

KWAME NKRUMAH UNIVERSITY OF SCIENCE AND TECHNOLOGY

COLLEGE OF HEALTH SCIENCES

SCHOOL OF MEDICAL SCIENCES

DEPARTMENT OF COMMUNITY HEALTH



HEALTHCARE ACCESSIBILITY BARRIERS CONFRONTING PERSONS WITH
DISABILITIES IN THE KUMASI METROPOLIS

BY

ERIC BADU

NOVEMBER 2014

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A THESIS SUBMITTED TO THE DEPARTMENT OF COMMUNITY HEALTH,
SCHOOL OF MEDICAL SCIENCES, COLLEGE OF HEALTH SCIENCES, KWAME
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MASTER OF SCIENCE (DISABILITY, REHABILITATION AND DEVELOPMENT)

BY

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NOVEMBER 2014

DECLARATION

I hereby declare that this submission is my own work towards the award of MSc Disability, Rehabilitation and Development and that, to the best of my knowledge, it contains no previously published work by another person, nor material which has been accepted for the award of any other degree of the University, except where due acknowledgment has been made in the text.

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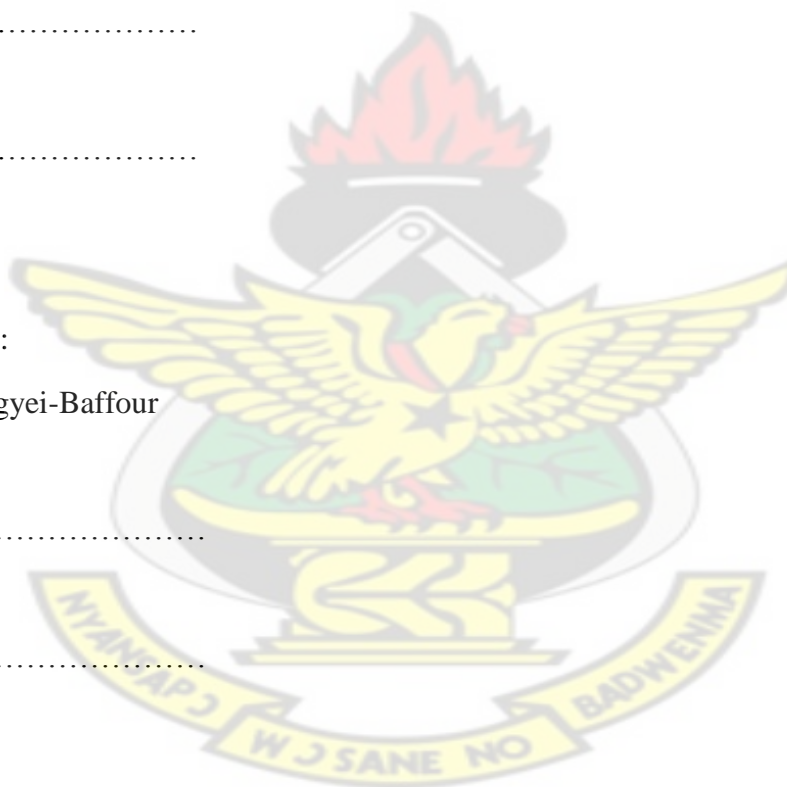
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ABSTRACT

The World Health Organization (WHO) estimate that 10% to 15% of developing countries population live with disability. It translates to about 2.4 million to 3.6 million Ghanaians living with disability. Unmet needs to health services are a major challenge to disable persons. However, there is little evidence on healthcare accessibility barriers for disable persons to inform policy design and implementation of appropriate interventions. This study aimed at assessing the extent of healthcare accessibility barriers that persons with disabilities are confronted with.

A cross-sectional study involving interviews using semi-structured questionnaires was conducted with PWDs (the physically challenged and the, Hearing and Visual impaired) in the Kumasi Metropolis. The study used a multi-stage sampling to randomly select respondents from five (5) communities; Oforikrom, Subin, Asawase, Tafo and Asokwa. Data were analysed using the SPSS software programme. Data were analysis involved descriptive and analytical statistics at 95% confidence interval.

Results showed that although respondents faced physical, communication and medical equipment barriers to healthcare, those with physical and communication barriers had significant relationship with access to the healthcare ($p=0.018$; $p=0.001$) whereas those with medical equipment barriers had no significant relationship ($p>0.005$). The NHIS was used by most respondents as source of payment for healthcare as it had a significant relationship with access to the services ($p=0.000$), although, it does not cover equipment and other expenses. An average monthly expense on healthcare was GHC 21.46 (USD 6.0) which constitutes 9.8% of respondents' income such that females and physically disabled spend higher than males and other disability group. Demographic variables such

as Community of resident, age and disability type had significant relationship with respondents' access to healthcare ($p < 0.005$).

The study concludes that access to health care among PWDs is limited and varies with types of disability in favour of the physically and communication challenged.

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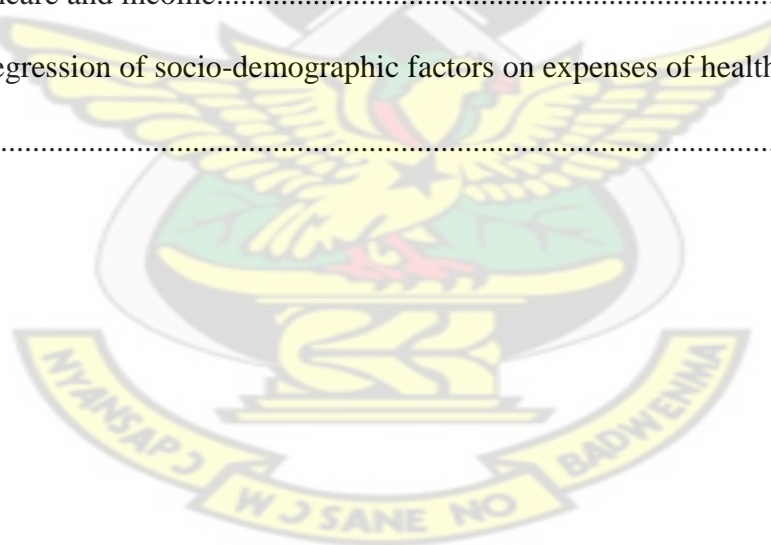
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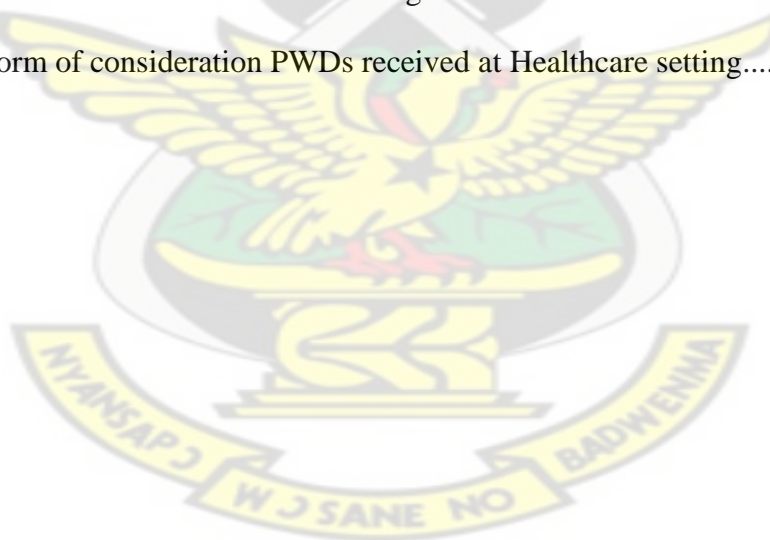
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DEDICATION

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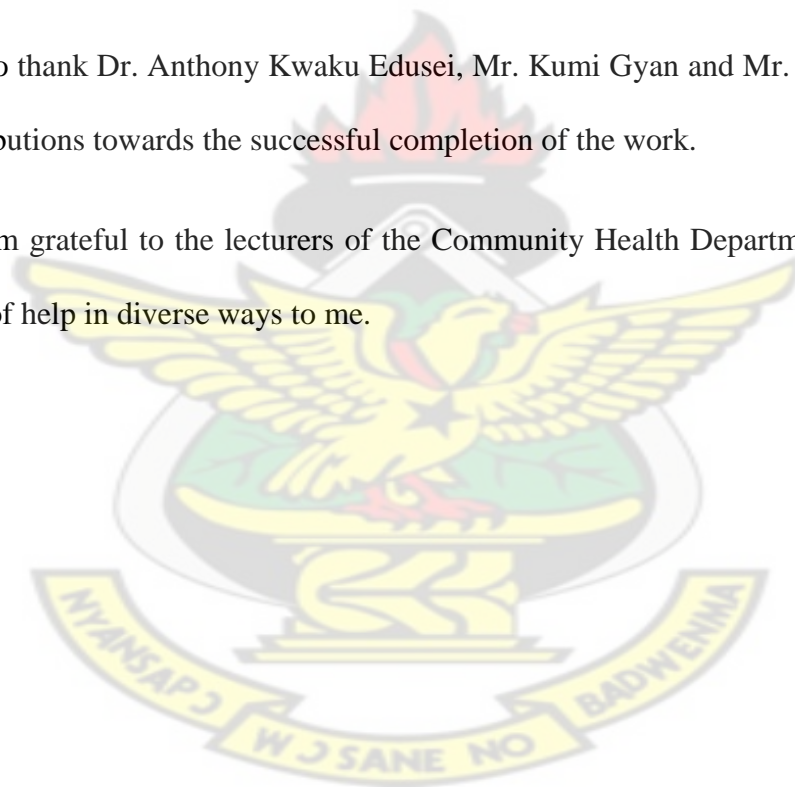
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ACRONYMS/ABBREVIATIONS

ADD:	An Action on Disability and Development
CBR:	Community-Based Rehabilitation
CHAG	The Christian Health Association of Ghana
CRPD:	Convention on the Rights of Persons with Disabilities
DCF:	The Disability Common Fund
GBU:	The Ghana Blind Union
GFD:	The Ghana Federation of the Disabled
GHS:	The Ghana Health Service
GIF:	The Governance Issue Forum Network
GoG:	The Government of Ghana
GSS:	The Ghana Statistical Services
HREA:	Human Rights Education Associates
ICRC:	The International Committee of Red Cross
KMA:	The Kumasi Metropolitan Assembly
KNUST:	The Kwame Nkrumah University of Science and Technology
MDGs:	Millennium Development Goals
NGO:	Non-Governmental Organization
NHIS:	The National Health Insurance Scheme
OECD:	The Organization for Economic Co-operation and Development
PCWTFA:	The Physically Challenged Wheel chair Tract and Field Association
PWDs:	Persons with Disabilities
UNESCO:	The United Nations Educational Scientific and Cultural Organization
UNICEF:	The United Nations Children Fund

CHAPTER ONE

INTRODUCTION

1.0 Background to the study

Healthcare access is important for every individual both abled and disabled for the reason that a healthy person can work effectively to contribute to the development of his nation. When individuals health needs are met, there is a positive thinking about their future and attain proper welfare (Nordhaus, 2002). Life expectancy will improve as individuals experience quality and accessible healthcare (Mugilwa *et al.*, 2005, Marmot *et al.*, 2008). To achieve this, policy makers and stakeholders should put measures that will meet international regulations for quality healthcare. It is, therefore, captured in the 1946 Constitution of the World Health Organization (WHO) that ‘the enjoyment of the highest attainable standard of health is one of the fundamental rights of every human being’. To this effect, the Community-Based Rehabilitation (CBR) programme developed by the WHO highlights five important components of health services for PWDs. These services are health promotion, health prevention, medical care, rehabilitation and assistive devices. These components can improve healthcare for PWDs to ensure sustainable development through accessible and proper linkages between PWDs and the health systems (WHO, CBR Guidelines, 2010).

However, healthcare utilization among PWDs differs dramatically across countries and communities. In every society, PWDs lag behind other citizens in accessing healthcare (Rimmer *et al.*, 2004). This problem is common to the disabled in Africa and most developing countries and widens the access gap between themselves and their counterparts in the developed world (An Action on Disability and Development (ADD), 2005). Many explanations that support these problems point out that disabled persons are

classified as being among the poorest of the poor and seen as unproductive and a burden to the society. They, therefore, lack access to public health and other social services that will improve their wellbeing. Specialist with knowledge on disability related issues are also lacking and hence special needs pertaining to their health are not seriously addressed (Elwan, 1999). More importantly, physical proximity like transportation and patient's ability to afford health services constitute the two major reasons why PWDs around developing countries do not obtain healthcare (WHO, Disability and Health, 2013a, Peters *et al.*, 2008).

Notwithstanding this, PWDs can better live in their setting through rehabilitation services, assistive technology and universally design environment. The support from friends and family members also play a significant role in helping disabled persons at healthcare centres (Emanuel *et al.*, 1999). Accessibility is, therefore, increasingly becoming a standard in today's world for manufacturers of goods and services. Not surprisingly, the concept is not seriously addressed as standard in most African countries. Namibia is a typical example of such countries. Rehabilitation services is unavailable for PWDs particularly those living in the rural setting. The disabled population who received rehabilitation services in urban and rural setting in Namibia is 15% and 2% respectively (The Green Paper on Developmental Social Welfare in Namibia 1997 cited in Wiman *et al.*, 2002).

Furthermore, Mainstream foundation in Namibia reported that a 2003 study on living conditions of PWDs in Namibia found less than 30% of the disabled have access to counselling services, assistive devices and educational services. Also, the International Committee of Red Cross (ICRC) in Nairobi and Dar es Salam (2013) found that the estimated number of disabled people who uses rehabilitation services are only 2%.

Ghana as a country has limited provisions for the healthcare of PWDs compared to other countries like United States and European standards. The Orthopaedic Training centre at Nsawam is the only rehabilitation unit that respond to patients with physical rehabilitation throughout Ghana. There are other few similar in-patients units at hospitals that seek to the healthcare of patients with visual, hearing and other problems. Understandably, people with disabilities to some extent seek care at the facility other than the rehabilitation and in-patients units. Yet, they are underrepresented in the healthcare system and civil society (Inclusion Ghana report, 2011). The Government of Ghana has over the years shown great commitment to healthcare of citizens. It is enshrined in Article 30 of 1992 Constitution of the Republic Ghana that;

“a person who by reason of sickness or any other cause is unable to give his consent shall not be deprived by any other person of medical treatment, education or any other social or economic benefit by reason only of religious or other beliefs” (*The Constitution of the Republic of Ghana Amendment, 1996*).

Following the Ghana Health Service (GHS) programme of action for 2010 to 2013, it had as one of its objective ‘to bridge the equity gaps in access to healthcare and nutrition services and ensure sustainable financing arrangements that protect the poor’ (Ghana Health Service (GHS), 2011). Building on these goals, the Kumasi Metropolitan Assembly (KMA) Medium Term Development Plan for this same period emphasized that all Ghanaians irrespective of sex, gender, disability, age, poverty and social class will have the right to use health services to ensure that citizens are healthy and productive. In response to the above, 189 health facilities have been constructed in the metropolis ranging from teaching hospital to clinics (both government and private). Out of these, 3% constitute Government facilities, 2% Quasi-government, 3% Community Clinics, 1% the

Christian Health Association of Ghana (CHAG) and 91% Private (clinics, maternity homes, etc). Rehabilitation centres and special education schools have also been established in the metropolis in fulfilling the goals of the assembly and for that matter the government (Kumasi Metropolitan Assembly (KMA), 2010).

Unfortunately, there is no available information pertaining to rate of access to health services for PWDs in Ghana. However, WHO estimates shows that in developing countries, less than 5% of disable people have access to healthcare and other rehabilitation services. Little information is available about differences in self-reported barriers to health service utilization. However, perceived barriers are attributed to the differing health care systems. Obviously, this depressing situation cannot be allowed to continue in the quest for meeting the Millennium Development Goals (MDGs) and the post-2015 agenda. Thus, the need for empirical evidence on the experiences of healthcare access barriers confronting PWDs becomes imperative.

1.1 Problem Statement

The Ghanaian society values healthcare in its effort at sustaining socio-economic development. Healthcare is an important basic need which is highly acknowledged and valued in individual lives. Thus, every community expects to have healthcare centre where people can access care. Policies, economic and social conditions largely affect individuals, groups and countries in accessing healthcare. Having a disability, however, has consequences on individuals because they experience access barriers to certain healthcare and services and substantially receive poor services. However, PWDs do not have access to health care and thus may not have good health.

It is obvious to note that vulnerable groups including PWDs have differential needs in accessing healthcare. Yet, there is lack of recognition by stakeholders to specifically identify the differences in need. This implies that policy makers find it difficult to incorporate the needs of disable persons into policies documents and integrate into the implementation process (Schneider *et al.* 2013).

The Ghana Government with its membership in the United Nations saw the need to pass the Disability Act 715 in 2006 to ensure total integration of the disabled into Ghanaian society (Ansah and Owusu, 2012, Owusu and Owusu-Ansah, 2011). For about seven years since the passage of the Act, it has been the hope of all Ghanaians particularly PWDs that the Legislative Instrument that supports it will be enacted. However, some structures including hotels, schools, health service buildings and environment, roads and medical equipment have still not been modified to make it accessible to PWDs. For instance, the Accra International Conference Centre and the National Theatre are not universally design to accommodate PWDs (Danso *et al.*, 2011). Also, according to accessibility audit data generated by the Governance Issue Forum Network (GIF) from Ajumako-Enyan-Essiam, Sekondi-Takoradi, New Juabeng, Ho, Wa, Ashaiman and East Gonja districts, 76.6% of medical centres do not have policies that specifically cover access to medical facilities for PWDs. Again, in this same report, 57.4% of health facilities do not have accessible structures and environment for wheelchair users (*The Institute for Democratic Governance*, 2011).

In view of this, a quick preliminary survey conducted by the author with PWDs at the disability sports section, at the Baba Yara Sports Stadium on their perspective of health services revealed that they faced challenges in accessing health services. Top of these striking challenges are inaccessible physical structures, such as healthcare buildings, medical equipment, roads that lead to the health service centres and lack of sign language

interpreters for hearing impaired persons. Some other barriers that confront them especially are the attitudes and perception of most health service professionals. Moreover, the cost of health services has become a challenge for PWDs in accessing healthcare although NHIS has been introduced.

Although several studies have been conducted on healthcare barriers in other countries like the United States, United Kingdom and Canada, most of them are, however, limited to the facilities without targeting users of the services. The few that focus on users of the services target ethnic black minority groups in these societies (Smedley *et al.*, 2009, Weinick *et al.*, 2000, Fiscella *et al.*, 2002). As such, there is inadequate information on the subject for service providers to improve the services offered to PWDs particularly in Ghana. This study therefore aimed at examining the healthcare accessibility barriers confronting PWDs in Kumasi Metropolis. It is intended to make and makes this information available as reference point for policy planners.

1.2 Justification of the study

During the 66th World Health Assembly in Geneva (2013b), the assembly mandated member states to include PWDs into the mainstream health services. To this effect, healthcare is to be made accessible to PWDs in an earliest possible time. The Assembly has therefore signed a global action plan 'towards a universal eye health' for the period 2014-2019 which aims at reducing avoidable visual impairment by 25%.

Again, a WHO 2013 reports on 'Research for universal coverage' found that, universal health is an important approach to achieving better health and prerequisite for developing a country. There is the need to conduct research and implement findings to achieve this global goal. The report therefore stressed the need for all member nations to be active in

conducting research pertaining to healthcare. The skills of researchers and students therefore need to be applicable both in academics and public health programmes to achieve universal health (Dye *et al.*, 2013).

Generally, a nation can develop if social services needs for the vulnerable including people with disabilities are properly addressed. Despite this, there are still high unmet needs, especially in health services among PWDs. Most people believe disables constitute smaller portion of Ghanaian population and as such Government should focus on a more current pressing needs of non-disable population. Focusing so much attention on only non-disabled persons and less attention on PWDs may obstruct the development of the nation. In this regards, disabled people in Ghana will be seen as dependants and barrier to socioeconomic development of the country. Already, the Government of Ghana allocate 2% of the district assembly common fund to disabled people as a social intervention strategy to bring them on board. It is however important to note that other things being equal, if their unmet needs pertaining to healthcare are adequately addressed jointly with non-disable persons, they will become independent and participate fully in the socioeconomic development of the nation. For instance, with access to modern assistive devices and rehabilitative service, PWDs in Ghana will be productive as non-disable. Government and other stakeholder's attention to these needs are of high important, especially with the present status of the country as being lower middle income and with only one year to the end of the millennium development goals. However, information on healthcare accessibility barriers for PWDs in Ghana is not adequately available. In view of this, it is imperative that this research sought to provide the following contributions:

1. Findings from this study would promote inclusive healthcare policies that will reveal critical supports pertaining to healthcare of PWDs. It will inform policy planners to jointly factor disable and non-disables into healthcare policy

rather than competing limited funds. This is an important policy consideration requiring new thinking and approaches especially with the present global goal of the post-2015 agenda.

2. It will also fill knowledge and literature gap on healthcare accessibility barriers confronting PWDs for students, researchers, academicians and all other stakeholders in Ghana, Africa and the world at large.

1.3 Research Questions

Every research is important for the reason that it answers a particular problem. Following the above problem statement, the research sought to answer the following;

1. What are the healthcare needs of persons with disabilities in Kumasi metropolis?
2. To what extent does access to building and medical equipment affects the healthcare of Persons with Disabilities?
3. What impact does cost of healthcare have on the lives of Persons with disabilities?

1.4 Objectives

1.4.1 General Objective

The main objective of this research was to study healthcare accessibility barriers confronting persons with disabilities in Kumasi Metropolis and recommend ways of improving the services delivered to them. A study on healthcare barriers mostly focuses on a particular type of disability and also targeting physical environmental barriers. Nevertheless, this research looked at a broad range of healthcare accessibility barriers such as physical, communication, and social or attitudinal barriers. Again, this research

was not limited to one particular disability type but focuses on physically challenged, visually and hearing impaired persons.

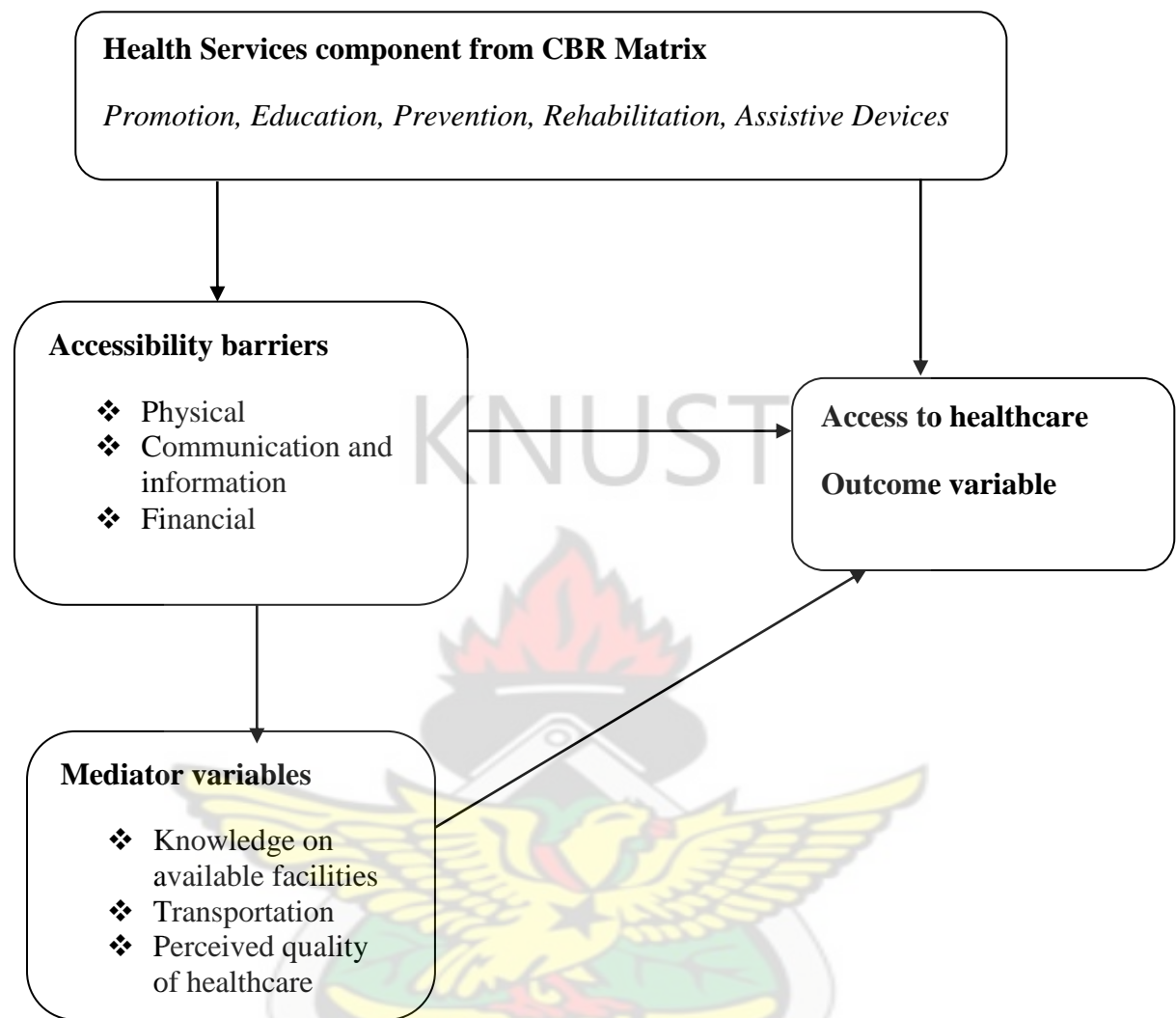
1.4.2 Specific Objectives

1. To examine the nature of healthcare barriers confronting PWDs.
2. To assess differences in access among various socio-demographic groups of PWDs.
3. To measure the extent to which barriers affect the healthcare utilization among PWDs.
4. To assess the effect of financial accessibility on healthcare of PWDs.
5. To identify healthcare needs of persons with disabilities.

1.5 Conceptual Framework

Conceptual framework is the building blocks which provides the pillars upon which research are conceptualised. The research therefore draws on these variables to review and synthesise ideas from literature in health system research, social sciences and other fields. Some potential experiences of healthcare accessibility barriers have been identified by United Nation agencies and other researchers (Scheer *et al.*, 2003, Drainoni *et al.*, 2006). These barriers can be categorized into accessibility and social (attitudinal) barriers. Accessibility barriers range from physical or environmental barriers, communication and information barriers and financial or economic barriers. The social barriers (attitudinal) can be sub-divided into attitudes of health service professionals and attitudes of consumers (PWDs) towards their health care, Figure 1.1.

Figure 1.1: Conceptual framework



Source: Author's construct, 2013

Figure 1.1 presents the relationship between the variables on healthcare access barriers confronting PWDs. The variables are analysed to determine which one has greater influence on the dependent variable. It also demonstrates healthcare available to PWDs and factors that serve as barriers to these services. The independent variables are factors which serve as barriers such as physical environment, communication and information and financial barriers. A problem that can be derived from this conceptual framework is that, it identifies mediator variables that act as barrier to healthcare for PWDs outside the healthcare setting. It includes PWDs knowledge on availability of health facility in the area they reside, transportation and perceived quality of such facility. However, this conceptual framework is important for the reason that it can be used to study healthcare accessibility barriers for all disability types.

CHAPTER TWO

LITERATURE REVIEW

2.0 Introduction

This chapter explores literature on knowledge concerning healthcare accessibility barriers. It examines specifically key concepts on experiences that PWDs go through as they attempt to access healthcare. The chapter also reviews literature on the trend and prevalence of disability in Ghana and around the globe. It is therefore centred on literature from public health research, social sciences, and other related domains. The chapter is divided into sections and sub-sections as per the objectives of the study. The chapter concludes with the summary of key lessons learnt from the literature review and conceptual framework.

2.1 The conceptualization of Disability

2.1.1 Prevalence Rate of Disability

Globally, data about disability issues are difficult to pinpoint since much surveys have not been conducted in the field regarding the prevalence rate. This problem is evidence in Africa and most developing countries and for that matter Ghana. One reason is the belief associated with disabilities. It affects families with disabled persons to hide their disabled relatives to prevent them from participating in most surveys being conducted. This therefore has negative effect on the result from surveys. It generates different prevalence rates of disability on surveys conducted by individual institutions and make it not reliable. For instance, it is captured in the 2002 Country Profile on Disability in Federal Democratic Republic of Ethiopia that, disabled persons are associated with spiritual evil by some people and are being prevented from going to the public. This leads to inaccurate

statistics and information on disability in the country (*Japan International Cooperation Planning and Evaluation*, 2002).

To put it another way, Mont (2007) was also on the view that, due to variation in the definition of disability as a result of differences in nature and severity across places and time, it is difficult to get prevalence rate that is internationally comparable and understandable. The measurement of disability therefore differs and depends greatly on the reason for the measurement. He further argues that a single prevalence rate of disability can be seriously problematic and that emphasis should be placed on interval prevalence rate, that is, two prevalence rates with one being moderate threshold and the other more severe threshold on functional limitation.

Despite Mont explanation, there are prevalent rates from UN agencies that are highly welcome. Globally, more than one billion people live with some form of disabilities. This represents 15% of the world population. The prevalence rate is higher in low income countries than developed countries. It is also higher in females than males. People who have significant difficulties in functioning fall between 2% to 4% representing 110 to 190 million respectively. Factors such as aging, increases in chronic diseases, natural disasters, road traffic accidents, conflicts and others continuously increases the prevalence rate of disability around the globe. In every developing country, the prevalence rate of disability is estimated at 10% to 15% of that country's population (WHO, Disability and Health 2013a).

However, In Yemen, the rate has been estimated differently by different surveys ranging from 0.4% to 12% of the total population. The 2004 Yemen population census estimated the prevalence rate at 1.9% representing 380,000 of the country's population. Other estimates from Disability Fund indicate that, every year there is about 15,000 new

incidents of permanent impairment as a result of traffic accidents in Yemen (Grut and Ingstad, 2006). Comparatively, International Labour Organization found that, Over 9% of Tanzania's population lives with some form of disability (McNally and Mannan, 2013). Another study on family perceptions of intellectual disability conducted in Dar es Salaam revealed that, a 2009 Tanzania National Bureau of Statistics survey found the rate of disability in 2008 at an estimate of 2.4 million representing 8% of the population (Aldersey, 2012). This adds to explain that the prevalence rate of disability in most developing countries is not reliable since it differs from organizations to organizations.

Following WHO estimate of 10% to 15% rate for developing countries, it puts the disable population in Ghana between 2.4 million to 3.6 million of the 2010 population and housing census of 24.6 million. However, the 2010 population census found the prevalence rate of disability in the country at 3% of the entire population which represents 737,743. According to this population and housing census, females with disabilities are more than males. The number of males with disabilities is 350,096 peoples and females with disabilities 387,647 peoples. There are also regional disparities in the prevalence rate of disability in Ghana. The Ashanti region has the highest prevalence rate of disability while Upper West has the lowest number of people living with some form of disabilities. The disabled population in Ashanti region as given by the 2010 census is 124,501 people which represent 2.6% of the total Ashanti region population of 4,780,380 people (The Ghana Statistical Service, 2012).

This rate of disability given by GSS both at the national and regional levels is relatively arguable as it falls below the estimated rate of 10% to 15% in developing countries captured by the WHO. This has raised concern by most stakeholders in the field of disability in Ghana on this prevalence rate since it is not reliable and cannot be used to formulate and design programmes for disables in the country. Comparing the prevalence

rate to other parts of Africa, it can be deduced that almost all the rates captured under the national census in most Africa countries is comparatively lower than those conducted by UN agencies such as the ILO and the WHO. Also, the census however did not estimate the prevalence rate of disability by metropolis. It is therefore difficult to know the estimated number of people living with disability in the Kumasi metropolis.

2.2 The Nature of Healthcare Barriers to Persons with Disabilities

Health is defined by the WHO as 'a state of complete physical, mental and social wellbeing and not merely the absence of disease or infirmity' (The WHO, 2006). It occurs in different dimensions such as availability of required healthcare, acceptability of the services, geographical location and financial accessibility (Peters *et al.*, 2008). Healthcare can also be acquired through several ways. Moonie *et al.* (2000) found that securing health services ranges from self-referral, referral by someone (third party), on service givers recommendations and finally through recall. It is urgently evidence from research to support the belief that, PWDs are confronted with challenges as they seek healthcare at various service points. Findings from Drainoni *et al.* (2006) state that 'individuals with disabilities experience multiple barriers to obtaining healthcare and that these barriers are more profound for some types of healthcare than others'. Example of such barriers revealed by the author include lack of adaptive equipment and inaccessible environment for patients with disabilities, professionals inability to have time for patients with speech and hearing difficulties, limitations in insurance coverage on certain health services and professionals having limited information on where to refer patients with disabilities for specialized healthcare.

Drainoni *et al.* (2006) makes strong assertion that although PWDs to some extent receive the care they need, meanwhile, they are not satisfied with the care they receive as a result

of delays and frustration they meet. In another development, Miley and DuBois (2008) also stated clearly that ‘barriers in architecture, transportation, communication methods, sociability, economics and legal rights confront PWDs and impose serious limitations within their environment’. These environments go beyond the healthcare setting and are applied in all areas of the PWDs life.

Not surprisingly, these limitations to some extent affect PWDs around the globe but steepen in developing and rural settings as they seek health services. To illustrate this, Iezzoni *et al.* (2006) found in their study that, many disables in rural America setting face barrier to healthcare due to physicians inability to understand disables condition and that special care requires patients to travel to large medical centres. The study however concludes that a healthcare need of rural disable population requires broad range of accessibility issues.

In most developing countries in Asia and Sub-Sahara Africa, disabled people are ranked as the most vulnerable and powerless in their communities (Grut et al., 2012b). Being vulnerable means they are limited from contributing to productivity and are at high risk of being poor. This put their performance low in almost every sector in their communities such as healthcare (Elwan, 1999, Schneider *et al.*, 2013, Lwanga-Ntale, 2003). Comparatively, not only PWDs but also there are other minority groups or vulnerable in society who are confronted with challenges as they seek healthcare. According to a study by Penner *et al.* (2010), they conclude that on the providers side, the healthcare delivered to blacks is poorer than the whites in the United States. These poor services are mostly attributed to the discrimination that healthcare professionals have towards these populations.

Although this research does not explicitly focus on one particular disability type, however, several publications that appear in recent years focus on a particular type of disability. Specifically, Jones *et al.* (2008) found that, accessing surgery, communication issues and waiting around are the three main barriers that confront persons with intellectual disabilities as they seek primary healthcare. These problems were identified as being common to both the users of the services and service givers (social care workers). To put it another way, although offering appointment time to disable persons at the primary healthcare environment is easy, it is however difficult for them to wait for the surgery.

2.3 The Concept of Accessibility

Accessibility is one of the important components in determining barriers to healthcare for PWDs. Sowney and Barr (2004) definition of the disability stands to be one of the most interesting definitions of accessibility. They define accessibility as ‘the services being easily available not only in terms of distance, but also in terms of time and ethos’s. They added that, accessibility regarding time can be seen in three dimensions. Firstly, the time a client will consume to reach the healthcare point, secondly, the time needed to wait after the patient or client has reached the service point and finally the time needed to wait if a referral is required. It is important to note that access includes making use of available resources and not only limited to finding your way to the service point.

In addition, accessibility has been identified in both national and international legislations and regulations as standards. In Article 29 (6) of 1992 constitution of the republic of Ghana, it is enshrined that ‘as far as practicable, every place to which the public have access shall have appropriate facilities for disable individuals’. Hotels, school buildings

and health services buildings such as hospitals, clinics, rehabilitation centres, public health offices, and social welfare offices are no exception. Again, according to rule 5 of the standard rules on the equalization of opportunities for PWDs coupled with the UN Convention on the rights of Persons with disabilities (CRPD) (2006), it recognizes the demand for accessibility as a way of creating equal opportunities for PWDs in all manner of life (United Nations. Dept. of Public Information, 1994).

In view of the above conventions, accessibility can be categorised into physical or environmental, information and communication, financial and economic accessibility. However, Hwang *et al.* (2009) research on access and coordination of health care service for PWDs in the United States showed that accessibility regarding healthcare can be grouped into two categories namely structural and process accessibility. Structural barriers according to this study comprise the physical access to health service buildings whereas the process barriers involve the difficulty that a patient goes through in arranging appointments with a service giver. It also involves difficulty in obtaining health insurance coverage. Such barriers are very critical and worth attended to and thus if addressed properly will minimise access barriers to healthcare for PWDs.

2.3.1 Physical Accessibility to Healthcare

Physical accessibility is the condition at the physical environment which determines the utilization of the services (Kroll *et al.*, 2006). It is how accessible physical structures such as hospital buildings; door entrances, washrooms facilities and scale are to PWDs. It also includes how accessible roads leading to healthcare point are to PWDs which include pavement and parking spaces adapted to be used by visually impaired and wheelchair users respectively. Again, it includes medical equipment as well as presence of adjusted tables, mammography machines and assistive devices design for PWDs usage (Hwang *et*

al., 2009, Iezzoni *et al.*, 2006, Donnellan, 2001). Studies in Pakistan has found that, factors such as transportation to healthcare centres, distance and time to reach healthcare setting certainly influence healthcare utilization (Stephenson and Hennink, 2004, Shaikh and Hatcher, 2005). This is particularly serious among PWDs who require special assistance.

According to a 2007 study on disability and inclusive development in United Kingdom, it was shown that ‘physical accessible environment is an important component in creating welcoming and inclusive environments in which all children can learn’. Although the study clearly focused on education, it is however necessary to understand that not only in education but also in the area of healthcare, accessible physical environment can be used by countries to build inclusive environment and society where all persons can secure healthcare to be able to achieve the universal healthcare target of the WHO.

In view of this, physical accessible environment and structures have been the priority of the United Nations and its member countries towards PWDs. Following the CRPD (2006), it has become relevant that disability issues be incorporated into building regulations. This will ensure that new buildings will be designed to meet the requirements of the building codes. In the construction of these structures, architects and engineers should therefore factor disability related issues into the plan. Old buildings however, can also be modified to make it accessible to all persons. Medical equipment and facilities are all essential in this modification. Therefore, proper monitoring and implementation are needed to ensure that all hospitals structures, roads and medical equipment are in conditions that can be accessed by all manner of persons without discrimination (CRPD, 2006).

This convention has highly been welcomed in almost all member States of the United Nations. However, there is a comparable difference in performance among countries towards this global goal. Some countries have moved a step ahead in implementing the convention to ensure proper monitoring and implementation of physical accessibility issues. According to the Human Rights Education Associates (HREA, 2007), in countries like Australia, United States, India and United Kingdom, national anti-discrimination law have been passed and implemented in fulfilling participation of PWDs in all sectors of the economy. This law in these countries came into operation even before the coming of the CRPD. Some other countries still remain in the pip-line towards this agenda. Out of 158 countries who are signatory to the convention, 138 countries have been ratified. Even in some countries that claim to be ratified by the convention, there has still not been a legislative instrument to make it legal (United Nations Human Rights, 2011). For instance, according to the Disabled World publication on health and Disability news and statistics for Africa, it were reveal that although South Africa has signed and ratify the CRPD in 2007, it has still not reach it task to implementing the convention (Disabled World, 2009b).

In Ghana, the Accra International conference centre (AICC) and National Theatre (NT) which host most national and international events are totally not universally design to make it accessible for PWDs such that car parks, main entrances, staircases, corridors, ramps were not accessible for disabled persons. Other things like Braille text, seat for wheelchair users, underfoot warnings were absent (Danso *et al.*, 2011). According to a Owusu and Owusu-Ansah (2011) construction companies and estate managers and developers do not incorporate disability issues into their construction designs although the Disability Act and the Constitution mandate these. This study again concluded that all stakeholders have the responsibility to embark on serious public awareness campaign on

the important of universally designed buildings in the country. This study makes strong recommendation yet it demands great support from policy planners before it can effectively be integrated into practice.

2.3.2 Information and Communication accessibility to Healthcare

Information and Communication accessibility may refer to how accessible information is to PWDs. Information and communication are very essential in human development since language is the building blocks of all human activities. Nolan *et al.* (2005), therefore, states that:

Communication is all about the way people reach out to one another. It is an essential part of all relationships, and the ability to communicate well with service users, colleagues and others is a basic requirement for doing your job.

Service users may experience frustration and isolation when the language spoken by service providers is not accessible to them. A hearing impaired person will find it difficult to respond to a verbal communication therefore the possibility of the person to feel being neglected in a setting where proper mechanism to address these challenges is not done is high. Such a person may feel being excluded from service point setting. For example, Thew *et al.* (2012) reveal that deaf patients experiences “fear, mistrust and frustration” at healthcare setting. These occur when the patient experiences problems with instructions for physical examination, telephone communication and difficulty communicating with staff (Iezzoni *et al.*, 2004). This may also lead to unsatisfactory service delivered to such a person, incorrect diagnosis, and improper treatment leading to violation of right to healthcare (Haricharan *et al.*, 2013). As it is believed that every profession has its own special words and neologism used, some service users such as deaf and blind may feel

being excluded as they encounter some of these neologisms. There are also other people who may find it difficult to hear certain sounds at some pitch level (tone) or when there is noise at the background.

On the contrary, experiences of visually impaired person in communication difficulty are different from the hard of hearing person. A visually impaired person may not be able to pick signals given out as well as not able to give out appropriate signals in communication. This is due to the fact that he or she is ignorant of these signals. As a result of this, understanding such a person's attitudes, feelings and behaviour will be mismatched. Such communication (non-verbal) can easily be interpreted differently by professionals and misleading (Nolan *et al.*, 2005)

Following Disabled Living Foundation (Donnellan, 2001), they stated that, 'to help people with disabilities, information should be available in plain language like English, large print, spoken on audiocassette or via a speech synthesizer and Braille'. Specifically, people with hearing disorder need sign language interpreters or subtitles available to them when necessary to make information accessible. This confirms what Steinberg *et al.* (2006) found in the United States that, communication is well coordinated in an environment where medically experienced certified interpreters are available for deaf patients. In another development, a study of communication for adult nurses by McEwen and Kraszewski (2010) demonstrate that, a rebalancing of relationship between service providers and patients will ensure that patients' expectations on healthcare are met. The study further elaborates that it can only be achieved when patients can make preferences without barriers and that professionals recognize such patient's communication difficulties. In view of these, questions that every healthcare centre and professionals need to ask include;

1. Are the prescription and other information given at healthcare point available in Braille text to make it accessible to the visually impaired person?
2. Are there sign language interpreters at service point to make information accessible to the hearing impaired person?
3. Are there communication boards to make information available to a person with speech disorder?

These are the very questions that we need to ask to find out how accessible communication is to PWDs as they seek healthcare. All the information written on drugs (drug prescription) and provided at service point however may become relevant to only those who may be able to read, interpret and understand the information.

Globally, communication barriers to healthcare tend to be a little improved in the developed world than developing countries. Deaf, blind and other disabled individuals in some part of the world have communication access to healthcare than others. A study on the experiences and perceptions of deaf people in three cities in the United States reveal that although there is presence of experienced certified interpreters and healthcare professionals with skills and knowledge on sign language, these interpreters were not frequently available to ensure communication and that, no alternate measures to interpret services were often available. Thus, deaf patients in the United States to some extent encounter frustrations, fear and mistrust as they accessed health services (Steinberg *et al.*, 2006). In another instance, Haricharan *et al.* (2013) demonstrate that, deaf patients in South Africa do not have access to information at healthcare setting despite provisions in the Convention on the Rights of Persons with Disabilities (CRPD).

In other studies from United States and United Kingdom, it was concluded that the difficulties in language barrier that the deaf person experience in accessing healthcare is similar to people of language minority or patients with limited English-Language Proficiency. The services of professional interpreters can also facilitate healthcare of these groups of language minorities (Barnett and Franks, 2002, Jacobs *et al.*, 2001).

Furthermore, new information and communication technologies may create barrier to healthcare for PWDs. With the wide spread of internet in increasingly globalized world of today, information on some specialized healthcare and facilities are mostly available on the internet. This shows improvement in access to information regarding healthcare for practitioners and service receivers (Kidd and Purves, 2000). Patients may even want to visit online for help before they go to receive proper medication. Given the important of internets, information technology needs to be accessible to all citizens in a country to make easy access to healthcare information in the internet globalized world today. The former president of the United States Bill Clinton therefore quoted that:

New information and communications technologies can improve the quality of life for people with disabilities, but only if such technologies are designed from the beginning so that everyone can use them. Given the explosive growth in the use of the world wide for publishing, electronic commerce, lifelong learning and the delivery of government services, it is vital that the web be accessible to everyone (The Disabled World, 2009a).

Given the significant of the internet, it is surprisingly that there is a considerable gap in access to internet usage between developed and low-middle income countries. The latest World Bank data in 2012 on internet users per 100 people shows that, while in the United

States 81.1% of the population have access to internet usage only 17.1% of Ghanaian population have access to internet usage. Comparing this rate to Tanzania, only 13.1% of Tanzania's have access to internet usage. It is however difficult for one to pinpoint the rate of access to internet usage among PWDs in Ghana since no accurate statistics or data is found to represent them (World Bank Indicators, 2012).

2.3.3 Financial Accessibility to healthcare for PWDs

Affordability and measures to finance healthcare is one of the important factors determining access among poor individuals. Costs to healthcare may however occur in two different dimensions such as the one directly related to treatment and additional indirect cost related to transportation, expenses on people or carers accompanying patients to hospital and expenses on lodging and feeding (Peters *et al.*, 2008).

Financial accessibility is the economic status of the person that determines whether he can afford the cost of health service or not. Healthcare is basically accessible to the rich in society who can afford to pay for the cost. However, the poor in society becomes more vulnerable as a result of economic polarization and lack of social security. Poor communities are not able to mobilize revenue towards health insurance scheme attributed to the fact that they are mostly unemployed. This affects their participation in insurance schemes which is a major contributing factor to their exclusion in lower income communities particularly rural areas (Preker and Carrin, 2004). Thus, they are limited in contributing to decisions that affect their healthcare and as such may be excluded from healthcare system (Peters *et al.*, 2008, Xu *et al.*, 2006).

Generally, researchers have established the fact that Disability has a direct relationship with poverty and access to healthcare in poor settings like the rural setting (Elwan, 1999, Lwanga-Ntale, 2003). Therefore, gaining access to healthcare becomes difficult for the

poor especially PWDs. The World Health Organization fact sheet on disability shows that, a substantial gap exists between affordability of health services among disable and non-disable population. The rate of non-disable persons who are unable to pay for healthcare as compared to disable is 32% to 33% and 51% to 52%, respectively (WHO, 2013). According to a study by Muderedzi and Ingstad (2011), PWDs are at high risk of developing health related problems. This means they are likely not to live a healthy life and consequences that follow. These may include malnutrition, hunger and developing different types of diseases. Disability can also cause poverty resulting in poor health such that the individual will be limited from fully participating in economic activities. Therefore, disable poor particularly those in the rural settings comparatively experience much more difficulty in accessing healthcare than those in the urban settings as a result of cost of healthcare. The marginalized groups who are described as poor and hence PWDs find their ways to the traditional village healers (Last, 1988, Brocklehurst and Costello, 2003).

Furthermore, not all disability types have the same health needs. Some disabilities require that they have regular medical check-ups, rehabilitative services (therapy services) and assistive services (DeJong *et al.*, 2002). Financial accessibility to healthcare may therefore limit PWDs from meeting the regular care they need. Additional expenses on cost of transportation and time may create barrier to healthcare for PWDs who are distanced from the services point. For example, Apoya and Marriott (2011) assert that, one quarter of Ghanaian population is distanced for over 60 km from a health facility. In circumstance where resources of the PWD may not meet transport cost, she may experience barrier to healthcare. A recent study by Grut *et al.*, (2012a) however identified that, it is essential to consider certain factors when delivering healthcare to PWDs who are located at resource poor settings. Given that, such person's history,

resources, needs and capabilities of his or her family members are significantly noted. The study again established the fact that there is a relationship between poverty, rural setting, disability and access to health service in Amathole district in South Africa.

2.4 Healthcare financing and PWDs

Social support networks including social capitals and networks in the society have existed to assist access to healthcare for most vulnerable groups in society through payment of cost of healthcare. Similarly, in most countries around the world, national health insurance, social health insurance and community health insurance are practised as a means of removing financial barriers to healthcare to achieve universal health coverage (Carrin *et al.*, 2005). This system is gradually gaining grounds in most low-middle income countries in Africa and Asia (Witter and Garshong, 2009). Many countries in Africa including Ghana, Nigeria, Tanzania Rwanda, Kenya and Senegal are practising a variety of social and community health insurance which mobilize resources from the public and private sector to finance the scheme (Mensah *et al.*, 2010, Blanchet *et al.*, 2012, Jütting, 2004). These health insurance schemes offer the potential to mobilize funds for essential public health services to protect the risk of financial access to services among poorest population. This is a common strategy adopted by governments to establish compulsory scheme for public sector workers and establish equal scheme to cover workers in the informal sector simultaneously (Creese *et al.*, 1997, Dror and Jacquier, 1999, Ekman, 2004).

UNICEF reported a two phase analysis of national health insurance in Asia and Africa. The results indicated that, there is diversity in the scope and form of insurance scheme in Africa and Asia. The report however concludes that all national health insurance plans in Africa and Asia are ‘mixed or hybrid’ schemes (UNICEF, 2012). Countries like United

Kingdom and Portugal are examples of developed countries using national health insurance. Also, countries like Germany practise social health insurance.

McKenzie *et al.* (2011) however concludes that 'United States is the only developed country in the world without national health insurance scheme'. Despite this, there are two major health insurance policies in the United States. These are Medicare and Medicaid health insurance programmes. These policies aim to remove cost barriers to healthcare for the vulnerable in the United States. The Medicare is a federal health insurance programme for individuals of 65 years and above. Persons with disabilities who are under 65 years also qualify for the Medicare insurance. Kidney failure individuals are also being covered by this insurance. The Medicare is run from fund generated from contributions made by employees and employers through their social security tax. Medicaid on the other hand is the second government health insurance programme for the poor. White (2002) however found in a study that, due to the complex eligibility criteria for the insurance, most adults with disabilities are not covered under any form of insurance in the United States.

In African, countries, like Tanzania, has a Community Health Fund was launched in 1996 to address the gap in health financing between the rich and the poor to achieve the government's aim of ensuring equity of access to healthcare. Msuya *et al.* (2007) in a study in Tanzania, identified that 'income is among the most important factors determining household participation in the scheme'. This means that enrolment in the fund is a possibility of removing financial barrier to healthcare for individuals in Tanzania. It further argues that although there is exemption strategies, the most poor people in Tanzania are not able to pay for the fund regularly and hence do not benefit from the fund.

Ghana is also among nations that practise health insurance scheme. This policy was introduced under the health insurance act 650 in 2003. This policy came to replace the “cash and carry” system which demands patients to make out of pocket cash payment at the point of service before gaining access to health services (Abebrese, 2011, Addae-Korankye, 2013, Gobah and Zhang, 2011, Brugiavini and Pace, 2011). The health insurance had as its primary objective to make healthcare affordable and increase the general utilization of drugs and healthcare particularly among the most vulnerable. Individuals insured have the likelihood of using outpatients facilities and public providers, especially in lower income communities (Jowett *et al.*, 2004). According to a study by Ansah *et al.* (2009), individuals in Ghanaian society enrolled in health insurance have the greater chance of visiting clinics, obtain prescription and seek formal healthcare. Pregnant women also have the likelihood of utilization of prenatal care, give birth in a hospital, and have skilled attendants present at birth (Mensah *et al.*, 2010). Witter and Garshong (2009) also found that, outpatients per-capita had increased significantly in Ghana after the introduction of the NHIS in 2005.

According to the Ghana Federation of the Disabled (GFD), this policy has come to remove financial barriers to healthcare for the poor in Ghanaian society, yet, PWDs do not realised it due to some conditionality to exemption criterion. According to them, PWDs will only be exempted from paying for subscription fee on the condition that they are classified as being poor. In some circumstances, exemption is granted subject to payment from the disability common fund. In addition, the insurance according to the GFD, covers only some accidents and most ordinary disease leaving rehabilitation services and assistive devices uncovered under the insurance scheme (Ghana Federation of the Disabled, 2013).

In most developing countries around the world, sustainability of national health insurance policies is normally affected with poor governance, weak collaboration between institutions, over dependent on grant from developed nations and other agencies and lack of greater coverage of the marginalized population who are at high risk in accessing healthcare (Witter and Garshong, 2009). A study conducted by Addae-Korankye (2013) on challenges of financing health care in Ghana showed that, Government of Ghana is facing problems with financing health insurance due to the competitiveness of resources to health and other sectors of the economy. Therefore the Government of Ghana finds it difficult to get funds to finance the scheme. The study again showed that, criteria for identifying the marginalized and the poor to exemption have been ineffective and unsuccessful. Another study by the Alliance for Reproductive Health Rights in collaboration with Essential Services Platform, ISODEC and Oxfam International reported on achieving universal health goal in Ghana. The report revealed that the National Health Insurance in Ghana faces inequality, inefficiency and discrimination to the poor in society. Recognizing the tax system in Ghana as progressive, the poor in Ghanaian society including PWDs pay equally as the rich for about 15% of the tax which is allocated to the health sector. Therefore, the insurance should be totally free to all Ghanaians (Apoya and Marriott, 2011). Aside healthcare financing, DeJong *et al.* (2002) found that, the services that PWDs requires are specifically complicated and prolonged.

2.5 Chapter Summary

The literature showed that not many studies have been conducted on the topic within Ghanaian context. The prevalence rate of disability especially in developing countries like Ghana presents different rate. The results from national census on disabilities fall below the once conducted by United Nations agencies and other organizations. In addition, it has been revealed that PWDs faced barriers at the facility setting which include physical, communication, financial and transportation. In the Chapter that follows, the methods that have been used to collect data for the study are discussed.



CHAPTER THREE

RESEARCH METHODOLOGY

3.0 Introduction

This chapter provides the available research methods that were used to ensure successful execution of the study. It explains the methods that are specifically important for the purpose of the study and the data collection techniques that were used. It is sub-divided into study methods and design, study area and profile, study population, sample techniques and size, data collection techniques and tools and data analysis.

3.1 Study Methods and Design

A study design and methods are essential parts of the research because they determine to a large extent which analysis and outcomes to expect from a study. When the design is badly done, it could lead to error in the results generated (Levin, 2005). The study employed a cross-sectional design to assess healthcare accessibility barriers confronting PWDs in the Kumasi metropolis. A Cross sectional is a study design that is conducted within a short period at a particular point in time. This method assisted the researcher to study the characteristics of interest (experiences of healthcare barriers) at a particular point in time (Olsen and St George, 2004, Levin, 2006). The study also used quantitative data collection techniques and analysis. The study was conducted from September 2013, to April 2014.

3.2 Study Area and Profile

The study was conducted in the Kumasi metropolis. Kumasi is located in the forest zone and covers a total land area of 254 square kilometres (25,415 hectares). Residential and educational land dominates land uses in the Metropolis, covering 44.0 percent and 17.3 percent of the total land area respectively. Commercial land use constitutes 2.40 percent of the total land area making it the smallest land use (KMA, 2010).

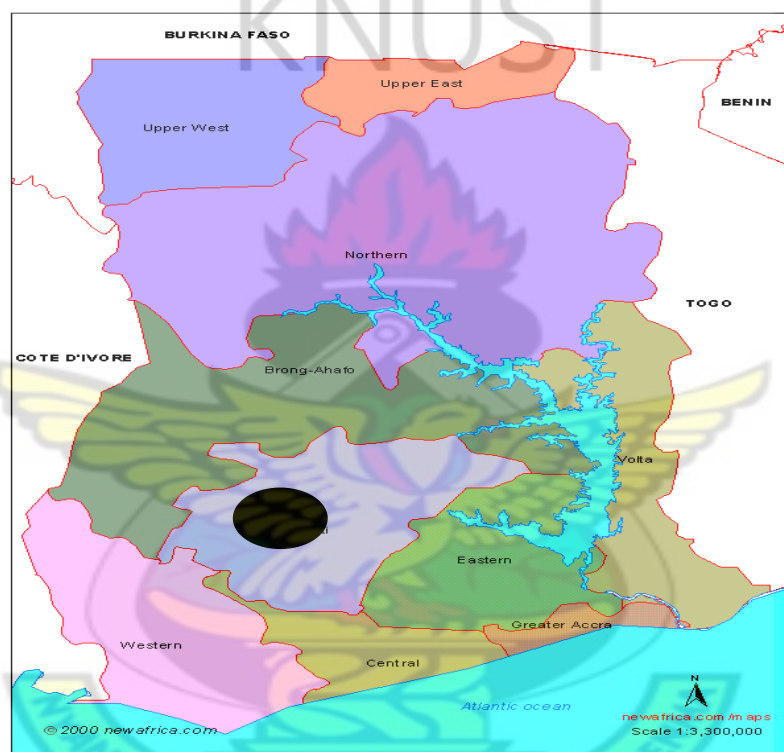


Figure 3.1: Map of Ghana showing the location of Kumasi Metropolitan Assembly
(Source: KMA, Town and Country Planning Department, 2010)

surprisingly that it is not possible to find the total number of PWDs who benefits from healthcare through the NHIS each year. Furthermore, the 2010 population census report showed that the metropolis is divided into 10 sub-metros namely; Asokwa, Asewase, Bantama, Suame, Manhyia, Oforikrom, Tafo, Nhyiaeso, Subin and Kwadaso, Figure 3.3.

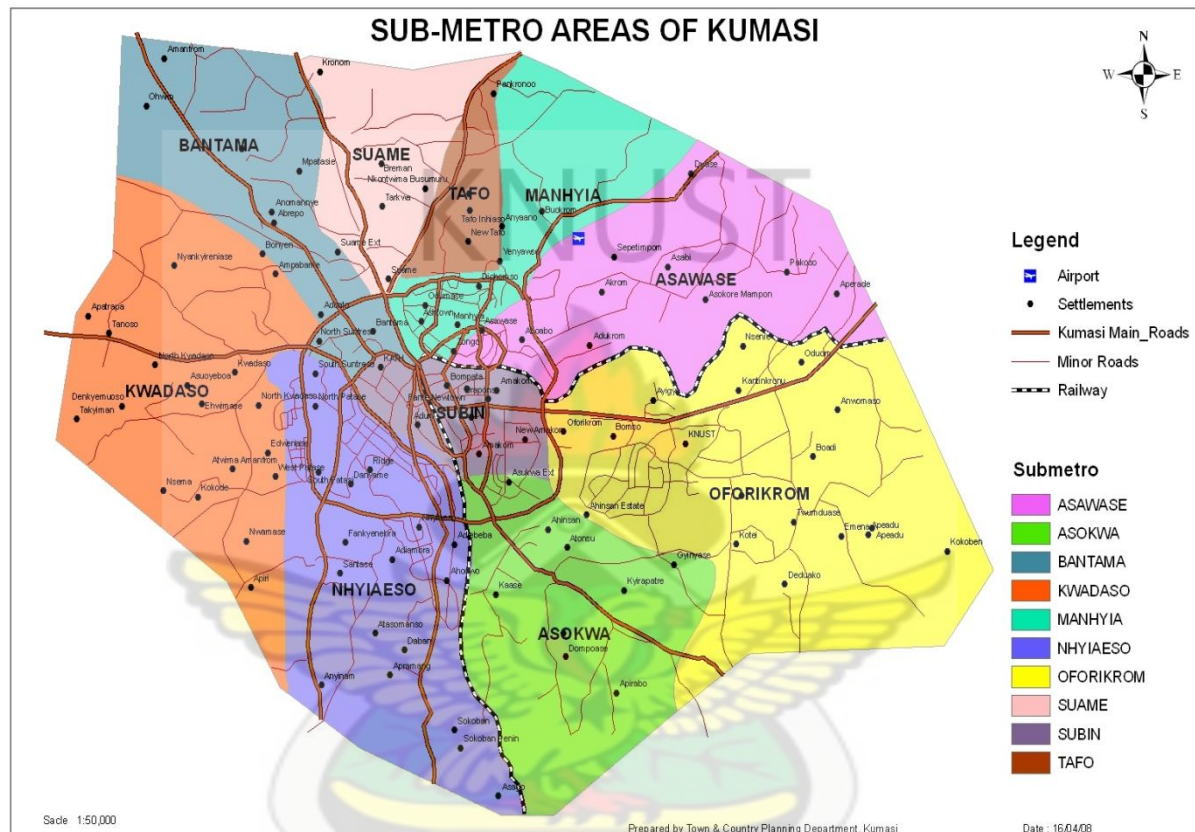


Figure 3.3 Profile of Kumasi Metropolitan
(KMA, Town and Country Planning Department, 2010)

3.3 Study Population

The study population comprised disabled males and females such as the hearing impaired, the visual impaired and the physical challenged persons aged 15 years and above in the Kumasi metropolis. Participants were PWDs who accessed healthcare in the Kumasi Metropolis since the main focus of this study was on their experiences as they utilize the services. Formal data on PWDs in the metropolis are not adequately available, it is,

however, captured in the 2010 population estimates that 124,501 people representing 2.6% of the total Ashanti region population estimate of 4,780,380 live with some form of disabilities. From this estimate, it can also be estimated that 53,001 people live with some form of disabilities in the Kumasi Metropolis. Moreover, informal estimate from the social welfare department in Kumasi metropolis showed that between January 1, 2012 and June 10, 2013, 125 PWDs have registered to benefit from the disability common fund (DCF) (Department of Social Welfare, 2013).

3.5 Sample size estimation

The sample size for this study was calculated by using the proportion of the population in Kumasi Metropolis who has some form of disabilities. Estimation from 2010 population census gives 2.6% of total Kumasi metropolis population with disabilities.

$$n = \frac{Z^2 pq}{d^2}$$

n= the desired sample size

z= the standard normal deviation 1.96

p= 2.6% (0.026). This is estimated from the 2010 population census. (People who have disabilities in Kumasi Metropolis is estimated to be 53,001 from 2010 population census)

q= 1.0-p

d= degree of accuracy desired at 0.03

$$n = \frac{(1.96)^2 (0.026) (0.974)}{(0.03)^2}$$

n= 108

Making provision for a 10% non-response = 1.10 x 108 =118.90, and a design effect of 2, the total sample size was, approx. 237.8

After rounding up the result to the closest number that will match the 5 clusters and also account for sampling variability. Therefore, the final sample size; 'n' was rounded to **255** participants. In each community, **51** PWDs were selected as participants.

3.6 Sampling Techniques

In order to ensure that the sample represented PWDs who accessed healthcare in the study population, different steps were taken into consideration; a multi-stage sampling was used to randomly select 5 communities in the Kumasi Metropolis. A multistage sampling methods “is carried out in phases and it usually involves more than one sampling methods”. Larger cluster was divided into smaller ones that could be used to create a more representative sample than single sampling. It is usually applicable when a sampling frame of a population is not required (Varkevisser *et al.*, 2003, Lavrakas, 2008).

Five (Oforikrom, Asawase, Subin, Tafo and Asokwa) out of 10 clusters based on definition of sub-metro were selected. In each of the selected communities, simple random sampling was used to select participants. A simple random sampling is a technique that gives individuals in the population an independent and equal chance of being selected from the sampling frame in the study population (Onwuegbuzie and Collins, 2007). This ensured that all prospective participants had equal chance of being selected to enrol in this study.

Fifty-one (51) PWDs were selected from each cluster to get a total sample of two hundred and fifty-five (255) participants. Out of the 51 PWDs from each community, seventeen each came from different PWD groups such as physically challenged, hearing impaired and visually impaired. This was to ensure that, at least, eighty-five (85) of the entire study participants come from these three different PWD groups. The knowledge and ideas

obtained from literature review and open contacts and interactions with the study population influenced sampling. The inclusion was partly based on PWDs who were accessible and could provide information on the topic of interest.

3.6.1 Sampling Frame

Sampling of participant was done through initial contact with institutions that work closely with PWDs including health facilities like Komfo Anokye Teaching hospital, Manhyia hospital and Department of Social Welfare (Kumasi Metropolis). Individual disability focus associations or organizations such as Physically Challenge Wheelchair Track and Field Association (PCWTFA), Ashanti region branch of Ghana Blind Union (GBU) and Ghana Federation of the Disabled (GFD) also helped in locating and recruitment of participant. The researcher and two research assistants attended meetings of GBU, GFD, and PCWTFA. The researcher then enrolled all PWDs who fell under the cluster of communities and consented to participate in the study. An arrangement was then made with these participants for the administration of the questionnaires in their various homes and workplaces. Again, the DSW provided a list of all PWDs who have benefited from the DCF with their background information including the communities in which they stayed. The investigator and the research team then used simple random sampling to select participants who fell under these communities. In each cluster, a snowballing technique was also used to zone households and streets in selected communities and all PWDs approached during which the intent and procedures of the study were explained to them to freely decide whether or not to participate. Within a cluster of community, PWDs were made to pick from box with papers written on them “Yes” and “No”. All PWDs who picked “Yes” in all the clusters and consented were enrolled. This was repeated to obtain all the required sample size.

3.7 Data collection Techniques and Tools

The study used a written Interview through structured questionnaire to collect information from individuals with physical disability, visual and hearing impairment to find out their experiences as they accessed health services defined under the CBR component. The questionnaire was structured based on the variables developed under the objective and conceptual framework. The questionnaires involved both close and open-ended questions.

In circumstances where respondents could not read and write, the researcher and his assistants were available to guide the interviewers to explain the questions where necessary. The explanations involved translation of the questions to language that respondents clearly understood and potential benefits those respondents could obtain from their participation. The questionnaire was developed in English but the interview was done in the respondents' preferred dialect; English, Sign language or Asante Twi. Necessary provisions were made to make available for any prospective participant ensuring they had access, for instance, sign language interpreter for the deaf. A professional interpreter, volunteered to assist in this regards. The data were collected over period of two months to allow time to reach all participants. However, each participant spent an approximately time of 40 minutes to answer the questions.

3.7.1 Pre-Testing

Pretesting of the questionnaire was done to ensure participants' understanding of the questions before the actual field work was implemented. This pretesting was the form of trial administration of questionnaires with ten (10) PWDs in Asokore Mampong. The pretesting was conducted on the January 31, 2014. In circumstances where it became obvious that the respondents found it difficult to answer the questions being asked, the

researcher in collaboration with the supervisor re-structured or reframed the questions to the standard of the respondents.

3.8 Study Variables

The background variables consisted of the participants' age, sex, educational attainment, religious background and whether the person stayed with the family member or not. The dependent variable for this study was responses to healthcare access. The independent variables on the other hand were the variable that determined the barriers grouped under broad categories as accessibility and social (attitudinal) barriers. These variables had also been sub-divided per the objectives in Table 3.1.

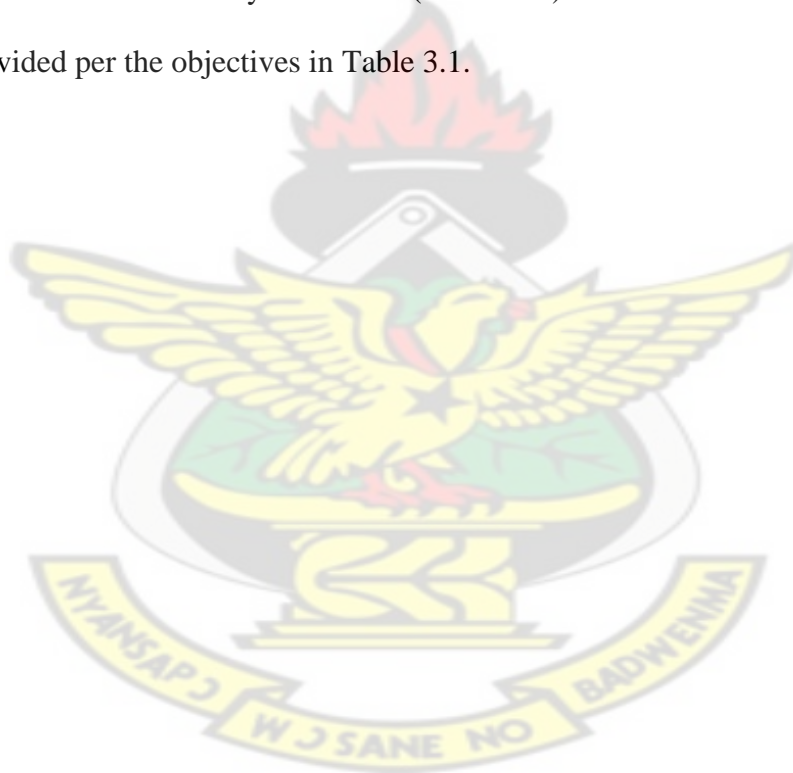


Table 3.1 Logical framework for the study

Objective	Dependent variable	Independent variable	Conceptual definition of dependent variable	Scale of measurement	Indicators	Data Collection	Statistical analysis
To examine the nature of healthcare barriers	Nature of barriers	Factors that account for the barriers; physical, communication, financial and medical equipment	Factors causing barriers to healthcare among PWDs	Nominal	Proportions, frequencies, mean, range, Chi-squares,	Questionnaire	Descriptive, Chi-squares
To assess differences in access	Access differentials	Socio-demographic characteristic in relation with access to healthcare	Relation between the socio-demographic factors and healthcare access	Nominal and ordinal	Percentages and proportions	Questionnaire	Bivariate analysis, Chi-squares,
To measure the extent to which barriers affect the healthcare utilization	Utilization of healthcare	Attendants, Sources and availability of services, satisfaction level, perceived quality of care	Sources and rate of utilizing healthcare with barriers	Nominal	Proportions, percentages, mean, range	Questionnaire	Descriptive, Bivariate, Chi-squares
To assess the effect financial accessibility has on healthcare	financial accessibility	Income level, transportation cost, expenses on healthcare, insurance cover,	The cost of healthcare and expenses borne by the disable patient	Nominal and Ordinal	Mean expenses , Odds ratio,	Questionnaire	Regression, Odds ratio, t-test, Confidence Interval
To identify knowledge and attitudes of health professionals	knowledge and attitudes of health professionals	Behaviour, Perception, discrimination, education	Degree of knowledge and attitudes of health professionals	Nominal	Frequencies, Percentages, Histograms	Questionnaire	Descriptive (frequencies, percentage)
To identify healthcare needs of persons with disabilities	Healthcare needs	Availability of accessible services, , professionals preparedness, source of treatment, income level	Healthcare provisions needed to overcome barriers	Nominal	Frequencies, Percentages, Pie charts, histograms	Questionnaire	Descriptive (frequencies, percentage)

3.9 Data Handling

All field data were kept confidential; kept under lock and key by the principal investigator at each day of data collection. Only the principal investigator and co-investigators had access to the data. Again, field supervisor checked all forms to ensure completeness and consistency prior to submission for data entry. Double data entries were done and the data was verified using Microsoft Access. The data were then processed using the Statistical Package for the Social Sciences Software 20 which made the data entry quicker than manual process and reduced human errors.

3.10 Data analysis

Result of the analysis was generated using descriptive and analytical statistics. Data were summarized in the form of frequency and percentage tables for categorical variables. Means, minimum, maximum, standard deviation and graphs was also used to summarize continuous variables. Chi-square tests were used to test for significance of associations between the independents and outcome variables. Student t-test was also used to test for significance of associations between the predictor and outcome variables. Linear regression analysis was used to determine predictor variables that are associated with expenditure on healthcare for a month. Significance was set at p -value of less than 0.05. The analysis then followed a write-up and discussions based on the findings from the study. The study finally presented recommendations and conclusions in the final chapter.

3.11 Ethical consideration

The study was conducted according to international and local laws and regulations; the Helsinki declaration. Locally, the KNUST Committee for Human Research Publication and Ethics reviewed and cleared the study protocols prior to the implementation of the study. A written informed consent was translated and explained to potential study participants in a language well understood by them prior to their enrolment in the study.

3.12 Limitations to study

The study ought to identify specific healthcare receive by PWDs and examine extent of access. However, this study crudely define healthcare to include all health conditions that results PWDs to a facility to seek care. Following experiences from surveys conducted by other researchers, families with PWDs usually hide their relatives preventing them from participating in surveys because of the stigma that are attached to the family. In view of this, PWDs refusal to participate in this study was a potential limitation. When the person refused to participate, it was resolved by replacing him with different participant. However, others who agreed to participate did it reluctantly. Their willingness to fully participate was a potential limiting factor to the research. This might have led to information bias on the part of the respondents.

Also, it is assumed that a study that uses cross-sectional design and multi-stage sampling technique could make room for selection bias. Selecting five (5) communities out of 10 communities may also bring a possible sampling bias. However, the scientific rigor employed in this study minimized such limitations. Another possible limitation to this study was how to locate PWDs in the metropolis since there is no formal data and information about disable persons in the metropolis. However, Organizations that work closely with PWDs coupled with disability focus associations assisted in locating PWDs. Although possible provisions were made for accessibility, it was one of the limitations.

CHAPTER FOUR

RESULTS

4.0 Introduction

The findings of the study are presented in this chapter. The chapter consists of the analysis of responses obtained from two hundred and fifty-five (255) PWDs (physically challenged, hearing and visually impaired) in the Kumasi Metropolis concerning their experiences on healthcare barriers. The analyses consist of results generated from the SPSS software which are presented in tables and graphs to establish relationship between the objectives of the study. It also presents some bivariate analysis to establish relationship between the main study variables, using chi-square, mean, and standard deviation. The tables and graphs are followed by description and interpretation of figures. The chapter is arranged per the study objectives which also reflected on the questionnaires that were issued out. It starts from the demographic characteristics of the respondents, through the specific objectives.

4.1 Socio-demographic characteristics of respondents

Socio-demographic information describing 255 respondents from questionnaires is given in Table 4.1. The questionnaires were administered among three different disability groups in five different clusters of communities in Kumasi Metropolis such as Oforikrom, Asawase, Subin, Asokwa and Tafo. Each community selected had at least 49 respondents. Males (50.6%) participated in the study more than females (49.4%). The average age of respondents was 38 years. However, 42% of respondents fell within the ages 31 – 40 whereas only 3.9% were below or exactly 20 years. A majority of respondents (34.5%) had no formal education with 16.9% having JHS and Tertiary education respectively. Only one person had other education apart from the ones mentioned in the questionnaire. The respondents reported different kind of employment they are engaged in such as apprenticeship (21.6%), trading (15.7%), government/civil servant

(11%), farming (11%), and other forms of employment (12.2%). However, the majority (28.6%) reported they were not engaged in any employment. Christianity was the dominant religious sect among participants followed by Islam. None of the respondents reported Traditional religion or any other religion. More than 85% of the respondents involved in the study stayed with their family members.

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Table 4.1: Socio-demographic characteristics of respondents

<i>Variables</i>	<i>Characteristics</i>	<i>Frequency</i>	<i>Percentage</i>
Community (n= 255)	○ Oforikrom	49	19.2
	○ Subin	50	19.6
	○ Asawase	51	20.0
	○ Tafo	55	21.6
	○ Asokwa	50	19.6
Gender (n= 255)	○ Male	129	50.6
	○ Female	126	49.4
Age (n=255)	○ ≤20	10	3.9
	○ 21 – 30	46	18.0
	○ 31 – 40	107	42.0
	○ 41 – 50	41	16.1
	○ >50	51	20.0
	<i>Mean(SD); Min/Max</i>	<i>38;17/60</i>	
Disability type	○ Physically disabled	85	33.3
	○ Blind	85	33.3
	○ Deaf	85	33.3
Employment	○ Government/Civil Servant	28	11.0
	○ Trading	40	15.7
	○ Farming	28	11.0
	○ Apprenticeship/Craft	55	21.6
	○ None	73	28.6
	○ Other	31	12.2
Educational Level	○ No formal education	88	34.5
	○ Primary	41	16.1
	○ JSS/Middle School	43	16.9
	○ SSS/Vocational School	39	15.3
	○ Tertiary	43	16.9
	○ Others	1	0.4
Religion	○ Christianity	208	81.6
	○ Islamic	42	16.5
	○ Traditional/Spiritual	-	-
	○ Others	5	2.0
Currently staying with Family member(s) (n=255)	○ Yes	217	85.1
	○ No	38	14.9

Source: Field Data, 2014

4.2 Differences in access to healthcare among various socio-demographic characteristics

Table 4.2 presents results of bivariate analysis of the relationship between the demographic information of respondents on their access to healthcare. The analysis shown that the community of residence, age and disability type have significant relationship with access to healthcare among PWDs. ($p=0.003$, $p=0.000$ and $p=0.002$).

Access to healthcare was more profound among PWDs who were 31 – 40 years than those who were below 20 years. Again, the likelihood of accessing healthcare was found higher among PWDs who were staying with their family members. In contrast, demographic variables such as gender, employment status, level of education and religious affiliation had no significant influence on access to healthcare.

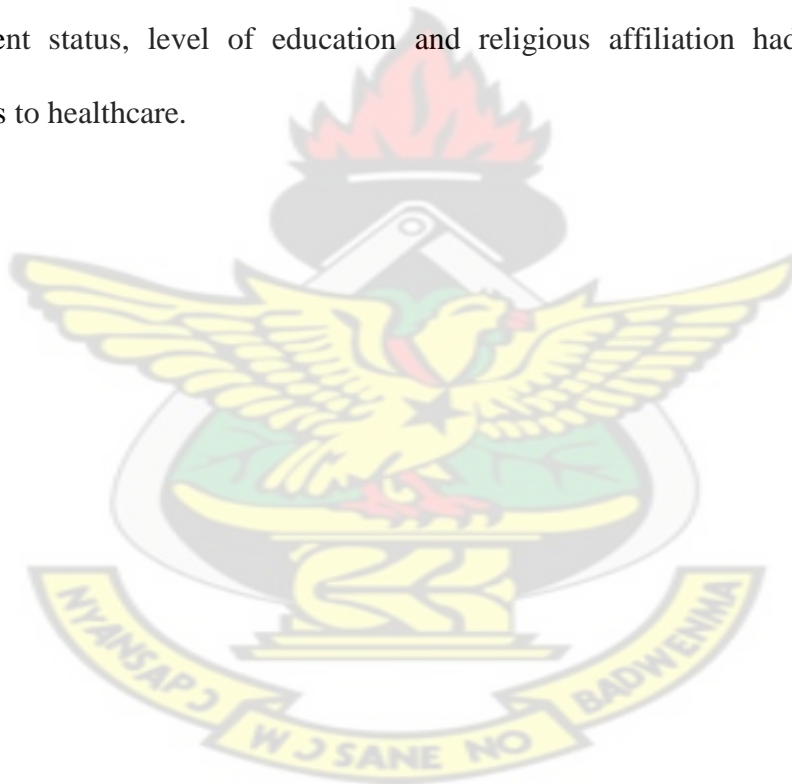


Table 4.2: Relationship between socio-demographic characteristics of respondents and access to healthcare

Variable	Access healthcare		Chi-Square	p-value
	Yes N (%)	No N (%)		
Community (n= 255)			16.061	0.003*
○ Oforikrom	49 (100)	-		
○ Subin	50 (100)	-		
○ Asawase	46 (90.2)	5 (9.8)		
○ Tafo	55 (100)	-		
○ Asokwa	49 (98)	1 (2)		
Gender (n= 255)			0.732	0.392
○ Male	127 (98.4)	2 (1.6)		
○ Female	122 (96.8)	4 (3.2)		
Age (n=255)			24.920	0.000*
○ ≤20	8 (80)	2 (20)		
○ 21 – 30	46 (100)	-		
○ 31 – 40	107 (100)	-		
○ 41 – 50	41 (100)	-		
○ >50	47 (92.2)	4 (7.8)		
Disability type			12.289	0.002*
○ Physically disabled	79 (92.9)	6 (7.1)		
○ Blind	85 (100)	-		
○ Deaf	85 (100)	-		
Employment			6.560	0.255
○ Government/Civil Servant	28 (100)	-		
○ Trading	40 (100)	-		
○ Farming	28 (100)	-		
○ Apprenticeship/Craft	53 (96.4)	2 (3.6)		
○ None	69 (94.5)	4 (5.5)		
○ Other	31 (100)	-		
Educational Level			11.661	0.040*
○ No formal education	82 (93.2)	6 (6.8)		
○ Primary	41 (100)	-		
○ JSS/Middle School	43 (100)	-		
○ SSS/Vocational School	39 (100)	-		
○ Tertiary	43 (100)	-		
○ Others	1 (100)	-		
Religion			0.123	0.940
○ Christianity	203 (97.6)	5 (2.4)		
○ Islamic	41 (97.6)	1 (2.4)		
○ Traditional/Spiritual	-	-		
○ Others	5 (100)	-		

Currently staying with Family member(s) (n=255)			35.089	0.000*
○ Yes	217 (100)	-		
○ No	32 (84.2)	6 (15.8)		

*Source: Field Data, 2014, *p<0.05*

4.3 The Type of healthcare barriers confronting Persons with Disabilities

Effective utilization of healthcare for healthy life depends to very large extent on barrier-free services. As can be seen from Table 4.3, the nature of barriers that PWDs encountered at healthcare setting ranged from physical, medical equipment and communication. The majority of respondents (61; 52.5%) cited that indeed they faced physical barriers to healthcare whereas 121 respondents representing 47.5% disclosed they did not face any physical barrier to healthcare. Among those who faced physical barriers, 45.2% faced inaccessible door entrances while 42.2% faced inaccessible staircases with others facing other forms.

About 78% of respondents indicated that they faced barrier to medical equipment with 21.9% disclosing that, they did not face barriers to any medical equipment and facilities. However, out of those who faced barrier to medical equipment, majority (119; 62%) were concerned with lack of readable signs and difficulty in following equipment instructions. Also, thirty-six (36) of them representing 18.8% faced inaccessible high beds with 16.7% citing inaccessible tables and chairs as barriers to medical equipment and facilities. Despite these barriers, ninety-nine (99) respondents representing 57.2% cited they relied on their personal assistants (caregivers) like family members for support to these barriers whereas 35.8% relied on service providers to resolve some of these barriers. About 6.9% also disclosed other sources of support to overcome some of these barriers including other non-disabled patients or caregivers at service point.

Furthermore, respondents were asked on their access to communication at healthcare settings. The majority (169; 66.3%) admitted they indeed faced barrier to communication at healthcare

settings whereas 33.7% cited they do have access to communication. The majority of respondents who had difficulties to communication admitted that service providers were impatient (110; 63.6%). The majority of the respondents (87.8%) indicated that they were not given time limit to address their problems to practitioners at healthcare centres.

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Table 4.3: Physical, Equipment and Communication barriers to healthcare

Variable	Frequency	Percentage
Physical Barriers to healthcare(n=255)		
○ Yes	134	52.5
○ No	121	47.5
Nature of physical barrier(s) to healthcare(n=135) *		
○ Inaccessible door entrances	61	45.2
○ Inaccessible staircase	57	42.2
○ Absence of elevators	5	3.7
○ Absence of ramps	7	5.2
○ Medical Labels	2	1.5
○ Others	3	2.2
Barrier to medical equipment when accessed healthcare(247)		
○ Yes	193	78.1
○ No	54	21.9
Type of barrier to medical equipment faced when accessed healthcare(n=192)		
○ Inaccessible high beds	36	18.8
○ Inaccessible tables and chairs	32	16.7
○ Lack of readable signs and difficulty in following equipment instructions	119	62.0
○ Others	5	2.6
Who do you turned on for support to equipment barrier to healthcare (173)		
○ Through the help of my personal assistant or caregivers	99	57.2
○ Through assistant of hospital professionals	62	35.8
○ Others	12	6.9
Accessibility to communication at healthcare setting (n=255)		
○ Yes	86	33.7
○ No	169	66.3
Service providers exercise patient for communication difficulties (n=173)		
○ Yes	63	36.4
○ No	110	63.6
Time limit to address health problems to practitioners (n=255)		
○ Yes	31	12.2
○ No	224	87.8

Source: Field data, 2014

*multiple responses

4.4 The extent to which barriers affect healthcare of PWDs

As shown in Table 4.4, majority of respondents (68.2%) accessed healthcare less than twice monthly, whereas only 2 respondents constituting 0.8% cited they received healthcare for 5 – 7 times within a month. About 64% of the respondents disclosed they did not receive the services they expected when they accessed healthcare whereas 35.7% cited they indeed received the expected services.

The study also elicited information on whether respondents received referral or not at healthcare centre. A majority (81.6%) reported that they did not receive referral as 18.4% who received referral. Among the few who did receive referral, their referral was related to sickness type (72%) and Disability type (22%). Other three (3) respondents representing 6% received referral on the basis that the required service was unavailable. Most of the respondents (94%) from the study indicated that their sources of payment for the healthcare did not meet equipment and other suppliers.

The majority (63.5%) of respondents said that they find it difficult to admit having health problems, whereas 36.5% did admit. Respondents who found it difficult to admit their health problems cited healthcare cost (47.6%), physical barriers (0.6%), discrimination by professionals (1.2%), distant to service point (5.5%) and lack of communication access (45.5%). Respondents' opinion was asked on their general perceptions about the services they received. Respondents (44.7%) opined that it was good. However, about 41.6% of respondents believed it is bad whereas 12.2% said very bad.

Table 4.4: The extent to which barriers affect healthcare of PWDs

Variables	Frequency	Percentage
Frequency of accessing healthcare within a month		
○ Less than twice	174	68.2
○ 2 – 4 times	66	25.9
○ 5 -7 times	2	0.8
○ Other	13	5.1
Received expected services when accessed healthcare		
○ Yes	91	35.7
○ No	164	64.3
Received referral when accessed healthcare (n=250)		
○ Yes	48	18.4
○ No	204	81.6
Basis for being referred (n=50)		
○ Disability type	11	22
○ Sickness type	36	72
○ Other	3	6
Source of payment for healthcare (s) meet equipment and other suppliers coverage		
○ Yes	15	5.9
○ No	240	94.1
Rating of the services offered at facility		
○ Very good	4	1.6
○ Good	114	44.7
○ Very bad	31	12.2
○ Bad	106	41.6
Do you admit when you are in health deficiency (ill/sick) (n=255)		
○ Yes	93	36.5
○ No	162	63.5
Why do you not admit when you are in health deficiency to access healthcare(n=165)		
○ Cost of healthcare	78	47.3
○ Physical barriers	1	0.6
○ Discrimination by professionals	2	1.6
○ Distant to services point	9	5.5
○ Lack of medical equipment adapted for usage	-	-
○ Lack of communication access	75	45.5

Source: Field Data, 2014

As Table 4.5 shows, physical, communication, transportation cost, total monthly expenditure on health service and the source of payment had a significant relationship with access to healthcare ($p=0.001$ versus $p=0.005$, $p=0.000$ versus $p=0.000$). Access was higher among respondents who paid GHC 2.00 – 5.00 as transportation cost to healthcare centres. On the contrary, respondents who experienced barriers to medical equipment and its different type had had no significant relationship with access to healthcare ($p=0.45$).



Table 4.5: A bivariate analysis of the extent to which barriers affect healthcare

	Access healthcare		Chi-Square	p-value
	Yes N (%)	No N (%)		
Physical Barriers to healthcare (n=255)			5.548	0.018*
○ Yes	128 (95.5)	6 (4.5)		
○ No	121 (100)	-		
Type (s) of physical barrier(s) to healthcare (n=135)			1.549	0.907
○ Inaccessible door entrances	57 (93.4)	4 (6.6)		
○ Inaccessible stair case	55 (96.5)	2 (3.5)		
○ Absence of elevators	5 (100)	-		
○ Absence of ramps	7 (100)	-		
○ Medical Labels	2 (100)	-		
○ Others	3 (100)	-		
Accessibility to communication at healthcare setting (n=255)			12.075	0.001*
○ Yes	80 (93)	6 (7)		
○ No	169 (100)	-		
Barrier to medical equipment (247)			0.564	0.453
○ Yes	191 (99)	2 (1)		
○ No	54 (100)	-		
Cost to reach healthcare centre (n=253)			15.036	0.005*
○ ≤ GHC 2.00	85 (97.7)	2 (2.3)		
○ GHC 2.00 – 5.00	107 (100)	-		
○ GHC 5.00 – 10.00	32 (8.9)	4 (11.1)		
○ GHC 10.00 – 20.00	21 (100)	-		
○ Above GHC 20.00	2 (100)	-		
Amount of money spent on healthcare monthly (n=255)			29.254	0.000*
○ ≤ GHC 10.00	45 (100)	-		
○ GHC 11.00 – 20.00	128 (100)	-		
○ GHC 21.00 - 30.00	25 (100)	-		
○ GHC 31.00 – 40.00	19 (82.6)	4 (17.4)		
○ Above 40	32 (94.1)	2 (5.9)		
Regular Source of payment for healthcare			1.505	0.000*
○ Personal Income	74 (100)	-		
○ NHIS	162 (100)	-		
○ Social support network	6 (100)	-		
○ Family member	4 (40)	6 (60)		
○ Friends	3 (100)	-		

Source: Field Data, 2014

* $p < 0.05$

4.5 Effect of financial accessibility on healthcare of PWDs

As shown in Table 4.6, respondents reported the time it takes them to walk or travel to healthcare centres. The walking time cited among respondents included below 15 minutes (17.3%), 30 – 60 minutes (30.6%) with 15 – 30 minutes (48.2%) being the most cited. Other times indicated by respondents were above 60 minutes. The majority, 42.3% of the respondents indicated that they paid GHC 2.00 – 5.00 as transportation cost to reach hospitals. However, eighty-seven (87) respondents constituting 34.4% paid less than GHC 2.00 whereas only two respondents (0.8%) paid above GHC 20.00 as transportation cost. Respondents (30.7%) disclosed that their monthly income fell between GHC 150.00 – 250.00 whereas 19.9% earned above GHC 300.00. Also, 11.2% of respondents earned below GHC 100.00 whereas 10% have a monthly income of GHC 250.00 – 300.00.

The study also elicited the amount respondents spent on their healthcare monthly. About 50.2% of respondents spent GHC 11.00 – 20.00 on their healthcare within a month whereas 9% cited GHC 31.00 – 40.00. However, about 17.6% spent GHC 10.00 or below whereas 13.3% also spent more than GHC 40.00. The average monthly income spent on healthcare was therefore GHC 21.4 and this was about 9.8% of the mean monthly income of respondents.

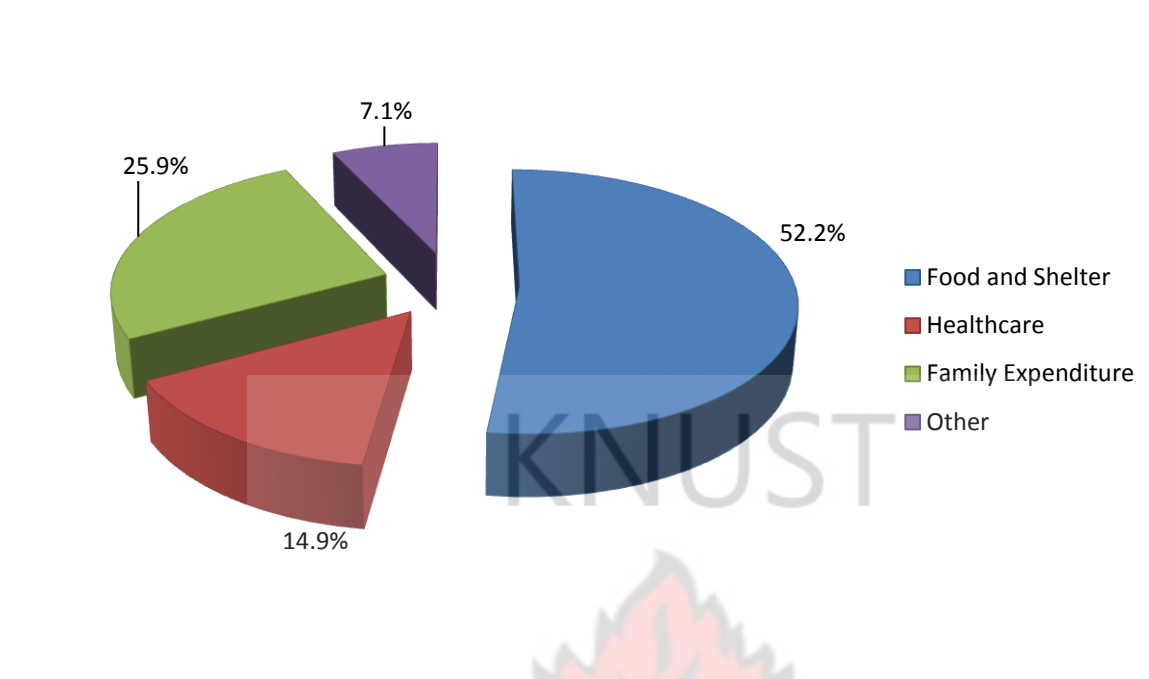
Figure 4.1 also demonstrate that food and shelter (52.2%) is the highest consumption component of respondents' income. Family expenditure and healthcare also constituted 25.9% and 14.9% respectively of respondents' income. The hospital was the most cited source of healthcare as 68.2% of respondents disclosed this, Figure 4.2. Respondents (18.8%) also disclosed that they visited the pharmacy shop when they needed health services. About 5% also cited Rehabilitation centres with clinics being the least (2.8%) cited sources of health services. Also, the NHIS was the most cited sources of payment for health services followed by payment

from personal income (29%), family members (3.9%), social support network (2.4%) and payment by friends (1.2%) as shown in Figure 4.3.

Table 4.6: Cost of seeking healthcare among respondents

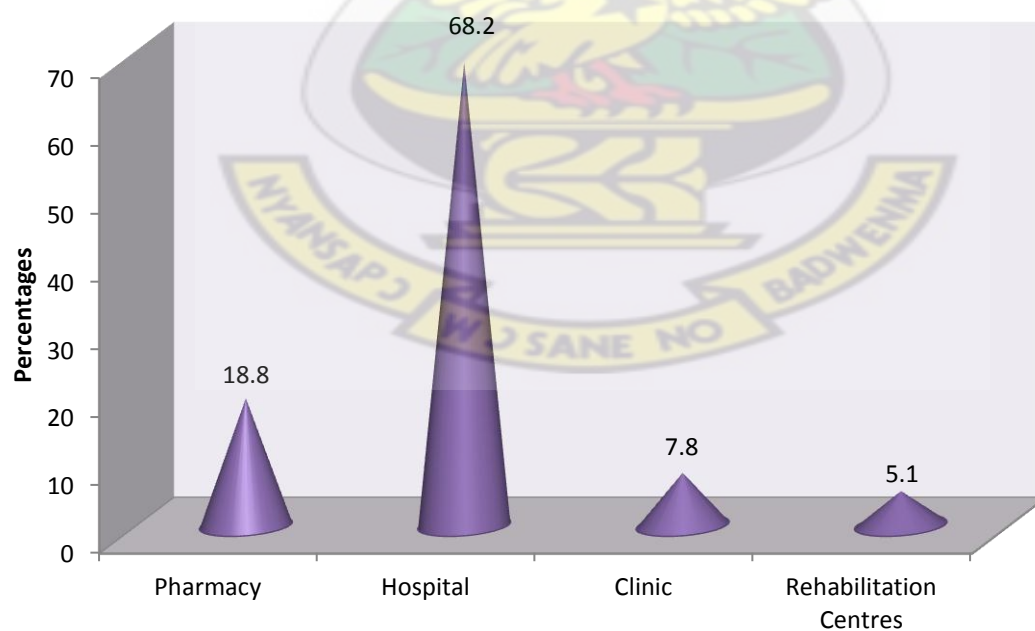
<i>Variables</i>	<i>Characteristics</i>	<i>Frequency</i>	<i>Percentage</i>
Time to walk or travel to access healthcare	○ Below 15 minutes	44	17.3
	○ 15 – 30 minutes	123	48.2
	○ 30 – 60 minutes	78	30.6
	○ Other	10	3.9
Cost to reach healthcare centre	○ ≤ GHC 2.00	87	34.4
	○ GHC 2.00 – 5.00	107	42.3
	○ GHC 5.00 – 10.00	36	14.2
	○ GHC 10.00 – 20.0	21	8.3
	○ Above GHC 20.0	2	0.8
Income for a month (n=241)	○ ≤ GHC 100	27	11.2
	○ GHC 100 – 150	68	28.2
	○ GHC 150 – 250	74	30.7
	○ GHC 250 – 300	24	10.0
	○ Above 300	48	19.9
<i>Mean (SD);Min/Max*</i>			
Amount of income spent on healthcare monthly (n=255)	○ ≤ GHC 10.00	45	17.6
	○ GHC 11.00 – 20.00	128	50.2
	○ GHC 21.00 - 30.00	25	9.8
	○ GHC 31.00 – 40.00	23	9
	○ Above 40	34	13.3
<i>Mean(SD); Min/Max**</i>			
Source: Field Data, 2014		*GHC 218.7 (120.50); 45/520	**GHC 21.46 (13.95); 3/55

Figure 4.1: The highest consumption component of respondents income



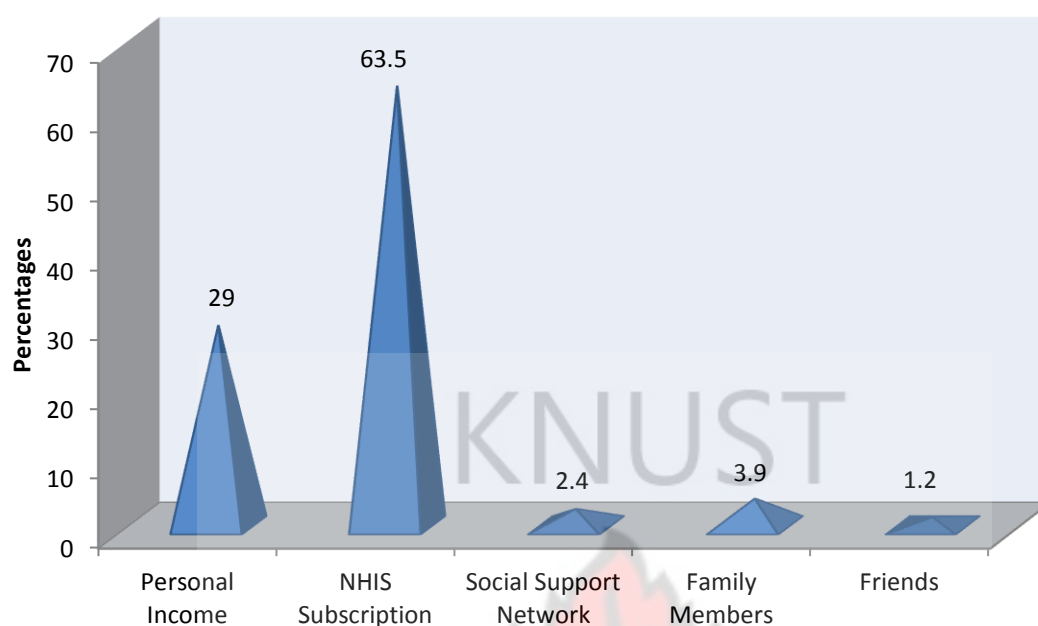
Source: Field data, 2014

Figure 4.2: Regular source of healthcare



Source: Field Data, 2014

Figure 4.3: Source of payment of healthcare



Source: Field data, 2014

Table 4.7 presents results of the relationship between financial accessibility and access to healthcare among respondents. The analysis disclosed that the distance PWDs walk or travel and the amount involved to reach the healthcare setting have a significant influence on access to the services ($p=0.003$ and $p=0.005$ respectively). Access to healthcare is, however, higher among PWDs who walked or travelled between 15 – 30 minutes to reach hospital and those who paid GHC 2.00 – 5.00 to reach the hospital. However, the income that PWDs earned within a month had no significant relationship with access to healthcare.

Furthermore, the highest consumption component of PWDs income as well as the amount spent on healthcare had significant relationship with access to healthcare ($p=0.000$ respectively). Similarly, the regular source of healthcare also increased the likelihood of accessing the services with access being higher among those who visited the hospitals ($p=0.00$). Again, source of payment of healthcare have a significant relationship with access to the services with those who

paid from NHIS subscription having higher access ($p=0.000$). Finally, the number of times a PWD visited the hospital within a month coupled with whether the source of payment for healthcare meet equipment and other suppliers coverage did not had any significant relationship with access to healthcare ($p>0.05$).

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Table 4.7: A bivariate analysis of financial accessibility to healthcare

Variable	Access healthcare		Chi-Square	P-Value
	Yes N (%)	No N (%)		
Frequency of access to healthcare in a month			0.495	0.920
○ Less than twice	170 (97.7)	4 (2.3)		
○ 2 – 4 times	64 (97)	2 (3)		
○ 5 – 7 times	2 (100)	-		
○ Other	13 (100)	-		
Time to walk or travel to access healthcare			13.9	0.003*
○ Below 15 minutes	44 (100)			
○ 15 – 30 minutes	123 (100)			
○ 30 – 60 minutes	72 (92.3)	6 (7.7)		
○ Other	10 (100)			
Cost to reach healthcare centre			15.036	0.005*
○ ≤ GHC 2.00	85 (97.7)	2 (2.3)		
○ GHC 2.00 – 5.00	107 (100)	-		
○ GHC 5.00 – 10.00	32 (88.9)	4 (11.1)		
○ GHC 10.00 – 20.00	21 (100)	-		
○ Above GHC 20.00	2 (100)	-		
Income for a month			5.766	0.217
○ ≤ GHC 100	2 (100)	-		
○ GHC 100 – 150	64 (94.1)	4 (5.9)		
○ GHC 150 – 250	72 (97.3)	2 (2.7)		
○ GHC 250 – 300	24 (100)	-		
○ Above 300	48 (100)	-		
Highest consumption component of income			35.089	0.000*
○ Food and Shelter	133 (100)			
○ Healthcare	32 (84.2)	6 (15.8)		
○ Family expenditure	66 (100)			
○ Other	18 (18)			
Amount of money spent on healthcare monthly			29.254	0.000*
○ ≤ GHC 10.00	45 (100)	-		
○ GHC 11.00 – 20.00	128 (100)	-		
○ GHC 21.00 - 30.00	25 (100)	-		
○ GHC 31.00 – 40.00	19 (82.6)	4 (17.4)		
○ Above 40	32 (94.1)	2 (5.9)		
Regular source of healthcare			1.144	0.000*
○ Pharmacy	48 (100)			
○ Hospital	174 (100)			
○ Clinic	20 (100)			

○ Herbal centres	-	-		
○ Spiritual healers	-	-		
○ Rehabilitation centres	7 (53.8)	6 (46.2)		
Regular source of payment for healthcare			1.505	0.000*
○ Personal Income	74 (100)	-		
○ NHIS Subscription	162 (100)	-		
○ Social support network	6 (100)	-		
○ Family members	4 (40)	6 (60)		
○ Friends	3 (100)	-		
○ Other	-	-		
Sources of payment meet equipment and other suppliers' coverage			0.384	0.535
○ Yes	15 (100)			
○ No	234 (97.5)	6 (2.5)		

Source: Field Data, 2014 * $p < 0.05$

Table 4.8 presents results of bivariate analysis to determine the influence of socio-demographic characteristics on monthly expenses on healthcare and income level. The comparison of the mean monthly income and monthly expenses on healthcare varied among males and females. The mean expenses was significantly higher among females PWDs than males (GHC 23.55 versus GHC 19.42; $p=0.011$). The mean expenses on healthcare per month among PWDs are not the same for all age groups and have significant level at $p=0.000$. Individuals with physical disabilities spent much (GHC 29.51) on their healthcare monthly than deaf and blind persons (GHC 20.98 and GHCC 13.88). The mean monthly expenditure on healthcare also varied significantly with employment level ($p=0.002$) as well as educational level of PWDs ($p=0.001$). There is again a significant variation in the mean monthly expenses on healthcare among respondents who stayed or did not stay with their family members. Those who did not stay with their family members had higher mean monthly expenses on healthcare than those who stayed with their family members (27.63 versus 20.38; $p=0.001$). The mean monthly income of respondents differed significantly among gender ($p=0.001$), ages of the respondents ($p=0.000$) as well as employment ($p=0.000$) and educational level ($p=0.000$).

Table 4.8: The influence of socio-demographic factors on monthly expenditure on healthcare and income

<i>Variable</i>	<i>Value</i>	Cost of healthcare management			
		<i>Expense+</i>	p-value	<i>Income++</i>	p-value
		Mean (Std)		Mean (Std)	
Gender			0.011		0.001
	○ Male	19.42 (13.93)		243.10 (129.31)	
	○ Female	23.55 (11.55)		192.33 (104.39)	
Age			0.000		0.000
	○ ≤20	44.80 (11.57)		168.33 (65.24)	
	○ 21 – 30	21.52 (13.52)		121.67 (55.71)	
	○ 31 – 40	20.91 (11.53)		228.13 (114.12)	
	○ 41 – 50	15.88 (8.84)		275 (144.64)	
	○ >50	22.42 (13.51)		236.27 (114.30)	
Disability			0.000		0.346
	○ Physical	29.51 (15.31)		206.76 (105.29)	
	○ Blind	20.98 (10.37)		214.40 (140.23)	
	○ Deaf	13.88 (6.4)		233.69 (111.23)	
Employment			0.002		0.000
	○ Government	20.89 (12.25)		287.14 (172.44)	
	○ Trading	18.92 (6.39)		246.18 (121.45)	
	○ Farming	13.25 (5.91)		255.74 (128.87)	
	○ Apprenticeship	24.73 (16.01)		175.82 (88.33)	
	○ None	23.34 (12.92)		164.71 (53.71)	
	○ Other	22.42 (15.40)		298.85 (132.79)	
Education			0.001		0.000
	○ None	18.44 (12.27)		185.91 (96.42)	
	○ Primary	22.85 (12.66)		259.63 (104.47)	
	○ JSS/Middle School	28.35 (14.58)		184.87 (92.83)	
	○ SSS/Vocation	22.90 (10.64)		215 (122.50)	
	○ Tertiary	18.14 (12.11)		297.71 (166.28)	
	○ Others	20		180	
Currently staying with family member			0.001		0.284
	○ Yes	20.38 (11.84)		222.29 (120.13)	
	○ No	27.63 (16.93)		199.19 (122.31)	

+monthly expenses on healthcare, ++monthly income

Table 4.9 presents results on the regression analysis of socio-demographic factors on expenses on healthcare per month. The R-Square of 0.340 suggests that the proportion of variance in mean monthly expenses that can be explained by socio-demographic variables is 34%. The study found that the odds of total monthly expenditure on healthcare for respondents were low depending on the age, disability and employment status. Also, the odds of total monthly expenditure among respondents education was low (OR=0.12; p=0.000). There was no significant relationship among gender and whether a respondent stay with the family member or not (OR=2.76; p=0.479 and OR=0.84; p=0.933).

Table 4.9: Regression of socio-demographic factors on expenses of healthcare per month

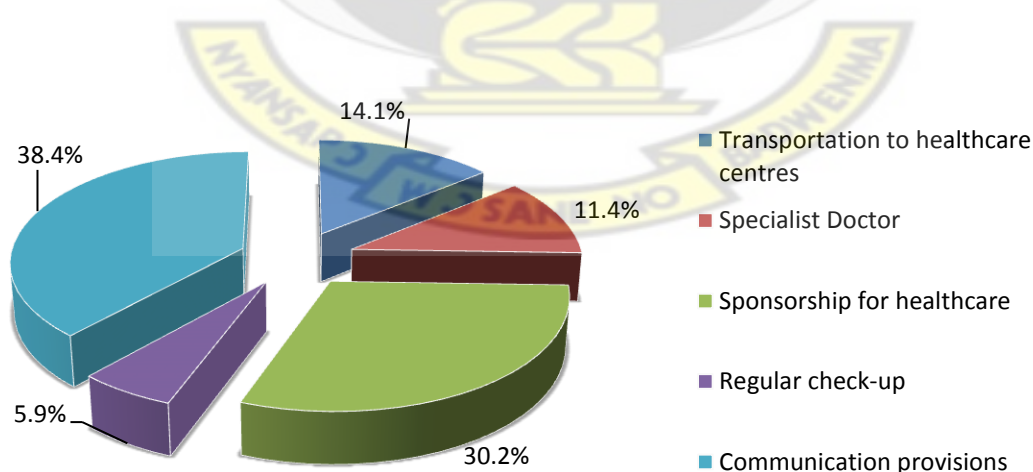
<i>Independent variables</i>	<i>OR (95% CI)</i>	<i>Std error</i>	<i>t-stat</i>	<i>p-value</i>
Gender	2.76 (-1.809, 3.842)	1.435	0.709	0.479
Age	0.17 (-3.018, -0.466)	0.648	-2.688	0.008*
Disability	0.00 (-11.874, -7.360)	1.146	-2.688	0.000**
Employment	0.42 (-1.832, 0.105)	0.492	-1.757	0.080
Education	0.12 (-3.133, -1.049)	0.529	-3.951	0.000**
Staying with family member (ref=yes)	0.84 (-4.357, 4.001)	2.122	-0.84	0.933
Constant	6.26 (32.748, 63.023)	7.685	6.231	
<i>N</i>	255			
<i>R squared</i>	0.340			
* <i>p</i> <0.05; ** <i>p</i> <0.01, <i>Outcome variable: expenses on healthcare per month</i>				

4. 6 Healthcare needs of Persons with Disabilities

Figure 4.4, 4.5, 4.6 and 4.7 presents' results of the healthcare needs among respondents. As shown in Figure 4.4, specific healthcare needs cited among respondents included transportation to healthcare centres (14.1%), special doctors (11.4%), sponsorship for healthcare that covers all expenses (30.2%), regular check-up (5.9%) with communication devices and qualified interpreters being the most cited (38.4%).

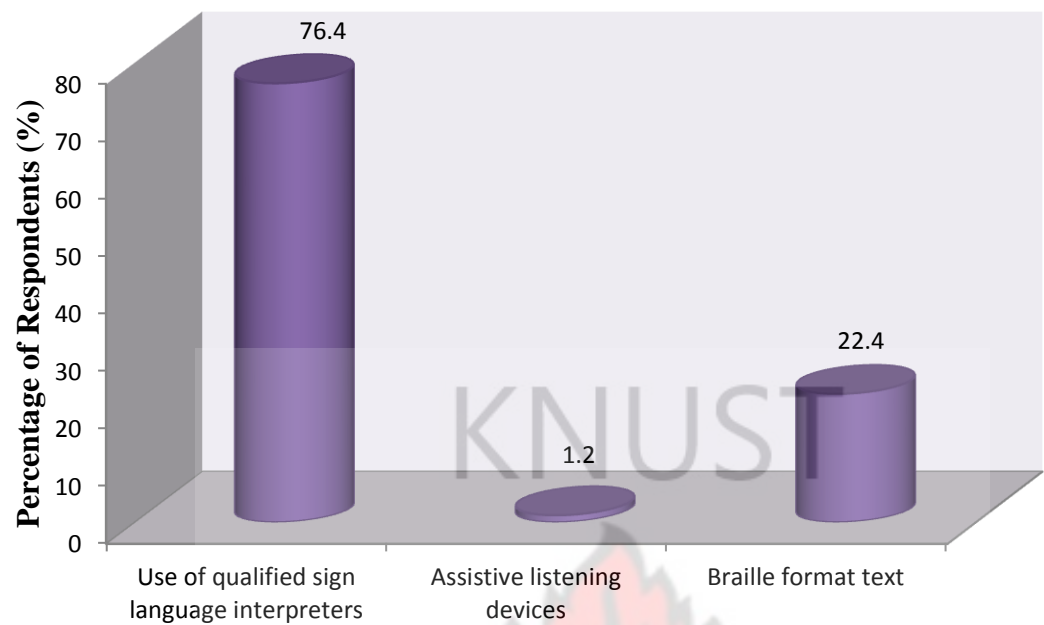
As Figure 4.7 shows, respondents mentioned some of the provisions they needed to ensure communication access. Among them were the use of qualified sign language interpreters (76.4%), Braille format text (22.4%) and use of Assistive listening devices (1.2%). From Figure 11, respondents were also asked if they received any consideration at healthcare centre. About 61% cited that they received consideration whereas 38.4% had no consideration. Examples of consideration cited by respondents included preferential treatment (138; 85.7%) by professionals and additional time allocated to providing services to them (23; 14.3%). This is a significant practice that if continuous accordingly, will help to ensure access to healthcare for PWDs.

Figure 4.4: Specific healthcare needs of Persons with Disabilities



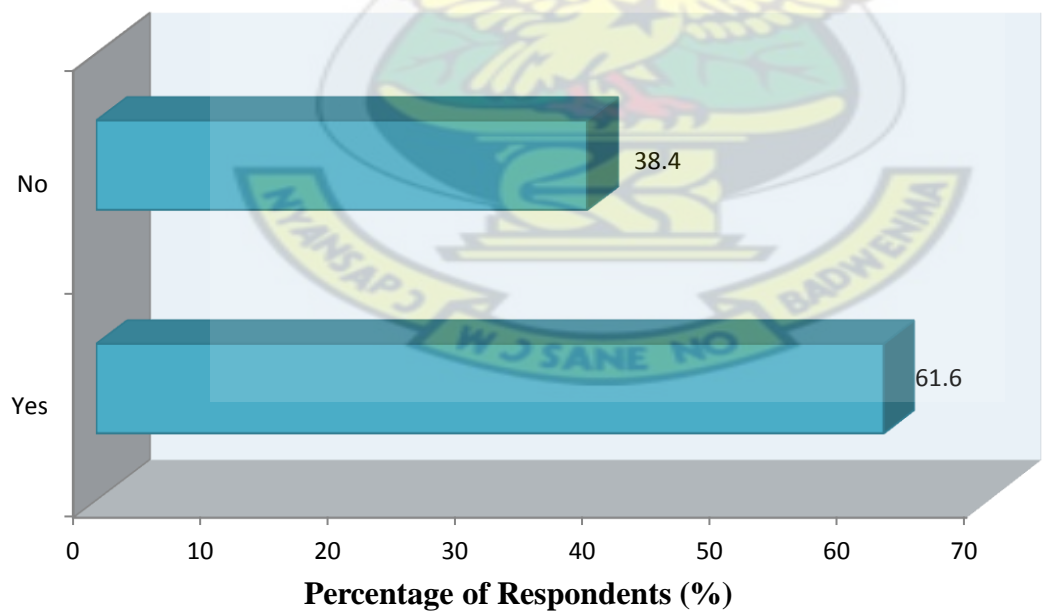
Source: Field data, 2014

Figure 4.5: Provisions needed for Communication barriers



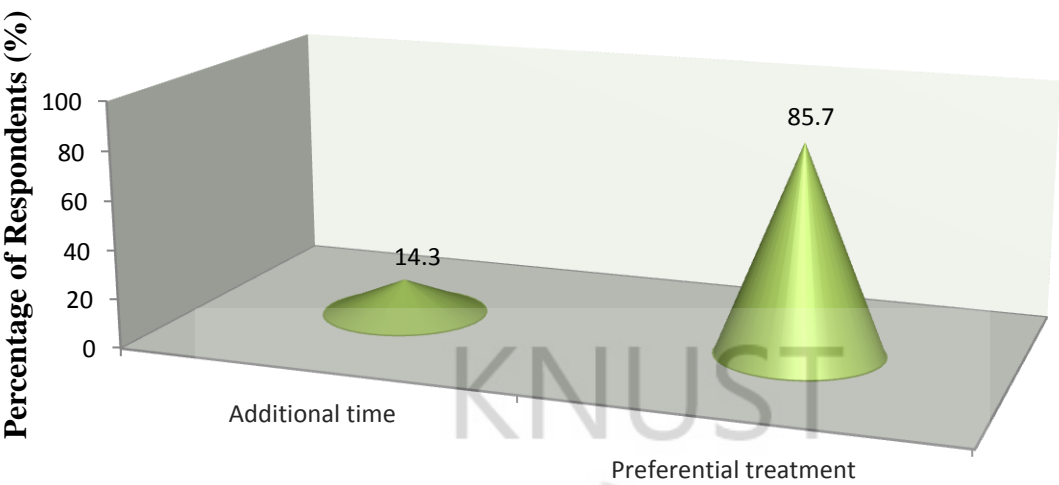
Source: Field data, 2014

Figure 4.6: Consideration at healthcare setting



Source: Field data, 2014

Figure 4.7: Form of consideration PWDs received at Healthcare setting



Source: Field data, 2014



CHAPTER FIVE

DISCUSSIONS

5.0 Introduction

Access to healthcare is important for independent living, self-efficacy and proper wellbeing among PWDs. The integrated effort of international bodies and introduction of global agenda such as Millennium Development Goals (MDGs) and Post-2015 agenda have strong inclinations towards better health for the vulnerable such as PWDs. Thus, service providers and policy makers are expected to respond to these services based on available evidence based policy to enhance provision of quality and accessible healthcare. Provisions to ensure barrier free healthcare for PWDs are however reported to be inadequate particularly in developing countries (Tomlinson *et al.*, 2009). Most Studies conducted in developed nations only focus on a particular type of disability and also targeting physical environmental barriers. This current study focused on broad range of healthcare accessibility barriers among PWDs (defined here to include hearing, physically and visually impaired). The chapter presents the discussion of results from the study. It comprises of the findings obtained from this studies and major published work by other researchers on the experiences of healthcare barriers confronting Persons with Disabilities

5.1 Differences in access among various socio-demographic characteristics of PWDs

Generally, the prevalence rate of disability is far from general as the measurement for disability differs among different organizations or institutions. Emphasis should, however, be placed on how moderate or severe the functional limitation of the person (Mont, 2007). The present study considered PWDs with moderate or severe limitation as suggested by (Mont, 2007). It was however limited to those with physical, hearing and visual impairments. It also support the definition used by Ghana Statistical Services (2012) that PWDs are those who were unable to perform specific task resulting from loss of function of some body parts due to impairments.

The latest population census in 2010 shows that persons living with some form of disabilities in Ghana constituted 737,743 people representing 3% of the entire Ghanaian population of 24 million (GSS, 2012). However, according to World Health Organization (WHO) estimates, 10% to 15% of every developing country's population live with some form of disabilities. This translates to about 2.4 million to 3.6 million Ghanaians living with disability (World Health Organization, 2011). This present study sampled 255 PWDs from five (5) communities in Kumasi metropolis as participants with each community having at least 49 respondents.

This study found that a variety of demographic variables were associated with differences in healthcare access and barriers. It was observed that respondents with no formal education formed the majority (34.5%) as compared to those with other educational qualifications. Respondents with no formal employment were recorded more than those employed in formal employment avenue as significant 28.6% reported they were not engaged in any employment. This findings converged with a study by Palmer (2011) that PWDs experience higher risk of not being gainfully employed compared to non-disabled population. Given the general assertion that disability is linked with poverty and low level of participation in employment, it is not surprising when the monthly income level of majority (30.7%) of participants' were between GHC 150.00–250.00 with an average of GHC 218.7. This pattern may be attributed to the fact that, PWDs are underrepresented in formal employment sector. This present study again supports the findings by Organization for Economic Co-operation and Development which found in its member countries that PWDs are 60% relatively unlikely to be employed as the non-disable population. As a result, the income level of PWDs is 12% below national levels (*Organisation for Economic Co-operation and Development (OECD)*, 2009). There is the general implication that an unemployed person may have limited finances to access healthcare as compared to someone gainfully employed. Understanding how these transform to the utilization of healthcare among

the various demographic groups is important in ensuring barrier free healthcare. This study confirmed what Iezzoni (2011) identified in a study that disable persons experiences disadvantages from social determinants of healthcare such that their income level is lower, higher unemployment and lower educational level relative to able population.

The results of this study correspond with earlier studies such that it shows a statistically significant relationship between access to healthcare and some demographic characteristics of PWDs. In this study, community of resident, age and disability type had significant relationship with access to healthcare among PWDs in the bivariate analysis ($p=0.003$, $p=0.000$ and $p=0.002$) from Table 4.2. Access to healthcare was more profound among PWDs who were 31 – 40 years than those who were below 20 years. This confirms what Lakdawalla *et al.* (2004) concluded in a study that due to advancement in technology to healthcare and economic development, disability increases, especially at young ages as the old even becomes healthier. This increases the rate of access to healthcare among all age groups than it is attributed to old age.

One important indication was that impressively 85.1% of respondents were staying with their family members. Staying with a family member, however, had a statistically significant relationship with access to healthcare thus it increased the likelihood of accessing the services ($p=0.000$). This to a very large extent may improve the healthcare as family members would assist PWDs at healthcare settings as reported by Emanuel *et al.* (1999). This study found no significant relationship between religion and healthcare utilization as majority (81.8%) of respondents were affiliated to Christianity. Consistently, the results from Ghana Statistical Services (2012) on 2010 population and houses census found majority of Ghanaian population as Christians. Similarly, demographic variables such as gender, educational level and employment status had no significant influence on access to healthcare ($p>0.005$).

5.2 The nature of healthcare barriers among Persons with Disabilities

Drainoni *et al.* (2006) states that ‘individuals with disabilities experience multiple barriers to obtaining healthcare and that these barriers are more profound for some types of healthcare than others’. Example of such barriers as revealed by the author include lack of adaptive equipment and inaccessible environment for patients with disabilities, professionals inability to have time for patients with speech and hearing difficulties, limitations in insurance coverage on certain health services and professionals having limited information on where to refer patients with disabilities for specialized healthcare. Although there are differences in needs to healthcare, however, regardless of disability, PWDs to some extent experience similar barriers. Accessibility barriers to healthcare are grouped under broader categories like structural, environmental and process barriers (Scheer *et al.*, 2003, Hwang *et al.*, 2009). Structural barriers according to these study comprise the physical access to health service buildings whereas the process barriers involves the difficulty that a patient goes through in arranging appointments with a service provider and obtaining insurance coverage. However, this present study grouped barriers to healthcare under physical accessibility, information and communication and financial accessibility.

The findings revealed that respondents indeed, faced barriers to healthcare. Majority faced physical (52.5%), medical equipment (78.1%) and communication (66.3%) barriers. Examples of physical barriers reported include inaccessible door entrances, inaccessible stair cases, absence of elevators, absence of ramps and medical labels. Other physical barriers to healthcare reported in this study include inaccessible tiles on the grounds for patients using crouches.

These are consistent with a study conducted in Ghana by Institute for Democratic Governance (2011) in some districts including Ajumako-Enyam-Essian, Sekondi-Takoradi, New-Juabeng, Ho, Wa, Ashaiman and Gonja. According to the study, 57.4% of facilities do not have accessible

structures and environment for PWDs particularly Wheelchair users. The barriers in the present study again corresponded what other researchers like Schneider *et al.* (2013) in South Africa, Hwang *et al.* (2009), Drainoni *et al.* (2006), Iezzoni and O'Day (2006) all in United States have reported on healthcare barriers such that the role of healthcare varies among different disability groups but may have similar barriers. However, the present study failed to group the barriers into categories such as structural and process as reported. The barriers found in this study are also consistent with other barriers experienced by PWDs at other public places in the Ghanaian society as indicated by Owusu and Owusu-Ansah (2011) such that, construction companies and estate managers and developers do not incorporate disability issues into their construction designs. Examples of such public places include the Accra International conference centre (AICC) and National Theatre (NT) such that car parks, main entrances, staircases, corridors, ramps were not accessible for disabled persons. Other things like Braille text, seat for wheelchair users, underfoot warnings were absent (Danso *et al.*, 2011). However, Danso *et al* focused on accessibility barriers in general and not limited to healthcare. The findings from this study do not suggest that PWDs and for that matter the vulnerable population have access to healthcare contrary to the goal three of Ghana Health Service medium term plan stipulated (GHS, 2011) and also meeting international regulations like MDGs.

Similarly, lack of readable signs and difficulty in following equipment instructions was the most reported barrier to medical equipment followed by inaccessible high beds, tables and chairs. This is comparable to the equipment related barriers reported by Kroll *et al.* (2006). The findings confirm the assertion by Story *et al.* (2009) that patients with disabilities find it difficult to move on and off medical equipment and that scale had no voice output to be accessible for blind patients, although, they lack support in such circumstances. Shah and Robinson (2007), however, suggested that involvement of users in the manufacturing of equipment will meet

users' needs and quality of the devices. It is important that both manufactures and professionals ensure that medical equipment is fully accessible to PWDs to ensure functionality and usability of the devices.

Furthermore, 63.6% from the present study believe service providers are impatient in communication difficulties of PWDs. This shows the extent to which health providers unwittingly respond to the healthcare needs of PWDs. This confirms a similar communication difficulties facing deaf patients as reported by Thew *et al.* (2012) and Iezzoni *et al.* (2004) in the United States. There is evidence to suggest that such communication difficulties result in unsatisfactory service delivered to such a person, incorrect diagnosis, and improper treatment leading to violation of right to healthcare (Haricharan *et al.*, 2013).

Despite communication difficulties, results indicated that respondents were not restricted to time to address their healthcare problems to providers as cited by an impressive 87.8% of respondents. Respondents however cited that, in order to overcome some challenges to physical barriers, medical equipment and communication, majority turned on supports from their personal assistant such as family members, friends or caregivers and hospital professionals. Other sources of assistant cited in this study included someone at the health setting who will willingly assist. This argues well that when a disable person stays with the family member, he is likely to experience effective and protective healthcare as such relatives could provide the assistance that PWD may need at hospital settings. This supports the conclusion made by Emanuel *et al.* (1999) that family members particularly women provide the majority of assistance aside medical care of patients at healthcare centre.

5.3 The extent to which barriers affect healthcare utilization by PWDs

The number of times a PWD visits the healthcare centre within a month measures how they utilize the services when sick. Considering PWDs conditions, they require frequent utilization of healthcare else they could develop different secondary disabilities or increase the severity of their conditions. In spite of this, majority (68.2%) of respondents in this study accessed healthcare for less than twice within a month due to the barriers they faced as discussed earlier.

The finding suggested that 64.3% reported they do not receive the services they expected when they accessed the services. This finding is surprising considering the effort by Government to ensure quality healthcare as captured in the medium term development plan of Kumasi Metropolitan Assembly (KMA, 2010). It is a threat to the achievement of the millennium development goals and post-2015 agenda if necessary actions are not taken.

Generally, the present study to some extent depicts that PWDs were partially satisfied with the care given them. About 44% reported overall good satisfaction whereas 41.6% said that the services is bad. This result is similar to a study by Veltman *et al.* (2001) which identified that PWDs to some extent face barriers but they are relatively satisfied with the services offered them. It however failed to conform to a study by Iiezzoni *et al.* (2002) which reinforce the notion that PWDs are less satisfied with access to healthcare. A similar study in the United States found that PWDs enrolled in the Medicare insurance are more likely to report dissatisfaction on their healthcare quality (Jha *et al.*, 2002). According to Hoffman *et al.* (2005), PWDs with communication difficulties particularly expressed much more dissatisfaction than other disable conditions. This study however fails to establish the fact on which disability group have the greatest dissatisfaction. The findings from this study have the implication that, to achieve greater

satisfaction among PWDs, all barriers including communication, physical, financial and medical equipment needs to be resolved adequately as reported by Drainoni *et al.* (2006).

Surprisingly, this study found that about 63% of respondents do not admit when they are in healthcare deficiency with majority attributing it to the fear of cost of healthcare. Respondents also attributed it to the long distance to healthcare centres, lack of communication access and discrimination they faced. This finding is consistent with a study by Moonie *et al.* (2000), which shown that some people sometimes refuse to admit that they have health problems. This is due to the feeling that they may not be able to stand the consequences of having such problem. This conforms to the health seeking behaviour models. Recent model of health seeking behaviour comprises factors such as the process of illness response and utilization of healthcare (MacKian, 2003). Based on this finding, PWDs therefore needs self-education to change such attitudes towards their healthcare (Kroll *et al.*, 2006).

The study demonstrates that although respondents faced barriers to physical environment, communication difficulties, transportation, expenditure on healthcare and source of payment, however, they are the greatest to access healthcare since these factors had significant relationship with healthcare access ($p < 0.005$). On the contrary, respondents who experienced barriers to medical equipment had no significant relationship with access to healthcare ($p > 0.005$).

5.4 Effect of financial accessibility on healthcare of PWDs

The ability to sustain financial stability of individuals with disabilities would improve their independent living. Individuals with disabilities always advocate becoming independent members of society where they can contribute to development. This requires that they are healthy enough to engage in education, jobs and recreation. Otherwise, financial difficulties can affect their utilization of healthcare and other useful resources (Batavia and Beaulaurier, 2001).

According to World Health Organization (2013a), physical proximity like transportation and patient's ability to afford health services constitute the two major reasons why PWDs around developing countries do not obtain healthcare.

The average monthly expenses on healthcare were GHC 21.4 and this was about 9.8% of the mean monthly income. This could however to some extent be a huge financial burden to majority of PWDs in this study as most of them were not employed to have a secured regular income. Similarly, slightly half (52.2%) of their income are spent on food and shelter. The socio-demographic variables predict the variance of the mean monthly expenses on healthcare by 34%. The mean monthly expenses on healthcare were therefore significantly higher (GHC 23.55 versus GHC 19.42; $p=0.011$) among females than males and are not the same for all age groups ($p=0.000$). These suggest that females mostly utilize health services more than males especially when they are pregnant. This fails to concur the findings by Diab and Johnston (2004) that disable women received fewer preventive care services. Despite this, the study found that males have higher mean monthly income than females (GHC 243.10 versus 192.33). This is consistent with the findings from 2010 population census in the general Ghanaian population (GSS, 2012). Findings again suggested that an increase in age is associated with a decrease in the mean expenses on healthcare per month by 1.7 units holding other variables constant ($OR=0.17$; $p=0.008$), Table 4.9. This finding is however contrary to the findings from a study in Netherlands by Meerding *et al.* (1998) that, the healthcare cost increase as one grows and increase exponentially after the ages 50. Possible explanation is that in Ghanaian population, there is a general impression that individual families try to find lasting cure and care for their family members with disability when they are at their youthful stages. The realization that the condition becomes permanent later in the disable person's life discourages families in supporting the care for that person. This confirms why PWDs below 20 years in this present study spent

GHC 44.8 whereas those of ages 21 – 30 years and 31 – 40 years have lower mean monthly expenses on their healthcare (GHC 21.52 versus GHC 20.19).

Again, findings from this study disclosed that physical disable persons spent an average higher (GHC 29.51) on their healthcare per month than deaf and blind persons (GHC 20.98 and GHC 13.88). This indicates that disable persons have differences in health needs depending on the type and severity of disability such that some requires rehabilitation services and assistive services as reported by DeJong *et al.* (2002). It again goes to confirm that the cost of physical rehabilitation and assistive devices is higher since there is only one Orthopaedic unit serving patients with physical disabilities in Ghana. Physical disable persons are therefore likely to face financial barrier to healthcare. However, in some countries like Netherlands, individuals with mental disability, musculoskeletal disease, dementia, stroke and cancers are the groups with top healthcare cost (Meerding *et al.*, 1998, Polder *et al.*, 2002).

This study demonstrated that the distance and amount respondents pay for travelling to healthcare centre had influence on accessed ($p=0.003$ versus $p=0.005$). Access to healthcare is however higher among PWDs who walk or travel between 15 – 30 minutes to access services and those who pays GHC 2.00 – 5.00 to reach the centre. Respondents paying such amount for transportation might be staying close to the healthcare centres as majority 48.2% spent 15 – 30 minutes to reach the healthcare centres. This however goes contrary to the finding from a literature by Apoya and Marriott (2011) that one quarter of Ghanaian population is distanced for over 60km from a health facility. This could also be attributed to the fact that most respondents access healthcare less than twice a month as cited by 68.2% of respondents. Observation from financial accessibility is consistent with findings on health seeking behaviours in most developing countries. For example, it confirms a study in Pakistan which found that factors such

as transportation to healthcare centres, distance and time to reach healthcare setting certainly influence healthcare utilization (Stephenson and Hennink, 2004).

Result from this study further showed the extent to which financial burden has on access to healthcare. Among the respondents, the regular source of healthcare increases the likelihood ($p=0.000$) of accessing the services with access being higher among those who visit the hospitals. However, considering the fact that hospitals have broad services, they may lack the specific needs of PWDs as they may lack specialist on disability issues. According to Peters *et al.* (2008), affordability and measures to finance healthcare is one of the important factors determining access among poor individuals including PWDs. This present study however found that most PWDs Kumasi Metropolis use NHIS as the source of payment for healthcare. The use of NHIS also increase the likelihood of respondents accessing healthcare ($p=0.000$), Table 4.7. These findings confirm an observation by Ansah *et al.* (2009) that individuals in Ghanaian society enrolled in health insurance have the greater chance of visiting clinics, obtain prescription and seek formal healthcare. Despite this improvement, their sources of payment for healthcare do not cover equipment and other suppliers as 94.1% of respondents reported this. National Health Insurance as source of payment of healthcare for most respondents is an important move towards universal healthcare coverage. However, the absence and inadequacy of coverage of equipment, prescribed drugs and other suppliers depict that PWDs are dissatisfied with the source of payment of healthcare. This finding suggest that, in spite, of enrolment in the NHIS programme, it may not be adequate enough to ensure financial accessibility to healthcare as reported by Lee *et al.* (2012). This supports the concern that has been raised by the Ghana Federation of the Disabled (GFD) on their dissatisfaction on the NHIS (GFD, 2013). Health insurance which is practised in most countries as basic way to remove cost barriers to healthcare need to cover all expenses for PWDs. The findings again has the implication that if PWD refuses to access these services because all related cost do not meet insurance coverage, it would have

effects on their daily living life. However, with cost of food and shelter consuming the highest portion of PWDs income, it would also affect other essential sectors of his life such as healthcare, education and social protection. This does not argue well that they would have proper standard of living.

The frequency of visit to healthcare centre within a month, income level and whether the source of payment for healthcare meet equipment and other suppliers coverage have no significant relationship with access to healthcare ($p>0.005$). Considering the fact that PWDs experienced increased expenditure on healthcare and lower income, they may face serious financial barriers to healthcare access (Drainoni *et al.*, 2006, Neri and Kroll, 2003, Scheer *et al.*, 2003).

5.6 Healthcare needs of Persons with Disabilities

Rimmer (1999) suggested that in an attempt to reduce the severity of disables' conditions, healthcare should be accessible to all PWDs. The type of healthcare barriers is not universally and that it is specific across different disability groups such as physically challenged, hearing impaired and visually impaired persons. It therefore highlights the importance of specific needs of different type of disability. Conditions such as deafness and blindness with permanent and temporal disabilities to some extent may not need extraordinary medical treatment. They however need communication provisions to ensure that basic healthcare are accessible to them (Iezzoni and O'Day, 2006). The present study indicated that PWDs do have communication problems at healthcare settings. The majority (38.4%) of respondents expressed the need for communication provisions at service centres. Specific provisions to this end as found in this study include the availability of qualified sign language interpreters to ensure communication between doctors, instructions for physical examinations and drugs, the need for Braille format text for drug prescription and other medications and use of assistive listening devices.

This is comparable to a study by Iezzoni *et al.* (2004) which found that, deaf patient experiences problems with instructions for physical examination, telephone communication and difficulty communicating with staff. This indicates that if they do not get these provisions for communication, they may experience fear, mistrust and frustration at healthcare centre and feel being excluded from healthcare (Thew *et al.*, 2012). It therefore conforms to the conclusion made by Steinberg *et al.* (2002) that providers of healthcare must be educated to become more effective in dealing with deaf patients. The study also suggested that, providers should have first-hand information on how to work effectively with qualified interpreters to make accessible healthcare to deaf patients.

Again, respondents (30.2%) also expressed the need for healthcare sponsorship that covers all expenses, transportation to healthcare centres particularly for physically challenged patients such as wheelchair and amputee, specialist doctors (11.4%) and regular check-up (5.9%). According to Witter and Garshong (2009), most low and middle income countries in Africa and Asia have adopted national health insurance, social health insurance and community health insurance as a means of removing financial barriers to achieve universal health coverage. The provision of sponsorship for all healthcare expenses for PWDs would increase the likelihood of access to healthcare as reported by Jowett *et al.* (2004) that individuals insured have the likelihood of using outpatients facilities and public providers especially in lower income communities.

The study found visit to specialist doctor and regular check-ups as healthcare important needs of PWDs. This suggests that when individuals have regular visits to a particular specialist practitioner, history of patients' healthcare could easily be located and ensures continuity of healthcare. This is consistent with a study by Nutting *et al.* (2003) that, patients would achieve quality healthcare outcome if there is a special doctor with long-term relationship with specific patients. This ensures better communication and understanding between patients and service

providers. Nutting *et al.* (2003) further argues that continuity of healthcare becomes more important to patients who meet their specific doctors. Guthrie *et al.* (2008) identified three types of continuity of healthcare that are used by doctors for regular check-ups and care including, informational continuity, relationship continuity and management continuity. Respondents only identified the need of regular check-ups and specialist doctor for quality healthcare outcomes without detailed on the extent of continuity of check-ups and the type of doctors. This calls for further research into the extent and type of healthcare that can effectively be treated by specific provider.



CHAPTER SIX

CONCLUSIONS AND RECOMMENDATIONS

6.0 Introduction

This chapter presents the conclusions and recommendations based on the results and discussions made in the previous chapters. The study had a clear indication of the influence that healthcare barriers have on access to healthcare for PWDs. It corroborates similar situations in neighbouring countries and most developing countries around the world. As it has been observed by most researchers using qualitative approach to study healthcare accessibility barriers, this study applied quantitative approach using tools such as bivariate to establish relationship between the study variables. The following are the conclusions as per each objective.

6.1 Conclusion

6.1.1 Differences in access among various socio-demographic factors of PWDs

Persons with Disabilities were mostly unemployed and had no formal education. Demographic factors such as age, community of resident and whether a PWD stay with the family member increased the likelihood of access to healthcare. Factors such as gender, religion, employment status and educational qualification however had no significant relationship with access to healthcare among PWDs.

6.1.2 The nature of healthcare barriers among Persons with Disabilities

The study concludes that PWDs in Kumasi Metropolis indeed, faced barriers to healthcare including physical barriers, medical equipment and communication. Examples of physical barriers cited include inaccessible door entrances, inaccessible staircases, and absence of elevators, absence of ramps and medical labels and inaccessible tiles on the grounds for patients

using crouches. Although NHIS was most cited source of financing healthcare, however, it does not cover all expenses and other suppliers' coverage. In spite of the barriers, PWDs turned on supports from their personal assistant such as family members, friends or caregivers and hospital professionals.

6.1.3 The extent to which barriers affect the utilization of healthcare of PWDs

The utilization of healthcare among PWDs within a month was low. The majority of PWDs do not receive the expected healthcare, although, they reported relative good services offered them. It can be concluded from the study that PWDs refuse to admit when they are in health problems or deficiency because of the fear of healthcare expenses, lack of communication access and discrimination. Persons with Disabilities who faced physical and communication barriers had significant relationship with care. However, those with medical equipment barriers had no significant relationship with healthcare.

6.1.4 Effect financial accessibility has on healthcare of PWDs

Considering financial barriers, healthcare utilization among PWDs in Kumasi Metropolis was influenced by the amount they pay for transportation and the travelling distance to healthcare centres. Access is however higher among those who pay GHC 2.00 to 5.00 and travel between 15 to 30 minutes. The study again concludes that most PWDs in Kumasi Metropolis are enrolled in NHIS as sources of payment for healthcare, however, all equipment and suppliers of their healthcare are not covered such that they pay on average GHC 21.46 per month to cover them. With cost of food and shelter consuming the highest portion of PWDs income, it will affect other essential sectors of their life such as healthcare, education and social protection.

6.1.5 Healthcare needs of Persons with Disabilities

In conclusion, PWDs with communication difficulties in Kumasi Metropolis needs provisions such as availability of qualified sign language interpreters to ensure communication between doctors, instructions for physical examinations and drugs, the need for Braille format text for drug prescription and other medications and use of assistive listening devices. The study again concludes that PWDs need sponsorship that could cover all expenses, transportation to healthcare centres particularly for physically challenged patients such as wheelchair and amputee, specialist doctors and regular check-ups.

6.2 Recommendations

Considering the research findings and conclusions made from the study, the following recommendations are being made to inform policy and update healthcare delivery especially those related to PWDs.

6.2.1 Government

The built environment

- The Government through its ministries such as health and housing ministries needs to re-visit existing building regulations and policies to re-design buildings to ensure a more disability friendly healthcare structures that will be accessible.

Integrating Disability issues into the core training of health professionals

- The ministry of health in collaboration with the education ministry should make it an intervention priority to train sign language interpreters to fill all healthcare centres throughout the country. This will help to overcome the communication difficulties that PWDs face in accessing the services.

- Service providers should also be educated with basic signing to ensure they can at least communicate to patients with such difficulties when there is no qualified sign language interpreter. This will remove the communication barriers arising out of lack of sign language interpreters.

National Health Insurance Scheme

- The ministry of health should re-visit the NHIS policy to make it cover all expenses of PWDs healthcare such that equipment and other suppliers are covered to remove financial barriers in accessing healthcare as reported in this study.

6.2.2 Kumasi Metropolitan Health service providers and management

Medical equipment

- The health service providers and management in the Metropolis needs to ensure that all equipment used at service centres are accessible to all PWDs and that the equipment is regularly maintained.

Health promotion and education

- Information should be made available to PWDs to identify the nearest healthcare since distance and time were one of the key influences on access to healthcare. This information should equally provide the specific services offered by healthcare centres. This can be achieved by using the media through local radio and television to promote and education campaign.
- Persons with Disabilities in Kumasi Metropolis should be given proper healthcare education and promotion so as to change their health seeking behaviour that influence them not to admit when they are in health problems with the fear of medical equipment barriers, discrimination, and cost involve in obtaining the services.

- There should be schedule for training and in-service training organized for service providers to always update their knowledge on disability issues.

6.2.3 NGOs and other stakeholders

International or Local Donors focusing on healthcare need to target PWDs to supplement the efforts of the Government and health professionals in Kumasi Metropolis. The effort of NGOs could be achieve through promotion of community-based educators on health seeking behaviour of disables and specific service centres as well as specialist in Kumasi Metropolis. The NGOs should again assist to enrol PWDs into the NHIS either through payment of subscription fee or educating them about the programme.

6.3 Concluding Remarks

This study depicts that access to healthcare among PWDs in Kumasi Metropolis are limited and affected by some barriers characterized by physical, medical equipment, communication, and financial barriers. These barrier, however, varies among various disability groups in favour of the physically and communication challenged.

REFERENCES

- Abebrese, J. (2011). Social Protection in Ghana, An overview of existing programmes and their prospects and challenges. *Friedrich Ebert Stiftung*.
- Addae-Korankye, A. (2013). Challenges of Financing Health Care in Ghana: The Case of National Health Insurance Scheme (NHIS). *International Journal of Asian Social Science*, 3(2), 511-522.
- Aldersey, H. M. (2012). Family perceptions of intellectual disability: Understanding and support in Dar es Salaam. *African Journal of Disability*, 1(1), 12 pages.
- An Action on Disability and Development (ADD). (2005). Challenges faced by People with Disabilities (PWDs) in utilizing HIV/AIDS communication and Related Health Services in Uganda.
- Ansah, E. K., Narh-Bana, S., Asiamah, S., Dzordzordzi, V., Biantey, K., Dickson, K., . . . Mills, A. (2009). Effect of removing direct payment for health care on utilisation and health outcomes in Ghanaian children: a randomised controlled trial. *PLoS medicine*, 6(1), e1000007.
- Ansah, S. K., & Owusu, K. (2012). State of public buildings in Ghana after the passage of the Persons with Disability Act (Act 715): the case of tertiary institutions.
- Apoya, P., & Marriott, A. (2011). Achieving a Shared Goal: Free Universal Health Care in Ghana: Alliance for Reproductive Health Rights, Essential Services Platform, ISODEC, Oxfam international
- Barnett, S., & Franks, P. (2002). Health care utilization and adults who are deaf: relationship with age at onset of deafness. *HEALTH SERVICES RESEARCH-CHICAGO-*, 37(1), 105-120.
- Batavia, A. I., & Beaulaurier, R. L. (2001). The Financial Vulnerability of People with Disabilities: Assessing Poverty Risks. *Journal of Sociology & Social Welfare*, 28(1).
- Blanchet, N., Fink, G., & Osei-Akoto, I. (2012). The effect of Ghana's National Health Insurance Scheme on health care utilisation. *Ghana medical journal*, 46(2), 76-84.
- Brocklehurst, R., & Costello, J. (2003). Health Inequalities: The Black Report and Beyond. In J. C. a. M. Haggart (Ed.), *Public Health and Society* (pp. 46). New York: PALGRAVE MACMILLAN.
- Brugiavini, A., & Pace, N. (2011). Extending health insurance: effects of the national health insurance scheme in Ghana.
- Carrin, G., Waelkens, M. P., & Criel, B. (2005). Community-based health insurance in developing countries: a study of its contribution to the performance of health financing systems. *Tropical Medicine & International Health*, 10(8), 799-811.
- The constitution of the Republic of Ghana (Amendment) Act (1996).

- Creese, A., Bennett, S., Schieber, G., & Maeda, A. (1997). Rural risk-sharing strategies. *World Bank Discussion Papers*, 163-182.
- Danso, A. K., Ayarkwa, J., & Dansoh, A. (2011). State of accessibility for the disabled in selected monumental public buildings in Accra. *The Ghana Surveyor*.
- DeJong, G., Palsbo, S. E., & Beatty, P. W. (2002). The organization and financing of health services for persons with disabilities. *Milbank Quarterly*, 80(2), 261-301.
- Department of Social Welfare. (2013). *Registered Persons with Disabilities for Disability Common Fund*. Ministry of Gender and Social Protection.
- Diab, M. E., & Johnston, M. V. (2004). Relationships between level of disability and receipt of preventive health services. *Archives of Physical Medicine and Rehabilitation*, 85(5), 749-757.
- Disabled World. (2009a, May 24, 2013). Disability Quotes - Collection of Quotations Regarding Disabilities. Retrieved August 15, 2013, from <http://www.disabled-world.com/disability/disability-quotes.php>
- Disabled World. (2009b). Health and Disability News and Statistics for Africa. Retrieved November 11, 2013, from <http://www.disabled-world.com/news/africa/>
- Donnellan, C. (Ed.). (2001). *Disability Awareness* (Vol. Volume 17). United Kingdom: Independence Educational Publishers, P.O Box 295, Cambridge CB1 3XP @2001.
- Drainoni, M.-L., Lee-Hood, E., Tobias, C., Bachman, S. S., Andrew, J., & Maisels, L. (2006). Cross-disability experiences of barriers to health-care access consumer perspectives. *Journal of Disability Policy Studies*, 17(2), 101-115.
- Dror, D. M., & Jacquier, C. (1999). Micro-insurance: Extending Health Insurance to the Excluded. *International social security review*, 52(1), 71-97.
- Dye, C., Boerma, T., Evans, D., Harries, A., Lienhardt, C., McManus, J., . . . Zachariah, R. (2013). The World Health Organization 2013 Report: Research for Universal Health Coverage: World Health Organization.
- Ekman, B. (2004). Community-based health insurance in low-income countries: a systematic review of the evidence. *Health policy and planning*, 19(5), 249-270.
- Elwan, A. (1999a). Poverty and Disability A Survey of the Literature *Social Protection Discussion Paper Series*: Social Protection Unit, Human Development Network, The World Bank.
- Elwan, A. (1999b). *Poverty and disability: A survey of the literature*: Social Protection Advisory Service.
- Emanuel, E. J., Fairclough, D. L., Slutsman, J., Alpert, H., Baldwin, D., & Emanuel, L. L. (1999). Assistance from family members, friends, paid care givers, and volunteers in the care of terminally ill patients. *New England Journal of Medicine*, 341(13), 956-963.

- Fiscella, K., Franks, P., Doescher, M. P., & Saver, B. G. (2002). Disparities in health care by race, ethnicity, and language among the insured: findings from a national sample. *Medical care*, 40(1), 52-59.
- Fitzgerald, E. (2007). Disability and poverty. *Welfare Policy and Poverty*, 229.
- Ghana Federation of the Disabled. (2013). Disability in Ghana. Retrieved August 10,, 2013, from <http://www.gfdgh.org/index.html>
- Ghana Health Services. (2011). *Ghana Health Service Annual Report 2011* (M. o. Health, Trans.). Accra, Ghana: Ghana Health Service.
- Ghana Statistical Service. (2012). 2010 Population & housing census: *Summary report of final results* Accra, Ghana: Ghana Statistical Service
- Ghana Statistical Services. (2012). Population & housing census: *Summary report of final results 2010*. Accra, Ghana: Ghana Statistical Service
- Gobah, F. K., & Zhang, L. (2011). The national health insurance scheme in Ghana: prospects and challenges: a cross-sectional evidence. *Global Journal of Health Science*, 3(2), p90.
- Grut, L., & Ingstad, B. (2006). This is my life-Living with a disability in Yemen: A qualitative study. *Oslo: SINTEF Health Research*.
- Grut, L., Mji, G., Braathen, S. H., & Ingstad, B. (2012). Accessing community health services: challenges faced by poor people with disabilities in a rural community in South Africa. *African Journal of Disability*. doi: doi:<http://www.ajod.org> 10.4102/ajod.v1i1.19
- Grut, L., Mji, G., Braathen, S. H., & Ingstad, B. (2012). Accessing community health services: challenges faced by poor people with disabilities in a rural community in South Africa. *African Journal of Disability*, 1(1), 7 pages.
- Guthrie, B., Saultz, J. W., Freeman, G. K., & Haggerty, J. L. (2008). Continuity of care matters. *Bmj*, 337.
- Haricharan, H. J., Heap, M., Coomans, F., & London, L. (2013). Can we talk about the right to healthcare without language? A critique of key international human rights law, drawing on the experiences of a Deaf woman in Cape Town, South Africa. *Disability & Society*, 28(1), 54-66.
- Hoffman, J. M., Yorkston, K. M., Shumway-Cook, A., Ciol, M. A., Dudgeon, B. J., & Chan, L. (2005). Effect of communication disability on satisfaction with health care: a survey of medicare beneficiaries. *American Journal of Speech-Language Pathology*, 14(3).
- Human Rights Education Associates. (2007). Human rights of persons with disabilities. Retrieved November 11,, 2013, from http://www.hrea.org/index.php?base_id=152#national
- Hwang, K., Johnston, M., Tulskey, D., Wood, K., Dyson-Hudson, T., & Komaroff, E. (2009). Access and coordination of health care service for people with disabilities. *Journal of Disability Policy Studies*, 20(1), 28-34.

- Iezzoni, L. I. (2011). Eliminating health and health care disparities among the growing population of people with disabilities. *Health Affairs*, 30(10), 1947-1954.
- Iezzoni, L. I., Killeen, M. B., & O'Day, B. L. (2006). Rural residents with disabilities confront substantial barriers to obtaining primary care. *Health services research*, 41(4p1), 1258-1275.
- Iezzoni, L. I., & O'Day, B. (2006). *More than ramps: a guide to improving health care quality and access for people with disabilities* (Vol. 1): Oxford University Press.
- Iezzoni, L. I., O'Day, B. L., Killeen, M., & Harker, H. (2004). Communicating about health care: observations from persons who are deaf or hard of hearing. *Annals of Internal Medicine*, 140(5), 356-362.
- Iezzoni, L. I., Davis, R. B., Soukup, J., & O'Day, B. (2002). Satisfaction with quality and access to health care among people with disabling conditions. *International Journal for Quality in Health Care*, 14(5), 369-381.
- Inclusion Ghana. (2011). Report on the level of Stigmatization, Discrimination and Exclusion of Persons with intellectual disabilities and their family in Ghana. In A. J. Odoom & K. v. Weelden (Eds.). Accra, Ghana: Inclusive Ghana
- Institute for Democratic Governance. (2011). *"Together for a better world for all: removing barriers and promoting disability-inclusion development"* Paper presented at the International Day Of Persons With Disabilities, December 3 2011, Accra, Ghana.
- Jacobs, E. A., Lauderdale, D. S., Meltzer, D., Shorey, J. M., Levinson, W., & Thisted, R. A. (2001). Impact of Interpreter Services on Delivery of Health Care to Limited-English-proficient Patients. *Journal of general internal medicine*, 16(7), 468-474.
- Japan International Cooperation Agency Planning and Evaluation Department. (2002). Country Profile on Disability Federal Democratic Republic of Ethiopia: Japan International Cooperation Agency Planning and Evaluation Department.
- Jha, A., Patrick, D. L., MacLehose, R. F., Doctor, J. N., & Chan, L. (2002). Dissatisfaction with medical services among Medicare beneficiaries with disabilities. *Archives of Physical Medicine and Rehabilitation*, 83(10), 1335-1341.
- Jones, M. C., McLafferty, E., Walley, R., Toland, J., & Melson, N. (2008). Inclusion in primary care for people with intellectual disabilities Gaining the perspective of service user and supporting social care staff. *Journal of Intellectual Disabilities*, 12(2), 93-109.
- Jowett, M., Deolalikar, A., & Martinsson, P. (2004). Health insurance and treatment seeking behaviour: evidence from a low-income country. *Health economics*, 13(9), 845-857.
- Jütting, J. P. (2004). Do community-based health insurance schemes improve poor people's access to health care? Evidence from rural Senegal. *World development*, 32(2), 273-288.
- Kidd, M., & Purves, D. (2000). Role of information Technology. In C. Silagy & A. Haines (Eds.), *Evidence based practice in primary care* (Third Edition ed., pp. 123-125). United Kingdom: BMJ Books. (Reprinted from: 1999, 2000).

- Kroll, T., Jones, G. C., Kehn, M., & Neri, M. T. (2006). Barriers and strategies affecting the utilisation of primary preventive services for people with physical disabilities: a qualitative inquiry. *Health & social care in the community*, 14(4), 284-293.
- Kumasi Metropolitan Assembly. (2010). *2010-2013 Medium Term Development Plan of Kumasi Metropolitan Assembly*. Kumasi, Ghana: Kumasi Metropolitan Assembly.
- Lakdawalla, D. N., Bhattacharya, J., & Goldman, D. P. (2004). Are the young becoming more disabled? *Health Affairs*, 23(1), 168-176.
- Last, J. M. (1988). *Public health and human ecology*: Springer.
- Lavrakas, P. J. (2008). *Encyclopedia of survey research methods*: SAGE Publications, Incorporated.
- Lee, J. C., Hasnain-Wynia, R., & Lau, D. T. (2012). Delay in seeing a doctor due to cost: disparity between older adults with and without disabilities in the United States. *Health services research*, 47(2), 698-720.
- Levin, K. A. (2005). Study design I. *Evidence-Based Dentistry*, 6(3), 78-79.
- Levin, K. A. (2006). Study design III: cross-sectional studies. *Evidence-Based Dentistry*, 7(1), 24-25.
- Lwanga-Ntale, C. (2003). Chronic poverty and disability in Uganda.
- MacKian, S. (2003). A review of health seeking behaviour: problems and prospects. *Health Systems Development. University of Manchester, Manchester, UK*.
- Mainstream Foundation. The Need for Disability Awareness in Namibia. Retrieved August 15, 2013, 2013, from <http://www.mainstreamfoundation.org/disability-awareness.html>
- Marmot, M., Friel, S., Bell, R., Houweling, T. A., & Taylor, S. (2008). Closing the gap in a generation: health equity through action on the social determinants of health. *The Lancet*, 372(9650), 1661-1669.
- McEwen, A., & Kraszewski, S. (2010). *Communication skills for adult nurses*: McGraw-Hill International.
- McKenzie, J., Pinger, R., & Kotecki, J. E. (2011). *An introduction to community health*: Jones & Bartlett Publishers.
- McNally, A., & Mannan, H. (2013). Perceptions of caring for children with disabilities: Experiences from Moshi, Tanzania. *African Journal of Disability*, 2(1), 10 pages.
- Meerding, W. J., Bonneux, L., Polder, J. J., Koopmanschap, M. A., & van der Maas, P. J. (1998). Demographic and epidemiological determinants of healthcare costs in Netherlands: cost of illness study. *Bmj*, 317(7151), 111-115.
- Mensah, J., Oppong, J. R., & Schmidt, C. M. (2010). Ghana's National Health Insurance Scheme in the context of the health MDGs: An empirical evaluation using propensity score matching. *Health economics*, 19(S1), 95-106.

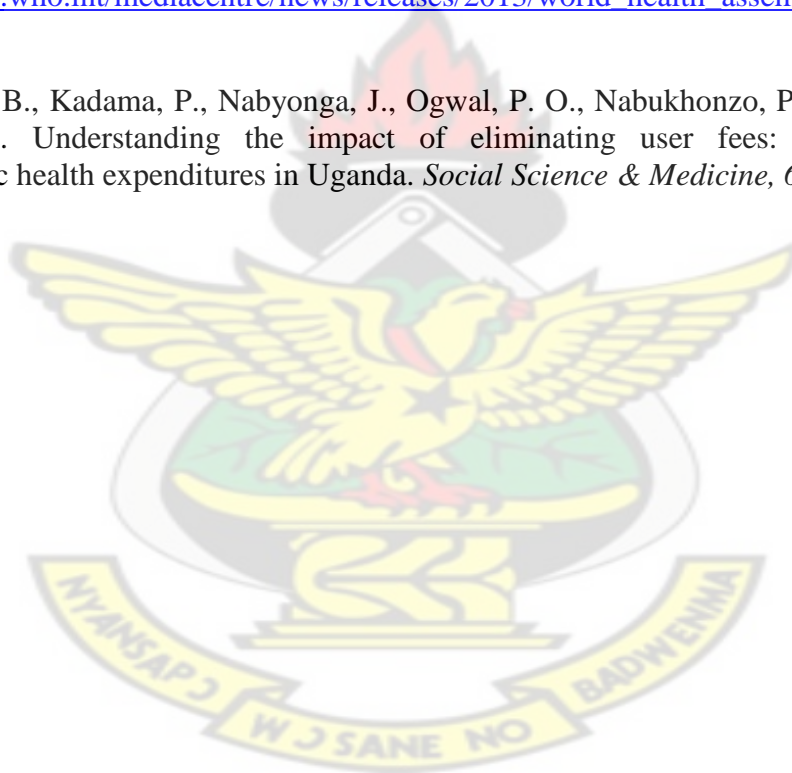
- Miley, K., & DuBois, B. (2008). *Social work: An empowering profession*: Boston: Pearson/Allyn & Bacon.
- Mont, D. (2007). Measuring disability prevalence. *World Bank Social Protection Discussion Paper*(0706).
- Moonie, N., Chaloner, R., Pensley, K. C., Stretch, B., & Webb, D. (Eds.). (2000). *Health and Social care*. United Kingdom: Heinemann Educational Publisher, Halley Court, Jordan Hill, OX2 8EJ, Part of Harcourt Education.
- Msuya, J. M., Jütting, J. P., & Asfaw, A. (2007). Impact of community health funds on the access to health care: Empirical evidence from rural Tanzania. *International Journal of Public Administration*, 30(8-9), 813-833.
- Muderedzi, J., & Ingstad, B. (2011). Disability and social suffering in Zimbabwe. *Disability and Poverty: A Global Challenge*, 171.
- Mugilwa, L. O., Wasala, W. O., & Oyugi, L. N. (2005). Health care service utilization in Kenya. Colombo, Sri Lank: Poverty and Economic Policy (PEP) Research Network's Poverty Monitoring, Measurement and Analysis (PMMA).
- Neri, M. T., & Kroll, T. (2003). Understanding the consequences of access barriers to health care: experiences of adults with disabilities. *Disability & Rehabilitation*, 25(2), 85-96.
- Nolan, Y., Moonie, N., & Lavers, S. (2005). *Health and Social Care (Adult)*: Heinemann Educational Publishers, Hally Court, Jordan Hill, Oxford OX2 8ES.
- Nordhaus, W. D. (2002). The health of nations: the contribution of improved health to living standards: National Bureau of Economic Research.
- Nutting, P. A., Goodwin, M. A., Flocke, S. A., Zyzanski, S. J., & Stange, K. C. (2003). Continuity of primary care: to whom does it matter and when? *The Annals of Family Medicine*, 1(3), 149-155.
- Olsen, C., & St George, D. (2004). Cross-sectional study design and data analysis. *Retrieved on*, 26(03), 2006.
- Onwuegbuzie, A. J., & Collins, K. M. (2007). A typology of mixed methods sampling designs in social science research. *The Qualitative Report*, 12(2), 281-316.
- Organisation for Economic Co-operation and Development (OECD). (2009). Sickness, disability and work: Keeping on track in the economic downturn – Background paper: OECD.
- Owusu, K., & Owusu-Ansah, N. B. (2011). *Designs And Construction Of Buildings In Ghana: The Disability Factor*. Paper presented at the West Africa Built Environment Research (WABER) Conference 19-21 July 2011 Accra, Ghana.
- Palmer, M. (2011). Disability and poverty: A conceptual review. *Journal of Disability Policy Studies*, 21(4), 210-218.
- Penner, L. A., Albrecht, T. L., Orom, H., Coleman, D. K., & Underwood, W. (2010). Health and Health Disparities. In M. H. John F. Dovidio, Peter Glick and Victoria M. Esses (Ed.),

Sage Handbook of Prejudice, Stereotyping and Discrimination (pp. 484). London: Sage Publications Ltd.

- Peters, D. H., Garg, A., Bloom, G., Walker, D. G., Brieger, W. R., & Hafizur Rahman, M. (2008). Poverty and access to health care in developing countries. *Annals of the New York Academy of Sciences*, 1136(1), 161-171.
- Polder, J., Meerdering, W., Bonneux, L., & Van Der Maas, P. (2002). Healthcare costs of intellectual disability in the Netherlands: a cost-of-illness perspective. *Journal of Intellectual Disability Research*, 46(2), 168-178.
- Preker, A. S., & Carrin, G. (2004). *Health financing for poor people: resource mobilization and risk sharing* (Vol. 434): World Bank Publications.
- Rimmer, J. H. (1999). Health promotion for people with disabilities: the emerging paradigm shift from disability prevention to prevention of secondary conditions. *Physical Therapy*, 79(5), 495-502.
- Rimmer, J. H., Riley, B., Wang, E., Rauworth, A., & Jurkowski, J. (2004). Physical activity participation among persons with disabilities: barriers and facilitators. *American journal of preventive medicine*, 26(5), 419-425.
- Sarpong, H. S. (2010). *2010-2013 Medium Term Development Plan of Kumasi Metropolitan Assembly*.
- Scheer, J., Kroll, T., Neri, M. T., & Beatty, P. (2003). Access Barriers for Persons with Disabilities The Consumer's Perspective. *Journal of Disability Policy Studies*, 13(4), 221-230.
- Schneider, M., Eide, A. H., Amin, M., MacLachlan, M., & Mannan, H. (2013a). Inclusion of vulnerable groups in health policies: Regional policies on health priorities in Africa. *African Journal of Disability*, 2(1), 9 pages.
- Schneider, M., Eide, A. H., Amin, M., MacLachlan, M., & Mannan, H. (2013b). Inclusion of vulnerable groups in health policies: Regional policies on health priorities in Africa. *African Journal of Disability*. doi: <http://www.ajod.org> 10.4102/ajod.v2i1.40
- Shah, S. G. S., & Robinson, I. (2007). Benefits of and barriers to involving users in medical device technology development and evaluation. *International journal of technology assessment in health care*, 23(01), 131-137.
- Shaikh, B. T., & Hatcher, J. (2005). Health seeking behaviour and health service utilization in Pakistan: challenging the policy makers. *Journal of Public Health*, 27(1), 49-54.
- Smedley, B. D., Stith, A. Y., & Nelson, A. R. (2009). *Unequal treatment: confronting racial and ethnic disparities in health care (with CD)*: National Academies Press.
- Sowney, M., & Barr, O. (2004). Equity of Access to Health Care for People with Learning Disabilities A concept analysis. *Journal of Learning Disabilities*, 8(3), 247-265.
- Steinberg, A. G., Barnett, S., Meador, H. E., Wiggins, E. A., & Zazove, P. (2006). Health care system accessibility. *Journal of general internal medicine*, 21(3), 260-266.

- Steinberg, A. G., Wiggins, E. A., Barmada, C. H., & Sullivan, V. J. (2002). Deaf women: experiences and perceptions of healthcare system access. *Journal of Women's Health, 11*(8), 729-741.
- Stephenson, R., & Hennink, M. (2004). Barriers to family planning use amongst the urban poor in Pakistan.
- Story, M. F., Schwier, E., & Kailes, J. I. (2009). Perspectives of patients with disabilities on the accessibility of medical equipment: Examination tables, imaging equipment, medical chairs, and weight scales. *Disability and Health Journal, 2*(4), 169-179. e161.
- The International Committee of the Red Cross (ICRC) Nairobi/Dar es Salaam. (2013, June 14, 2013). Tanzania: Improving the lives of disabled people. Retrieved August 22, 2013, from <http://www.icrc.org/eng/resources/documents/news-release/2013/06-14-tanzania-disabled-people.htm>
- Thew, D., Smith, S. R., Chang, C., & Starr, M. M. (2012). The Deaf Strong Hospital program: A model of diversity and inclusion training for first-year medical students. *Academic medicine: journal of the Association of American Medical Colleges, 87*(11), 1496.
- Tomlinson, M., Swartz, L., Officer, A., Chan, K. Y., Rudan, I., & Saxena, S. (2009). Research priorities for health of people with disabilities: an expert opinion exercise. *The Lancet, 374*(9704), 1857-1862.
- UNICEF. (2012). National health insurance in Asia and Africa (P. Division, Trans.) *Advancing equitable Social Health Protection to achieve universal health coverage* The United Nations Children's Fund.
- United Nations. (2006). Convention on the Rights of Persons with Disabilities and Optional Protocol. In U. Nations (Ed.). New York: United Nations.
- Convention on the Rights of Persons with Disabilities (2011).
- United Nations. Dept. of Public Information. (1994). *The standard rules on the equalization of opportunities for persons with disabilities*: United Nations.
- Varkevisser, C. M., Pathmanathan, I., & Brownlee, A. T. (2003). *Designing and conducting health systems research projects*: IDRC.
- Veltman, A., Stewart, D., Tardif, G., & Branigan, M. (2001). Perceptions of primary healthcare services among people with physical disabilities-part 1: access issues. *MedGenMed: Medscape general medicine, 3*(2), 18-18.
- Weinick, R. M., Zuvekas, S. H., & Cohen, J. W. (2000). Racial and ethnic differences in access to and use of health care services, 1977 to 1996. *Medical Care Research and Review, 57*(suppl 1), 36-54.
- White, P. H. (2002). Access to health care: health insurance considerations for young adults with special health care needs/disabilities. *Pediatrics, 110*(Supplement 3), 1328-1335.
- Wiman, R., Helander, E., & Westland, J. (2002). Meeting the needs of people with disabilities: new approaches in the health sector. *Washington, DC: World Bank*.

- Witter, S., & Garshong, B. (2009). Something old or something new? Social health insurance in Ghana. *BMC International Health and Human Rights*, 9(1), 20.
- World Bank. (2012). Internet users (per 100 people). Retrieved October 10,, 2013, from <http://data.worldbank.org/indicator/IT.NET.USER.P2>
- World Health Organization. (2010). Community-Based Rehabilitation CBR Guidelines *Health Sector*. Switzerland: WHO publications.
- World Health Organization. (2011). *World report on disability*: World Health Organization.
- World Health Organization. (2013a, November 2012). Disability and health. Retrieved August 15,, 2013, from <http://www.who.int/mediacentre/factsheets/fs352/en/index.html>
- World Health Organization. (2013b, May 27, 2013). Sixty-sixth World Health Assembly closes with concern over new global health threat. Sixty-sixth World Health Assembly. Retrieved August 18, 2013, from http://www.who.int/mediacentre/news/releases/2013/world_health_assembly_20130527/en/
- Xu, K., Evans, D. B., Kadama, P., Nabyonga, J., Ogwal, P. O., Nabukhonzo, P., & Aguilar, A. M. (2006). Understanding the impact of eliminating user fees: utilization and catastrophic health expenditures in Uganda. *Social Science & Medicine*, 62(4), 866-876.



APPENDICES

APPENDIX A

**KWAME NKRUMAH UNIVERSITY OF SCIENCE AND TECHNOLOGY
SCHOOL OF MEDICAL SCIENCES
DEPARTMENT OF COMMUNITY HEALTH
CENTER FOR DISABILITY REHABILITATION STUDIES**

**HEALTHCARE ACCESSIBILITY BARRIERS CONFRONTING PERSONS WITH
DISABILITIES IN KUMASI METROPOLIS**

**QUESTIONNAIRE FOR PARTICIPANTS: *THE PHYSICALLY CHALLENGED, VISUAL
AND HEARING IMPAIRED PERSONS IN KUMASI METROPOLITAN ASSEMBLY***

Introduction

Dear Sir/Madam,

*Good morning/afternoon. My name is Eric Badu, a Postgraduate student at School of Medical Sciences, Department of Community Health, CEDRES, KNUST. I will be conducting several meetings with persons with disabilities like you concerning your views and ideas about **HEALTHCARE ACCESSIBILITY BARRIERS**. Your opinions are highly essential at the same time vital as they will help us to improve the kind of service the health sector provides. Whatever you say will be treated confidential, so feel at ease to express your candid opinion. Be assured that your responses will not in any way be linked to your identity. You are kindly requested to answer the questions below by indicating a tick or writing the appropriate answer when needed.*

THANK YOU

Questionnaire number:

Date of Interview:/...../2014

Interviewer's Code:

	SECTION A: BACKGROUND INFORMATION	
1.	Study number	
2.	Community of Resident 1. Oforikrom 2. Subin <input type="checkbox"/> 3. Asawase 4. Nhyiaso 5. Asokwa	Q2 COMMU
3.	Gender 1. Male <input type="checkbox"/> 2. Female	Q3GENDE
4.	Age :.....	Q4AGE
5.	Disability Type <input type="checkbox"/> 1. Physically Disabled 2. Blind 3. Deaf	Q5 DISATYP
6.	What is your religion? 1. Christianity <input type="checkbox"/> 2. Islamic 3. Traditional /spiritual 4. Other (specify).....	Q6RELIG N
7.	What is your highest level of education? 1. No formal Education 2. Primary 3. JSS/Middle <input type="checkbox"/> 4. SSS/Vocational 5. Tertiary 6. Others (specify).....	Q7EDU
8.	What is your Employment status? 1. Government/Civil servant	Q8EMPOYS TAT

	2. Trading <input type="checkbox"/> 3. Farming <input type="checkbox"/> 4. Apprenticeship/Craft 5. None 6. Other: Specify:	
9.	Do you currently stay with your family members? 1. Yes <input type="checkbox"/> 2. No	Q9RESISTANTS
	SECTION B: PHYSICAL, EQUIPMENT AND COMMUNICATION BARRIERS TO HEALTHCARE	
10.	Do you currently access health services when you are in health deficiency? sick/ill? 1. Yes <input type="checkbox"/> 2. No	
11.	Do you face any physical accessibility barrier (s) when you access health services? 1. Yes <input type="checkbox"/> 2. No	Q10BARRIER
12.	What type (s) of physical barrier (s) do you faced when you access health services? 1. Inaccessible Door entrances 2. Inaccessible stair case 3. Absence of elevators <input type="checkbox"/> 4. Absence of Ramps 5. Medical labels 6. Other: Specify:.....	Q11PHYSICBA
13.	Do you face any barrier to medical equipment when you accessed health service? 1. Yes <input type="checkbox"/> 2. No	Q12MEDICALB

14.	<p>What was the barrier to medical equipment you faced when you accessed facilities?</p> <p><i>Prompt by mentioning</i></p> <p>.....</p> <p>.....</p> <p>.....</p>	
15.	<p>How was this barrier resolved for you to access the service?</p> <p>.....</p> <p>.....</p> <p>.....</p>	
16.	<p>Do you have access to communication at services at the facility?</p> <p>1. Yes <input type="checkbox"/></p> <p>2. No <input type="checkbox"/></p>	Q15COMM UNI
17.	<p>If no, do service providers exercise patient for your difficulties in communication?</p> <p>1. Yes <input type="checkbox"/></p> <p>2. No <input type="checkbox"/></p>	
18.	<p>What provisions (resources and materials) do you need for communication barriers?</p> <p><i>Prompt by mentioning</i></p> <p>.....</p> <p>.....</p> <p>1. Interpreters</p> <p>2. Assistive Listening devices</p> <p>3. TV recorder <input type="checkbox"/></p> <p>4. Readable signs</p> <p>5. Braille format</p>	Q17PROVISI ON

19.	Do you have time limit to address health problems to practitioners? 1. Yes <input type="checkbox"/> 2. No	
20.	Do you have any consideration at the health care setting? 1. Yes <input type="checkbox"/> 2. No	
21.	What form of consideration do you obtain at the health care setting? 1. Additional time 2. Preferential treatment <input type="checkbox"/> 3. Other: Specify.....	Q20CONSIDRA
SECTION C: FINANCIAL BARRIERS TO HEALTHCARE		
22.	In a typical month, how often do you go to health centers to access the services?..... 1. Less than twice 2. 2 to 4 times <input type="checkbox"/> 3. 5 to 7 times 4. Other (Specify):.....	Q21FREHC
23.	How long do you walk or travel to access health services 1. Below 15 minutes 2. 15 - 30minutes <input type="checkbox"/> 3. 30 – 60 minutes 4. Other: Specify.....	
24.	How much does it cost you to reach health service center? GHC:	
25.	In a typical month, how much do you earn? GHC:	Q24INCMLEVEL

26.	<p>Which one of the following <u>consumes the highest portion of your income</u></p> <ol style="list-style-type: none"> Food and Shelter Healthcare <input type="checkbox"/> Family expenditure Other:Specify:..... 	
27.	<p>In a typical month, how much do you <u>spend on your healthcare?</u></p> <p>GHC:</p>	26EXPENDHC
28.	<p>What is your <u>regular source</u> of healthcare?</p> <ol style="list-style-type: none"> Pharmacy Hospital Clinic Herbal Centres <input type="checkbox"/> Spiritual healers Rehabilitation centres 	Q28SOURHC
29.	<p>Which one of the following best describes your regular source of fund to pay for your healthcare cost?</p> <ol style="list-style-type: none"> Personal Income NHIS Subscription Social Support network <input type="checkbox"/> Family members Friends Other: Specify:..... 	Q29SOURPAY
30.	<p>Does your regular source of securing fund to pay for healthcare (s) meet equipment and other suppliers' coverage?</p> <ol style="list-style-type: none"> Yes <input type="checkbox"/> No 	
31.	<p>From where do you get money to pay for?</p> <p>.....</p>	

	SECTION D: ATTITUDE OF HEALTH PROFESSIONALS AND PWDs	
32.	<p>By the way, do you face discrimination when accessing health services?</p> <p>1. Yes <input type="checkbox"/></p> <p>2. No <input type="checkbox"/></p>	Q32DISCRIM
33.	<p>On what basis were you discriminated?</p> <p>1. Religion</p> <p>2. Sex</p> <p>3. Age <input type="checkbox"/></p> <p>4. Disability <input type="checkbox"/></p> <p>5. Price</p> <p>6. Type of Health care/services</p> <p>7. Location of Health services</p> <p>8. Other: (Specify).....</p>	Q33TYPEOFFD
34.	<p>What form of discrimination did you go through</p> <p>1. Use of delegatory words</p> <p>2. Delay in the process of delivery <input type="checkbox"/></p> <p>3. Frustration at the service settings</p> <p>4. Required services not available</p> <p>5. Other: (Specify).....</p>	Q34FORMD
35.	<p>Do the service providers allow you to ask question when you do not understand something or when you need further explanation and information concerning your health care?</p> <p>1. Yes <input type="checkbox"/></p> <p>2. No <input type="checkbox"/></p>	

36.	<p>Do the service providers have enough time for you and explain things to you to understand?</p> <p>1. Yes <input type="checkbox"/></p> <p>2. No <input type="checkbox"/></p>	Q36ENOGT ME
37.	<p>Did you receive the services you expected when you accessed health services?</p> <p>1. Yes <input type="checkbox"/></p> <p>2. No <input type="checkbox"/></p>	Q37SATISFA CT
38.	<p>Do you receive referral by providers when you accessed health care?</p> <p>1. Yes <input type="checkbox"/></p> <p>2. No <input type="checkbox"/></p>	
39.	<p>On what basis were you referred</p> <p>1. Disability type <input type="checkbox"/></p> <p>2. Sickness type <input type="checkbox"/></p> <p>3. Other (Specify).....</p>	
40.	<p>How will you rate the services you were offered on the scale below</p> <p>1. Very good <input type="checkbox"/></p> <p>2. Good <input type="checkbox"/></p> <p>3. Very bad <input type="checkbox"/></p> <p>4. Bad <input type="checkbox"/></p>	Q40SATISFA CT
41.	<p>In your opinion, How will you rate the service professionals knowledge on disability issues?</p> <p>1. Very good <input type="checkbox"/></p> <p>2. Good <input type="checkbox"/></p> <p>3. Very Bad <input type="checkbox"/></p> <p>4. Bad <input type="checkbox"/></p>	Q41KNOWL D
42.	<p>Do you have problems with your religion as far as health services is concerned?</p> <p>1. Yes <input type="checkbox"/></p> <p>2. No <input type="checkbox"/></p>	
	Do you feel reluctant to access healthcare even	

43.	when you face health problems (sick/ill)? 1. Yes <input type="checkbox"/> 2. No <input type="checkbox"/>	
44.	If no, why do you feel reluctant to access health services even when you have health problem (sick/ill)? 1. Cost of health service 2. Physical barriers 3. Discrimination by professionals <input type="checkbox"/> 4. Distant to service point 5. Lack of medical equipment adapted for my usage 6. Lack of communication access	
45.	What are your healthcare needs as PWD 1. :..... 2. :..... 3. :..... :.....	Q46HCNEE DS

THANK YOU!!!

APPENDIX B

Participant Information Leaflet and Consent Form

This leaflet must be given to all prospective participants to enable them know enough about the research before deciding to or not to participate

Title of Research:

Healthcare accessibility barriers confronting Persons with Disabilities in Kumasi Metropolis

Name(s) and affiliation(s) of researcher(s): This research is being conducted by ERIC BADU of the Community Health Department of KNUST.

Background (Please explain simply and briefly what the study is about):

Healthcare access is important for every individual both able and disabled for the reason that a healthy person can work effectively to contribute to the development of his nation. When individuals meet their health needs, they are able to think positively about their future and attain proper welfare (Nordhaus, 2002). It is therefore captured in the 1946 constitution of the World Health Organization (WHO) that ‘the enjoyment of the highest attainable standard of health is one of the fundamental rights of every human being’.

Despite this effort, PWDs lag behind other citizens in accessing health care services (Rimmer et al., 2004). This is common to disables in other Africa and most developing countries and put them behind their counterparts in the developed world (An Action on Disability and Development (ADD), 2005). Many explanations that support these problems point out that disable persons are classified as being among the poorest of the poor and seen as unproductive and burden to the society. They therefore lack access to public health and other social services that will improve their wellbeing. Specialist with knowledge on disability related issues are also lacked and hence special needs pertaining to their health are not seriously addressed (Elwan, 1999b). In Ghana, they are therefore underrepresented in civil society (Inclusion Ghana report, 2011).

More importantly, Transportation and patient’s ability to afford health services constitute the two major reasons why PWDs around the globe do not obtain healthcare (WHO, Disability and Health, 2013a). Notwithstanding this, PWDs can better live in their setting through rehabilitation services, assistive technology and universally design environment. Accessibility is therefore increasingly becoming a standard in today’s world for manufacturers of goods and services. Not

surprisingly, the concept is not seriously addressed as standard in most Africa countries. Namibia is a typical example of such countries. Rehabilitation services is unavailable for PWDs particularly those living in the rural setting. The disabled population who received rehabilitation services in urban and rural setting in Namibia is 15% and 2% respectively (The Green Paper on Developmental Social Welfare in Namibia 1997 cited in Wiman et al., 2002).

Furthermore, mainstream foundation in Namibia reported that, a 2003 study on living conditions of PWDs in Namibia found less than 30% of disables to have access to counselling services, assistive devices and educational services. Besides, International Committee of Red Cross (ICRC) in Nairobi and Dar es Salam (2013) also found that an estimated number of disabled people in Tanzania who uses rehabilitation services are only 2%.

Unfortunately enough, there is no available information pertaining to rate of access to health services for PWDs in Ghana. However, WHO estimates shows that in developing countries, less than 5% of disable people have access to healthcare and other rehabilitation services. Obviously, this depressing situation cannot be allowed to continue in the quest for meeting the Millennium Development Goals (MDGs) and Ghana attaining a middle income status by 2015. Thus the need for empirical evidence on the experiences of healthcare barriers confronting PWDs becomes imperative.

Purpose(s) of research:

The purpose of this research is to study healthcare accessibility barriers confronting persons with disabilities in Kumasi Metropolis and to recommend ways of improving the services delivered to them. A study on healthcare barriers mostly focuses on a particular type of disability and also targeting physical environmental barriers. Nevertheless, this research looks at a broad range of healthcare accessibility barriers such as physical, communication, and social or attitudinal barriers. Again, this research is not limited to one particular disability type but focuses on physically challenged, visually impaired and hearing impaired persons.

Procedure of the research, what shall be required of each participant and approximate total number of participants that would be involved in the research:

The study will enrol individuals with disabilities like you such as physically challenged, hearing impaired and visually impaired. I will employ multi-stage sampling techniques to select participant including you. I will randomly select five (5) communities from out of ten (10) communities grouped under the 2010 population census in Kumasi Metropolis such as

Oforikrom, Asewase, Asokwa (Atonsu), Nhyiaso, Manhyia, Tafo, Subin, Bantema, Kwadaso, Suame. In each of the selected communities, I will select fifty-one (51) PWDs to get a total sample of two hundred and fifty-five (255) participants for the study. I will therefore provide you with structured questionnaires to conduct written interview with you. The questionnaires will involve both close and open-ended questions.

I will guide you to clearly explain the questions where necessary. I will ask you as respondents' questions on the questionnaires for you to directly respond to the questions. I will therefore tick the correct answers for the questions or write them if space is provided to that effect. I will also ask you if you can read and answer the questions yourself. In such circumstances, I will hand over the questions to you as respondents for you to personally read and answer the questions. What shall be required of you is to give me your views on the questions that is being asked on the questionnaires base on the study variables

I will then analyse the data by using Statistical Package for Social Sciences Software 16. Results of the analysis will be generated through descriptive and some analytic statistics. Your name will not be linked with any questions during the analysis

Risk(s):

There will be inconvenience to respondents because they are mostly busy and will have to make time for the administration of the questionnaire.

Benefit(s): The study will give baseline information about access to healthcare among Persons with Disabilities in Kumasi metropolis and this will help in policy planning. There will be realization and awareness to be created among participants about available health services and the right to these services. Also, provisions that needs to be available pertaining to their healthcare

Confidentiality:

Information collected will be entered into Statistical Package for Social Sciences and no name will be recorded. Data collected cannot be linked to any one in anyway. No name or identifier will be used in any publication.

Voluntariness:

This study is voluntary. You may choose to be a part or not. No sanctions will apply.

Alternatives to participation:

If chosen not to participate in this research it will not affect you in anyway.

Withdrawal from the research: You may choose to withdraw from the research for which there will be no need to explain yourself..

Consequence of Withdrawal: There no consequence for withdrawing from the research neither will there be any benefit or care lost.

Costs/Compensation: A cake of soap and pen

Contacts: If you have any question concerning this study please do not hesitate to contact Mr Eric Badu, +233249836555)

**The Office of the Chairman
Committee on Human Research and Publication Ethics
Kumasi
Tel: 03220 63248 or 020 5453785**



CONSENT FORM

Statement of person obtaining informed consent:

I have fully explained this research to _____ and have given sufficient information about the study, including that on procedures, risks and benefits, to enable the prospective participant make an informed decision to or not to participate.

DATE: _____ NAME: _____

Statement of person giving consent:

I have read the information on this study/research or have had it translated into a language I understand. I have also talked it over with the interviewer to my satisfaction.

I understand that my participation is voluntary (not compulsory).

I know enough about the purpose, methods, risks and benefits of the research study to decide that I want to take part in it.

I understand that I may freely stop being part of this study at any time without having to explain myself.

I have received a copy of this information leaflet and consent form to keep for myself.

NAME: _____

DATE: _____ SIGNATURE/THUMB PRINT: _____

Statement of person witnessing consent (Process for Non-Literate Participants):

I _____ (Name of Witness) certify that information given to _____ (Name of Participant), in the local language, is a true reflection of what I have read from the study Participant Information Leaflet, attached.

WITNESS' SIGNATURE (maintain if participant is non-literate): _____

MOTHER'S SIGNATURE (maintain if participant is under 18 years): _____

MOTHER'S NAME: _____

FATHER'S SIGNATURE (maintain if participant is under 18 years): _____

FATHER'S NAME: _____