ACCESSIBILITY TO HEALTH CARE IN THE GA WEST MUNICIPAL AREA.

BY

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DECLARATION

I hereby declare that with the exception of references to works of other persons, which have been duly acknowledged, this work is the result of my own research and that it has neither in part nor in whole been presented elsewhere for another degree.

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DEDICATION

I dedicate this work to God the Father, Son and Holy Spirit.

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I thank God Almighty for his utmost care, protection, guidance and mercies that he bestowed on me in furtherance of my education. This has enabled me reach this far.

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ABSTRACT

The study set out to examine the distribution of health facilities in the Ga West Municipal Area. The research also examined factors that influence accessibility to health care in the study area

Both quantitative and qualitative data were used for the research. A total of three hundred and one (301) questionnaires were distributed to the heads of households in 6 randomly selected communities in the study area. Secondary data were obtained from documentary sources. Both descriptive and inferential statistics were used to analyze the data.

The findings revealed that health facilities are not adequately distributed, making accessibility difficult. The roads linking the inadequate health facilities are in bad shape. Most people have to travel several kilometers on deplorable roads before patronizing health care thereby reducing accessibility. This makes respondents to resort to self medication or adopt the "wait and see" attitude thus visiting health facilities mostly during emergencies by means of a hired taxi.

The critical factors that influence accessibility to health care are service costs, distance, waiting time and socio-demographic factors; sex and income.

The study concludes that some of the health facilities should be upgraded to a higher status. Poorly constructed roads should also be rehabilitated to reduce the travel time to health facilities.

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LIST OF ABBREVIATIONS

CERSGIS…….Centre for Remote Sensing and Geographic Information System.

CHPS .....Community-based Health Planning Services.

CSRPM.....Centre for Scientific Research into Plant Medicine.

DHMT.....District Health Management Team.

GHS.....Ghana Health Service.

GSS.....Ghana Statistical Service.

GWMA.....Ga West Municipal Area.

GWMHD.....Ga West Municipal Health Directorate.

KVIP.....Kumasi Ventilated Improved Pits.

MDG.....Millennium Development Goal.

MOH.....Ministry of Health.

NGO.....Non-Governmental Organisation.

NHIS.....National Insurance Scheme.

OPD.....Out Patient Department.

OPD……..Obstetrics and Gynaecology Department

PHC.....Primary Health Care.

PLWHAS.....People Living With HIV/AIDS.

SAP.....Structural Adjustment Programme.

UNESCO……..United Nations Educational Scientific and Cultural Organisation.

VCT.....Voluntary Counselling and Testing.

WHO.....World Health Organisation.

1 CHAPTER ONE

GENERAL INTRODUCTION

1.1. Introduction

Healthcare is a significant indicator of social development. The health of a population determines its capacity to produce, benefit from education, and to derive income from employment (UNESCO, 1980). Access to health facilities is an important component of the overall healthcare system and has a direct impact on the burden of disease that encumbers health conditions in many developing countries (Guagliardo, 2004). Improvements in access to health care pave way for advancement in the quality of people's life (Gulliford et al, 2013).

There are many definitions of access to health care, with most researchers recognizing that access is related to the timely use of services according to need (Campbell et al. 2000). Accessibility is the term geographers and planners use to describe the ease or difficulty of reaching service. Accessibility to health care is concerned with the ability of a population to obtain a specified set of health care services with the concept of "specific" having the potential to vary depending on the policy focus or impact of disease (Oliver & Mossialos, 2004). Accessibility is determined in part by geographic barriers, including distance, transportation costs, and travel time (Cromley and McLafferty, 2002). It is also influenced by many socio-economic and behavioural factors including age, gender, and income (Habib and Vaughan 1986; Curtis and Taket 1996; Müller et al. 1998; Buor 2003).

The need for health care varies in space and so the organization of provision necessarily has a spatial component. Neither population totals nor population

characteristics such as age, sex, income, occupation, fertility et cetera are uniform in space. In a like manner, the physical environment varies in characteristics from place to place and this invariably has implications for the pattern of demand for health care facilities. The spatial dimension is also important in utilization behaviour since accessibility is a major determinant of the use of health care facilities (Onokerhoraye, 1997).

Access to primary care services positively affects health systems and health in populations (Starfield et al. 2005). Unfortunately, health care, like many public services, is not equally accessible to all people (Joseph and Phillips, 1984), and limited physical access to primary health care continues to be a major impediment to achieving the goal of health care for all (Perry and Gesler, 2000).

Globally, equal access to health care is a great task for countries and international organizations responsible for health policies. A review of world health policies in the 1970s showed that more than half of the population of the globe did not have access to adequate health care (WHO, 1995). In developing countries, medical facilities are barely adequate to promote qualitative health care. There is generally the inability of these countries to provide adequate critical services including health care for their people, in view of their declining economies which are partly explained by uncontrolled population growth (Ehrlich and Ehrlich, 1970). Moreover, modern health facilities which are available to less than 50 percent of the population tend to be concentrated in the urban areas, to the detriment of the rural areas that have a greater part of the population (United Nations, 1996).

Despite the high concentration of health facilities in the urban centres, many urban dwellers especially the poor find it difficult to afford the basic health services due to their relatively low income earnings coupled with the high cost of medical care. It is imperative to realize, and as rightly noted by (Gilles and Lucas, 1973) that "adequate Health Services imply more than the provision of medical and health institutions, facilities and technical staff to perform the function. Their effectiveness depends on their being available and readily accessible to most, if not all members of the community, in forms which people are able to understand, accept and utilize.

In Africa, more than 50% of the population do not have access to modern health facilities (Kaseje, 2006). In addition access to health care is said to be very poor due to the region's lack of human resources for health service, inadequate health infrastructures, and poor referral facilities (WHO, 1995).

Ghana's health sector is confronted with several equity challenges ranging from financial and geographical access, resource allocation, funding of health services, access to basic services, service quality, utilisation, human resources and community involvement (Gyapong et al. 2001). In terms of financial access, the high cost of services and management of user charges are critical. The poor are less inclined to report illness and seek treatment than the rich. In part, this is influenced by perceptions of service quality, but it is more related to the impact of health costs on household expenditure relative to income. With regards to geographical access, about 40% of the population live more than 15 kilometers from a health facility and this clearly falls short of the Alma Mata Declaration (1978) of ensuring that all people live a maximum of 8 kilometers from a health facility (Gyapong et al. 2001).

A World Bank sector study reveals that in Ghana as a whole, only 25% of the population has access to health facilities (The World Bank, 1997:78). About 35% of rural households cover a distance of between 1.5 and 14.5 kilometers to access the nearest hospital, whilst over 20% cover over 48 kilometers to visit the nearest hospital (GSS, 1993). In its effort to improve access to health care, the government of Ghana developed a health policy which has its main aim the equitable distribution of health services to all the people of Ghana (GSS, 2002). It also adopted the Primary Health Care (PHC) as the strategy to achieve this (WHO, 1987). PHC addresses the main health problems in the community, providing promotive, preventive, curative and rehabilitative services.

In spite of the adoption of the PHC policy in 1978, its implementation has remained largely incomplete. While some governments in Ghana have implemented the necessary physical, institutional, and administrative frameworks required for the realization of the goal, "Health for All by the year 2000", others have paid lip service to the implementation of PHC (Anyinam, 1989).

1.2. Problem statement

Access to health care facilities has been identified as a major indicator of development. It has been a major goal of much health legislation and planning process in order to meet the health care need of the population (Ajala et al, 2005).

In order to achieve universal access to health care globally, the Millennium Development Goals (MDGs) were introduced by the United Nations in the year 2000 to improve health care delivery and accessibility (GSS, 2002). MDG 5; Reduce child mortality and MDG 6; Improve maternal health are targeted at improving health care

delivery and accessibility. Hence countries have made efforts to ensure that their populations have access to appropriate health care when needed and at an affordable cost. Furthermore, The Ghana Health Service implemented organizational and policy reforms (e.g. Free health services in the 1960s, "Cash and Carry" system in the 1990s, and the National Health Insurance Scheme in 2003) in the health sector to improve the quality of health care and also increase geographical and financial access (GHS, 2002). In spite of all these structural and policy reforms, access to health facilities remains low (Perschon, 2005). Preventable diseases like malaria, diarrhoea and typhoid still persist, and are leading causes of mortality. Above all, there are new diseases such as HIV/AIDS and a resurgence of tuberculosis (Gyapong *et al*, 2001). Each year, more than 11 million children are lost to preventable diseases as a result of inequalities in health and development (Gwatkin *et al*, 2000).

The major issue of the health service delivery in the Ga West Municipal Assembly is the problem of inadequate access to health care for the majority of the population. A significant number of the population live in scattered rural settlements covering about 80% of the land area of about 568.2 square kilometers (GWMA, 2012). The roads are terrible. A large proportion of the road networks are feeder roads. The conditions of most of these roads are poor, with majority being inaccessible during the rainy season. They are usually characterized by potholes and gullies. The poor nature of the roads brings in its wake high transport costs and long travel times. During emergencies, such as delivery cases, accident cases and comas after protracted diseases, one of the very few vehicles has to be hired to the nearest health centre at charges that are sometimes higher than the hospital fees to be charged. The stress of long distance travel, sometimes on foot or over rough roads in vehicles, and the cost

involved in long distance movements, could scare away rural illiterate people who are very much used to traditional medicine (GWMHD, 2012). The problem of accessibility could induce the use of self-medication and traditional medicine, with their attendant fatal health risks.

There has been a surge in the cost of medical care in recent times such that many people especially the poor find it difficult to afford the basic health services. The few government-owned health facilities such as Ga West Municipal Hospital and the Mayera-Faase community clinics are always choked with many patients waiting in long queues for long hours to see the doctor. Patients have no option because they cannot afford the high cost of services provided by the profit oriented private health facilities even though they are assured of prompt and quality services. Whiles the private services are increasingly abandoning the poor and declining areas, the under resourced public sector services are unable to meet dwindling demands of the urban poor (MOH, 2010).

Accessibility to healthcare varies across space because of uneven distribution of healthcare providers and consumers (spatial factors), and also varies among population groups because of their different socioeconomic and demographic characteristics (non-spatial factors). Accordingly, spatial access emphasizes the importance of geographic barriers (distance or time) between consumer and provider, whereas aspatial access stresses non-geographic barriers or facilitators such as social class, income, ethnicity, age, sex, etc. (Joseph and Phillips, 1984).

While many researchers have explored the importance of both spatial and non-spatial factors in analysing access to health care, often the two types of factors are studied

separately. For example, Khan (1992) and Luo and Wang (2003) focused on spatial access to healthcare; Carr-Hill et al. (1994) and Field (2000) emphasized non-spatial factors. In addition, much of the literature on health care access has also focused on the relationship between distance and utilization of health services. Stock (1983) examined the impact of distance on the utilization of health care facilities in Kano State, Nigeria. Ayeni et al. (1987) addressed problems of geographical accessibility of health care in rural areas of Nigeria. Nemet and Bailey (2000) explored the relationship between distance and the utilization of health care by a group of elderly residents in rural Vermont. Others have also concentrated on the relationship between poverty and access to health services (Peters et al. 2008).

However, little attention has been given to research to identify the composite effect of distance and other interrelated factors influencing access to health services. Successful integration of spatial and non-spatial factors is critical to better understand health care access and help make policies to address the problem of health care access in the study area. This research therefore examines how geographical and non-geographical factors interact to influence access to health care facilities in the Ga West Municipal Area.

1.3. Research Questions

The study was guided by the following research questions;

a. What is the distribution pattern of health facilities in the Ga West Municipal Area?

b. What is the pattern of accessibility to health care in the Ga West Municipal Area?

c. What factors influence accessibility to health care in the study area?

1.4. Research Objectives

The broad objective of this study is to analyse access to health facilities in the Ga West Municipal Area (GWMA). The specific objectives are to:

a. Examine the distribution pattern of health facilities in the Ga West Municipal Area.

b. Analyse the pattern of accessibility to health care in the Ga West Municipal Area.

c. Analyse the factors that influence accessibility to health care in the study area.

1.5. Hypotheses

The following hypotheses will be tested.

a. H_0: Health care facilities are evenly distributed in the Ga West Municipal Area.

   H_A: Health care facilities are not evenly distributed in the Ga West Municipal Area.

b. $H_{0:}$ There is no statistically significant correlation between distance and access to health care

   $H_{A:}$ There is a statistically significant correlation between distance and access to health care.

1.6. Justification of Study

Most developing countries face the problem of improving their health care delivery systems, but lack the necessary resources. Health facilities are often both geographically and soc-economically inaccessible to the majority of the rural population and the urban poor (Stock, 1985, Buor, 2002). Women and children, in particular, face the difficulty of reaching a source of care (Phillips, 1990), but the explosion of health care costs makes it increasingly difficult to improve geographical accessibility to services.

Attempts to extend care are frequently hampered by lack of financial resources and human expertise, and other barriers. It is imperative to conduct a comprehensive assessment of how both geographic and non spatial variables interact to influence access to health facilities in the urban regions of developing countries. This study will however unearth and bring to the fore these interactions. The findings will also add to the body of knowledge and assist policy makers in the decision making process as it seeks to unearth how access to health facilities could be improved.

1.7. Limitation

One of the major limitations of this study was the acquisition of data from some public institutions such as the Ga West Municipal Assembly and the Municipal health directorate. Some of the data needed for the research were not available.

Another constraint faced was language barrier where majority of the respondents could not comprehend and communicate in English and therefore decoding the information from English to the local language and vice-versa was left to interviewer.

This was time consuming as well. The financial burden was greatly felt since I had no sponsors.

2 CHAPTER TWO

LITERATURE REVIEW AND CONCEPTUAL FRAMEWORK

2.1. Introduction

This chapter consists of two broad sections; Literature review and conceptual framework. In section 2.2, an attempt is made to review existing literature relevant to the topic. The literature review begins with an analysis of the concept and dimensions of access. Spatial and Non-spatial variables that influence access to health care are discussed in detail. Section 2.4 however looks at the conceptual framework adopted for the study.

2.1.1. Concept of Access

Access is a multidimensional concept that describes people's ability to use health care services when and where they are needed (Aday and Anderson, 1981). It describes the relationship between attributes of service need and the characteristics of service delivery systems. The notion of accessibility extends beyond spatial accessibility to incorporate financial, informational and behavioural influences.

In most developing countries, health care implies much more than access to medical facilities (Phillips, 1999). A discussion of access to services should begin with distinctions between the following:

a. Physical (potential) accessibility and revealed accessibility (utilization);
b. Equity and equality of services; and
c. Quality and quantity of services.

In the first place, the definition of accessibility is rarely clear-cut. Accessibility may be considered a slippery notion, meaning in general terms, that something is 'get-at-able' (Moseley, 1979). It is imperative to distinguish between *locational accessibility* (a measure of proximity) and *effective accessibility*, dependent on having the ability, mobility and time to reach a service. In health care terms, the provision of a facility is considered to give more or less equal access to all 'potential' users. The word 'potential' is used because it is assumed that once a facility exists, it would be used.

The distinction between *equity* and *equality* of provision is complex but important. Equality of provision implies the arithmetic division of available facility resources equally among the population, possibly by a formula adjusted for demographic criteria such as local age structure. Equity, by contrast, implies justice in distribution, in which those who for some reason require more of a service will be provided more than their equal share (Smith, 1979). These persons or groups might then become targets for special provision because of their relatively high requirements. This involves the problem of how to define and measure needs, the solution to which has, for practical purpose, eluded medical and social scientists to date.

The distinction between quality and quantity of service is also particularly acute in many Third World countries. Phillips (1990) remarks that, in the Third World just because facilities are identified on paper, there is sometimes very little reason not to believe they exist at all or in fully-fledged from practice. Some countries, for example have planned and even built networks of primary medical units that are in theory staffed by doctors and nurses, and fully supplied with medicines and logistics and embedded in a referral hierarchy. This, he notes, is not so in most instances. In reality, however, relatively low trained field workers, who have no professional support,

medicines, and logistics, might staff a facility. They may not even have the opportunity to refer to more appropriate service, difficult cases or those beyond their skills. The 'quality' of service available, therefore, often does not equate with that which allegedly or quantitatively exist.

2.1.2. Dimensions of Access

Penchansky and Thomas (1981, p. 128) argue that "access is most frequently viewed as a concept that somehow relates to consumers' ability or willingness to enter into the health care system". Therefore, they define access as a concept representing the degree of "fit" between the clients and the health care system. This definition not only provides a broad definition of access, but also describes access as a multifaceted construct that balances features of the system of health care provision, the expectations and perceptions of consumers (both potential and actual), and the resources available to both. Access is viewed as the general concept which summarizes a set of more specific areas of fit between the patient and the health care system. Penchansky and Thomas (1981) categorized access as consisting of five dimensions which are as follows: Accessibility, Affordability, Acceptability, Accommodation and Availability

Accessibility refers to the physical distance or travel time from service delivery point to the user. It is the "friction of space" that is a function of the time and physical distance that must be traversed to get care. Thus it can be argued that accessibility is something besides the mere existence or availability of resources at any given time. Geographic access remains an important part of accessing health care. An inverse relationship between distance or travel time to health facilities and use of health services has been demonstrated as an essential barrier to access. Good roads, often a

rarity in the poor areas of developing countries, are required not only for people to visit health facilities but also for the easy distribution of drugs and other supplies to health facilities, for timely referrals in emergencies, and for better supervision of health workers.

Availability, the relationship of the volume and type of existing services (and resources) to the clients' volume and types of needs. It refers to the adequacy of the supply of physicians, dentists and other providers, and specialized programs and services such as mental health emergency care.

Accommodation refers to the health care system's responsiveness to consumer constraints and needs, as in wait times and response to service requests. It also looks at the relationship between the manner in which the supply resources are organized to accept clients (including appointment systems, hours of operation, walk-in facilities, and telephone services) and the clients' ability to accommodate to these factors and the clients' perception of their appropriateness.

Acceptability is the extent to which health care delivery meets consumer expectations. This dimension explores the relationship of clients' attitudes about personal and practice characteristics of providers to the actual characteristics of existing providers, as well as to provider attitudes about acceptable personal characteristics of clients.

Affordability simply refers to the cost of health care**.** This is the relationship of prices of services and providers' insurance or deposit requirements to the clients' income, ability to pay, and existing health insurance.

Of these five dimensions, spatial considerations figure most prominently in the first two (i.e. availability and accessibility). .Availability refers to the number of health care service providers from which a client can choose. Accessibility is travel impedance (distance, travel time or cost) between patient location and health care service providers. These two dimensions, availability and accessibility, are spatial in nature. They address the adequacy of the supply of health care providers inside a region and travel impedance to health care providers outside the region, respectively. The last three dimensions are essentially non-spatial. They address health care financing arrangements and access barriers created by socio-economic and cultural factors (Guagliardo, 2004). Thus, spatial access emphasizes the importance of spatial separation between supply and demand of health care services as a barrier or a facilitator, whereas non-spatial access stresses non-geographic barriers of facilitators (Joseph and Phillips, 1984).

Spatial access refers to geographic or physical access and is a function of user characteristics pertaining to geographic factors e.g. distance and travel time, the number of health care services providers from which a client can choose within a certain area. Non-spatial access refers to socioeconomic access and is achieved when user characteristics (e.g., demographics such as income, age, gender, ethnicity or behaviour) facilitate access;

Physical access to health care services has been and continues to be a very important area of research for health geographers (Rosenberg 1983; Joseph and Phillips 1984; Haynes 2003; Oppong and Hodgson 1994). Joseph and Phillips (1984) examined accessibility to health care services from both spatial theoretical perspectives. Furthermore, one of the underlying assumptions of physical access to services is that

people living in regions with more services have greater access to health care (Rosenberg and Hanlon 1996).

2.2. Spatial Factors Influencing Access to Health Care.

Access is the relationship between the location of supply and the location of clients, taking account of client transportation resources and travel time, distance and cost (Penchansky and Thomas, 1981). Geogaphic barriers, including distance, transportation cost and travel time determine accessibility to health care (Cropmley and McLafferty, 2002). These barriers are also spatial in nature. For the purpose of this research, spatial variables: physical distance, travel time, service and transport cost will be examined.

2.2.1. The Influence of Physical Distance on Access to Health Care.

Geographic accessibility, the distance that must be travelled in order to use health facility, may present an important barrier of access to health services. Studies in developing countries have presented strong evidence that physical proximity to health service plays an important role in the use of primary health care. In Yemen, Al-Taiar et al. (2010) have demonstrated that driving distance and driving time are important predictors for developing severe malaria in comparison to mild malaria. It is hypothesized that long distance can be a significant obstacle to reaching health facilities, and a disincentive even to trying to seek care.

According to Meade et al. (1984), physical proximity is an important factor in accessibility and utilization of health care resources. Closeness to a particular doctor or facility is one of the main reasons for using that resource. The importance of distance seems obvious, but unfortunately, it has often been overlooked in planning

decisions. When the nearest hospital in the community closes, people will reluctantly have to travel longer distances for the same medical services. The provider-consumer link weakens as distance increases, following a distance decay curve.

Distance decay is 'where there is a decreasing rate of service use with increasing distance from the source of health care'. Studies have shown that the closer the service the more likely it will be used (Stock, 1983, Jolly and King, 1996; Buor, 2002). Rural and remote populations are therefore affected by distance decay. Distance decay is a reflection of utilization rates which cannot be taken as a direct proxy for health care need. Distance decay is a cause for concern since it leads to delayed intervention and treatment and hence poorer health outcomes become more likely.

Distance decay or friction of distance, is also useful in determining central place hierarchies and functional regionalization. Meade et al., (1988) argue that if the friction of distance is high for a certain level of health care service, then this service should be decentralized and locally accessible. This usually applies to low-order services such as first aid. High-order services, like the treatment of rare diseases or heart transplants, are not sensitive to distance. People are willing to travel farther for these services, so resources can be centralized. Friction of distance can establish threshold distances for levels of service. For example, a distance decay curve shows that people in low-income countries will normally walk up to 3 kilometers (1.86 miles) to a primary health care clinic. A low-level clinic beyond this threshold has limited usefulness.

Some factors interfere with distance-decay. They include socio-economic status (Bailey and Phillips, 1990), quality of care provider, and the nature of illness. In Nigeria for instance people are willing to travel farther for more specialized services, or better quality care (Stock, 1983). The quality of care provided and the type of services offered, like specialist services can alter distance decay (Smith, 1977). Distance decay may also be altered by the urgency of the service.

2.2.2. The Influence of Time on Access to Health Care.

The influence of time on utilization can be examined in three perspectives namely travel time, waiting time at the hospital, and waiting time with respect to appointments (Buor, 2004). In developing countries, travel time and waiting time at the facility are more important in examining utilization. However, waiting time for appointments is not a regular feature of the health system in developing countries. Obviously, a longer distance would involve higher travel time hence a higher transport cost. The bad roads in the rural areas of most developed countries increases travel time to health facilities. The situation is worsened during the rainy season when the poor quality roads characterized with potholes and gullies become inaccessible. Langford et al. (2006) saw time distance as a major obstacle to hospital attendance in developed countries. Their investigations revealed that, the temporal dimension; (the distance between home and hospital measured in terms of the time it takes to get to the hospital) is the most significant determinant of the quality of location. In their study, time was linked up with distance in the utilization of health services.

Harmon et al (2001) also concludes in a study of the effects of waiting time on utilization that the length of time the patient spends in waiting at a physician's office

is an important time price that determines utilization levels. Most people are not willing to spend long hours waiting to see the doctor. Aday and Anderson (1974) note that the negative effect of time on utilization is greater for rural farm residents because they have been found to have the highest traits to see a physician. This may be based on their low socio-economic status.

Buor, (2004) concludes that one basic fact that researchers fail to unearth is that, in developing countries, time as a barrier to utilization, would be influenced by the season of the year, and the nature of patient's business activities. During the farming season, it would be expected that the rural farmers would not like to waste much time travelling long distances for health care, whilst a very busy entrepreneur may not sacrifice too much time for health care during peak seasons like Christmas. He may prefer using intervening alternatives.

2.2.3. The Influence of Service Cost on Access to Health Care.

The financial cost of seeking health care has been shown in observational studies to be a major barrier to access to formal health care, especially among the poorest. Facilitating financial access to treatment is potentially one of the factors most amenable to intervention (Ansah et al, 2009). Cost of service is a very important factor when it comes to health care access. Delanyo, et al. (1990) identified high cost of services, among others, as a major cause of user dissatisfaction.

In the Republic of Congo, the introduction of user charges led to a steep drop in the utilization of health services (Turshen, 1999). In Ghana, the introduction of the Hospital Fee Regulation of 1985, under the Structural Adjustment Programme (SAP), led to a decline in hospital use in the country as a whole Loewenson, R. (1993).

The introduction of the National Health Insurance Scheme (NHIS) on the other hand has reduced the cost of health services and therefore increased accessibility to health services in Ghana.

2.2.4. The Influence of Transport Cost on Access to Health Care.

Another spatial factor worth considering is the transport cost to access health care. Transport cost closely interrelates with geographical distance. It has a positive relationship with the travel time and distance covered to access health care. In developing countries, transport costs rise during the rainy season due to the bad nature of our roads. During emergencies, taxis are hired to convey a sick person to the hospital on time. This increases the transport cost substantially.

2.3. Non-Spatial Factors Influencing Accessibility To Health Care

Accessibility to health care is not only influenced by spatial factors such as physical distance. It is also influenced by many socio-economic and demographic factors including age, gender, income and education. This section concentrates on the non-spatial factors that influence access to health care. Income, gender and education are the main factors that will be considered.

2.3.1. The Influence Of Income On Access To Health care

Economic status is a potential predictor of medical care use. Researchers maintain that a lower household income is most certainly a significant barrier to obtaining health care services (Arcury et al., 2005). Higher income earners are certainly more likely to use specialist services that are more expensive than lower income earners because the former can afford.

The inadequacy and unavailability of income serves as great obstacles and influence the choice of health care facilities by people even though provided as a public good. This is mostly a character of the poor who do not earn enough to enable them save for unforeseen contingencies such as health related issues. The World Bank expresses grief that "the plight of the poor and vulnerable remains desperate with limited access to health, education, good drinking water and severe constraints on their ability to produce and earn enough to meet their basic needs" (Bentsi - Enchill, 1988). Habib and Vaughan (1986) in a household survey in rural Iraq found that the use of higher level government health services and private clinics did increase sustainability with increasing income.

2.3.2. The Influence of Education on Access to Health Care.

Levels of educational attainment are associated with differences in health care services utilization. Patients with higher levels of educational attainment are found to be more likely to visit health care service providers than those who had lower levels of educational attainment (Arcury et al. 2005).

According to Leon Feinstein et al. (2006), education is strongly linked to health and to determinants of health such as behaviours, risky contexts and preventative service use. It is widely believed that those with more years of schooling tend to have better health and well-being and healthier behaviours. Education and demand for health care are in general positively related (Grossman 1972). The educated are more cautious and conscious of their health, and tend to use health services more. Illiterate persons with high income are likely to use health facilities less than the educated in the same income category.

In their research on "equity, access to health care services and expenditures on health in Nicaragua", Angel-Urdinola et al., (2008) found out that education level of household head and spouse, size of the household, region, level of income, and gender are significant factors of preventive care. Individuals living in a household with a head who completed primary and secondary education are 8 and 2 percent more likely respectively to receive preventive care than individuals living in a household with a head with no education. Moreover, individuals living in a household with a spouse who completed primary, secondary and tertiary education have a 12, 16 and 23 percent higher probability respectively to receive preventive care than individuals living with a spouse with no education.

The educational level of women has a great impact in determining the use of health facilities. It is well established that educated and working mothers are more likely than uneducated and non working mothers to take advantage of modern health care services (Caldwell et al., 1983; Mosley and Chen, 1984; Cleland and van Ginneken, 1988; Mencher, 1988). Educated and working women are considered to have greater awareness of the existence and value of preventive health care services.

The role of the mother's education in child survivorship has been made evident by several literatures on health in developing countries. In a study of the differential effect of mother's education on mortality of boys and girls in India, Bourne and Walker (1991) found that improved mother's education reduced mortality at all ages below five years for both sexes. In sub-Saharan Africa, whereas the population of childhood deaths of mothers with 1 to 3 years of formal education is 0.92, it is 0.77 for those with 4 to 6 years of schooling; and for those with 7+ years of schooling, it is 0.56 (Hobcraft, 1993). This exhibits the direct relationship between mothers' educational

level and child survivorship in developing countries. The role of maternal education in childhood survival could be seen in their use of prenatal and child health care services. In Thailand, it was discovered that secondary education was the most consistent predictor of prenatal care use (Raphupahy, 1996); whereas in Vietnam, Swanson et al. (1993) discovered that woman's educational level and total number of living children were the most significant predictors of prenatal care utilization.

The education of mothers in Ghana is a determinant of child immunization. Whereas 42.2 per cent of mothers without formal education immunized their children against tuberculosis, DPT, polio, and measles between 1989 and 1993, 86.7 percent of mothers with secondary education and above did (GSS, 1994: p.101).

2.3.3. The Influence of Gender on Access to Health Care.

High attendance to health facilities have been attributed to women as compared to their male counterparts. Women have a higher morbidity than men (Anderson and Anderson, 1972; Kohn and White, 1976; Cleary et al.. 1982; Verbrugge, 1979). They are therefore more likely to seek medical attention than men. (Buor, 2002)

The nature and biological make up of women give them up in health facilities for frequent checkups (Leon Feinstein et al, 2006). Studies have revealed that women especially in the reproductive age group utilise health services more than men. (Nadraj et al., 1998; Cashin et al., 2002). Cashin et al. (2002) found that the principal users of primary health care are women of reproductive age and children under five. Women of reproductive age were found to consume approximately 1.5 times the average per capita primary health care resources, while men in the same age group consume approximately one-half of the average.

It is worth noting that females do not always have the opportunity to visit health facilities as has been widely publicized. Even though females show a weaker health status, and so have a greater need for health services, they relatively utilize health services less. (Buor, 2002). According to Buor (2004), women are saddled with domestic services such that, the time to attend a health facility to receive health care is limited, unless emergencies arise. They have to take care of the children and ensure that food, water, fuel wood and other needs of the household are available. The time to spare to receive health care is thus a lot of precious time lost, except under cases of emergency.

2.4. Conceptual Framework

A conceptual framework broadly presents an understanding of the phenomenon of interest, and reflects the assumptions and philosophic views of the model's designer (Polit & Beck, 2008). Like a model, it provides a schematic representation of certain relationships among phenomena, and it uses symbols or diagrams to represent an idea" (Brink et al, 2006).

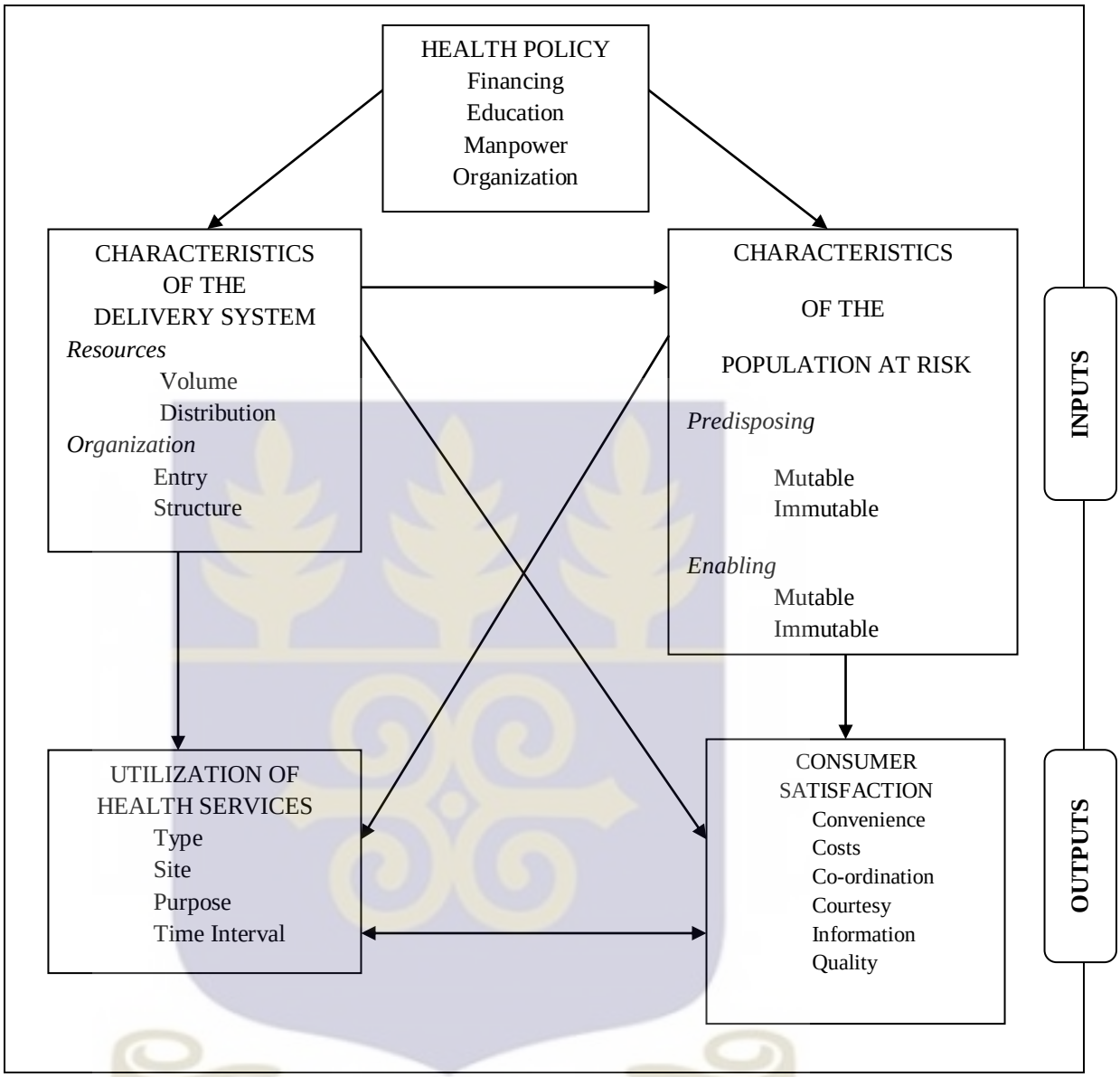
There have been quantitative models and frameworks on access and utilisation. Some of the quantitative models are gravity models by Shannon et al. (1969), Morril and Earickson(1968), Kon-Kyun (1972), and Pyle (1974). These mathematical models cannot be applied to the developing countries where data are not available and where they are available, they are not reliable. There is also the problem of determining the values of certain parameters that work in the model.

The explanatory model of health service utilisation that has been the basis of most works on health care access is Andersen and Newman's (1973) predisposing, enabling

and need model. Andersen and Newman had three main groups of variables to define their utilisation model namely predisposing, enabling and need. This model was initially structured to assess the degree of equity in a health care system, and takes into account social and individual determinants. The original idea was that in developed countries, need would be predominant and that the influence of predisposing and enabling variables would be signs of lack of equity. In developing countries, in view of socio-economic problems, predisposing and enabling factors serve as barriers to utilisation. However, the model emphasizes the characteristics of the population at risk, neglecting those of the health provider. The model also fails to recognize the role of perception of the efficacy of the health system and of what constitutes illness, as impeding factors of need. Health beliefs are also not factored into the analysis of need in predominantly traditional societies.

The framework for the study of access to health services by Aday and Andersen (1974) provides the organizing model for this research. The model views health policy as designed to affect characteristics of the health care delivery system and of the population at risk in order to bring about changes in the utilization of health care services and in the satisfaction of consumers with those services.

Figure 2.1 A Framework for the study of Access to Health Services



Source: Adapted from Aday and Anderson (1974)

Broadly, the health policy factors of financing, education, manpower, and organization directly affect both the characteristics of the delivery system, and the population at risk. These may be considered "inputs" to the health service. This suits the situation in the developing countries like Ghana where the central government controls health decisions. Ghana as a country has experienced a lot of health reforms due to the various health policies implemented over the years. Some of these health

policies include Free health services, Cash and Carry system and National Health Insurance Scheme.

The characteristics of the delivery system affect the characteristics of the population at risk and both output factors of utilization of health services and consumer satisfaction. The resources including its volume and distribution as well as its organization are important ingredients of the delivery system.

The "outputs" dependent on the inputs, are utilization of a given type, level and purpose, and the resulting consumer satisfaction with costs, quality, convenience, co-ordination, courtesy and information. The utilization of health services and consumer satisfaction depend on the availability of the services in need, their quality, and accessibility to the user population. Utilization of health services is achieved as a result of the interaction between the input and output components of the framework. The framework might also be valuable in analyzing the use of health services in any given location.

Various socio-demographic factors such as race, gender, educational attainment and occupation measure individual's biological and social structural traits. The nature and biological make up of women give them up in health facilities for frequent checkups (Leon Feinstein et al, 2006). Whereas high attendance to health facilities have been attributed to women as compared to their male counterparts, the educated and those of high socio-economic status are found to utilise health services more than the uneducated and those of low social class (Wyss et al, 1996). Individual health beliefs and attitudes are also thought to contribute to a person's predisposition for health care utilization.

Income and service cost facilitate individual's use of health care services. The ability to pay for health care is a major barrier that affects health care access. Poor urban dwellers who earn little are not able to afford medical care even though there is a proliferation of health facilities particularly private health facilities in the urban centres. Low income is a strong barrier to the utilisation of modern primary medical facilities, even when publicly provided (Chernickovsky and Meesook 1986).

In Third World countries, the distinction between discretionary (self- determined) and physician controlled utilization may be valuable when preventive or promotive services are being introduced. Doctors are more likely to be influenced by their professional training and opinions as to the value of their treatment, whereas patients may well be sensitive to financial, organizational, spatial and cultural impediments to utilization. It is essential to recognize the relative importance of the various barriers to utilization if effective health services are delivered.

A number of the assumptions of this model require reappraisal and perhaps modification for application in certain Third World countries. The most important variables that affect utilization and, therefore require careful assessment, relate to the effects of availability (accessibility) and the frequent existence of pluralistic health care systems. According to Joseph and Phillips (1984), the model provides a type of blueprint for research on individual national systems.

3 CHAPTER THREE

HEALTH DELIVERY SYSTEM IN GHANA

3.1. Introduction

This chapter provides an overview of health service delivery in Ghana with emphasis on the structural arrangement of the health delivery system. The structure of the health system is classified at five (5) levels of services provided to patients and consists of National, Regional, District, Sub-district and Community Health Systems. The chapter also gives a brief overview of the Primary Health Care (PHC) programme which forms the foundation of the Ghana Health System. Primary Health Care is based on a three- tier delivery system comprising community, health institution and district levels.

The chapter concludes with a discussion on the various reform policies implemented in the health sector. Notable ones include the Free health care system implemented between the early 1950s and late 1960s, the "User -Fee" (Cash and Carry system) of the early 1980s and the National Health Insurance Scheme (NHIS), the most recent of all the health policies passed in 2003.

3.2. Health Services in Ghana

In 1996, an act of Parliament established the Ghana Health Service (GHS) to have direct responsibility for managing health services in the country. The Ghana Health Service (GHS) is made up of health personnel in the employment of the Ministry of Health (MOH), any public officer other than health personnel in the MOH who might

have been seconded or transferred to the service and any other person who might have been employed for the services.

The objectives of the GHS are to implement approved national policies for health delivery in the country, increase access to improved health services and manage prudently resources available for provision of health services.

3.3. Structure of The Health Delivery System in Ghana

The health of the people of Ghana is the responsibility of the Ministry of Health (MOH) and the Ghana Health Service (GHS). The MOH has the overall responsibility for the overall policy and monitoring functions while GHS and the teaching hospitals are responsible for health service delivery (MOH, 2000).

The structure of the health system as classified by level of services that is provided to patients consists of National, Regional, District, Sub-district and Community Health Systems. At the Apex of the structure are the national referral hospitals; Korle-Bu Teaching Hospital (KBTH) and Komfo Anokye Teaching Hospital (KATH), followed by regional hospitals that are located in the ten (10) regional capitals of the country. Then comes the district hospitals in the district capitals, followed by sub-district health posts/centres and lastly, the community health facilities.

Currently, KBTH has about 1600 beds while KATH is a 1000 bed hospital. These figures are about three times and two times respectively the number postulated by Easmon (1968) who said a national hospital should be at least 500 beds, in addition to cardiothoracic, neurological and radiotherapy units (GHS, 2010).

At the regional level, curative services are delivered at the regional hospitals and public health services are delivered by the District Health Management Team (DHMT), as well as the public health division of the regional hospital. The Regional Health Administration (RHA) provides supervision and management support to the districts and sub-districts within each region (GSS 2002).

At the district level, curative services are provided by district hospitals, many of which are mission based. Public health services are delivered by the DHMT and the public health unit of the district hospitals. The District Health Administration (DHA) provides supervision and management support to the sub-districts.

At the sub-district level, both preventive and curative services are provided by the health centres, as well as outreach services to the communities within their catchment areas. Basic preventive and curative services for minor ailments are being addressed at the community and household level with the introduction of the Community-based Health Planning Services (CHPS). The role played by the traditional birth attendants (TBAs) and the traditional healers is also receiving national recognition.

The health system of Ghana is built on the Primary Health Care (PHC) programme which has the district as the main focus, including outreach programmes to deprived areas. PHC is defined as essential health care made universally accessible to individuals and families in the community by means acceptable to them, through their full participation at a cost that the community and country can afford. It forms an integral part of the county's health system of which it is the nucleus and of the overall social and economic development in the community. (WHO, 1978). Primary health

care is based on a three-tier delivery system comprising community, health institution and district level.

The Community Level (Level A) is where trained community members and community health nurses screen patients and offer basic treatment and health education. A community clinic or village health unit is usually a single room identified by the community for the purposes of treating simple cases and providing health education and promoting health activities. It is staffed by three types of community health workers: a traditional birth attendant, a community health worker for basic curative services, and a village development worker. It is anticipated that there will be one such team covering 12km, and there will be 300-500 people in each district.

The Health Institution Level (Level B) is the first referral level for the community health workers. A team comprises a medical assistant, a community health nurse/midwife, a health inspection assistant, and a senior field technician for communicable disease control. It is estimated that one health institution will cover a catchment area of 8km.

The District Level (Level C) is the management level of the entire system and serves an estimated population of 100,000 to 200,000 people. The district which has a hospital where doctors and nurses manage referral cases offer tertiary care. The team is responsible for the planning, implementation and evaluation of health services for the entire district. The district health service is managed by the District Health Management Team (DHMT) and supported by regional hospitals, which manage

cases referred from the districts, and finally, there are national referral hospitals, Korle-Bu and Komfo Anokye Teaching Hospitals.

District hospitals are headed by medical officers and provide out-patient and in-patient care. The sub-district health centre/post is manned by a medical assistant and is the first referral point at the village level providing antenatal care, routine immunization, and treatment of illness.

The health system incorporates services provided by many partners, the private health care services, mission facilities, the parastatal health system and clinics for private companies. Additionally, the traditional and herbal centres also provide services to many Ghanaians. The Centre for Scientific Research into Plant Medicine (CSRPM) at Mampong Akwapim also manages diseases in the country combining the use of plant medicine and modern medicine.

Information from all the facilities is expected to be reported to the Centre for Health Information Management (CHIM) to assist in monitoring the health of the people of Ghana. Some information on certain diseases such as tuberculosis, HIV/AIDS, buruli ulcer, and guinea worm, are also routed to the specific programme managers within the public sector.

The DHMT is expected to liaise with personnel of other ministries such as Agriculture, Social Welfare, Education, Community Development, and the Ghana Water Company Ltd.

3.4. Reforms in The Health Sector

The health care system in Ghana is confronted with the formidable task of improving and guaranteeing the health and well-being of the Ghanaian people. The health system has the responsibility of combating illness associated with poverty and lack of education; at the same time, it has to deal with a growing population, inadequate funding and resources, and an increasing burden on the health care system due to the HIV/AIDS epidemic.

The health sector has seen many changes during the past decades. Under the first republic, between early 1950s and late 1960s, the country enjoyed free public services such as education, health and other social services. There was no direct out of pocket payment at public health facilities in Ghana at independence. Healthcare was financed entirely through government tax revenue (Senah, 1989).

By 1970, however, the sustainability of "free" healthcare had become problematic as a result of economic downturns. The early 1980s witnessed even worse and unsustainable government's share in healthcare expenditure in Ghana as a result of serious economic crisis. In the midst of this crisis, the Provisional National Defence Council (PNDC), introduced surcharges on the delivery of imported drugs and hospital equipment in 1983 (Ibid). For instance, government expenditure on the health sector had dropped from 6.45% of the budget and 0.95% of gross domestic product (GDP) in 1980, to 4.3% and0.35% respectively in 1983 (Gyapong et al, 2001). The effect of such low spending on health care led to a significant reduction in the capacity to produce and import drugs and consumables.

In 1985 the government introduced the user fees for all medical conditions except certain specified communicable diseases. The exemption policy under the user fees system was badly implemented that those who were supposed to enjoy it never did, in practice. A guideline for implementation was not provided and no conscious system was designed to prevent possible financial leakages. As a result, the standard of healthcare provision fell drastically resulting from acute shortage of medicine in all public health facilities. More importantly, the introduction of user fees resulted in the first observed decline in utilization of health services in the country. (Ibid)

In spite of this, the government went ahead to institute full cost recovery for drugs as a way of generating revenue to address the shortage of drugs. The payment mechanism put in place was termed Cash and Carry System (C.C.S). The system required patients to pay for drugs and some medical consumables, as and when they visit the hospital, while the sate bore all other costs including consultation, salaries, and incentives for doctors, nurses and other health care workers in state hospitals (Ibid). 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.

To mitigate this problem, the government introduced an exemption policy covering certain categories of people. These included refugees, the poor, children under 5 years, pregnant women, the disabled, and elderly aged 70 years and above (NHIA, 2010). Despite the exemptions, access to and use of health facilities became low and declining, particularly since a shift some 20 years ago from universal accessible National Health Service to the introduction of the user fees Ziersch (2005).

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. 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. 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.

In the run up to the implementation of the health insurance scheme in Ghana, 80% of health care financing in the public sector was through tax revenue and donor funds; the remaining 20% was from internally generated funds through the cash and carry system. The fact that health insurance is to replace the 'Cash and Carry' system of health care financing does not mean that tax revenue would not continue to form part of the overall health sector financing strategy. It is worth noting that health insurance does not abolish cost recovery but it replaces direct out-of-pocket payment at the point of service (Mahamud et al, 2010). The scheme decreed that everyone above eighteen years is supposed to join any of the three type of health insurance.

In general, financial access which the NHIS is supposed to provide is enhanced. Over 50% of the people of Ghana have registered with the NHIS to enjoy free health care. It is worth noting that despite increased access to health care as a result of the inception of the NHIS and the removal of financial barriers, the NHIS has not fully achieved its objective. There are some services which are not covered by the scheme e.g. Anti-retroviral drugs for HIV/AIDS patients, organ transplants, angiography,

heart and brain surgery. The Scheme must however be reengineered to cover these services as well. There are also reported cases of abuses of the scheme by some members and service providers.

4 CHAPTER FOUR

BACKGROUND OF STUDY AREA AND METHODOLOGY

4.1. Introduction

This chapter consists of two main sections. Section 4.2 presents the background of the study in its geographic and economic context. Section 4.3 examines the methodological and analytical approaches of the research.

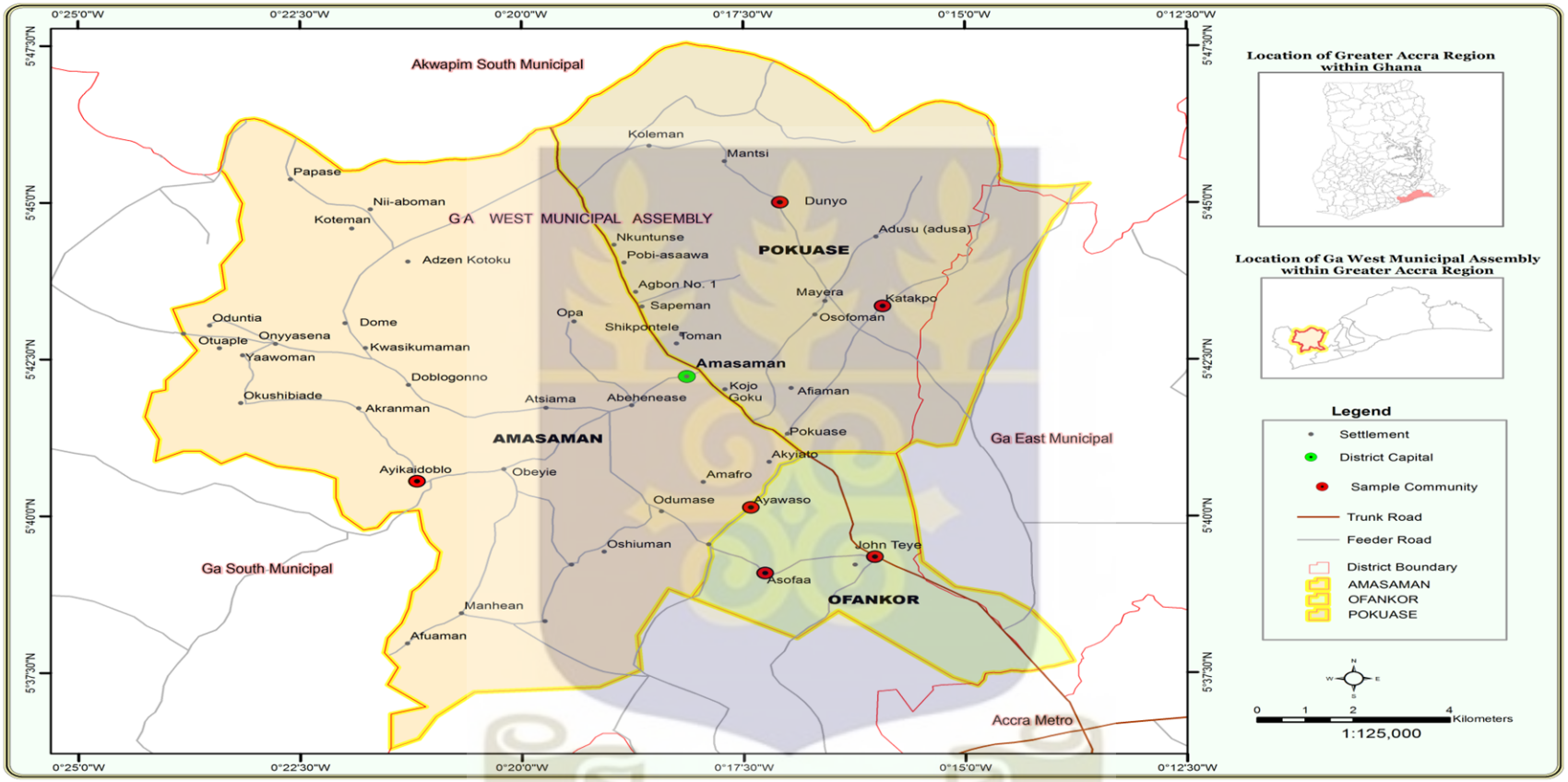
4.2. Background of the Study Area

4.2.1. Location and Size

The Ga West Municipality lies within latitude 5°48' North, 5°39 North and longitude 0°12 west and 0 °22 West. It shares common boundaries with Ga East and Accra Metropolitan Assembly to the East, Akuapem South to the North and Ga South to the south and West. It occupies a land area of approximately 305.4 sq km with about 193 communities. Both Ga East and Ga South were created out of the then Ga District now Ga West Municipal Assembly. (GWMA, 2012)

For administrative purposes, and to facilitate health service delivery, the district has been organized under three health sub districts, namely: Pokuase, Ofankor and Amasaman as shown in Fig. 4.1. The Municipal capital is located at Amasaman.

Figure 4.1 Map of the Study Area: Ga West Municipal Area



Source: CERGIS, 2014

4.2.2. Demographic Characteristics

The projected population of Ga West Municipality for the year 2010 is 217,091 with a growth rate of 3.4%. The growth rate is as a result of the closeness of the municipality to the capital city Accra where there is a lot of inflow of migrant workers. The Female population represents 49.9% of the total population whilst male population is 50.1% (GWMA, 2012).

The population is mainly concentrated along the peri-urban areas of the district particularly on the border with the Accra Metropolitan Assembly and Ga East District Assembly. The urban population of 236,709 inhabitants constitute 67.8% with the remaining 112,217 which is 18.9% residing in the rural portion of the district. The age structure is typical of less developed economies, which are characterized by large proportion of children (under 15 years) and a small proportion of elderly persons (over 64 years). The proportion of the population under 15years in 2000 (34.8%) is a reflection of high fertility while the proportion of the elderly which is 3.0% is also a reflection of low life expectancy. (GWMA, 2012)

An important observation is the relatively fast growth in the size of some localities adjoining the Accra Metropolitan Area such as Ofankor, Pokuase and Amasaman which were rural in 1984, but have now attained urban status, mainly as a result of the spill over of the growth of the AMA into localities in the surrounding Districts. Thus, the Municipality remains predominantly urban.

The Municipality has a population density of 491 persons per sq. km, which is much higher than the national density 79.3 and a lower than that of Greater Accra Region 895.5 per sq. km. Hence, there is great pressure on land resource. The population is

however concentrated in areas like Amasaman Pokuase and Ofankor , which happen to be areas with many economic activities as well as social infrastructural facilities.

4.2.3. Ethnicity and Religion

The predominant ethnic group in the Municipality is the Akan (44.3%). This is followed by the Ewe (25.7%) and the Ga-Dangme (19.1%). This is significant because even though the Municipal Assembly is part of the Greater Accra Region, migrant groups (Akan and Ewe) out-number the indigenous group (Ga-Dangme). This situation reflects the fact that the area attracts the overflow of migrant population in the Accra Metropolitan Area. In terms of religious affiliations, Christianity dominates, followed by Islam and Traditional Religion.

4.2.4. The Local Economy

Agriculture, industry and commerce are the three major economic sectors in the district. Agriculture supports about 55 percent of the economically active population in the district directly or indirectly through farming, livestock development and distribution of farm produce and provision of services to the sector. About 95% of the farmers are small holders with 5% being large-scale holders. Approximately 70% of those in the rural areas depend on agriculture and agricultural related activities for their livelihood. Commercial holdings are mainly into non-traditional export crops such as pineapple, chilli peppers, pawpaw and some Asian vegetables such as tinda and marrow (GWMA, 2012)

Productivity in the district is rather low due to factors like high illiteracy rate, poor soil conservation and improvement management skills, low capital, and high cost of

inputs, high incidence of pests and diseases, high post harvest losses, persistent use of traditional farming methods, and over dependence on rain-fed agriculture.

Generally, the GWMA has a great deal of opportunities for both private investment and joint ventureship with the public sector. This is predicated by the enabling factors for development coupled with the infrastructure set-up and the district's proximity to the nation's capital and the seaport at Tema. The major agricultural activities are crop production, fisheries and livestock development. Among the wide range of vegetables produced in the districts are tomatoes, pepper, beans and okro. There are sizeable pineapple farms around Amasaman, the district capital, and Pokuase. Majority of the pineapples produced are for the export market.

The suitability of the vegetation and the soil types greatly enhances the large-scale production of these non-traditional crops, and the District Assembly actively encourages investments into this sector, which has very rich potential. The district is also noted for the production of food crops such as cassava, maize, yam, cocoyam and plantain. The production of cash crops such as palm nut, coconut, cashew nut, pawpaw and watermelon is also widespread. These products have the potential for export and processing.

The climatic condition of the district highly favours the production of livestock such as cattle, sheep, pigs and poultry. The viability of the poultry industry in particular is mostly due to the existence of the nearby large urban market and easy access to young chicks, poultry feed, drugs and vaccines. The agriculture sector has not seen growth within the past few years in spite of several government initiatives aimed at facilitating the growth of the sector. This has basically been caused by the loss of

farmlands to sand winners as well as growth in estate development and acquisition of land for private housing projects. It has been observed that incomes accrued from lease of lands to private and estate developers are generally higher than for agricultural purposes hence, the preference of landowners to lease out lands for purposes other than agriculture. (GWMA, 2012).

The land issue notwithstanding, the Ga West District lies in the catchment area of the President's Special Initiative for cassava for the production of industrial starch. The Roots and Tuber Improvement programme which has tremendous government support and funding as well as the Export Development and Investment Fund, that can be accessed by pineapple producers and exporters alike, provide good opportunities for local farmers. The tremendous market opportunities for these agricultural products present a big challenge to the Assembly to focus on creating the enabling environment as well as supporting agriculture-based enterprises to create jobs for the unemployed and reduce poverty among the people.

The industrial sector has seen some remarkable growth in the past few years. The establishment of manufacturing companies such as Aburaaba Mineral water, Voltic Mineral Water, a number of aluminium companies such as Rocksters and Instyle as well as the improved performance and reactivation of existing companies such as Isada Brick and Tile factory, provide an ample indication of growth of the sector. Moreover, the widespread mining and quarrying of large deposits of sand, stone, clay and laterite materials by both large and small scale operators such as Construction Pioneers and Sonitra as well as operatives of the Sand and Stone Winners Association has also contributed to the growth of the construction industry.

The commercial sector engages the largest working population of the district. A wide range of commodities comprising mainly of agricultural produce and industrial goods dominate this sector. The major marketing centres are Achimota and Dome. Even though some modern infrastructure have been provided at these areas, a lot still needs to be done to decongest the areas. The District also boasts of a number of operational cold storage facilities and commercial warehouses. Among the stores serving the local communities, the export market and for the storage of fruits and vegetables are Sotrec, located at Mallam, which deals in meat products and others located in Achimota.

A number of economic and financial services and other infrastructure facilities exist whilst others are being developed to serve as catalyst for the rapid development or the district. These include telecommunication and banking facilities. There are also a growing number of fuel filling stations being established in the district. The major fuel service stations or oil marketing companies which have their presence in the District include Total, Shell, Excel, Goil, Glory Oil, etc.

4.2.5. The Health Sector

Health services delivery in the GWMA is provided principally by government health centres and a number of private clinics and family planning and maternity homes. A few others are established by foreign non-governmental organizations in collaboration with local counterparts (GWMA, 2012). The major health facility, Ga West Municipal Hospital is located in Amasaman the municipal capital. The other health centers located in Oduman and Amamorley which serve a considerable portion of the rural population of the District were provided by a French non-governmental

organization, Entrained Medicals International (EMI), working in collaboration with a local counterpart.

The major issue of the health service delivery in the district is the problem of inadequate access to health care for the majority of the population. A significant number of the population live in scattered rural settlements covering about 80% of the land area of about 568.2 sq km. In order to make up for the inadequate coverage of health facilities, outreach services are organized to selected communities monthly. By this means, basic preventive and curative services such as immunization coverage are provided for various communities (GWMA, 2012).

Another issue of grave concern is the prevalence of several communicable diseases of public health magnitude. The trend shows a persistent increase year by year. In addition, diseases like Buruli Ulcer, Tuberculosis and HIV/AIDS, which although do not appear among the top ten, cause severe suffering and death and have profound negative effect on the total development of the district. Other pertinent issues which directly or indirectly impact on the effective and efficient delivery of health services in the district are inadequate laboratory facilities, inadequate cold chain facilities, lack of transport services, lack of telephones, water shortage at health institutions and lack of electricity supply. (GWMA, 2012)

There are over 120 People Living With HIV/AIDS (PLWHAS) that have been registered and are being supported by the District Assembly. About 200 orphans have also been identified and most are being assisted by the District Assembly, NGOs and other stake holders. Few agencies are also supporting orphans and vulnerable children in the district. Data on PLWHAS is almost absent due to under reporting and lack of

VCT centers. Stigmatization is also a militating factor against the willingness of people to declare their HIV status. Coupled with the lack of VCT facilities and other related problems, it is difficult to declare the district prevalence rate. Infected persons in the district however travel as far as to Korle-Bu Teaching Hospital in order to access anti-retroviral drugs (GWMA, 2012)

Anti-retroviral therapy is virtually absent in the district further compounding the plight of PLWHAS. Almost ninety-eight percent (98%) of NGOs and CBOs operating in the District which are involved in the fight against HIV/AIDS are into the prevention component and they combine prevention with care and support. About one percent (1%) is into management. (GWMA, 2012)

The main target group is the youth in the district and the main areas covered are the peri-urban areas of the district such as Pokuase, Amasaman, Obom, Medie, schools in the district and some rural communities like Kwaku Panfo, Kpobi Kope, Kotoku, Akotoshie, Afoaman, etc.

4.2.6. Social Infrastructure

Water supply is a basic problem of the district with a limited number of communities having access to potable water. Pipe-borne water is periodically supplied to areas such as Tantra Hill, and Ofankor but the District capital Amasaman lacks potable water. About a third of the over 300 rural communities in the district have access to boreholes and hand-dug wells whiles as much as 35% of the settlements depend on dams and dugouts and streams for their water needs. Other utilities like electricity and telephone facilities are available in the district. However, just about 40% of the

population is served with electricity from the national grid, and 70% of the population has access to fixed and mobile telephone.

On the issue of sanitation in the District, it appears that a number of people have access to some type of sanitation facilities either public or private. Others also resort to indiscriminate defecation in gutters, school compounds and public refuse dumps. Total sanitation coverage is estimated at 47% for domestic and 65% for institutions. The types of facilities in use include WC toilets, KVIPs, Household VIPs and public KVIPs. Pit latrine, even though not approved by the assembly, is being used by some households even in the urban communities.

With regards to roads, a large proportion of the road networks are feeder roads. The condition of most these roads are poor, with majority being inaccessible during the rainy season. Two major highways pass through the district and these are the Achimota- Nsawam and Mallam Junction-Winneba Highways. The road conditions are as follows: 13% good; 21% fair; and 66% poor. The main Accra-Kumasi railway line passes through the District at Amasaman, Opah, Obom and Adzen Kotoku. There are three main stations at Amasaman, Adzen Totoku and Obom.

Poor and inadequate housing is identified as one of the major problems confronting the people in the District, particularly the poor in rural settlements. A significant proportion of the people lack access to adequate housing and housing-related infrastructure like drainage, pavements, bridges, streets, etc. The condition of housing for poor families is deplorable and not conducive to healthy living. People living in these houses are frequently exposed to adverse climatic and environmental conditions that impact negatively on their health and standard of living.

4.3. Research Methodology

This section provides a description of strategies and methods of data collection and analysis used in the study.

4.3.1. Research Design and Data Sources

The design of the research involves the combination of qualitative and quantitative strategies and approaches. Multiple sources of data comprising of primary and secondary data were collected to form the data needed for this research.

Fig. 4.2 shows a diagrammatical representation of the entire field and statistical research procedure. According to Yin(1994), the use of multiple sources of evidence in a research enables a broad range of historical, attitudinal and behavioural issues to be addressed thus allowing an investigation into real-life events.

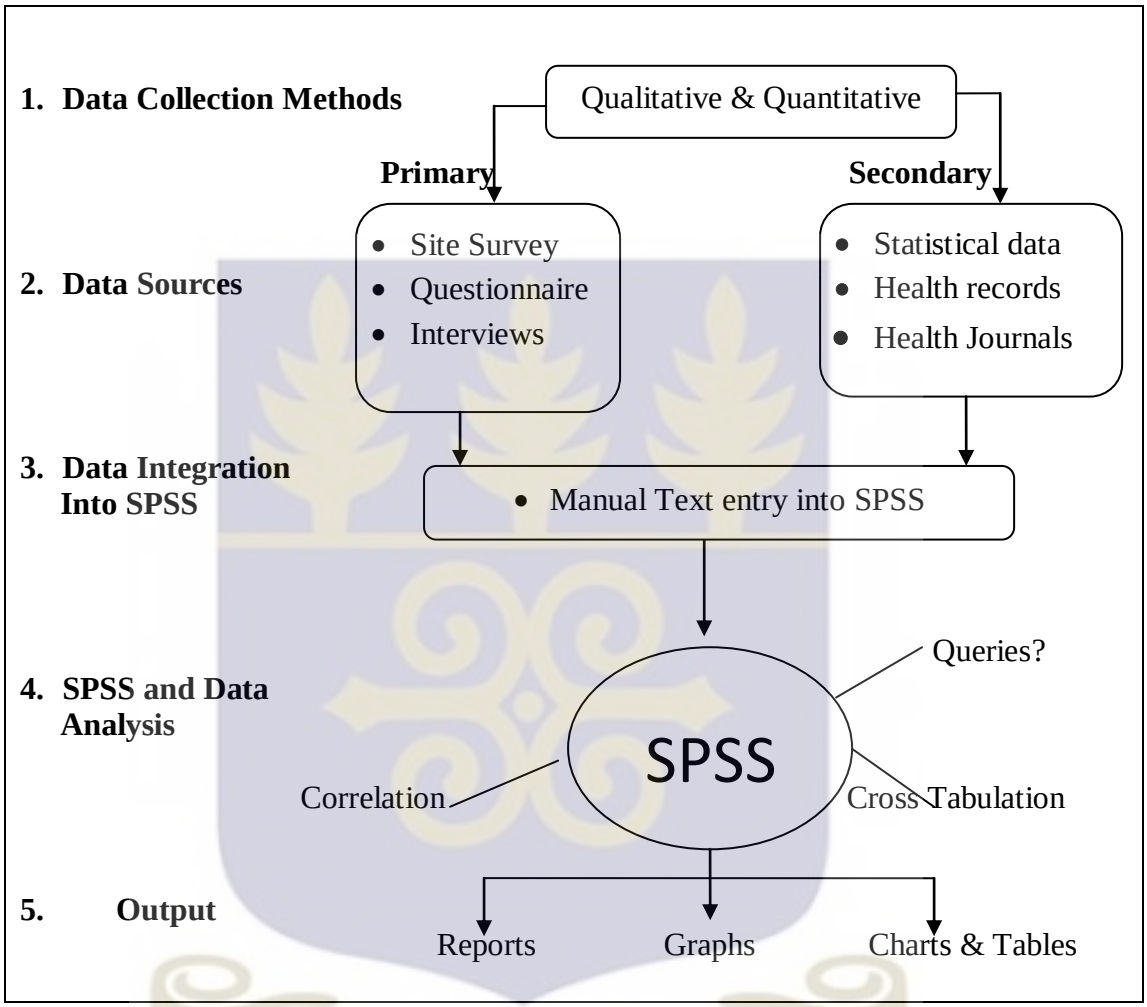
The use of the triangulation method is to be able to obtain the understanding and explanation of the behaviour of people in households and the accessibility to health facilities in the study area. It is also to help the confirmation of the results through the comparison of data gathered via different tools to ensure data complementarity and the enhancement of the result (Brannen, 2005).

4.3.2. Primary Data

The primary data was basically obtained through fieldwork by the researcher via the use of questionnaires administration which was the main research instrument used for gathering the primary data. The questionnaires include self-administered ones and interview schedules for illiterates and semi-literates since they could not complete it by themselves. The same questionnaire was read for those who could not read on their

own. Both open and closed-ended questions were used. Other primary sources of data included focus group discussions in-depth interviews and direct observations.

Figure 4.2 Field and Statistical Research Procedure for the study.



Source: Author's own construct

4.3.2.1. Questionnaire

The target population to whom the questionnaires were administered were the household heads who represented their households acting as key informants for such households. The questionnaires were distributed to 301 household heads in six randomly selected communities from each of the three stratified districts (Amasaman, Ofankor and Pokuase) within the Ga West Municipal Assembly Sub Metropolitan

Area. The household heads provided data regarding household characteristics, the number of times they visited health facilities and the factors they considered before choosing a health facility.

4.3.2.2. In depth Interview

In-depth interviews were also conducted for administrators of sampled health facilities and health professionals such as nurses, doctors as well as key informants including officials of Ghana Health Service and some opinion leaders in the study area. In depth interviews and discussions were held with management and policy makers of health facilities in the municipality.

4.3.2.3. Focus Group Discussion

According to Patton (1990), Focus group discussions, as a problem solving or decision making group, are employed to generate data and insights that are unlikely to emerge without a group discussion. This tool was used to generate qualitative data for triangulation with the quantitative data derived from the administration of the questionnaire. The target groups for the focus group discussion were patients in the Out-patients department (OPD) of Mayera Faase community clinic. Focus group discussions were held with community and opinion leaders within some of the communities notably Afiaman, Katapor, and Dunyo where public health facilities in particular and health facilities in general appear virtually extinct. This was to understand how the health care needs of these residents are met. The type of information that were be collected from the opinion leaders include the health facilities in or around their communities, how often and the number of times they

visited and how they assessed the services they were offered in terms of quality and waiting time, among others.

The focus group discussions were also held to acquire in-depth knowledge and information regarding access to health facilities.

4.3.2.4. Observation

Personal field observation formed an important part of the field work. These were used to complement questionnaire to collect information that pertains to the distribution of health facilities in the study area. The global positioning system was used to identify locations of health facilities in the sampled communities. Also waiting time at some health facilities were measured by means of a stop watch.

4.3.3. Secondary Data

These are documented materials in the form of journals, policy papers, articles, and other publications on the internet on access to health care facilities. The type of data that were used at the secondary level include Top ten diseases, Out Patients Department (OPD) attendance rates at the municipal hospital, community clinics and health centres in the district.

The data sought include information on gender, residence, age, type of ailment reported and how often they reported at the health facilities. This information helped in determining the effective catchment areas of the sampled health facilities. Other sources of secondary data used in the research are reports and publications of various health research institutions like the Health Research Unit of the Ministry of Health (MOH), the Medical School Library at Korle-Bu, the School of Public Health, the

District Health Management Team (DHMT), and the University of Ghana, among others. Health reports from various health institutions and stakeholders in the health care delivery service were also employed. Some of the institution reports include the World Health Report of the World Health Organization (WHO), Ghana Health Service (GHS) report, Millennium Project Report to the UN Secretary General, etc. Research works authored by individuals that are relevant to this study e.g. Buor, D (2002), Meade et al, (1988), Nemet et al, (2000), Okafor, F.C (1990) were also consulted.

4.3.4. Sampling Strategy and Size

In order to ensure a bias- free research, the sampling procedure was designed to provide a representative sample of households. Stratified and systematic sampling procedures were used for the data collection. The first step of the household sampling procedure involved a stratification of the entire Ga West Municipal Assembly into three administrative districts i.e (Amasaman, Okuase and Ofankor). This stratification was based on the Administrative regions of the Ga West Municipal Health Directorate. . Two communities were randomly selected from each of the three administrative districts. The sample size was selected proportional to the respective population of the communities. Due to lack of current population data, the study relied primarily on the 2000 population and housing census data. The proposed sample size in each stratum is given in Table 4.1 below.

Table 4.1 Sample Size of Selected Communities

Stratum	Communities	Population	Sample Size
Amasaman District	Ayawaso	839	58
	Ayikai Doblo	749	52
Pokuase District	Katapor	646	45
	Dunyo	592	41
Ofankor District	John Teye	889	62
	Asofan Town 1	617	43
TOTAL		4332	301

Source; Field Survey, 2012

4.3.5. Sampling Frame

A survey of three hundred and one (301) households, 10 health facilities form the empirical base for this research. At the household level, the questionnaires were administered to the heads of the households, whilst at various health facilities, patients, Health Care Administrators and Medical Officers in some cases interviewed.

The general topics that were covered at the various household levels include the general background information of respondents, and general factors affecting their access to health facilities within the sub metro.

At the various health facilities, topics covered include, infrastructural facilities, and capacity of the facility, attendance rate, human resource / personnel, attendance and personal information of the respondents.

5 CHAPTER FIVE

DATA ANALYSIS AND DISCUSSION

5.1. Introduction

The previous chapter examined background of the study area and the methodology employed to obtain data. This chapter presents analysis of the data solicited from three hundred and one (301) household heads from six (6) randomly sampled communities in the Municipality. The main tool for the collection of data is the questionnaire and interview guide. In order to examine the distribution of health facilities and health personnels, information on available health facilities was collected from available records from the Ga West Municipal Health Directorate (GWMHD) and other agencies to identify settlements with health care outlets in the district. Visits were made to settlements within the municipality to seek information on the availability or otherwise of health care outlets. The study focused on health facilities provided by the government. The presence of these facilities to a large extent influences their usage. The Statistical Package for the Social Sciences (SPSS 16) was used to analyse the data. The analysis is presented in different sections.

Section 5.2 presents analysis of the socio-demographic characteristics of respondents whiles section 5.3 examines respondent's pattern of accessibility to health care. Section 5.4 examines factors influencing accessibility to health care. Section 5.5 examines the spatial distribution of public health facilities and health professionals in the study area based on the empirical data collected from the field. The section also looks at the types of health facilities including hospitals, community clinics and CHPS units. Even though there are several other facilities which could have been

considered to throw more light on the study, the difficulty in assembling such data including time and resources have been the main limitation. Section 5.6 examines OPD attendance by sex.

5.2. Socio-Demographic Characteristics of Respondents

This section examines the socio-demographic characteristics of respondents. These characteristics help to understand the choices of respondents with regards to healthcare access.

5.2.1. Location of respondents

Household heads are the main respondents of the questionnaires. These respondents were sampled purposively from six randomly sampled communities within the Ga West Municipal Assembly. Fig. 5.1 shows location and number of respondents from each community.

Table 5.1 Location of respondents and number of respondents

District	Location	Frequency	Percentage (%)
	Dunyo	41	13.6
Pokuase	Katapor	45	15.0
	Ayawaso	58	19.3
Amasaman	Ayikai Doblo	52	17.3
	Asofan Town 1	43	14.3
Ofankor	John Teye	62	20.6
	Total	301	100.0

Source: Field Survey, 2013

Out of three-hundred and one respondents, 13.6% are residents of Dunyo, 15.0% reside in Katapor whiles 19.3% live at Ayawaso. The largest percentage of respondents accounting for 20.6% resides at John Teye. 14.3% of the respondents live in "Asofan Town 1" whiles 14.3% of the respondents live at Ayikai Doblo. The statistics show that respondents were interviewed from six different communities within the Ga West Municipal Assembly.

5.2.2. Age distribution of respondents

The age distribution of respondents is shown in Table 5.2. below. The dominant age group among the respondents is 36 – 45years accounting for 41% of respondents followed by those whose age fall between 46-55 years representing 22.3% whiles respondents within the age bracket of 26 – 35years are the least group representing only 11% of respondents.

Table 5.2 Age distribution of respondents

Age (Years)	Frequency	Percent (%)
18 – 25	33	11.0
26 -35	24	8.0
36 – 45	124	41.2
46 – 55	67	22.3
Above 55	53	17.6
Total	**301**	**100.0**

Source: Field Survey, 2013

The most vulnerable group (18 – 25 years and above 50 years) account for 28.69% of respondents. This makes health care delivery an essential service in the study area.

5.2.3. Sex distribution of respondents

Table 5.3 shows that 47.2% of respondents are men and 52.8% are women. The data shows a fair representation of views from both sexes.

Table 5.3 Sex Distribution of respondents

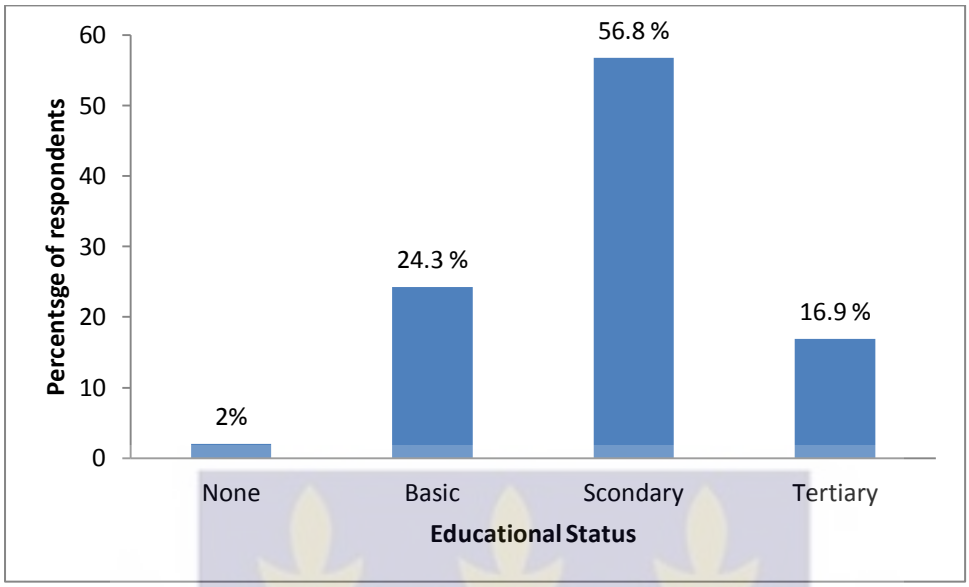
Sex	Frequency	Percent (%)
Male	142	47.2
Female	159	52.8
Total	301	100.0

Source: Field Survey, 2013.

5.2.4. Educational Level of respondents

The educational level of an individual informs the choice they make and also their opportunities in life including that of their health and well being. The capability approach as expounded by Sen (1979) emphasizes functional capabilities where individuals have substantive freedoms such as the ability to live to old age, engage in economic transactions, or participate in political activities. These can best be improved through better health care which is correlated with educational levels. The higher the educational level of an individual, the higher the capability to live good life. Fig. 5.1 shows the educational level of respondents.

Figure 5.1 Educational level of respondents



Source: Field Survey, 2013.

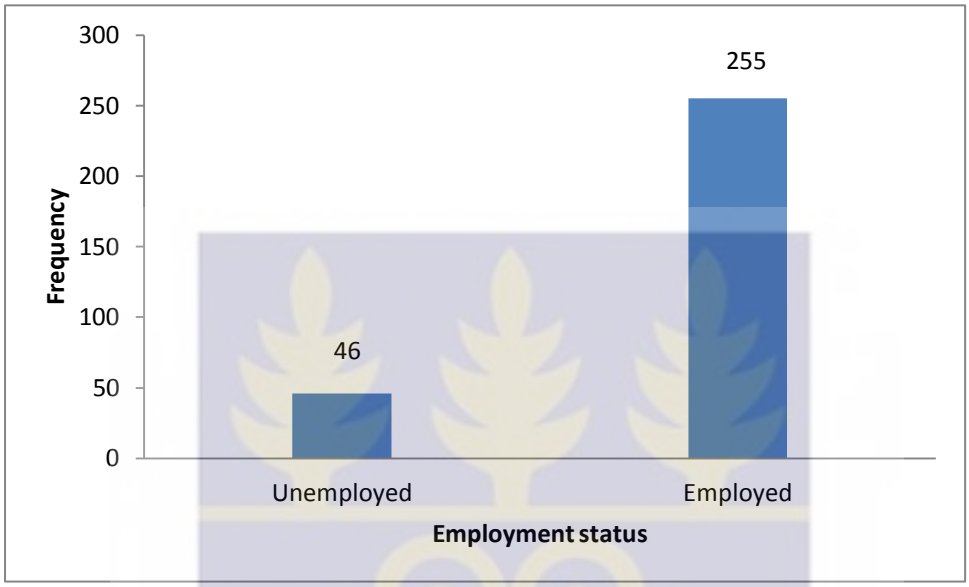
From Fig. 5.1 above, 24.3% of the respondents have attained basic education whiles 56.8% of respondents attained secondary education. However 16.9% of respondents attained tertiary education whiles only 2% of respondents have no formal education, The data shows that there is a high literacy rate among respondents with 98% of respondents being literate. According to Grossman (1972) there is a positive relationship between education and demand for health care and as rightly put by Caldwell et al, (1983), it is well established that the educated are more likely than uneducated to take advantage of modern health care services.

5.2.5. Employment Status of respondents

Employment status has an impact on accessibility to health facilities. The distribution of respondents' employment status is illustrated in Fig. 5.2 below. The data shows that 46 respondents representing 15.3% of the respondents are unemployed whiles 255 respondents representing 84.7% of the respondents are employed. A greater

proportion of respondents are employed while a substantial proportion (15.3%) is unemployed.

Figure 5.2 Employment Status of respondents



Source: Field Survey, 2013.

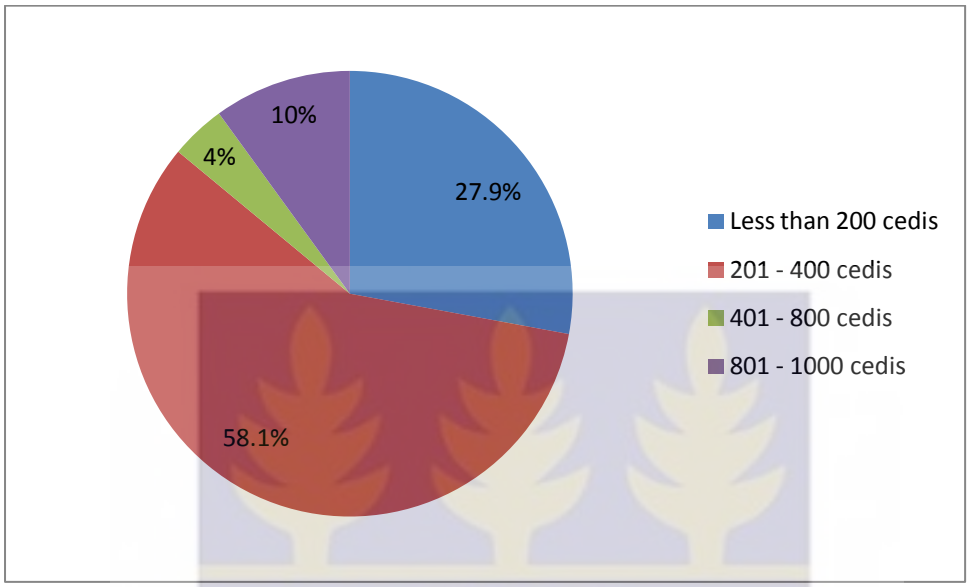
It is expected that the employed will have better access to health services than the unemployed since ability to pay for a service is a function of one's economic power which is directly linked to ones employment status.

5.2.6. Monthly Income of respondents

Income exhibits a direct relationship with access to health care. In a study of determinants of rural travel distance for obstetrics care in rural Alabama, Bronstein and Morrisey (1990) concluded that as income increases, rural citizens substitute out of the local rural hospital and seek care elsewhere. A 1% increase in the per capita income in the country leads to a 4% increase in the distance travelled for obstetrics

service (cited in Bour, 2004). The monthly income of respondents is shown in Fig. 5.3.

Figure 5.3 Monthly Income of respondents



Source: Field Survey, 2013

The data shows that 27.9% of the respondents earn less than 200 cedis and 58% earn between 201 and 400 cedis. Furthermore, 10% earn between 801 and 1000 cedis whiles 4% earn between 401 and 800 cedis. It can be deduced from the data that majority of the respondents representing about 86% of respondents earn up to 400 cedis whiles the remaining 14% earn between 400 and 1000 cedis. In a study of accessibility and utilisation of health services in Ghana, Buor, (2001) found out that income has a significant effect on utilisation of health services. Over 95% of high-income earners use health services either moderately or regularly.

5.3. Pattern of Accessibility to Health Care.

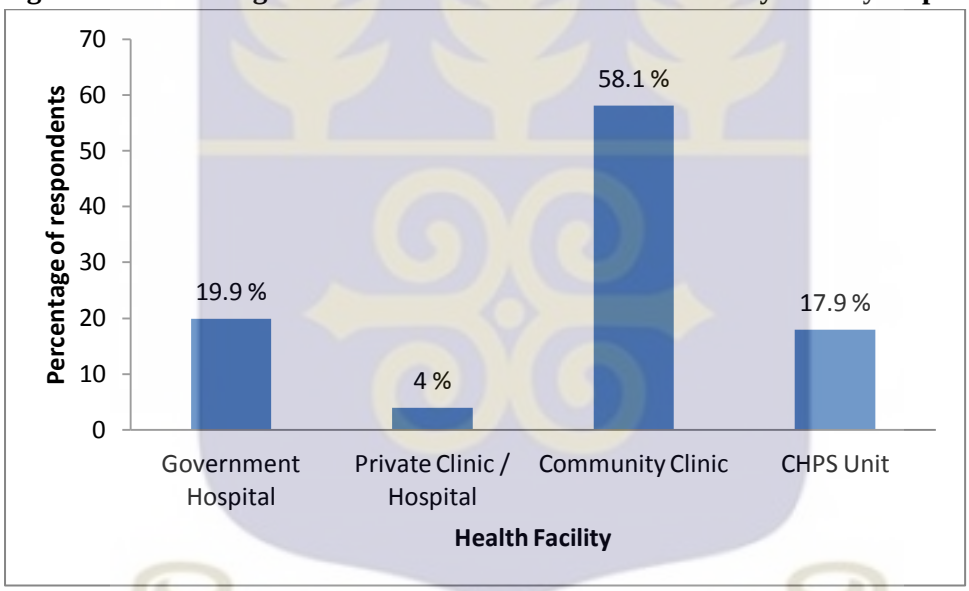
This section discusses the pattern of accessibility to health care in the Ga West Municipal Assembly. Descriptive and inferential statistics have been used to analyse

the data. The descriptive statistics used includes tables of percentages, charts and graphs to depict the pattern of accessibility to health care. Factors analysis was used to examine factors influencing accessibility to health care.

5.3.1. Health Facility mostly used by respondents

Healthcare in Ghana is jointly provided by the government, private individuals and organizations. Fig.5.4 shows the distribution of health facilities mostly used by respondents.

Figure 5.4 Percentage Distribution of Health Facilities mostly used by respondents.



Source: Field Survey, 2013

A look at Fig 5.4 shows that 19.9% of respondents mostly use the government hospital, 4% patronize private clinics/ hospitals. Majority of the respondents representing 58.1% visit the community clinic whiles 17.9% mostly use the CHPS unit. Majority of the respondents (58.1%) use the community clinic because of its proximity and affordability. The absence of long waiting time at the community clinic also encourages respondents to patronize it. Only 19.9% of respondents access the only government hospital (Ga West Municipal Hospital) which is about 8km away

from respondents because of its distance and long waiting hours at the OPD. Most people will not travel further than 5 kilometers to basic preventive and curative care. (Muller et al, 1988)

On the other hand some respondents also travel over 12km to the Nsawam Government hospital which is outside the geographic boundary of the Ga Municipal Assembly to access health care because of the quality of service and the availability of specialists and most importantly during emergencies. The decline in the use of health services with increasing distance to the health facility will vary in relation to the type of services offered (Smith, 1979).

The percentage of respondents (4%) who visit private hospitals is low. High service cost accounted for respondents' low patronage of private clinics and hospitals. Respondents who want special attention especially women and children often are the main clients to these facilities (Cashin et al, 2002). The biological nature of women and the weak immunity of children further give them up for frequent check up. The data further shows that there are different health facilities respondents can visit when the need arises with 96% of the facilities (Government hospital, Community clinics and CHPS units) provided by the government and 4% provided by private organisations and individuals.

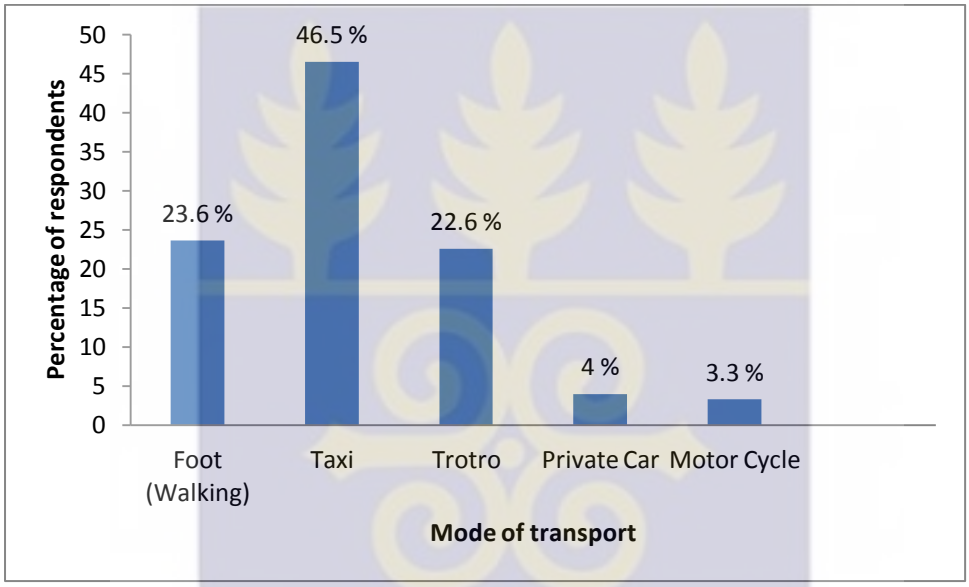
5.3.2. Mode of transport to health facilities.

Various means of transport are used by respondents when visiting health care facilities. Fig. 5.5 shows the distribution of the mode of transport used by respondents. The data shows that 23.6% of the respondents who visit health facilities

commute on foot while 46.5.1% use taxi. Also 22.6% of the patients use trotro whiles 4% and 3.3% of the respondents rely on private cars and motor cycle respectively.

It is imperative to acknowledge that majority of the respondents (46.5%) use a hired taxi when visiting a health facilities mostly due to emergencies and also because it serves as the fastest means of arriving at the health facility.

Figure 5.5 Mode of transport



Source: Field Survey, 2013

Most people who are sick need to be quickly transported to the health facility for immediate medical attention. A further analysis revealed that "respondents adopted the wait and see" attitude when they experienced illness spells. They are eventually rushed to the hospital in a hired taxi when their conditions deteriorate as shown in Fig. 5.6. (*Emergency mode of transport*). Secondly due to the bad nature of roads in the municipality, health facilities are poorly connected by roads therefore discouraging commercial vehicles from plying them. A hired taxi becomes the only option for patients who do not have their own means of transport. The transport cost also

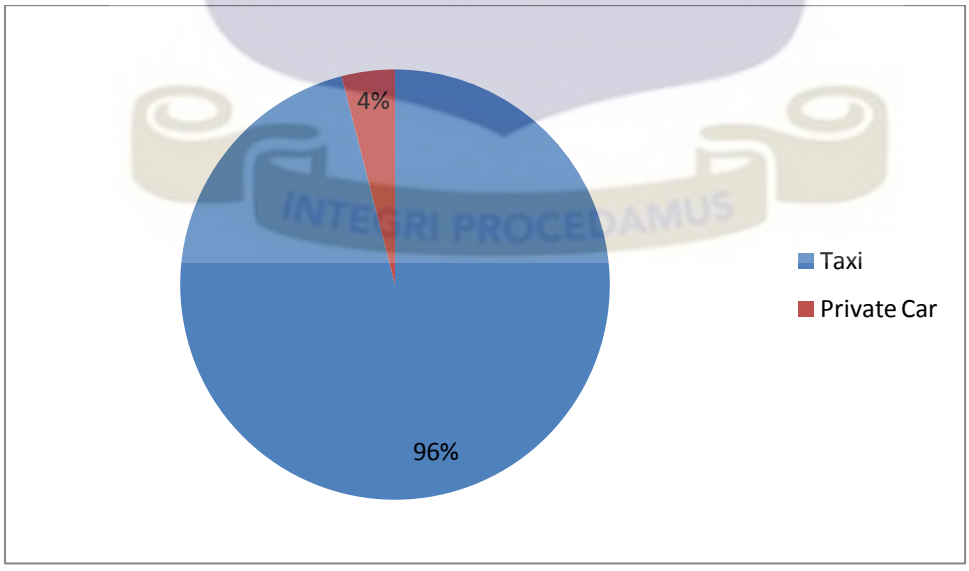
increases when respondents commute from their residence to their preferred health facilities by means of a hired taxi.

About 22.6% of respondents who live close to the health facilities (up to 4km away from health facilities) walk to health facilities spending no money on transportation whiles 22.6% of respondents rely on trotro because it serves as the cheapest form of transport to the health facility. It can be inferred from the analysis that 23.6% of respondents travel on foot whiles the majority (76.4%) rely mostly on automobile vehicles either personal or publicly provided.

5.3.3. Emergency mode of transport

It has been established that respondents used different forms of transport when accessing healthcare. Respondents were asked to name the mode of transport during emergency. It was found out that majority of the respondents (96%) use taxi whiles only 4% use their private cars. The results are shown in Fig. 5.6 below

Figure 5.6 Emergency mode of transport



Source: Field Survey, 2013

It was found that majority of respondents (96%) used a hired taxi to reach the health facilities during emergencies. There was a small proportion (4%) that used a private car. There is little or no time to waste during emergencies. Respondents have to get the fastest available means of transport in order to arrive on time at the health facilities.

5.3.4. Distance to health facilities

Physical proximity is an important factor in accessibility and utilization of health care resources. Closeness to a particular facility is one of the main reasons for using that resource (Meade et al, 1988). Respondents were asked how far they travelled to the health facility they mostly used. The results of a cross tabulation of the health facilities mostly used by respondents and the distance covered is shown in Table5.4 below.

Table 5.4 Distribution of distance to health facility by choice of health facility

	Distance to Health Facility (km)									
Health Facility	< 1 km		1- 4km		4.1 - 8km		8 - 10km		Total	
	No.	%	No.	%	No.	%	No.	%	No.	%
Govt. Hospital	0	.0	13	11.5	37	33.9	10	18.5	60	19.9
Comm. Clinic	7	28.0	62	54.9	71	65.1	35	64.8	175	58.1
Private Clinic	1	4.0	1	.90	1	.90	9	16.7	12	4.0
CHPS Unit	17	68.0	37	32.7	0	.0	0	.0	54	17.9
Total	25	100.0	113	100.0	109	100.0	54	100.0	301	100.0

Source: Field Survey, 2013.

Out of 25 respondents who travelled less than 1 km to access healthcare, 68% and 28% mostly used CHPS units and community clinics respectively. On the other hand only 4% visited private clinics whiles no respondent travelled less than 1km to access the government hospital. Furthermore out of 113 respondents who covered distances between (1- 4km), 32.7% and 54.9% of the respondents visited CHPS units and community clinics whiles .90% and 11.5% mostly used private clinics and government hospital respectively. This shows that respondents travel up to 4km when they want to visit community clinics and CHPS units.

Access to health facilities by respondents is hampered by distance. Accessibility to health facilities by respondents reduced with increasing distance. For example, respondents who mostly use CHPS units do not travel beyond 4km whiles the proportions of respondents who mostly visit community clinics dropped slightly from 65.1% to 64.8 for distances (4-8km) and (8-10 km) respectively. The proportion of respondents who patronize government hospitals also dropped from 33.9 % to 18.5%. It can be inferred from the evidence above that accessibility to healthcare facilities decrease with increasing distance. Most people in developing countries will not travel more than 5km to receive basic preventive and curative care (Muller et al, 1988), which is usually provided by community clinics and CHPS units.

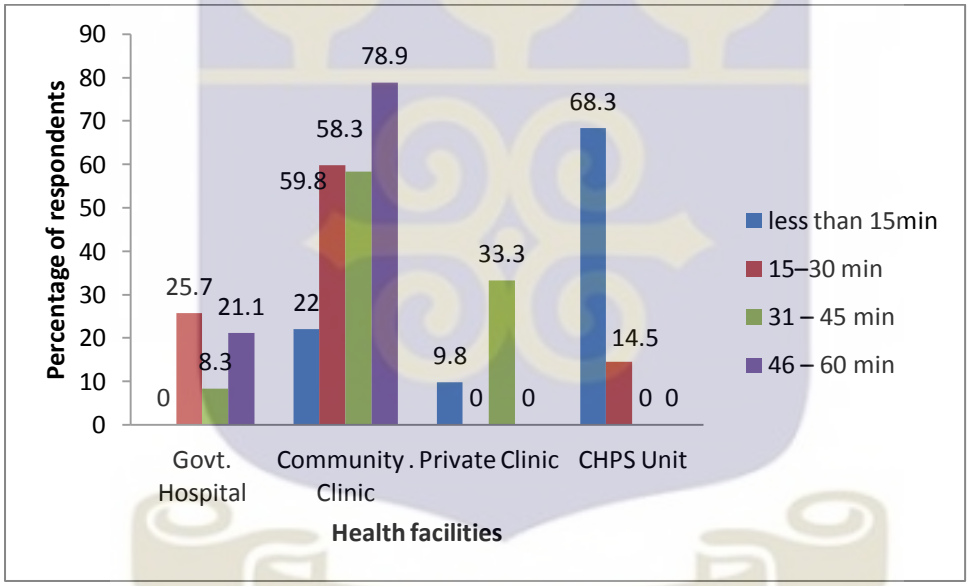
Proportions of respondents who patronize private hospital defied the distance decay theory which suggests a decreasing rate of service use with increasing distance. Proportions of patients who visited private hospitals increased from .90% to 16.7 for distances between (4-8km) and (8-10km) respectively. People are willing to travel farther for more specialized services, or better quality care (Stock, 1983). The quality

and type of care provided, like specialist services can alter distance decay (Smith, 1977).

5.3.5. Travel Time to health facility

Distance travelled to health care facilities is a function of transport cost and travel time. Generally the longer the distance, the longer the travel time. According to Buor (2004), a long distance would involve a long travel time, depending upon the nature of road and transport. The travel time to various health care facilities is shown in Fig. 5.7 below.

Figure 5.7 Travel time to health facility.



Source: Field Survey, 2013.

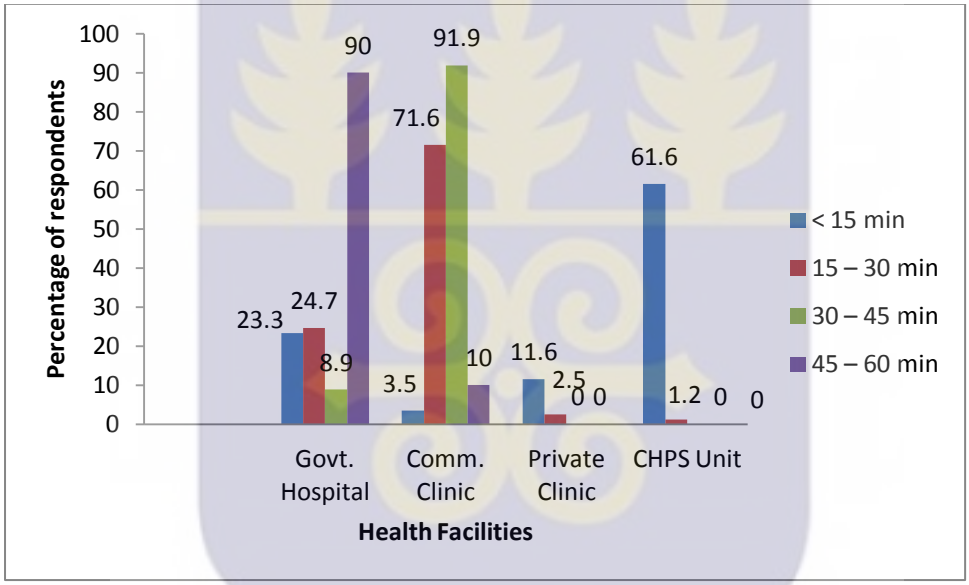
The results from Fig. 5.6 indicate that 68.3%, 9.8% and 22% of the respondents who spend less than 15 minutes to travel to health facilities patronize CHPS units, private clinics and community clinics respectively. Also 33.3%, 58.3% and 8.3% of respondents who spend between 15 and 30 minutes to travel to health facilities use private clinics, community clinics and the government hospital respectively. The proximity of these services to the population enables them spend less time to the

nearest health facilities. In addition, 78.9% and 21.1% of respondents who spend between 46 and 60 minutes travelling to health facilities use community clinics and the government hospital. This shows that the longer the distance to the health facility, the more time it takes the journey to it and vice versa.

5.3.6. Waiting time at health facility.

The waiting time of respondents at specific health facilities is shown in Fig. 5.8 below

Figure 5.8 Waiting time at health facility.



Source: Field Survey, 2013

From Fig. 5.8 above, 61.6%, 11.6%, 3.5% and 23.3% of respondents who use CHPS Unit, Private clinics, community clinic and government hospital respectively, spend less that 15 minutes waiting before they were attended to at the health facility. Majority of respondents (61.6%) who spend less than 15 minutes before being attended to are those who use the CHPS unit. Respondents mostly visit CHPS units with minor ailments which are taken care of in a short moment by community health nurses on duty. Another reason for the low waiting times at the CHPS unit is because

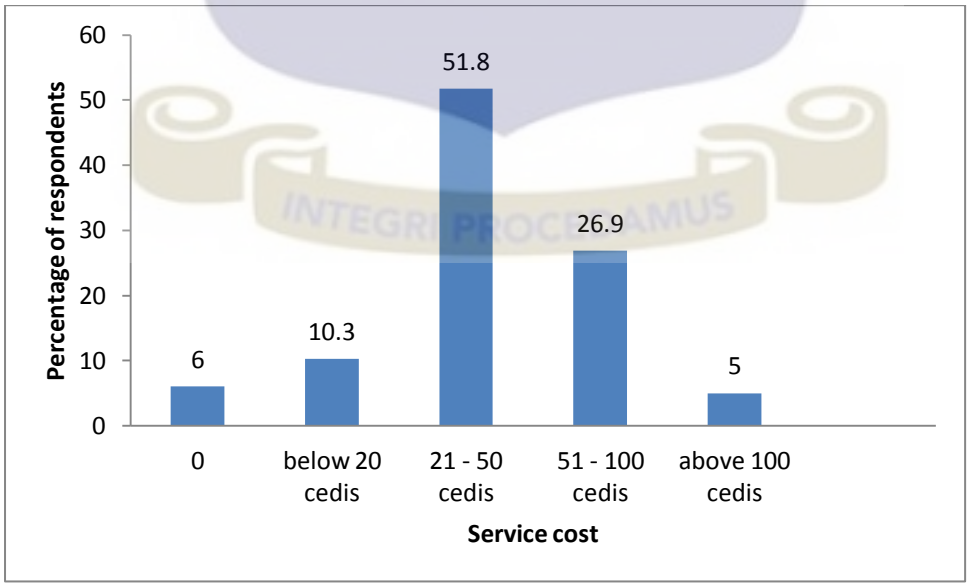
the health officers also as part of their duty, schedule home visits to address the needs of patients.

About 90% of respondents who spend between 45 -60 minutes waiting at a health a health facility are those who visit the government hospital whiles 10% represent those who visit the community clinic. The availability of specialists at the government hospital attracts patients from within and outside the municipality. The effect is that patients remain in long winding queues at the hospital waiting to see the doctor. This has a ripple effect on waiting time. Eventually the waiting time is increased.

5.3.7. Service cost (Cost of health care services)

Service cost is a very important factor when it comes to health care access. Respondents were asked how much they spent on health care when they visited their most used health facility. Respondents' expenditure on health is indicated in Fig. 5.9 below.

Figure 5.9 Service cost



Source: Field Survey, 2013

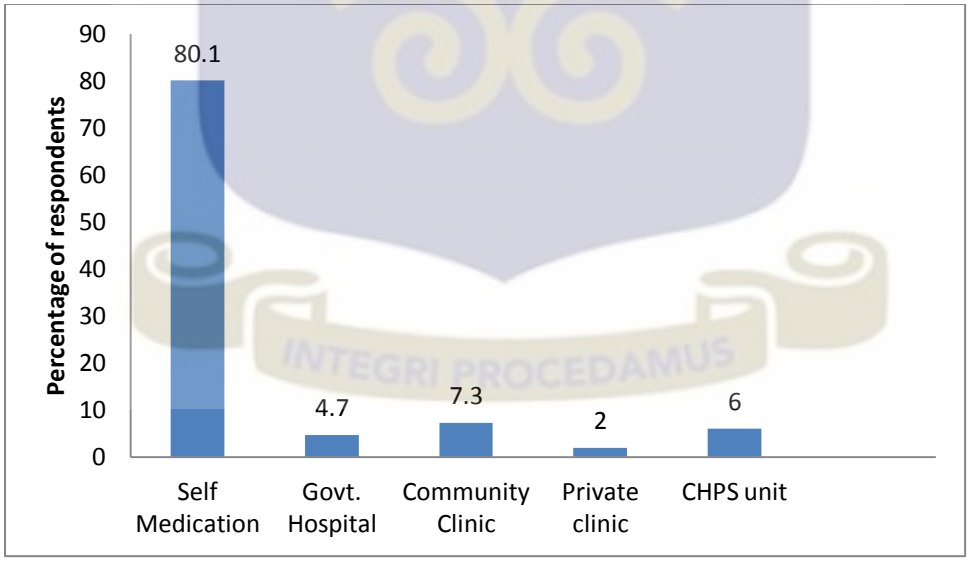
It came out clearly that 6% of respondents made no expenses on health care when they visited a health facility. This was because they accessed health care under the National Health Insurance Scheme. On the other hand 10% and 51.8% of respondents spend below 20 cedis and between (21-50 cedis) respectively. Whiles 26.9% spend between (51-100 cedis), 5% spent more than 100 cedis on health care

This shows that 16.3% of respondents spend up to 20 cedis on healthcare whiles about 31.9% of respondents spend more than 50 cedis on healthcare. High cost of service among others is a major cause of user dissatisfaction (Delanyo et al, 1990).

5.3.8. First point of call when sick

"What is the first point of call when you are sick" was the question put to respondents. Fig. 5.10 below shows what respondents' first point of call when sick.

Figure 5.10 First point of call when sick



Source: Field Survey, 2013

Majority of respondents (80.1%) resort to self medication whiles 4.7% of respondents visit government hospital first when they are sick. 7.3%, 2% and 6% of respondents'

first point of call when sick is the community clinic, private clinic and CHPS unit respectively. Several reasons could account for respondents practicing self medication. The first is the inability to afford service cost. Due to the low income earned by most of the respondents who are dominantly farmers and artisans, they are not able to afford service cost. The problem of accessibility could induce the use of self medication and traditional medicine, with their attendant fatal health risk (GWMHD, 2008). The stress of long distance, sometimes on foot over rough roads in vehicles, and cost involved in long distance movements, could also scare away rural illiterate people who are very much used to traditional medicine.

5.4. Factors Influencing Accessibility to Health Care

This section seeks to examine the factors that influence accessibility to health care. Access is operationalised as the number of times respondents attended health centre during the last three times they experienced illness spells. Quantitative values were assigned for the purpose of data analysis. Non attendance at a health centre for the last three illness was quantified "0" and defined as "rarely". Whilst one attendance was quantified "1" and defined as "irregularly". Two attendances were quantified "2" and defined moderately regularly", whilst all three attendances were quantified "3" and defined "regularly" (Buor, 2003).The factors examined include distance, income, service cost, gender and education.

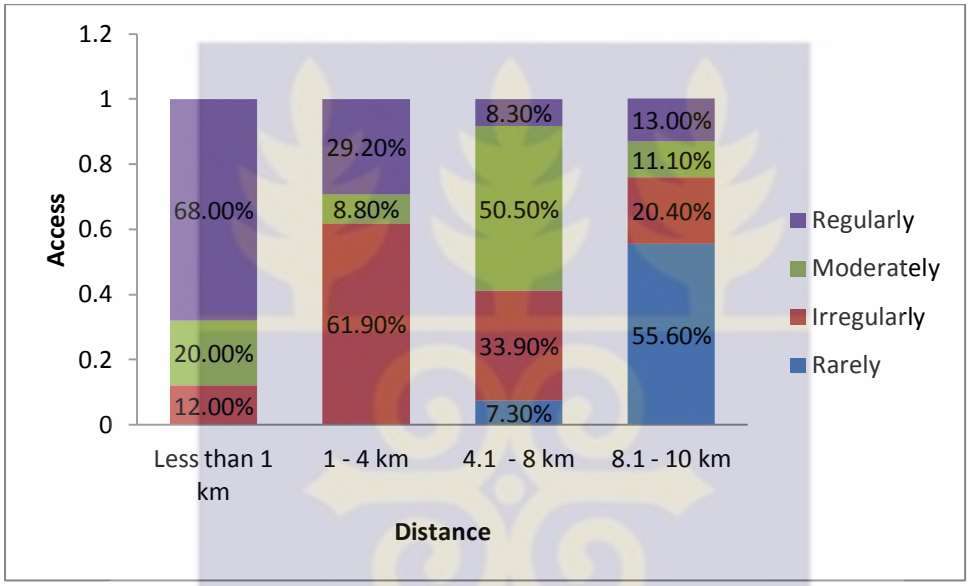
5.4.1. Distance and Access to Health Care.

The relationship between distance and access to health care is shown in Fig. 5.11 below. The data shows that 68% and 29% of respondents who travel less than 1km

and between 1 and 4km respectively access health care regularly with no respondent accessing health care rarely.

On the other hand, whiles 8.3% and 13% of respondents who travel between (4.1 - 8km) and (8 – 10 km) regularly access health care respectively, 7.30% and 55.6% of the same group rarely access health care.

Figure 5.11 Relationship between Distance and Access to Health Care.



Source: Field Survey, 2013

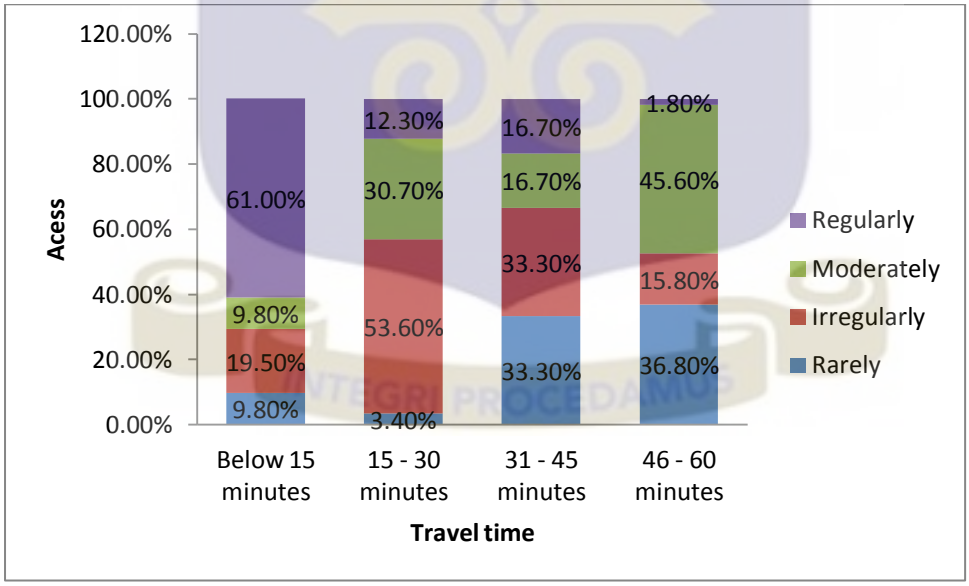
This means that access to health care decreases with increasing distance. A correlation test result shows that there is a significant negative correlation between distance and access to health care. A test at 0.01 confidence level (2 tailed) shows a correlation coefficient of -.404 and P value of .000. ($r = -.404$, $p < .05$). We reject the null hypothesis and accept the alternate hypothesis. Statistically, we can conclude that there is a significant strong negative correlation between distance and access to health care. In other words respondent access health care regularly when they have to cover short distances but as distance increases, health care is rarely accessed. The findings agree with Frederisksen (1964) who's study in India showed that the proportion of a

community attending a dispensary decreased by 50% for every additional half-mile between the community and the facility. In Nigeria, Stock (1987) found that a distance of 5 kilometres from a dispensary, per capita utilisation fell to less than one-third of the 0km rate.

5.4.2. Travel Time and Access to Health Care.

Closely related to geographical distance is travel time. Greater geographic distance might translate into increased travel time and vice –versa. Empirical findings indicate that, generally travel time has very little impact on utilisation (Buor, 2004). On the other hand Meise et al (1996) saw time distance as a major impediment to hospital attendance. The relationship between travel time and access to health care is illustrated in Fig. 5.12 below.

Figure 5.12 Relationship Travel time and Access to Health Care.



Source: Field Survey 2013.

From the data, 61% and 12.3% of respondents with travel times below 15 minutes and from 15 to 30 minutes respectively access health care regularly whiles 9.8% and 3.4% of the same categories rarely access health care. When it comes to respondents who

spend between 31 to 45 minutes and 46 to 60 minutes travelling to access health care, 33.3% and 36.8% respectively rarely access health care. This suggests an inverse relationship between ravel time and access to health care.

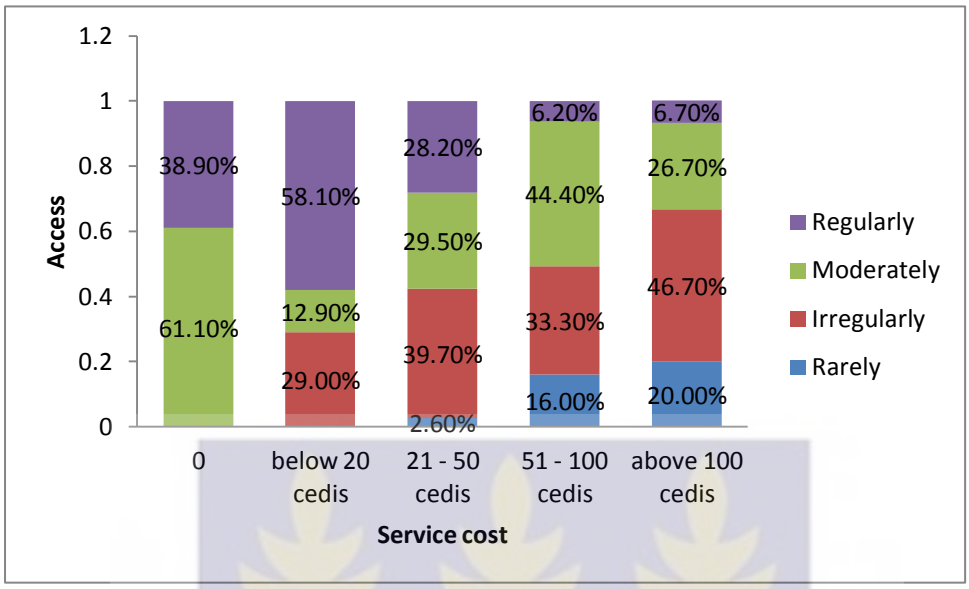
A correlation test result shows that there is a strong negative correlation between travel time and access to health care. A test at 0.01 confidence level (2 tailed) shows a correlation coefficient of -.315 and P value of .000. ($r = -.404$, $p < .05$). Statistically, we can conclude that there is a significant strong inverse correlation between travel time and access to health care. This means that majority of respondents (70.4%) access health care either regularly or moderately when the travel time is short (below 15 minutes). However health care is rarely accessed by 36% of respondents when the travel time is longer (beyond 45 minutes).

5.4.3. Service cost and Access to Health Care.

Fig. 5.13 illustrates the relationship between service cost and access to health care. The data shows that access to health care decreases with increasing service cost. For instance 38.9% and 61.1% of respondents who spend nothing on health care access health care regularly and moderately respectively. For services cost below 20 cedis, about 58.1% and 12.9% of respondents access health care regularly and moderately respectively. Furthermore, service cost above 100 cedis has 6.7% and 20% of its respondents accessing health care regularly and rarely respectively. The financial cost of seeking health care is a major barrier to access health care, especially among the poorest.

Delanyo et al (1990) confirms that high cost of service is a major cause of user dissatisfaction. The inability to afford service cost stems from the low income of

Figure 5.13 Relationship between Service cost and Access to Health Care



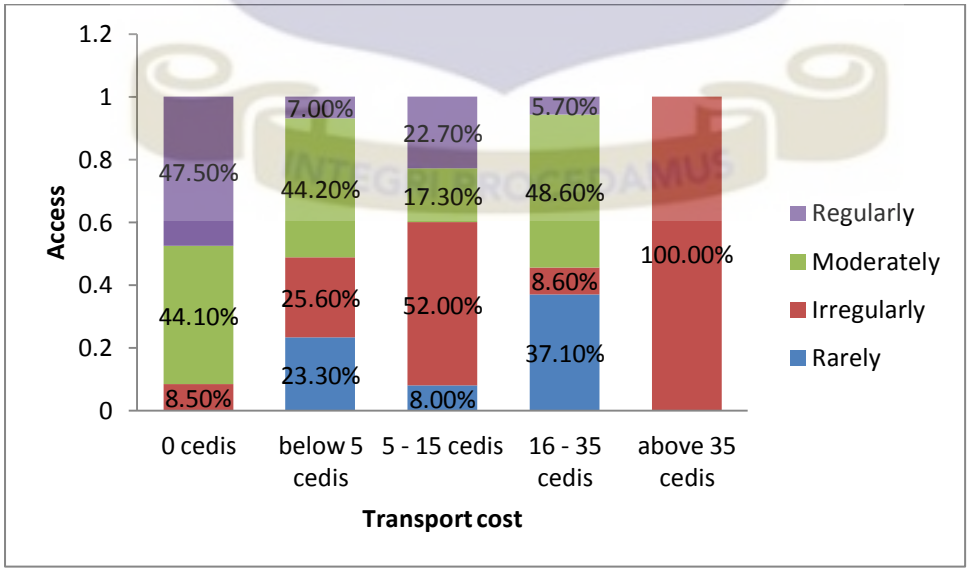
Source: Field Survey, 2013

respondents with about 27.9% (84 respondents) earning less than 200 cedis and 58.1% (174 respondents) earning between(201 and 400) cedis.

5.4.4. Transport cost and Access to Health Care.

The relationship between transport cost and access to health care is shown in Fig. 5.14

Figure 5.14 Relationship between Transport cost and Access to Health Care.



Source: Field Survey, 2013

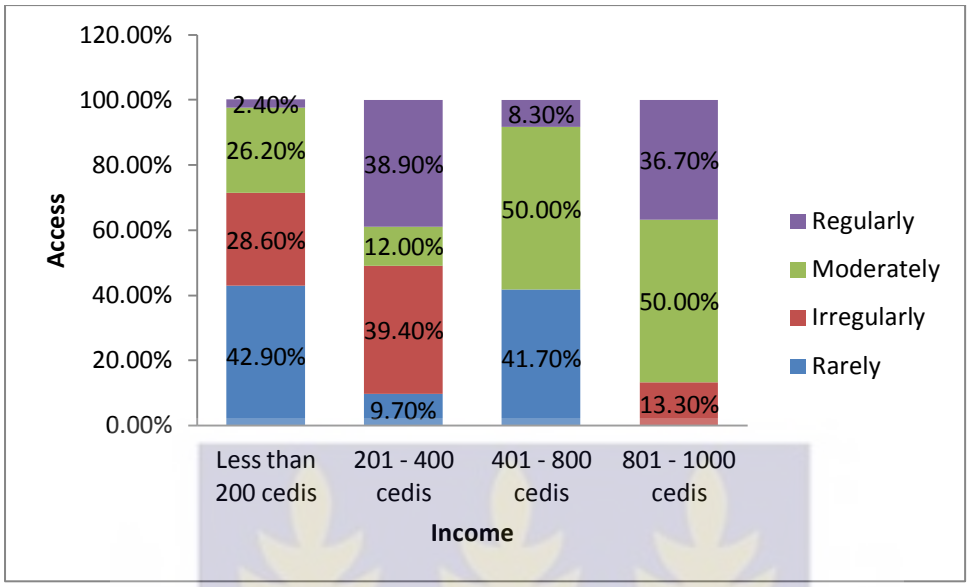
The data reveals that high transport cost deter people from using health care of their choice regularly. For example, Whiles 47.5% of respondents who spend nothing on transport cost access health care regularly, only 5.7% of respondents who spent between 16 and 35 cedis as transport cost access health care regularly with no respondents spending above 35 cedis on transport cost accessing health care regularly. As transport cost rises, access to health care reduces from regularly to rarely (*for respondents who spend below 5 cedis and between 16 and 35 cedis*) and in some cases irregularly (*for respondents who spend above 35 cedis*).

The relative low income earned by respondents prevents them from being able to afford transport cost. The data also shows that as transport cost increases, respondents' access to health care reduces. High transport cost adds up to the cost of service at the end of the day.

5.4.5. Income and Access to Health Care

The income of respondents was cross tabulated with access to health care. The results of the analysis are shown in Fig. 5.15 below. The data shows that 42.9%, 28.6%, 26.2% and 2.4% respondents who earn less than 200 cedis access health care rarely, irregularly, moderately and regularly respectively. The situation becomes different for respondents who earn between 201 and 400 cedis. For this category of income earners, 9.7%, 39.4%,12% and 38% access health care rarely, irregularly, moderately and regularly. It is evident that respondents' income has a positive relationship with access to health care.

Figure 5.15 Relationship between Income and Access to Health Care



Source: Field Survey, 2013.

Higher income earners are more likely to use specialist services that are more expensive than lower income earners because the former can afford.

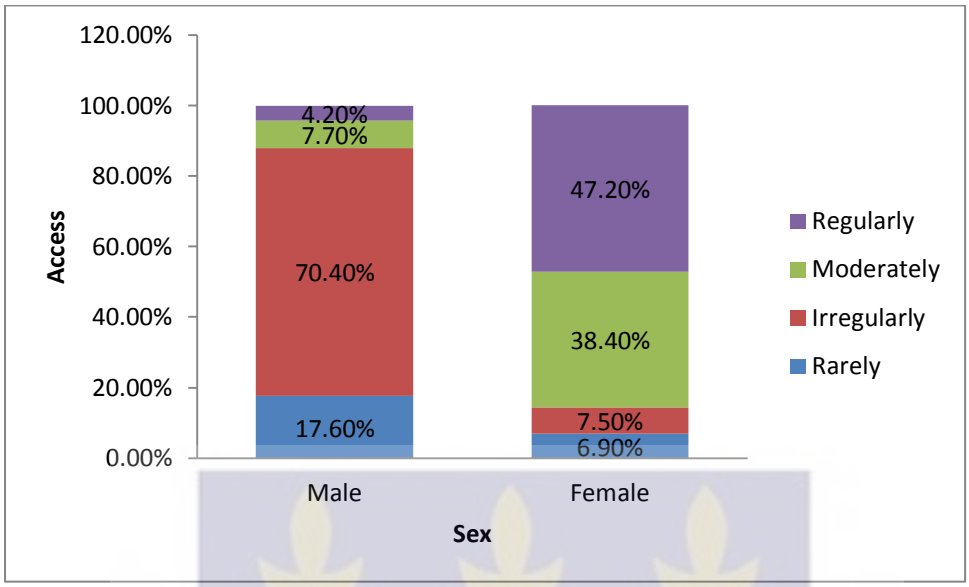
5.4.6. Gender and Access to health care

Gender also has an impact on accessibility of health care. The relationship between gender and access to health care is shown in Fig. 5.16 below.

The data shows that whiles only 4.2% of males access health care regularly, 47.2% of their female counterparts regularly access health care. 70.4% and 38.4% of males and females respectively accessed health care irregularly. When it comes to accessing health care rarely, the proportion of men 17.6% ought weighs that of females 6.9%.

The statistics show that females access health care more regularly than their male counterparts. E.g. over 85.6% of females access health care either regularly or moderately.

Figure 5.16 Relationship between Gender and Access to Health Care



Source: Field Survey, 2013

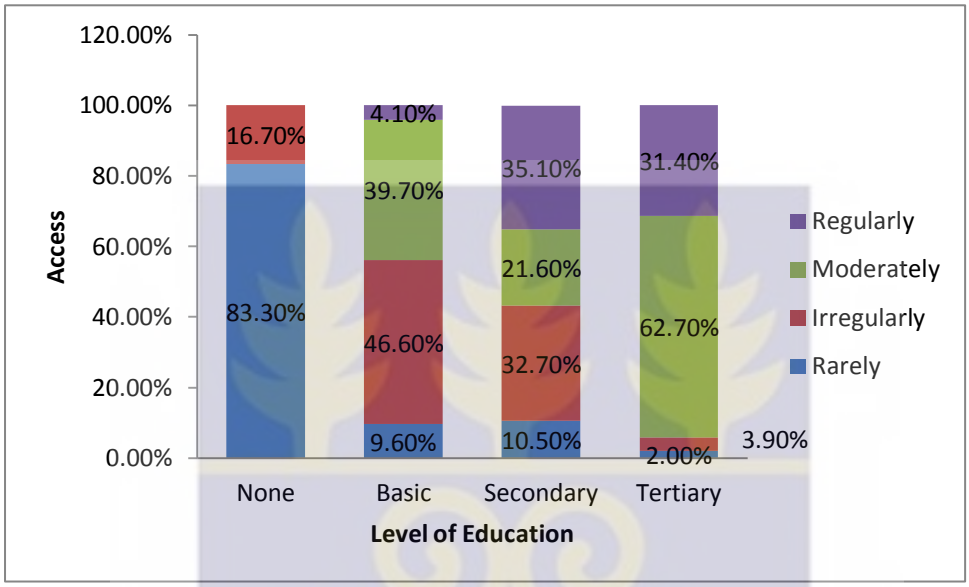
On the other hand only 11.9% of males access health care either regularly or moderately. As rightly put by Buor (2002), females have higher morbidity than men and are therefore more likely to seek health care more regularly than males. The reproductive function of women drains their health thus making them frequent health facilities. Women especially in their reproductive age group, utilise health services more than men. Cashin et al (2002) found in his study that both in absolute and per capita terms, the principal users of primary health care are women of reproductive age and children under five. Women of reproductive age were found to consume approximately 1.5 times the average per capita primary health care resources, whiles men in the same group consume approximately one-half of the average

5.4.7. Education and Access to health care.

Fig. 5.17 gives a summary of the relationship between education and access to health care. The data reveals that the educated are more cautious and conscious of their health, and tend to use health services more as compared to their illiterate

counterparts. Whiles 83.3% of respondents who had no formal education access health care rarely, 9.6%, 10.5% and 2% of the respondents who had attained basic, secondary and tertiary education respectively access health care rarely.

Figure 5.17 Relationship between Education and Access to Health Care



Source: Field Survey, 2013

No respondent without formal education access health care regularly. Meanwhile 4.1% of respondents who have attained basic education access health care regularly. Surprisingly the highest proportion of respondents who access health care regularly are those who have secondary education (35.1%) followed by those with tertiary education (31.4%). The data confirms that the less educated are more likely to access health care rarely because of their wait and see attitude and most importantly self medication. The role of poverty cannot be overlooked. The low level of education of respondents which impacts on access to health care can be blamed on poverty. Respondents within the low income bracket are not able to afford even the basic education of their wards. This tends to deny children of education which in tend affects health care access.

5.4.8. Most Important Factors influencing Accessibility.

Factors that influence respondents' choice of health facility were determined using facto analysis. Some of the factors include proximity to health facility, prompt and quality care, affordability, staff attitude, NHIS provider, waiting time and neatness of the facility. Respondents were asked to rank factors that influenced access to health care a seven point scale, where 1= not important and 7= very important. The output of the analysis for the variables under investigation is shown in Table 5.5. Using the mean of the factors, service cost has the highest mean of 5.72 followed by proximity (5.31) and prompt and quality care (4.29). NHIS provider has the least mean of 3.14. We can conclude that service cost which has the highest mean of 5.72 is the most important factor influencing respondent's accessibility to a health facility.

Table 5.5 Descriptive Statistics of Most Important Factors influencing Accessibility

Factors	Mean	Std. Deviation	Analysis(N)
Prompt and Quality care	4.29	1.647	301
Proximity	5.31	2.043	301
Service cost	5.72	1.432	301
Staff Attitude	3.85	1.593	301
NHIS provider	3.14	1.613	301
Waiting time	2.81	1.583	301
Neatness of facility	2.63	1.906	301

Source: Field Survey, 2013.

The high unemployment rate (15% of respondents are unemployed) and the low income of respondents (86% of respondents earn up to 400 cedis whiles the remaining

14% earn between 400 and 1000 cedis) as shown in Fig.5.2 and Fig. 5.3 respectively coupled with high service cost is responsible for respondent's inability to afford health care.

5.5. Distribution of Public Health Facilities and Health Professionals.

The importance of distribution of health care facilities in any defined region cannot be over emphasized in any health care system (Adu-Gyamfi and Abane, 2013). One of the main concerns of medical geographers has been the assessment of health care systems to discern spatial patterns among health care resources (Meade et al, 1984). According to Okafor (1987:383), "the need for medical care has a spatial component" and any study into health care accessibility must therefore delve into the spatial distribution pattern.

Table 5.6 shows the distribution of public health facilities in the Ga West Municipal Assembly. The available health facilities include Government Hospital, Community clinics and CHPS units. The spatial distribution of the public health facilities in the Ga West Municipal Assembly are also shown in Fig. 5.18

Table 5.6 Distribution of Public Health Facilities.

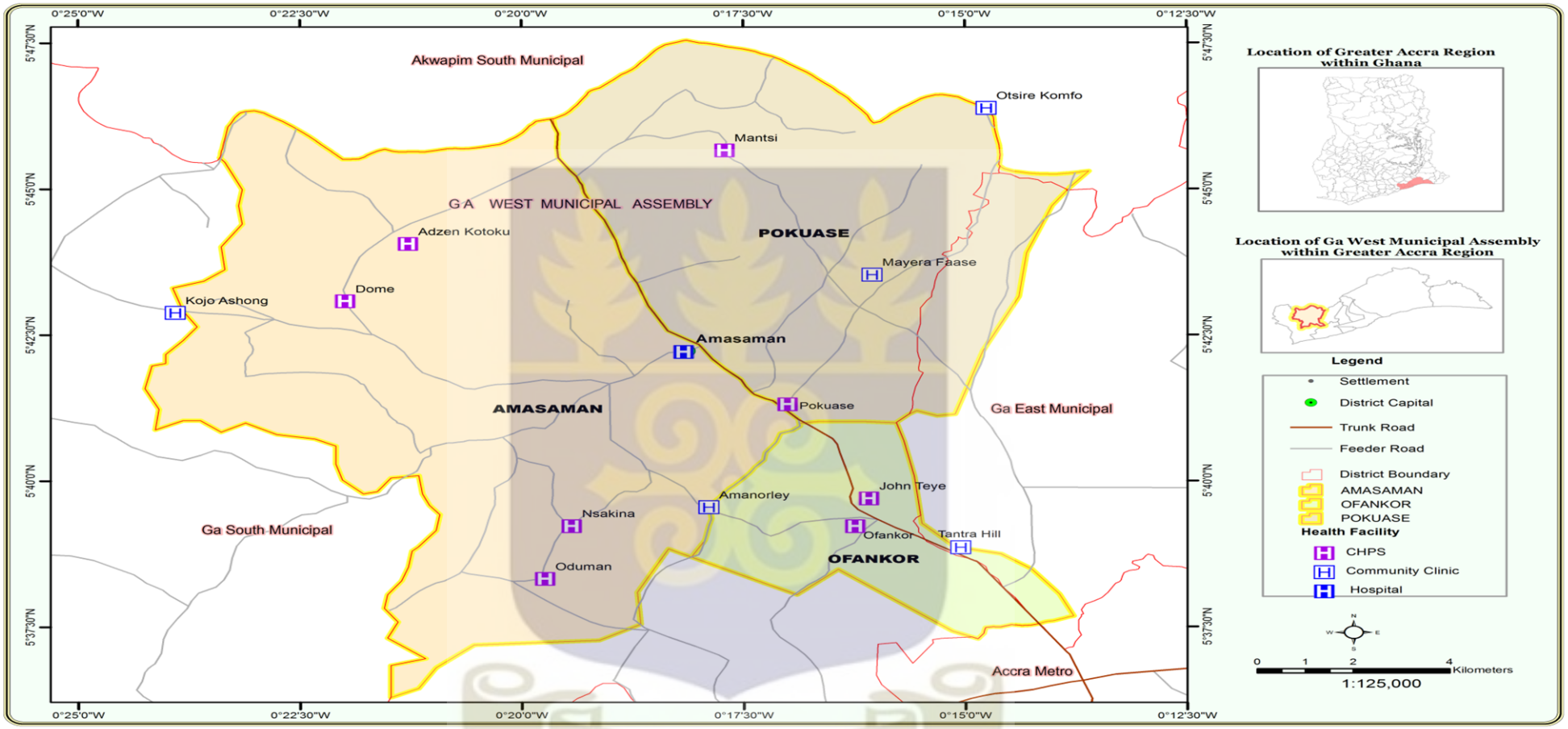
Districts	**Type Of Health Facility**		
	Government Hospital	**Community Clinic**	**CHPS Unit**
Pokuase	–	1	4
Amasaman	1	1	5
Ofankor	–	1	3
Total	**1**	**3**	**12**

Source: GWMHD, Field Survey, 2013

There are sixteen (16) public health facilities. Majority of the health facilities (12 health facilities) representing 75% of the facilities are CHPS units whiles community clinics form 19% of public health facilities. There is only one hospital (Ga West Municipal Hospital) representing 6% of the health facilities provided by the government. Amasaman district has the highest proportion of public health facilities (44%), followed by Pokuase with 31% and the remaining 25% are located in the Ofankor district. Despite the fact that respondents prefer to access health care at the municipal hospital because of the availability of specialists, drugs and other services such as laboratory, x-ray and scan, the long waiting times spent at the OPD discourages them from accessing health care at the hospital.

Considering the projected population of the Municipality for the year 2010 which stands at 217,091 with a growth rate of 3.4% (GWMA, 2012) and the number of health facilities available, it is evident that the number of health facilities is woefully inadequate to meet the demanding health needs the municipality. Hence in testing the first hypothesis, we reject the null hypothesis and accept the alternate hypothesis. Health care facilities are not evenly distributed in the Ga West Municipal Assembly.

Figure 5.18 Spatial Distribution of Public Health Facilities in GWMA.



Source: CERSGIS, 2014

available, it is evident that the number of health facilities is woefully inadequate to meet the demanding health needs the municipality.

The CHPS initiative enables the Ghana Health Service (GHS) to reduce health inequalities and promote equity of health outcomes by removing geographic barriers to health care. Furthermore it aims at relocating primary health care from sub-district health centres to convenient community locations (GHS, 2010). Unfortunately, the numerous CHPS units in the study area are bedevilled with several challenges hindering accessibility to health care. A crucial problem is the lack of appropriate infrastructure for the CHPS units. The Pokuase CHPS for example, has to make do with a small room within the Pokuase Zonal Council building. This makes work awkward for the staff. There is no privacy for patients who have to be examined at the facility. This could also deter patients from accessing the facility. The CHPS unit at Fise in the Amasaman district has no permanent location. It operates as an outreach facility.

Secondly community members who are mostly farmers resort to self- medication or use herbal medication instead of visiting the CHPS units. This practise becomes the norm during the farming season when farmers work long hours in the farm and do not have time to visit health facilities unless it becomes urgent.

The community clinics also have their own challenges. According to GSS (2000), the sub-district health centre or health post is manned by a medical assistant and is the first referral point for the village level workers. It offers treatment and preventive health services, such as antenatal care, routine immunization, and treatment of illnesses. A visit to the "Otsirikomfo" community clinic in the Pokuase district

revealed that even though the appropriate infrastructure has been provided to operate as a community clinic, it was being operated as a CHPS unit with only three members of staff: two community health nurses and one health promotion assistant.

Staffing of health care professionals in Ghana is determined by the location of the facilities; urban centres are well resourced while rural communities are deprived (Smith, 2000; Donkor, 2006). The health of the population is related to the level of health manpower available to offer services. The inadequate remuneration and other unfavourable working conditions, including lack of requisite equipments to work with, have forced many nurses and other health personnel to refuse posting to less developed facilities or leave the country for new experience (GSS, 2000).

The Amamorley and Mayera-Faase community clinics on the other hand were better staffed as compared to the Otsirikomfo community clinic. Table 5.7 shows the distribution of health professionals at selected community clinics in the municipality. Even though there are no medical assistants at post as required by GHS, other relevant health professionals are available. Mayera Faase community clinic has the highest (24) number of health professionals whiles Otsirikomfo community clinic is the most deprived in terms of health professionals. Furthermore, the roads connecting the facilities are in deplorable conditions making accessibility more difficult thus discouraging prospective clients from accessing health care. There are no ambulances at any of the community clinics to convey patients to the referral points in times of emergency. Family members have to convey their patients to the referral point by means of a hired taxi or a private car if they have one. Some lives have been lost due to late arrival at the referral centre which was greatly influenced by the absence of a means of transport coupled with the bad roads connecting health facilities.

Table 5.7 Distribution of Health Professionals in selected community clinics

Staff	Amamorley Community Clinic	Mayera Faase Community Clinic	Otsirikomfo Community Clinic
Senior Midwifery Officer	1		–
Midwifery Officer	1	4	–
Senior Staff Nurse	1	6	–
Staff Midwife	1	1	–
Principal Enrolled Nurse	1	–	–
Enrolled Nurse	4	6	–
Community Health Nurse	**6**	**7**	**2**
Health Promotion Assist.	–	–	1
Orderly	1	–	–
Total	**16**	**24**	**3**

Source: Fieldwork, 2013

Also, personal observations made by the researcher revealed that there was no telecommunication network coverage at Otsirikomfo village. This makes communication among the health facilities including the Municipal Hospital and the Ga West Municipal Health Directorate (GWMHD) difficult. Both health personnels and patients have to travel outside the community before having access to a network.

The Ga West Municipal Hospital was established as a health centre in 1984 and was converted into a hospital in the year 2008. It is the only Government hospital located between the Nsawam Government Hospital in the Eastern Region and the Achimota Hospital. Therefore it provides services to people located in between these two facilities and beyond (GWMH, 2014). It serves the referral needs of residents of the

study area and beyond. Cases referred from any of the community clinics and CHPS units in the study area are sent to the municipal hospital at Amasaman.

The researcher observed that a lot of pressure is exerted on the only government hospital which also serves the referral needs of the municipality and beyond. The distribution of workers for three consecutive years in the Ga West Municipal Hospital is shown in Table 5.8

Table 5.8 Distribution of Health Professionals in Ga West Municipal Hospital

Staff	2011	2012	2013
Medical Officers	11	8	11
Medical Assistants	6	6	6
Midwifes	23	28	31
Clinical Nurses	96	146	150
Public & Comm. Health Nurses	10	14	18
Anaesthetist	5	6	7
Pharmacist	3	3	3
Total	**154**	**211**	**226**

Source: Extracted from GWMH Annual report, 2014

The Ga West Municipal Hospital has over the years seen an increase in the number of health professionals. For example, the number of midwives rose from 23 in 2011 to 28 in 2012. By 2013, the number of midwives had increased to 31. Similarly, in 2011,2012 and 2013, the number of Anaesthetists increased from 5 to 6 and 7 respectively. Over the same three year period, there was an increase in the number of Public and community health nurses from 10 to 14 and finally to 18.

On the other hand, the number of medical officers dropped from 11 in 2011 to 8 in 2012 and subsequently rose to 11 in 2013. The number of medical assistants and pharmacists remained at 6 and 3 respectively throughout the three year period. It is probable that the increase in the number of health professionals is due to their high demands at the hospital which doubles as the referral needs of the municipality and beyond. Many patients purposely travel from far and near to meet specialists who are absent at the CHPS units and the community clinics. This finding is confirmed by Morill et al. (1970) who analysed travel distance in their study of hospital use in Chicago. They found out that physicians, and not patients, usually choose the hospital a patient will use. Patients often travel beyond their closest facility because their doctor is affiliated with, or closer to a, different hospital. Doctors' offices were closer to hospitals than patients' homes were to either doctors or hospitals.

5.2. Top Ten Causes of OPD attendance at GWMH

The Ga West Municipal Hospital receives patients from both far and near visiting with various ailments. The nature of disease affects the type of facility one uses. The distribution of the top ten causes of OPD attendance at the hospital is shown in Table 5.9 below.

Table 5.9 shows that in 2012 and 2013, malaria accounted for 34 % of all cases seen at the Obstetrics and Gynaecology Department (OPD) securing the first position on the list of top ten cases seen at the OPD. According to the ranking and share of burden of diseases by Songsore (2004) in his book titled Urbanization and Health in Africa: exploring the interconnections between poverty, inequality and disease, malaria ranks first among several diseases in Ghana. It accounts for about 44% of reported out-

patient department visits and approximately 22% of all under-five mortality in Ghana (GHS, 2008). Pregnant women and their unborn babies are also vulnerable to malaria (WHO, 1982).

Table 5.9 Top Ten Causes of OPD attendance at the GWMA

	CASES	2012	%	CASES	2013	%
1	Malaria	7356	34	Malaria	7111	34
2	Gynecological Conditions	2731	13	Gynecological Conditions	2252	11
3	Acute respiratory Tracts Infection	1836	8.6	Anaemia	2149	10
4	Anaemia	1786	8.3	Acute Respiratory Tracts Infection	1851	9
5	Acute Urinary Tracts Infection	1621	7.6	Diarrhoea Diseases	1680	8
6	Diarrhoea Diseases	1587	7.4	Skin Diseases & Ulcers	1443	7
7	Acute Eye Infections	1332	6.2	Acute Urinary Tracts Infection	1368	6.5
8	Skin Diseases & Ulcers	1178	5.5	Typhoid Fever	1143	5.5
9	Rheumatism & other Joint Pains	1102	5	Acute Eye Infections	1095	5.2
10	Hypertension	925	4.3	Acute Ear Infections	833	4
	TOTAL	**21454**	**100**		**20925**	**100**

Source: GWMH, 2014.

Subsequently over the same period gynaecological conditions accounted for 13% and 22% of cases respectively place second on the list. This shows that women have higher morbidity than men. The nature and biological "make up" of women give them up in health facilities for frequent checkups (Leon Feinstein et al. 2006). Studies studies have also shown that women especially in the reproductive age group utilize services more than men. (Cashin et al. 2002).

In 2012, whiles Acute Respiratory Tract Infection (RTI) and Anaemia cases represented 8.6% and 8.3% respectively, the situation turned around in 2013 with the OPD recording 10% and 9% of Anaemia and RTI cases respectively. The least of the top ten cases seen at the OPD in 2012 and 2013 is hypertension (4.3%) and Acute Ear Infection (4%) respectively.

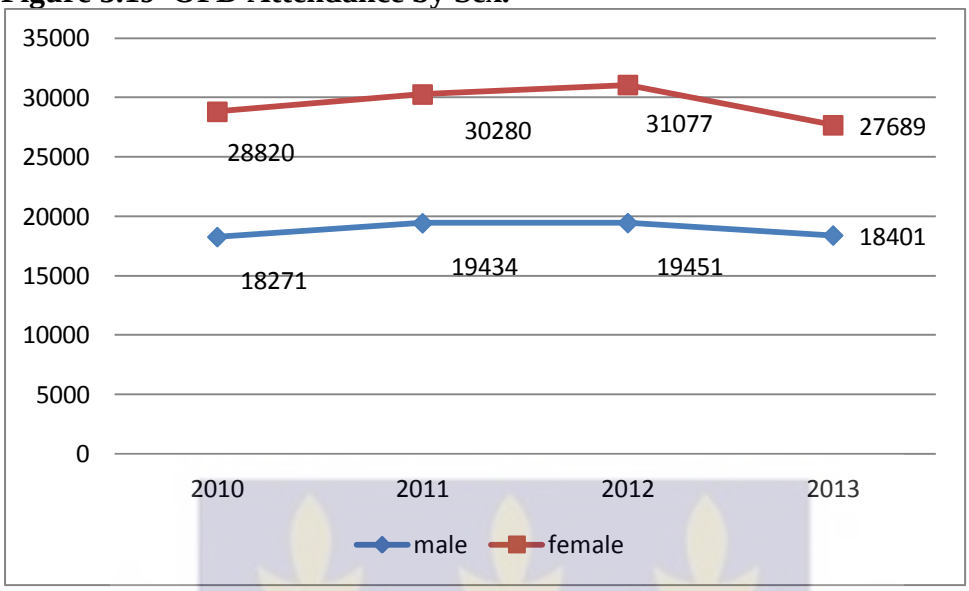
From the analysis, it is clear that malaria is the commonest disease recorded at the OPD for both 2012 and 2014 representing 34% of the diseases seen at the OPD for both years. According to the African Medical and Research Foundation, malaria is the most important single disease in the world, for it has the power to disable as well as to kill (AMRF, 2005). It is one of mankind's most feared and serious afflictions that cause more morbidity than any other human disease (Whittle et al, 1994). Between 20% and 40% of outpatient departments visits and between 10% and 15% of hospital admissions in Africa are attributed to malaria (WHO, 1999).

5.6. OPD Attendance by sex

High attendance to health facilities have been attributed to women as compared to their male counterparts. Women have a higher morbidity than men Macintyre (1996). They are therefore more likely to access health care more regularly than men. The OPD attendance by sex recorded at the Ga West Municipal Hospital is shown in Fig. 519.

The data shows that throughout the four year period from 2012 to 2013, the number of females that visited the OPD outnumbered that of the males. In 2010, whiles 28,820 females were seen at the OPD, 18,271 males were present

Figure 5.19 OPD Attendance by Sex.



Source: GWMH, 2014

. The number of females seen at the OPD in 2012 and 2013 are 31077 and 27689 respectively. For the same period, the number of men who visited are 19451 and 18401 respectively. It is clear that OPD attendance rate for females are higher than that of males.

6 CHAPTER SIX

SUMMARY, CONCLUSION AND RECOMMENDATION

6.1. Introduction

This chapter provides a summary of key findings as well as recommendation. It does so in three main sections. This first section presents summary of key findings followed by the conclusion in the second section. The third section presents recommendations.

6.1.1. Summary

The research set out to examine factors influencing accessibility to health care in the Ga West Municipal Assembly. Both spatial and non-spatial variables were examined. The spatial variables include distance, travel time and waiting time. The non-spatial factors are, sex, educational level, service and transport cost and income. The research also examined the distribution of health facilities in the study area.

Both quantitative and qualitative data were collected. The main research instruments were questionnaire, interview and personal observation. The sampling tools that were employed include systematic, stratified and simple random. A total of three- hundred and one (301) respondents from six communities were sampled. Respondents who could not read were interviewed using the questionnaire as a guide. The survey collected information on the socio-demographic background of respondents, as well as the patterns and factors that influenced accessibility. The data was analyzed and interpreted using both descriptive and inferential statistics.

6.1.2. Conclusion

The following conclusions can be outlined from the study.

i. Health facilities in the Ga West Municipal Area are not adequately distributed. The Municipality has only one Government hospital (Ga West Municipal Hospital), 12 CHPS units and 3 Community clinics. The hospital is more than 15 kilometers away from some of the communities that have only a CHPS unit which provides limited services and lacks specialists. Considering the projected population of the Municipality for the year 2010 which stands at 217,091 with an annual growth rate of 3.4% and the number of health facilities available, it is evident that the number of health facilities is inadequate and unequally distributed to meet the demanding health needs of the municipality.

ii. Apart from the Ga West Municipal Hospital, all other public health facilities in the study area are poorly connected by roads making accessibility difficult. The roads linking communities to health facilities are not motorable most parts of the year. The deplorable nature of the roads worsens during the rainy season making accessibility more cumbersome.

iii. The community clinics lack health professionals especially the Otsirikomfo Community clinic. The inadequate remuneration and the poor working conditions of health workers in the municipality have compelled many nurses and other health personnel to refuse posting to less developed facilities or leave the country for new experience (GSS, 2000). This has contributed to the abandonment of the community clinic which now operates as a CHPS unit with only three health personnels: two community health nurses and one health care

assistant. The CHPS in the study area also lack the requisite infrastructure with some either perching in a small room provided by the zonal council whiles others simply have no permanent location.

iv. The study reveals that there is low accessibility to health care among residents of the study area. This has affected the health of the people. Respondents travel long distances on bad roads and spend large proportions of their meager income on health care. The critical factors that influence accessibility to health care are service cost (affordability) and distance to health care. Other factors in include waiting time, travel time, staff attitude, sex, education and quality of care.

6.1.3. Recommendations

i. In order to increase access to health care in the Ga West Municipality, public education should also be intensified to encourage people to eschew self medication and also desist from the "wait and see" attitude. Health campaigns and health education projects can raise the level of awareness and understanding of the people about practice that promote good health. The National Health Insurance Scheme should also be improved by government so that residents who cannot afford the out of pocket payment can depend on the scheme to access health care

ii. There is the need to upgrade community clinics to hospital and the CHPS units to community clinic status respectively and more medical personnel should be provided to the existing health facilities. Furthermore there is the need for adequate planning in order to optimize the location of health facilities to increase

accessibility to health care within a minimum distance. Private health service providers should also be encouraged by the government to establish new health facilities in some disadvantaged communities.

iii. The deplorable roads connecting health facilities should be rehabilitated or reconstructed and new ones constructed to reduce the travel time and high cost of transport. Emphasis should be laid on constructing quality roads that can stand the test of time especially during the rainy season since poorly constructed roads are washed away by the rains each year. Opinion leaders and community heads in conjunction with the appropriate authorities including Local Government, Ministry of Roads and Highways and the Ministry of Feeder roads should ensure that contracts awarded are executed with finesse.

iv. Government policy should support and reward health personnels who accept postings to the rural areas. If better working conditions and opportunities are in place, many health personnel may not be compelled to emigrate but stay to contribute to improving the health of the population.

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APPENDIX

CODE | | | |

QUESTIONNAIRE FOR HOUSEHOLD HEADS

Town/ Community_____ **District**_____

This questionnaire is to solicit information on **Accessibility to Health Care in the Ga West Municipal Assembly.** Information that you provide are strictly for academic purposes only and will be treated with intense **CONFIDENTIALITY**, therefore no direct reference would be made to individual respondents. Thank you for your participation.

SECTION A: BACKGROUND INFORMATION

1. **Sex**: 1. Male [ ] 2. Female [ ]
2. **Age (yrs)** **1**. 18 – 25 [ ] **2**. 26- 35 [ ] **3**. 36 – 45 [ ] **4**. 46 - 55 [ ] **5.** Above 55 [ ]
3. **Religious Affiliation** 1. Christian [ ] 2. Moslem [ ] 3. Traditionalist [ ] 4. Buddhist [ ]
4. **Educational Status** 1. None [ ] 2. Basic education [ ] 3. Secondary [ ] 4. Tertiary [ ]
5. **Marital Status**: 1. Single [ ] 2. Married [ ] 3. Widowed [ ] 4. Separated [ ] 5. Divorced [ ]
6. **Number of children …….**
7. **Employment status** 1. Unemployed [ ] 2. Employed [ ]
8. **Occupation.** 1. Salary Worker [ ] 2. Farming [ ] 3. Trading [ ]
   4. Artisan e.g. mason, plumber, carpenter, hairdresser etc (Specify) [ ]
   ……..

5. OTHERS (specify)

…….. [ ]

9. Approximate total monthly income from all income sources. (GH¢)

……

1. less than 200 [ ] 2. 201 – 400 [ ] 3. 401 – 800 [ ] 4. 801- 1000 [ ] 5.above 1000 [ ]

SECTION B: ACCESSIBILITY TO HEALTH FACILITIES

10. Which health facilities are available in your community? (please tick where applicable)

	HEALTH FACILITIES	Tick
A	Government Hospital	
B	Private clinic/hospital	
C	Community Clinic	
D	CHPS Unit	
E	Traditionalist	

11. What is the distance to the nearest health facility from your house?

[1] Less than 1 km ( ) **[2]** 1km – 3km ( ) **[3]** 3.1km to 5km ( ) **[4]** 5.1 km to 8km ( ) **[5]** Above 8km[ ]

12. Do you use the health facility closest to you? **[1]** Yes ( ) **[2]** No ( )

13. Why? Kindly explain in de-tail.……

……

……

……

14. Which of the health facilities do you and your family mostly use when you are sick?

	HEALTH FACILITIES	**Tick (√)**
A	Government Hospital	
B	Private clinic/hospital	
C	Community Clinic	
D	CHPS Unit	
E	Traditionalist	

15. Which of these factors influence your choice of a health facility?

Please Rank 1 – 7 (1 - Not important , 7 – Very important)

REASONS FOR CHOICE OF HEALTH FACILITIES	**RANK**
Proximity/ Closeness to health facility	
Prompt and Quality service	
Affordability (Moderate charges)	
Staff Attitude	
NHIS provider	
Waiting hours at the health facility	
Long hours of operation	

16. What is the distance from your house to the health facility you often use?

[1] Less than 1 km( ) **[2]** 1km – 3km ( ) **[3]** 3.1km to 6km ( ) **[4]** 6.1 km to 10km ( ) **[5]** Above 10 km[ ]

17. What mode of transport do you use when visiting the health facility of your choice?

[1] Foot/Walking ( ) **[2]** Taxi ( ) **[3]** Trotro ( ) **[4]** Private car ( ) **[5]** Motor Cycle ( )

18. How long does it take you to journey to the health facility you attend?

[A] Below 15 minutes ( ) **{B}** 15 - 30 min. ( ) {**C}** 30 -45 min. ( ) **{D}** 46 – 60 minutes ( ) **{E}.** Above 60 minutes ( )

19. How much do you spend on transportation to and from the health facility you use? GH¢..... **[A]** Nothing 0 GH¢( ) **{B}** Below GH¢5 ( ) {**C}** GH¢5 – GH¢15 ( ) **{D}** GH¢16 – GH¢35 ( ) **{E}.** Above GH¢ 35 ( )

.

20. What is your opinion on the cost of transport for a return trip to the health facilities?

[1] Very dissatisfied **( )** **[2]** Dissatisfied **( )** **[3]** Undecided/ Neutral ( ) **[4]** Satisfied ( ) **[5]** Very satisfied ( )

21. Is distance a barrier to your patronising health services? A. Yes **( )**

B. No **( )**

22. If Yes, under what circumstance will these be overlooked?

a. .....

.....

b. .....

.....

23. Within which distance range are you prepared to attend hospital by .....

a. Foot?

[1] Less than 1km ( ) **[2]** 1km – 2km ( ) **[3]** 1km – 3km ( )

[4] 1km – 4km ( ) **[4]** 1 – 5km ( )

b. Other means of transport(Taxi, Private car, Trotro)?

[1] Less than 1km ( ) **[2]** 1km – 3km ( ) **[3]** 1km – 5km ( ) **[4]** 1km – 8km ( )

[5] 1km – 10km ( ) **[6]** Beyond 10 km ( )

24. How long do you wait on the average before you are attended to at the health facility?

A. Less than 15 minutes [ ] **B.** 15 – 30 min [ ] **C.** 30 – 45 min [ ] **D.** 45 – 60 min [ ] **E.** Above 60 min [ ]

25. Are you aware of the existence of National Health Insurance Scheme?

{1}Yes ( ) **{2}** No ( )

26. Are you registered with the National Health Insurance Scheme? {1}. Yes ( ) **{2}** No ( )

27. If No why have you not registered?.....

.....

.....

28. If registered, are you able to use the scheme in all the facilities around? {A} Yes ( ) **{B}** No ( )

29. Is services cost a barrier to your patronising health facilities? {A} Yes ( ) **{B}** No ( )

30. How much do you pay for health service when you visit the health facility?

GH¢.....

[A] Nothing 0 GH¢( ) **{B}** Below GH¢20 ( ) {**C}** GH¢21 – GH¢50 ( )

{D} GH¢51 – GH¢100 ( ) **{E}.** Above GH¢ 100 ( )

31. What do you think of the fees charged for health care services and facilities in your area?

{1} Very dissatisfied ( ) **{2}** Dissatisfied ( ) **{3}** Undecided/ Neutral ( )

{4} Satisfied ( ) **{5}** Very satisfied ( )

32. In times of emergency how do you get to the hospital or clinic for medical services?

{1} Foot/Walking ( ) **{2}** Moto cycle ( ) **{3}** Taxi ( )

{4} Trotro ( ) **{5}** Private Car ( )

33. What is the first point of treatment when one falls ill in your household?

{1} Self Medication ( ) **{2}** Public Hospital ( ) **{3}** Community Clinic ( ) **{4)** Private Clinic( )

{5}Traditionalist/Herbalist ( ) **{6}** CHPS compound ( )

34. How many times have you visited the hospital/ Community clinic the last three times you experienced illness spells? {1} No attendance ( ) **{2}** Once ( ) **{3}** Two times( )

{4} Three times ( )

35. Health Status: How often do you fall sick? 1. Once a week ( ) 2. Once a fortnight ( ) 3. Once a month ( ) 4. Once in three months ( ) 5. Rarely ( )

36. Which of the following reasons best explains why you do not attend hospital when sick? Rank 1 – 7 (1 – lowest, 7 – Highest)

Factors/ Reasons	**Rank(1 – 7)**
Long distance to hospital	
Use of herbal medicine	
Bad road network	
High Cost of service	
High transport cost	
Long waiting time for treatment.	
Lack of Specialists	

37. What do you associate with the quality of services? {1} Less waiting time ( ) **{2}** Competent Professionals ( ) **{3}** Friendly Staff ( ) **{4}** Well equipped facility ( ) Availability of drugs ( )

38. How do you assess the quality of service provided by the health facility you mostly use?

A. Very good ( ) **B.** Good ( ) **C.** Satisfactory ( )

D. Poor ( )

39. What type of sickness do you normally report at the hospital/community clinic? Pls Rank (1 – Least Important 7 – Most Important)

Disease	Rank(1 – 7)
Diarrhoea	
Malaria	
Accidents	
Pregnancy related	
Diabetes	
Hypertension	
Skin Diseases	
Fever	