 2006; Prosser, 2007; Okolo et al., 2011; Blanchet, 2012). Of the 210 respondents sampled, 63 (30%) indicated that they finance their health care through "out-of-pocket" payment whiles 120 (58.1%) finance health care through the NHIS. Again, 22 (10.5%) of the respondents also indicated that they pay for health care through private health insurance whiles 3 (1.4%) of the total respondents finance their health care through other welfare schemes. This clearly shows that majority of respondents resort to using NHIS when they access health care in the Municipality (see Table 6.1.1).

In addition, majority of respondents who indicated that they finance health care with private health insurance were mostly workers of AngloGold Ashanti, who by default enjoy free medical care from the Edwin Cade Memorial Hospital. It became apparent during the in-depth interview with the health administrator of Edwin Cade Hospital that all the workers and their household dependents are by default, medically insured by the mining company. Again, some hospitals within the Municipality operate some welfare schemes for poor patients who can't afford health care. The health administrator of Bryant Mission hospital indicated:

> *"We operate a welfare scheme for some poor patients who can't afford the medical bills. There are instances were such schemes are made to benefit poor people in the church or others who come here and can't afford the cost, especially pregnant women. Because this hospital is mission-based, we get most of our funding from donors and the church as well" (Health Administrator of Bryant Mission hospital, individual interview)*

It is clear that these welfare schemes are made exceptional to needy people in extreme cases and thus do not include most of the people. This accounts for why only 1.4% of the respondents finance health care through this mode. Again, it was indicated during the qualitative facet of the study that Amansan Clinic which serves as a point of health care for majority of rural populace from Ahansoyewodea also operates a welfare scheme for some patients, especially the aged and pregnant women. However, respondents indicated that they have no idea such welfare schemes exist at the clinic since it only operates on the "cash and carry" system.

Thirty percent of the respondents often finance health care through out-of-pocket payment and use of NHIS. Of the 120 respondents who finance health care using NHIS, 57.3 percent were from the urban communities whiles 36 (60%) were from the rural communities. Only 2% of the urban respondents finance their health care using other welfare schemes. Unsurprisingly, none of the respondents from the rural areas finance health care using private health insurance relative to 14.7 percent of the urban respondents. Nonetheless, mode of payment for health care showed significant relationship with respondents' place of residence (chi square value of 12.852, df (3), p value of 0.005). Respondents attributed cost saving as one of the reason why they often prefer to access health care using the NHIS. Some were of the view that accessing health care with NHIS makes it convenient enough to save cost although quality of services they render may be poor.

Also, only 30% of females finance health care through out-of-pocket whiles 55% pay for health care using the NHIS. Again, 60% of males pay for health care using the NHIS whiles 30% resort to out-of-pocket payment. Sex for instance, showed no significant relationship with the various modes of health care financing (chi square value of 25.52, df

(1), p value of 0.653). This may be explained by the fact that there are no differences when it comes to how males and females finance health care in the Municipality.

Again, several studies suggest that income has a significant relationship with the mode in which an individual finances health care (Witter & Garshong, 2009; Chankova et al., 2010; Seeberg et al., 2013). Evidence from this study suggests that income has a significant association with the mode of health financing in the Municipality (chi square value of 26.508 df (12), p value of 0.009). This indicates that income plays a significant role in the way individual respondents finance health care in the municipality. The study showed that majority of respondents who earn between GH₵300 and GH₵600 resort to use of NHIS relative to out-of-pocket payment (see Table 6.1.1).

The qualitative aspect of the study showed that proximity and convenience of most health facilities account for reasons why they often finance health care through "cash and carry". They were of the view that health facilities that are closer and easily accessible to them are not NHIS accredited health service providers. As a result, they mostly end up paying cash whenever they utilise these health facilities. Even though user fees or out of pocket payment has been given much credence to have a negative influence on health care choice and utilisation (Ensor & Cooper, 2004; Okolo et al., 2011; Muriithi 2013), respondents were of the view that it doesn't really influence their health seeking behaviour and the kind of health facility they opt to utilise when ill (Saeed et al., 2013)

6.3 The state of NHIS in the Obuasi Municipality

NHIS is a mechanism of healthcare financing adopted by a nation to enable citizens to contribute as a group in advance for health services in order to access health care when the need arises, without necessarily having to pay out-of-pocket at the health facilities (SEND-

GHANA, 2010; Blanchet et al., 2012). It aimed at addressing the problem of financial barriers to health care access within the context of the Ghana Poverty Reduction Strategy (GPRS). The policy objective was to institute a NHIS which will ensure that every resident of Ghana belongs to a health insurance scheme that adequately covers him or her against the need to pay out of pocket at the point of service. The NHIS was thus implemented as a response to the declining rate of health service utilization as a result of the "Cash and Carry" policy (Sekyi &Domanban, 2012). The design of the NHIS exempts the extreme poor from contributing and provides for the poor to pay less than the rich, apparently to enhance access of the poor.

The payment mechanism put in place was termed Cash and Carry System (C.C.S). The implementation of this C.C.S compounded the utilization problem by creating a financial barrier to health care access especially for the poor. This resulted in delays in seeking health care, non-compliance with treatment, and consequently pre-mature deaths. As a result of the observed unprecedented drop in health care utilization in Ghana and the adoption of the MDGs, the government started to consider alternative measures to address the challenges of the health sector (SEND-Ghana, 2010). One of such measures was to remove the financial barriers to quality healthcare. In pursuance of this measure, the NHIS was introduced through an Act of Parliament (Act 650) in 2003 to provide affordable and accessible quality health care for all residents of Ghana.

Studies by SEND-GHANA (2010) suggest that there has been reported improvement in NHIS coverage, and membership of the scheme especially in the Northern, Upper East and Upper West Regions of Ghana. Again, the number of accredited institutions has also increased nationwide though there has been reported incidence where this impacts negatively on the quality of care this NHIS accredited health facilities provide. In view of this, an attempt was made to assess the state of NHIS in the Obuasi Municipality.

With the inception of NHIS in Ghana in 2003, under the National Insurance Act 650 (HI Act), the scheme was duly launched in the Municipality on 28th July 2005 after several consultations, sensitisations, demarcations and coding of various settlements. Health facilities like the Obuasi Government Hospital, St. Jude Hospital, Bryant Mission Hospital and A.G.A Hospital or Edwin Cade Memorial were previously selected by the implementation committee and the board of directors to provide health care to clients under the scheme. Also, the Obuasi Diagnostic Centre and Elim Pharmacy were later co-opted for the purpose of referrals on diagnostic investigation and drugs respectively. In September, 2005 the clients of the scheme who had been issued with valid ID cards had access to free quality health care. The scheme has since enrolled and provided valid ID cards to over One Hundred Thousand people in the Municipality and has also increased its staff base, assets base and premiums.

Currently, there are Twenty (20) accredited health care providers under the scheme which encompass hospitals, clinics, health centres, maternity homes, diagnostic centres and pharmacies. Relatively, this represents a tremendous increase in the number of health care providers certified under the scheme as against the initial implantation phase of the scheme in 2005. All facets of health care service providers in the Municipality including hospitals, clinics and diagnostic centres, health centres, maternity homes and pharmacies are certified and represented under the scheme except traditional health care centres. Table 6.3.1 shows the various accredited health service providers under NHIS.

Table 6.3.1: Accredited Health Service providers under the Insurance Scheme (NHIS)

Name of Health Institution	Type
Edwin Cade Memorial Hospital	Private
Bryant Mission Hospital	Mission
Neighbourhood Hospital	Private
Obuasi Government Hospital	Government
Obuasi Ridge Hospital	Private
SDA Hospital	Mission
St Jude Hospital	Private
Asempa Clinic and Maternity Home	Private
Obuasi Clinic and Diagnostic Centre	Private
Central market Healthy Centre	Government
Kunka Health Centre	Government
Emmanuel Maternity Home	Private
St. Cecilia Maternity Home	Private
The Queens Maternity Home	Private
Adansi Diagnostics and Ultrasound Centre	Private
Sharp Diagnostic Centre	Private
Andameson Pharmacy	Private
Red Square Pharmacy	Private
Ultimed Pharmacy	Private
Grace Medical Laboratory	Private

Source: OMMHIS directorate (2013)

Despite the wide coverage of NHIS in the Municipality, some private health facilities remain unaccredited under the scheme. For instance, Amansan Clinic, which serves the health needs of majority of the rural populace, does not accept NHIS as a mode of payment for health care in the Municipality. It became apparent during the in-depth interview with the health administrator of the clinic that it becomes very difficult to get reimbursed when NHIS is accepted as a mode of payment for health care. Also the nature of their operation is on a small scale and thus this is meant to prevent large patient attendance

> *"We are into small private business and as such need money to run our day to day activities. There are a lot of paper works involved in NHIS and it takes very long time to recoup the money invested. Lack of money to run this clinic will then result in poor service delivery. We also want to avoid the situation where lot of patients will come here to seek medical care because we accept NHIS" (Health Administrator, Amansan Clinic, individual interview)*

This supports the argument made that NHIS impacts negatively on the service delivery of health professionals when funds are not made readily available coupled with large patient attendance (SEND-Ghana, 2010). They argued that NHIS impacts negatively on the ability of accredited service providers to deliver health services in terms of its quality and quantity.

6.4 Registration for NHIS in the Obuasi Municipality

It has often been argued that financial access which the NHIS provides enhances utilisation of health services (Blanchet et al., 2012). For instance, the study by SEND-Ghana (2010) revealed that in the Northern Region, membership of the scheme increased

from 143,460 in 2005 to 863,099 in 2008 representing 502% improvement over the period. In the Upper East Region for example, membership rose from 51,886 in 2005 to 371,865 in 2008, representing 617% growth over the same period. The number of subscribers in the Upper West Region expanded by 537% (from 48,610 in 2005 to 309,621 in 2008) while the five schemes surveyed in the Greater Accra Region indicated a growth rate of about 536% (from 57,915 in 2006 to 368,444 in 2008). Even though, this represented a significant growth in NHIS coverage, this represented less than half of the total population of the regions. Given that NHIS increases utilisation of health services (Jehu-Appiah et al., 2011), an attempt was made to assess NHIS registration and membership renewal in the Municipality over the three year period (2010-2012). This is presented in table 6.4.1 and 6.4.2 respectively.

There were 16,985 NHIS registration in 2010, comprising 6,014 males and 10,971 females. There was also an increase in enrolment in 2011 (16,985 in 2010 to 22,268 in 2011), whiles 2012 recorded a reduction in enrolment. Even though evidence from other related studies suggest that there are challenges regarding sex analysis of NHIS membership enrolment (SEND-GHANA, 2010; Saeed et al., 2013), findings from this study suggests that females who enrolled on the insurance over the three year period (2010-2012) outnumbered the male population (see Table 6.4.1). In all, 22,084 males registered for the scheme over the three year period while 34,464 females enrolled during that same period. In theory, females are reported as frequent users of health care services stemming from their sensitive health needs (Mwabu et al., 1993: Ahmed et al., 2005). It is therefore imminent they constitute majority of people who are enrolled on the scheme (Witter & Garshong, 2009). According to the report by SEND-GHANA (2010), women's membership of the scheme increased by 85% in the Bawku West District, 83% in the Dangme West and 75% in the Nadowli Districts from 2005 to 2008.

Also, persons within the ages of 18 and 70 constituted majority of registered members of the scheme from 2010 to 2012 (30,307) whereas those above 70 years were the least enrolled age group over the three years. In addition, 25,522 people below 18 years were also registered over the three year period (2010-2012). This is similar to findings elsewhere in the Northern Region and Upper East Region where NHIS enrolment of persons 18 years and below constitutes almost half of the entire registered members (SEND-Ghana, 2010). It became clear during the in-depth interview with the manager of scheme that persons below 18 years and those within 18 and 70 years constituted majority of registered members. In terms of renewal of membership, they also make up the majority (see table 6.4.2).

Table 6.4.1: NHIS new membership registration from 2010-2012

Variables	2010	2011	2012	Total
Sex				
Male	6,014	8,854	7,216	22,084
Female	10,971	13,414	10,079	34,464
Total	**16,985**	**22,268**	**17,295**	**56,548**
Age				
Below 18 years	7,668	10,326	7,528	25,522
18-69	9,036	11,672	9,599	30,307
70 years and above	281	270	168	719
Total	**16,985**	**22,268**	**17,295**	**56,548**

Source: OMMHIS directorate (2013)

Table 6.4.2: NHIS membership renewal from 2010-2012

Variables	2010	2011	2012	Total
Sex				
Male	17,992	22,221	19,106	59,319
Female	24,734	29,913	26,201	80,848
Total	**42,726**	**52,134**	**45,307**	**140,167**
Age				
Below 18 years	19,429	23,946	19,593	62,968
18-69	21,438	26,086	24,312	71,836
70 years and above	1,859	2,102	1,402	5,363
Total	**42,726**	**52,134**	**45,307**	**140,167**

Source: OMMHIS directorate (2013)

Again, given that accessibility and utilisation of free health care via the scheme resulted in increase in its enrolment and renewal of membership by the populace of the Municipality (see table 6.41and 6.42), an attempt was made to ascertain, if respondents had enrolled on the scheme (Table 6.4.3)

Only 31.3% of the urban respondents had not enrolled on the NHIS relative to 68.7% who had registered for the scheme. Also, 66.7% of respondents had registered for the scheme whiles 33.3% had not registered. There was no significant difference in NHIS enrolment across the urban and rural communities (chi square value of 19.14, df (1), p value of 0.779). This is not consistent with the study by Teye et al. (2014) where they suggested that rural residents are less likely to enrol on the NHIS than urban those in urban areas.

Also, 69.2% of males had registered for the insurance relative to 66.2% of females as at the time of the study (see table 6.4.3). NHIS enrolment for instance, did not show any significant difference across sex of respondents in the study area (chi square value of 25.52, df (1), p value of 0.653). On the other hand, 80% of the respondents who were between the ages of 55-64 had registered for the scheme. Again, there was no significant

difference in NHIS enrolment across the ages of respondents in the study area (X^2 value of 1.874, df (4), p value of 0.76).

Income for example has been reported as a significant factor in NHIS enrolment (Mills et al., 2012). Studies have shown that about 52% of the upper-income earners have enrolled whereas the poorest section of the population has only 18% enrolment rate (Chankova et al., 2010). This is the case because formal-sector workers who comprise of the middle and upper income earners pay automatically through deductions from their social security, whereas payment is voluntary for those in the informal sector (Mills et al., 2012).This indicates majority of the upper and middle income earners seek formal treatment as compared to the low income earners. Also, studies have proven that upper income earners prefer private health care services as compared to the low income earners that use public health facilities (Chankova et al., 2010). Findings from this study suggest that NHIS enrolment has no significant relationship with the average monthly income a person earns (X^2 value of 3.711, df (4), p value of 0.45) as majority of respondents across the various income groups had enrolled on the scheme.

Table 6.4.3: NHIS Enrolment by Place of residence, Sex, Age, Income

Variables	NHIS enrolment		Total
	Insured	Uninsured	
Place of residence			
Urban	103 (68.7%)	47 (31.3%)	150 (100%)
Rural	40 (66.7%)	20 (33.3%)	60 (100%)
Total	**143 (68.1%)**	**67 (31.9%)**	**210 (100%)**
Sex			
Female	53 (66.2%)	27 (33.8%)	80 (100%)
Male	90 (69.2%)	40 (30.8%)	130 (100%)
Total	**143 (68.1%)**	**67 (31.9%)**	**210 (100%)**
Age (years)			
Less than 25	4 (80%)	1 (20%)	5 (100%)
25-34	31 (66%)	16 (34%)	47 (100%)
35-44	53 (67.1%)	26 (32.9%)	79 (100%)
45-54	39 (66.1%)	20 (33.9%)	59 (100%)
55-64	16 (80%)	4 (20%)	20 (100%)
Total	**143 (68.1%)**	**67 (31.9%)**	**210 (100%)**
Average Monthly Income (GH ₵)			
Less than 300	20 (80%)	5 (20%)	25 (100%)
300-600	45 (71.4%)	18 (28.6%)	63 (100%)
601-1000	37 (61.7%)	23 (38.3%)	60 (100%)
1001-2000	29 (67.4%)	14 (32.6%)	43 (100%)
2001-3000	2 (50%)	2 (50%)	4 (100%)
Total	**133 (68.2%)**	**62 (31.8%)**	**195 (100%)**

Source: Field work, 2014.

Most of the respondents who were not enrolled were of the view that they opted not to enrol because of the cumbersome process and documentation it previously took to get registered. When asked if they were aware a new biometric system of enrolling is in place now, about 45% of the uninsured respondents were unaware. Closely related to this, some

respondents indicated that they were previously enrolled but opted not to renew their registration because of the aforementioned reason. On respondent indicated;

> "*When NHIS came first, I registered but it took very long for the card to come. I had to go and queue for days before I got registered and even when I did, the card also took very long for it to come. So I decided not to register again but rather use the A.G.A card (A.G.A's private insurance) when I go to the hospital" (34 years old seamstress at Wawase, individual interview)*

This is consistent with the findings by SEND-GHANA (2010), where the previous cumbersome process of enrolling deterred people from enrolling and renewing their membership, especially in Northern Ghana.

Although there is wide coverage of the insurance scheme, some healthcare facilities do not accept it as a mode of payment for health care because they perceive it negatively affects the quality of their health service delivery (Blanchet et al., 2012, SEND-GHANA, 2010). According to the report by SEND-GHANA (2010), most of the health care providers indicated that the scheme limits their service delivery since it exempts certain cases and excludes some effective medicine. In instances where they do cover some services, getting your claims re-imbursed becomes an issue, which stalls delivery of service. In view of this, others also related their non-enrolment and renewal of their membership to the fact that it is not accepted by some of the private clinics they prefer to patronise. Closely linked to this are instances where social accessibility and preference for a specific health provider interplay with other factors to influence an individual's choice and use of a health care facility. One miner at Wawase indicated:

> *"Unfortunately, Amansan Clinic does not accept insurance. I have a personal relationship with the doctor there because he previously use to be my doctor when*

he worked at AGA Hospital (now Edwin Cade Hospital) and I still go to him even though he is no more there. I have to pay cash because they don't accept NHIS" (45-year-old Miner at Wawase, individual interview)

Again, 65.2 percent of the respondents who were not registered members of the scheme indicated that poor services rendered to users of NHIS accounts for the reason why they choose to access health care with cash. This comprised of 78.3 percent of respondents from the urban areas and 35 percent of respondents from the rural communities. They indicated that it is easier to access health care when you pay out of pocket than use the NHIS. Some of them were of the view that they have witnessed situations where health workers rather attend to patients who pay cash than finance their health care via NHIS (Adei et al., 2012). This may partly be explained by the fact that delay in claims re-imbursement and increase in patients' attendance results in reduced attention given to users of NHIS. Most health administrators and managers interviewed were of the view that it is apparent that those who pay for their services out-of-pocket will receive the best care compared to those accessing health care on the ticket of the NHIS. Most health personnel interviewed were of the view that they had no option than to serve those that pay outright before NHIS users.

"If I provide services for you now and will get payment in six months; you and the one who is paying right now who will get the best available treatment? Why are you trying to hide from the fact? Two people have come, one is a private patient and the other one is on NHIS. The private patient is ready to pay money now which I can use to buy more drugs. The NHIS person is buying on credit and he will pay after six months or I will get paid after six months. Why will I want to jump over him to go and look after somebody whose money will come after six months? So it is no news. You can't blame anybody. Whatever it is, the government should hold

itself responsible" (Health Administrator, Edwin Cade memorial Hospital, individual interview)

Closely related to the above, a study by Teye et al. (2014) reported that most health care providers attributed delays in attending to users of NHIS to delays in verification of documents of insured patients. Evidence from this study suggests that the people did not use to complain about this when NHIS was initially incepted in the Municipality. Nevertheless, the difficult verification process causes a lot of delays at most health facilities, where NHIS is accepted as a mode of payment for health care. In an attempt to ascertain the veracity of the issue, the Municipal health director was interviewed. He indicated that

"Initially, people use to complain about this when we started the NHIS, when the number of NHIS users and "cash and carry" users were almost the same. Because majority of people have enrolled on the scheme and access health care with it, the clerical and administrative work involved in the NHIS is very tiring and cumbersome" (Municipal Health Director, Obuasi Municipality, Individual interview)

Several studies report that premiums charged to be enrolled on the scheme is a significant factor influencing low registration in some parts of Ghana (Chankova et al., 2010). This was relatively not a major influencing factor why respondents were not enrolled on the scheme or failed to renew their membership in the Municipality. According to the NHIA report (2011), members are to pay a premium set at a minimum of GH₵7.20 and a maximum of GH₵48, which varies directly with the income status of the operating district. SSNIT contributors are to pay for only the processing fees. During the in-depth interview with the manager of the scheme, she indicated, SSNIT contributors were made to pay GH₵4 (for processing fee) whiles the others were to pay a premium fixed at GH₵

20. This includes all adults (18-69) working in the informal sector. Although some respondents attributed their non-enrolment and renewal to the premium charge, this wasn't a major factor. However, some respondents were of the view that they failed to renew their membership because they didn't access health care with the card earlier on when they registered. They deemed this as a waste of resources and decided not to renew their membership.

6.5 Challenges with the Use of NHIS

This section discusses some of the major challenges respondents face when they access health care with NHIS. Even though the main objective of the scheme is to provide quality health care in a manner that addresses the health needs of every patient that seeks health care on the ticket of the NHIS (SEND-Ghana, 2010), the scheme is bedevilled with some challenges. These challenges are often felt at service delivery point by patients who utilise these health facilities. These challenges affect the policy objectives of the scheme and negatively influence subscribers' utilisation of health services (Adei et al., 2012; Gajate-Garrido & Owusua, 2013; Teye et al., 2014). It is rather unfortunate that those for whom certain health services are basically intended for tend to be the least able to gain the benefits and are frequently more harmed or ignored by the actual operation of the services as they are delivered (Penchansky & Thomas, 1981). Respondents identified several challenges that influence their use of health services whenever they access health care on the ticket of the NHIS. These challenges include, charging of illegal fees and inability of clients to access some services as well as poor attitude and practices by some service providers.

Charging Of Illegal Fees and Inability of Patients to Access Some Services

This has been reported as one of the key challenges subscribers of NHIS face when they utilise health care (SEND-Ghana, 2010; Adei et al., 2012; Gajate-Garrido & Owusua, 2013). The study by Yiran et al. (2014) suggests that paying of informal fees negatively influences utilisation of health services. Informal fees are usually additional fees charged at the point of service provision by health staff with the sole aim of augmenting their income further challenge the achievement of the equitable and affordable health outcomes underpinning the NHIS (UNICEF, 2012 as cited in Teye et al., 2014).

Incidence of informal and unofficial fees charged by health providers under the scheme is an act that defeats the purpose for which the scheme was established. These practices are mostly the case where patients are given prescription form to purchase the drugs at private shops, though the drugs provided to patients by the scheme are at a zero cost (Adei et al., 2012). Most of the respondents were of the view that they were sometimes made to pay for some services rendered them which are ideally covered by the NHIS. This mirrors the study by Peter et al. (2008) where health officials may still "illegally" collect money from poor patients, even when services are supposed to be free. During the qualitative facet of the study, some health personnel indicated that NHIS subscribers that utilise their health facility come and expect everything to be provided for them freely, even the food they ought to eat. One of the health administrators stated:

> *"Some people think you can deliver for free and that NHIS will cater for everything, even sanitary pad and even what they will eat. Sometimes we have to salvage the situation by giving them money to buy these things. We sometimes pay for their transportation in situations where we refer them. We sometimes lend them money; some will pay back whiles others refuse to" (Health administrator, Obuasi Central Health Centre, personal interview)*

Also, majority of respondents indicated that lack of drugs at the various health facilities they utilise is one of the major challenges they face when they access health care on the ticket of NHIS. They were of the view that they are always made to buy most of the important drugs they need when they access these health facilities. The less expensive ones are however always given to them by the health facility. A trader at Kunka mentioned that

> *"Even common paracetamol, they sometimes ask you to buy. I can't remember the last time I was given every drug prescribed for me when I go to the hospital" (28-year-old trader at Kunka Junction, individual interview)*

In line with this, some of the respondents also mentioned that most health facilities prescribe drugs for you to buy from private pharmacies especially when you access health care on the ticket of NHIS.

> *"Whenever I visit most of the hospitals and clinics I am always asked to buy most of the important drugs I need to cure my ailment because they are not available but this is different if you don't use NHIS" (43-year-old driver at Kunka Junction, individual interview)*

This is consistent with the study by Teye et al. (2014) where patients using NHIS to finance their health care bemoaned the lower quality of drugs that are prescribed for them relative to those that pay-out-of-pocket. During the in-depth interview with various health administrators in the Municipality, they indicated that high market prices of some drugs and exclusion of some effective drugs from the medicine list the scheme covers are some of the reasons why they end up asking patients to buy from other private pharmacies. Some indicated that they buy most of their drugs from the open market and thus incur a loss when the drug price list of the NHIA is not reviewed to suit the current market rate. In view of this the Municipal health director indicated that

> *"There is a difficult problem with the pricing of essential medicine list. The pricing which is the basis for refund needs to be reviewed regularly. Six months ago, the price of milk you bought is not the same now. However they keep the price of these medicine lists for years so the market value of these drugs diminishes. Let's say drug X sells for 15 cedis according to the NHIS essential drug list price but the drug was bought in the open market for 30 cedis. However the patient will be paying only 15 cedis for it. Frankly, most of these health facilities buy their drugs from the open market and come and sell them. Based on the difficulty they face, they also buy the drugs that can help them maximise profit rather than incur losses. In case I was consulting, I would have told them to do an automatic adjustment for pricing of essential medicines just as they have been doing for fuel, even though it will result in the government paying more for refund" (Municipal Health Director, Obuasi Municipality, Individual interview)*

They also cited delay in the payment of claims as one of the major reasons why they do not have enough drugs at their dispensaries. This is consistent with the report by SEND-Ghana (2010) where most NHIS accredited health institutions reported that delay in claims re-imbursement and high market prices of drugs negatively affect their service delivery.

Poor Attitude and Practices of Health Providers

Closely related to the previous point discussed, subscribers of NHIS bemoaned the poor attitude and treatment they receive from health workers of the various health facilities they utilise. This also accounts for reasons why most people do not renew their registration with the scheme, as previously discussed. There are also instances where health providers were noted to give preferential treatment to patients who accessed health care on the ticket of the "cash and carry" system. In the context of Obuasi Municipality, most respondents also indicated during the qualitative facet of the study that preferential treatments are

usually given users who pay out of pocket. They were of the view that users who pay out of pocket spend less time to be seen by a physician whiles users of NHIS spend lot of time waiting to be attended to by a doctor. One trader at Kunka indicated,

> "*Sometimes, the records section of most health facilities I utilise usually mention the names of those who pay cash early for them to see a doctor first whiles we are made to wait for a very long time" (28-year-old trader at Kunka Junction, individual interview)*

Some of the respondents complained of poor attitude of health workers towards them. Some were of the view that health workers do not give them adequate attention when they access health care on the ticket of NHIS. They indicated that services that are offered them are of lower quality than the ones offered those that pay out of pocket.

Clearly, preferential treatment are sometimes given patients who pay-out-of-pocket relative to those that pay for their health care via the NHIS. These patients are often first attended to before patients using NHIS. According to the various health administrators interviewed, delay in claims reimbursement by the NHIA often causes them to give preferential treatments to users who pay outright. This resonates with the study by Teye et al. (2014) where patients paying in cash get pushed to the front of the queue, thereby making NHIS users wait for long hours before treatment. Again, some respondents were of the view that some health workers use harsh words on them and sometimes subject them to insults. They concluded this was because they finance their health care using the NHIS. Thus, this prevents people from renewing their membership or registering for the scheme (Teye et al., 2014).

6.6 Summary

This chapter examined the mode of health care financing in the Obuasi Municipality. This was basically to ascertain the various ways through which individuals finance health care. The study revealed that NHIS, out-of-pocket payment and other private insurance are the main modes through which individuals finance health care, though some respondents indicated that they sometimes finance their health care through other welfare schemes. The study reported a significant difference in the way individuals finance health care across the urban and rural communities. In view of this, the study reject the null hypothesis that there is no significant relationship between respondents' mode of health financing and place of residence. Age and sex of respondents also showed no significant association with the modes through which health care is financed in the municipality. Although studies by Witter and Garshong (2009), Chankova et al (2010) and Seeberg et al. (2013) suggest that income has a significant relationship with how an individual finance health care, evidence from this study indicated otherwise.

Again, findings from this study revealed that NHIS enrolment has no significant relationship across respondents' place of residence, age, sex and income. Respondents who were not enrolled on the scheme attributed cumbersome documentation process and longer waiting registration period; poor services rendered to NHIS users by accredited health service providers; and high premium charges as reasons why they are not insured. Closely related to this, some respondents reported that longer registration process; high premium charges and preference for unaccredited health care institutions were some of the reasons why they couldn't renew their membership (SEND-Ghana, 2010; Blanchet 2012; Mills et al., 2012, Teye et al., 2014). Lastly, users of NHIS as a ticket to finance health indicated that lack of drugs at the various accredited health facilities poses a major challenge to their use of the scheme when they access health care. The charging of illegal

fees and inability of patients to access some services pose a major challenge to users who finance health using NHIS. Others also indicated that poor services are rendered them when they access health with NHIS, coupled with poor attitude of health workers towards them.

It is noteworthy that all these factors account for the utilisation pattern of health services in the Obuasi Municipality. One cannot overlook the significant roles mode of health care financing play in the utilisation of health services, given that NHIS and out-of-pocket payment tend to influence patterns of health care utilisation.

CHAPTER SEVEN

SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

7.0 Introduction

This chapter presents a summary of the findings of the study. Again, it draws conclusions based on the findings, theoretical models and conceptual framework that underpinned the focus of the study. It also makes reference to other areas for further studies. Lastly, it discusses some recommendations based on the findings of the study.

7.1 Summary

The main objective of this study was to examine the utilisation of health services in the Obuasi Municipality. It specifically identified the incidence of major diseases in the municipality and respondents perception about disease causation. In view of this, it further examined the type of health services used by different socio-economic groups in Obuasi. Again, it examined the factors that influence the use of specific health facilities in the Obuasi Municipality. Lastly, mode of health financing was assessed in relation to other socio-demographic factors, and the various challenges that confront the use of health services in relation to NHIS were also identified. The study adopted a mixed method approach in order to gain a comprehensive understanding of the issues examined. A multi-stage cluster sampling method was used in selecting 210 respondents for the household survey whiles respondents for the qualitative facet of the study were purposively selected.

The study revealed malaria as the most prevalent disease among the various disease types reported by the respondents. There were also reported incidences of other diseases like hypertension, respiratory and urinary tract infections, gastro enteritis and diabetes mellitus. This mirrored the report by the OMHD (2010) where malaria, hypertension, respiratory and urinary tract infections, gastro enteritis and diabetes mellitus were reported as the

most prevalent diseases reported at most health institutions. However, disease like cholera and dysentery were more confined to the urban areas than rural areas. On the other hand, disease like intestinal worm infection were highly characteristic of those inhabiting the rural areas compared to the respondents from the urban areas. Respondents gave much credence to the natural aetiological model and the epidemiological triad of disease causation (Awusabo-Asare & Anarfi, 1997). They thus attributed causes of diseases and their morbid status to natural causes such as polluted environment, malnutrition, lack of exercise and sedentary lifestyles, hereditary traits, poor drinking and eating habits, promiscuity, overcrowding, poverty and accidents (Danso-Appiah et al., 2004; Chi-Yung et al., 2006). Forty-two percent and 22 percent attributed their morbid status to polluted environment and poor eating habits. This represents an antithesis to the findings of Obidiya et al. (2011) among adult residents of Yenegoa in Nigeria, where most of the respondents attributed the causes of illness to religious or cultural forces. This also contradicts studies by Olurinola (2002) and Chi-Yung et al. (2006) where religious and cultural factors still played prominent roles in the perceived or actual aetiology of diseases which ultimately influence illness response and health care choice.

According to Kroeger's (1983) model, the aetiological concept and type of disease is noted to influence how an individual responds to an ailment and the kind of treatment option they resort to. Owing to respondents' inclination towards the natural aetiological concept and epidemiological triad of disease causation, majority of respondents sought health care in case of acute illness but often resorted to the use of traditional or informal health care. This showed no significant variation across place of residence, sex, age, level of education, income, proximity or remoteness to a health facility, and whether they are medically insured or not.

Conversely, majority of respondents seek modern or formal health care in case of chronic illness and this significantly varied across respondents' place of residence, education, income, distance and insurance status. The logistic regression analysis showed that individuals in the urban communities were more likely to utilise modern health care services in case of chronic illness than respondents from the rural areas. This clearly shows the variation in choice of health care resources between the urban and rural communities in relation to disease severity. Also, individuals with some form of formal education were more likely to seek health care from modern or formal health care resources in case of chronic illness. Also, individuals who travel less than five (5) kilometres and less than 30 minutes to access the nearest health facility were more likely to utilise modern health care. Lastly, Individuals that had a valid and active NHIS card were more likely to access health care from modern health care providers. The study thus rejected the null hypothesis that disease severity has no significant relationship with health care utilisation among the urban and rural communities. This finding further corroborates Kroeger's (1983) model that characteristics of an ailment and people's perception influence their choice of health care provider.

Against this backdrop, the study further sought the need to examine the kind of health facilities the populace of Obuasi Municipality often utilise. This was assessed in relation to various predisposing and enabling factors accounted for by Andersen & Newman (1973) and Kroeger's (1983) health utilisation model. The study showed higher utilisation of hospital and health clinics relative to health centres and traditional health centres. Evidence from the study showed that 63 percent of respondent from the urban communities often utilise hospitals relative to 58 percent from the rural areas who often resort to use of health clinics. The study showed that the kind of health facility respondents often utilise has a significant relationship with their place of residence

(Hoevan et al., 2012), average monthly income (Balarajan, 1987; Yesudian, 2010), and the proximity or remoteness of health facilities (Muriithi, 1996; Buor, 2004; Muriithi, 2013). In view of this, the study reports a significant difference between the type of health care facility often used between the urban and rural communities, whereas the urban populace often resort to using hospital services the rural populace often utilises health clinics. On the other hand, sex, age, and level of education however did not have any significant relationship with the kind of health facility respondents utilise.

Also, social accessibility was one of the factors which influence individuals' choice of health care. It became apparent that interactions among social networks play an important role in influencing an individual's choice and use of health facilities (Kroeger, 1983). Again, quality of health care rendered, adequacy of equipment and health personnel were some of the reasons that largely influence individual's choice and use of a particular health care facility. Also, individuals opted to utilise hospitals because laboratory attendance most often than not precedes diagnoses and drug prescription by most physicians. Majority of the rural respondents attributed proximity to clinics as the principal reason why they utilise a particular health facility. On the contrary, respondents from the various rural areas revealed that restrictive factors like long distance, poor nature of roads linking settlements to the various health facilities, and inadequate transport facilities served as a bane to health care accessibility in the Municipality (Buor, 2003), and thus accounted for reason why they often resort to self-medication. The brunt of these barriers is widely felt across the rural communities than the urban areas (Pariyo et al., 2009). Against this background, the study reports self-medication as an integral health care resource and barrier to appropriate health seeking behaviour and utilisation of health services in the Municipality (Kroeger, 1983; Majaj et al., 2013).

With respect to the mode of health care financing in the Municipality, the study revealed that respondents basically finance their health care through NHIS, out-of-pocket payment and other private insurance. The study further revealed that some respondents also finance their health care through other welfare schemes which are operated by health facilities like Bryant Mission Hospital (Mission-based) and Amansan Clinic (private). Place of residence showed a significant relationship with the mode through which and individual finance health care. As a result the study rejected the null hypothesis which states that there is no significant relationship between mode of health financing and and place of residence. Also, age and sex of respondents showed no significant association with the modes through which respondents finance health care. Although studies by Witter & Garshong (2009), Chankova et al. (2010) and Seeberg et al. (2013), suggest a significant relationship between income and how an individual finance health care, evidence from this study suggest income has no significant relationship across modes of health care financing in the Municipality.

Again, findings from this study revealed that NHIS enrolment has no significant relationship across respondents' place of residence, age sex and income. This implies that NHIS enrolment has no relationship with whether an individual reside in an urban or rural areas. Respondents who were not enrolled on the scheme attributed the cumbersome documentation process and longer waiting registration period; poor services rendered to NHIS users by accredited health service providers, and high premium charges as reasons why they are not insured. Closely related to this, some respondents reported that longer registration process; high premium charges and preference for unaccredited health care institutions were some of the reasons why they couldn't renew their membership (SEND-Ghana, 2010; Blanchet 2012; Mills et al., 2012). Lastly, users of NHIS as a "ticket" to finance health indicated that lack of drugs at the various accredited health facilities pose a

major challenge to their use of the scheme when they access health care. Others also indicated that poor services are rendered them when they access health with NHIS, coupled with a poor attitude of health workers towards them.

7.2 Conclusions

Clearly, findings from this study suggest that spatial factors like place of residence, predisposing factors like education and income influence the choice of health care. Consistent with the findings of this study are the theoretical perspectives outlined in Kroeger's (1983) model. This study further suggests that predisposing factors like age, sex, education, and income interplay to influence choice of health care as suggested in Andersen (1995). Apparently, the choice and utilisation of traditional and modern healers, private sector, and lastly, self-treatment or no treatment are often dependent on perceived morbidity, as vividly captured by Kroeger's health behavioural model (Kroeger, 1983).

The study thus concludes that there is a direct positive link between perceived morbidity, illness response, access to and use of health care services (Kroeger, 1983; Hedge, 2009; and Majaj et al., 2013). Again, individuals' perceptions about disease causation also influence illness response and utilisation of health services (Awusabo-Asare & Anarfi, 1997; Danso-Appiah et al., 2004). Lastly, enabling factors such as accessibility, mode of health financing and acceptability of health services influence an individuals' choice of health care facilities (Buor, 2003; 2004; Stekelenburg, 2004; Sekyi & Domanban, 2012; Seeberg et al., 2013).

Again, issues of social accessibility and preference for hospital health care due to availability of laboratory services were some issues unravelled in the choice and preferred use of health care facilities in the Municipality. Future studies should therefore be geared towards assessing how interactions with social networks influence health behaviour and

utilisation of health services. Also, in furthering the discourse on utilisation of health services, future studies should be centred on how characteristics of health service providers influence choice and pattern of health care utilisation. Although self-medication has been established as a key intervening health care resource, there is the need for a thorough assessment in order to ascertain the underlying influencing factors, and how it affects effective use of health care from appropriate health care providers.

7.3 Recommendations

On the basis of the various findings unraveled in the utilisation of health services in the Obuasi Municipality, the study made the following recommendations

- The study suggests that information on health services and perceptions about disease aetiology play significant roles in ensuring appropriate health seeking behaviour and health service utilisation. In view of this, the study suggests the need for the OMHD and other private health care providers to design appropriate health information campaigns. This health information campaigns could be in the form of information on disease aetiology, new technological advancement and new treatments, designed to ensure frequent update of the populace in the Municipality about the need to seek formal health care for common and acute illnesses.

- There is the need to revamp most of the health centres and clinics in the Obuasi Municipality in order to render their services more attractive and suitable to the health needs of the populace. This can be ensured via partnership between the private investors and government. For instance, there should be some private-government partnership to upgrade the infrastructure of the Central market health centre situated at the core of the Municipality. The Municipal health directorate should liaise with some private health care investors already present in the

Municipality to revamp most of these health centres and clinics. Funds could also be sought from the Mining company (AngloGold Ashanti) and other business enterprises within the Municipality.

- Furthermore, there is the urgent need to acknowledge the significant role of private chemical seller shops and pharmacies in the health care delivery chain in Ghana and Obuasi to be precise. Self-medication via the use of over-the-counter drugs and herbal medicine was a major intervening health care resource for individuals in the Municipality. In view of this, the government should introduce various interventions which should be designed to equip these health care resource providers, especially in remote and peri-urban areas in order to contribute to public health. These interventions could be in the form of training and capacity building, subsidies and social marketing of relevant commodities. Also, the various health care providers (Private and Mission-based) can join the bandwagon by training these chemical sellers to market their products in those remote areas

- With respect to the provision of basic primary health care, the government should ensure that CHPS should be situated at communities where various cluster of rural communities can access primary health care. This implies that CHPS could be provided for cluster of rural communities so that basic primary health care can be accessed without commuting long distance to access health care in case of any illness episode. This is closely related to the situation where provision of primary health care centres has become a sine qua non. For instance, in communities where the population is dispersed and difficult to get the threshold population required for primary health care centre or CHPS, several mobile or outreach clinic services could be provided.

- In view of some challenges the NHIS faces, the medicine price list ought to be reviewed regularly to reflect real market prices. This will influence availability of drugs and medicines in hospitals. At the moment most of these providers are losing interest. The government has to activate a system that will ensure regular review of prices of essential drugs. Also, the quick release of funding needs to be addressed. This will enhance utilisation of health services by users who access and finance their health care via the NHIS

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APPENDIX A

DEPARTMENT OF GEOGRAPHY AND RESOURCE DEVELOPMENT, UNIVERSITY OF GHANA, LEGON

HOUSEHOLD QUESTIONNAIRE

This questionnaire is designed for a study on Utilisation of health services in the Obuasi municipality. This thesis is to be submitted to University of Ghana, in partial fulfilment for the award of the degree of Master of Philosophy in Geography and Resource Development. The answers provided are intended for academic purposes only and shall be treated confidential.

SECTION A: BIODATA

1. Place of residence

   ……

2. How long have you lived in this community?

   ……

3. Sex: a. Male b. Female
4. Age: ……..
5. Religion:
6.

Level of Education	Code	Level of Education	Code
No formal education	1	Senior Secondary school (SSS)/ Ordinary level,/Advanced Level/ Vocational/ Technical	4
Elementary/primary education	2	Tertiary	5
Junior Secondary School / middle school	3	others	

7.

Marital Status	Code	Marital status	Code
Married	1	Widowed	4
Divorced	2	Cohabiting	5
Single	3	Please specify if others	

8. Number of children/ household dependents

   ……..

9. Are you currently employed? a. Yes b. No

10. What is your main Occupation?

……

11. Do you engage in any additional paid work or occupation? A. Yes b. No

12. If yes, please state the kind of occupation(s)

……..

13. What is your average monthly income?

……

SECTION B: HEALTH SEEKING BEHAVIOUR

14. Have you been ill in the past three (3) years? a. Yes b. No

15. Did you know what was making you ill? a. Yes b. No

16. What was making you ill?

Disease	Code	Disease	Code
Malaria	1	Hypertension	2
Other Acute Respiratory Infection	3	Rheumatism/Joint pains	4
Skin disease/Ulcers	5	Diarrhoea	6
Anaemia	7	Diabetes Mellitus	8
Intestinal Worm	9	Acute Urinary Tract Infection	10
Please specify if others			

17. How did you know about what was making you ill?

Answer	Code	Answer	Code
Self diagnosis	1	Clinic	4
Friend, neighbour or household member	2	Pharmacy	5
Hospital	3	Traditional or herbal healer	6
Please specify if others(s)			7

18. Please list by order of magnitude, four diseases that affect you most?

Disease	Rank	Code
		1
		2
		3
		4

19. Do you seek health care in case of acute illness? a. Yes b. No

20. If yes, what kind of health care do you seek?

Answer	Code	Answer	code
Self medicate	1	Use herbal medicine	4
Buy drugs from pharmacy	2	Private Hospital/ Clinic/ Health centre	5
Public Hospital/Clinic/ Health centre/ CHPS	3	Spiritual/ Religious help	6
Please specify if others			7

21. If no, what do you do?

……
……

22. How do you respond to chronic illness?

Answer	Code
Self medicate	1
Buy drugs from pharmacy	2
Use herbal medicine	3
Seek help from Private Hospital/ Clinic/ Health centre	4
Seek help from Public Hospital/Clinic/ Health centre/ CHPS	5
Seek spiritual/ Religious help	6
Please specify if others	

23. Have you ever bought any drug without a prescription before? A. Yes b. No

24. If yes, what influenced your decision to buy without prescription?

……

……

25. Have you ever used a drug without prescription before? A. Yes b. No

26. If yes, what kind of illness or ailment(s) did you use in treating?

.....
.....

27. What do you think are the major causes of diseases in this community?

Answers	code	Answers	Code
Malnutrition	1	Polluted environment	6
Lack of exercise	2	Sedentary lifestyles	7
Poor drinking water	3	Promiscuity	8
Poor eating habits	4	Overcrowding	9
Hereditary traits	5	Poverty	10
Please specify if others			

28. What factors do you think are responsible for your morbidity (disease occurrence or presence) situation?

Answers	Code	Answers	Code
Malnutrition	1	Poor eating habits	6
Polluted environment	2	Sedentary lifestyles	7
High cost of living	3	Promiscuity	8
Poverty	4	Overcrowding	9
Hereditary traits	5	Low income	10
Please specify if others			

29. Who normally makes the decisions about the health care of your household?

Answer	Code	Answer	Code
Your partner	1	Family member	3
You	2	Parents	4
Please specify if others			

SECTION C: UTILISATION OF HEALTH SERVICES

30. Have you used any health facility when ill before? a. Yes b. No

31. If yes, what was your choice of health care? A. Private only b. Public only c. both public and private

32. What type did you use?

Type	Code	Type	Code
Hospital	1	Dispensary	4
Clinic	2	Traditional medical centre	5
Health centre	3		
Others, please specify			6

33. Please state reason(s) for preferred type of health facility?

.....

.....

34. If no to question one (30), how do you get treated when you fail to patronize any health facility

Answers	Code		Code
By self medication	1	Buying drugs from the pharmacy	3
By traditional medicine	2	Religious/spiritual means	4
Please specify, if others			5

35. If answer to question (31) is (c), what factor(s) influenced your choice of health facilities?.....
.....

36. Which of the following reasons best explains why you do not use health facilities when sick? Please rank by order of importance if any.

Answers	Code	Rank
Long distance to health facility	1	
Lack of transport facility	2	
Longer waiting times	3	
High transport cost	4	
Use of herbal medicine	5	
Poor quality of service	6	
Religious beliefs	7	
High cost of service	8	
Please specify if others		

37. What kind of health facility is nearest to your house?

Type	Code	Type	Code
Hospital	1	Clinic	3
Health centre	2	CHPS	4
Please specify if others			

38. How often do you use this health facility?

Answer	Code	Answer	Code
Always	1	Once	3
Not always	2	Not at all	4

39. How far is your home from the nearest health facility?
…….....

40. How long does it take you to get to this health facility?

……

41. How much do you spend on transport to and from the health facility?

……

42. Have you faced any difficulty in getting to this health facility? a. Yes b. No

43. If yes, what difficulty was it?

……

……

44. Have you faced any difficulty in using this health facility? a. Yes b. No

45. If yes, what difficulty was it?

……

……

……

46. Which health institution or facility have you mostly been using?

……

……

47. Please state reason(s) for the preferred use of this health facility?

……

……

48. How many times do you attend hospital when you fall sick?

Answer	Code	Answer	Code
Always	1	Once	3
Not always	2	Not at all	4

49. Which of the following would you prefer to patronize?

Type	Code
Public health facility	1
Private/Mission health facility	2

50. Please state reasons for answer to question (47)

……

SECTION D: MODE OF HEALTH FINANCING

51. How do you pay for your health care?

a. Out-of-pocket
b. NHIS
c. Private Insurance
d. Other welfare schemes
e. other……

52. Are you currently enrolled on the National Health Insurance Scheme (NHIS)?

a. Yes b. No

53. If no, how do you finance health care?

Answer	Code
Self-financing	1
Paid for by relatives	2
Through welfare schemes	3
Please specify if others	

54. If no to question (59), please state reasons for not enrolling?

……

55. If yes, how long?

……

56. How frequent do you use it when seeking health care?

Answer	Code	Answer	Code
Always	1	Once	3
Not always	2	Not at all	4

57. Please indicate reason(s) for answer to question (64)?

……

……

58. Are you supplied with most of the drugs you need? A. Yes b. No

Answer	Code	Answer	Code
Very good	1	Satisfactory	3
Good	2	Poor	4

59. How do you assess the quality of service rendered you when using NHIS?

60. What kind of health care facility do you use when using NHIS?

Type	Code	Type	Code
Private Hospital	1	Public Hospital	4
Private Clinic	2	Public Clinic	5
Private health centre	3	Public health centre	6
Please specify if others			

61. What kind of health care facility would you prefer when using NHIS?

Type	Code	Type	Code
Private Hospital	1	Public Hospital	4
Private Clinic	2	Public Clinic	5
Private health centre	3	Public health centre	6
Please specify if others			

Please indicate reason(s) why

……

……

62. Have the whole household been insured? A. Yes b. No

63. If no, which members are not?

……

64. If no, please state reason(s) for non-enrolment

……

……

..

65. Are you satisfied with the services provided by the NHIS? A. Yes b. No

66. If no, what kind of service(s) would you recommend are included or improved upon?

……

……

67. What kind of concern(s) do you have about your health and that of your household?

……

……

……

68. Do you have any comments and recommendation you will like to make?

……

……

……

……

……

APPENDIX B

DEPARTMENT OF GEOGRAPHY AND RESOURCE DEVELOPMENT, UNIVERSITY OF GHANA, LEGON

INTERVIEW GUIDE FOR HEALTH INSTITUTIONS

This interview guide is designed for a study on the utilisation of health services in the Obuasi municipality. This thesis is to be submitted to the University of Ghana, in partial fulfilment of the degree of Master of Philosophy in Geography and Resource Development. The answers provided are intended for academic purposes only and shall be treated confidential.

Section A: Bio data

1. Respondents: Health Administrators
2. Name of respondent:

   ……
3. Sex: ……..
4. Age: …….
5. Educational status: ……..
6. Name of health facility:

   ……
7. Type of health facility:

   …….

SECTION B: MORBIDITY AND MORTALITY

8. What are some of the most prevalent diseases reported at your facility?
9. By order of magnitude, which ones would you consider to be more prevalent?

10. Which age group mostly report with disease occurrence at your facility?

11. Which sex mostly report with disease occurrence at your facility?

12. What are some of the causes of death at your institution in the past three years?

13. Which age group is mostly affected by mortality?

14. Which sex is mostly affected by mortality?

15. Mortality statistics from 2010-2012

16.

17.

Type	2010	2011	2012	Total
Neonatal				
Infant				
Children				
Maternal				
Others				

18. Among the urban and rural communities or inhabitants, who is mostly affected?

SECTION C: SERVICE COVERAGE

19. Do you know the sphere of influence of your catchment area? (What is its range)

20. What do you think are some of the barriers to the patronage of your services?

21. How do these barriers affect the activities of your institution?

22. Who do you think bears the brunt of these barriers?

23. What form of mobile health services do you provide?

24. Do the activities of your institution extend to those in the rural areas?

25. Attendance and admissions from 2010-2012

	Frequency		
Attendance/ Admissions	2010	2011	2012
OPD attendance			
In-patient Admissions			

SECTION D: HEALTH SERVICE DELIVERY

26. What are the main aspects of health care services provided by this health facility that users appreciate or like?
    - What aspect do users dislike and how do they express their dis-satisfaction?
27. Do you provide specialist services? (What kind of specialised services)
28. Do you provide laboratory services? (what kind of services)
29. Do you engage in referrals? (How and what kinds of referral)
30. How would you describe the behaviour of your staff towards patients?
31. How would you describe the efficiency of your staff?

SECTION E: MODE OF HEALTH FINANCING

32. What are the accepted modes of payment for health services at this health facility?
33. Do you accept NHIS at this health facility?
34. Has NHIS helped or improved the provision of health care in this health facility?
    - How has it changed the activities or practices at this facility
    - How has it helped patients and improve utilisation of this health facility?
    - Does having NHIS coverage affect where a user goes for care or how they receive care at a facility?
35. What challenging issues have you encountered, if any regarding NHIS?
    - What kinds of issues or challenges occur at the facility level?
    - What about issues that are raised by patients-are there challenges related to enrolment, quality of services, coverage, restrictions?
36. How do you think these challenges could be resolved
37. Do you operate any kind of welfare scheme for the poor and vulnerable? (what scheme)

APPENDIX C

DEPARTMENT OF GEOGRAPHY AND RESOURCE DEVELOPMENT,

UNIVERSITY OF GHANA, LEGON

HOUSEHOLD INTERVIEW GUIDE

1. What are some of the biggest disease burden in this community?

- Can you tell me about the number one disease that affects people in this community?

2. What are some of the diseases that affect you most?

- How do you deal with this disease(s)?

3. What are the major causes of diseases in this community

- What are the major causes of your morbid status

- What are some environmental or social threats that affect this community and your health?

4. What are some of the factors that influence your choice and use of health facilities?

5. Has NHIS helped or improved you health status?

- How has it improved your use of health care services?

- Does enrolling onto the NHIS affect where you seek for health care?

6. What are some of the challenges you encounter when you access health care on the ticket of the NHIS?

- How can these challenges be addressed?