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Faculty of Community and Health Sciences

THESIS

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DECLARATION

DECLARATION

I declare that this thesis entitled "Factors Inhibiting Equalization of Opportunities towards Persons with Physical Disabilities in Uasin-gishu County, Kenya" is my work, and has not been submitted for any other degree or examination in any other university. Complete referencing has been made and acknowledged for all sources used or quoted.

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Witnessed by

Dr. Nondwe Mlenzana



DEDICATION

To my dear wife Beatrice Jeptanui Koech, our children- Willy, Vicky, George, Edith, and Amos, our grand children- Lulu, Taaiya, Kimberly and Ashley and to our old parents Rosa and Suzy for their prayers, constant support and encouragement during my studies.



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ABSTRACT

Background: Persons with physical disabilities experience unfavorable conditions in health care, education, employment infrastructure and recreational facilities. Persons with physical disabilities have encountered challenges in accessing health services, accessing the inbuilt environment. Likewise they have also faced economic exclusion, religious exclusion and social/moral exclusion. Laws have been enacted globally, in Africa and in Kenya and the latest universal law being the United Nations Convention on Rights of Person with Disabilities.

Aim of the study: To determine factors inhibiting equalization of opportunities with regards to the services in health, education, employment and to explore the factors inhibiting equalization of opportunities with regards to infrastructure and recreational facilities, to persons with physical disability in Uasin Gishu County, Kenya.

Study area: Research was conducted at Moi Teaching and Referral Hospital and APDK Mobile Outreach Centers for Persons with disability.

Research Design: Mixed method approach (concurrent) was used where the researcher integrated information at the final interpretation of the results. The study was done in quantitative and qualitative phases.

Research Instruments: A self-administered questionnaire was used to collect quantitative data. The questionnaire that was in four sections was administered to 375 participants and it sought to determine the factors inhibiting equalization of opportunities to persons with physical disabilities with regards to health, education and employment. The reliability and validity of the research instrument was tested before use. Six focus group discussions using the nomination rule was conducted and it comprised of 6-8 participants. Structured interviews with four key informants were also held to explore the factors inhibiting equalization of opportunities to persons with

physical disabilities in recreational facilities and infrastructure in Uasin Gishu County Kenya. **Data analysis**: Version 22 of the Statistical Package for Social Sciences (SPSS) was used to pinpoint the quantitative data. Descriptive statistics was used and the findings were presented in the form of frequencies and percentages. To test the relationship between the different categories of variables inferential statistics (chi-square) was used, (p<0.05). For the qualitative data, the tape recorded interviews were transcribed verbatim, field notes typed, categorizing and ordering data was done and themes were produced. To obtain themes thematic content analysis was used.

Ethics: The participants were made aware of the aim of the study, confidentiality and their freedom to withdraw from the study. Approval was obtained from the University of the Western Cape Senate Research Grants and Study Leave Committee before the study commenced. Ethical clearance was also obtained from the Institutional Research and Ethics Committee of MTRH and Moi University. Informed approval was also obtained before the survey and the FGD.

Results: There were statistially significant relationship between nature of disability and workplace policies (p=0.001) to employment, distance from residence (p=0.001) to health facility and attitude of health workers on access to health. There was also a significant relationship between school policies (p=0.001) and help from family members (p=0.001) in access to education. The emerging themes in the FGD were the presence of sidewalks, zebra crossing, car parks, traffic control lights, benches and rest areas, transport adaptation, building adaptation, toilets and ramps/ lifts. The discussions in the emerging themes in the FGDs showed that persons with physical disabilities are yet to fully access infrastructure and recreational facilities.

Conclusion: These results therefore showed that PWDs are yet to attain equalization of opportunities with regards to health, employment, education and recreation compared to their

non-disabled counterparts and is therefore recommended that the legislations/policies in place be fully implemented in line with UN convention 2006 and persons with disabilities Act 2003 (Kenya).

Keywords:

Disability, equalization, opportunity, policies, models, education, health, infrastructure, employment, recreation.



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ABBREVIATIONS

APDK Association for the Physically Disabled of Kenya

CBR Community Based Rehabilitation

CMS Centers for Medicare and Medicaid Services

CVA Cerebral Vascular Accident

CWDs Children with Disabilities

DDA Disability Discrimination Act

DOH Department of Health

DR. Doctor

EFA Education For All

FABS Facilitators and Barriers Survey

FGD Focus group discussion

FPE Free Primary Education

GFD Ghana Federation of the Disabled

HEFs Health Equity Funds

HR Human Resource

ICF International Classification of Health and Functioning

ILO International Labour Organization

IREC Institutional Research and Ethics Committee

IUD Intra Uterine Device

JICA Japan International Cooperation Agency

KAA Kenya Association of Architectures

KI Key Informant

KM Kilometre

KPHC Kenya Population and Housing Census (2009)

MD Muscular Dystrophy

MoE Ministry of Education

MoEST Ministry of Education Science and Technology

MoH Ministry of Health

MS Miss

MSc Master of Science

MTRH Moi Teaching and Referral Hospital

NCPD National Council for Persons with Disabilities

NDA National Disability Agreement

NFDK National Fund for the Challenged of Kenya

NGO Non-Governmental Organization

OAU Organization of African Union

OECD Organization for Economic Co-operation and Development

PA Physical Activity

PLWD People Living with Disabilities

PWDs Persons with Disabilities

SAGA Semi-Autonomous Government Agency

SNE Special Needs Education

SPSS Statistical Package of Social Sciences

UK United Kingdom

UN United Nations

UNCRPD United Nations Convention for the Rights of Persons with Disabilities

UNESCO United Nations Education, Scientific and Cultural Organization

UPE Universal Primary Education

US United States

USA United States of America

USAID United States Agency of International Development

USDC Uganda Society for Disabled Children

UWC University of Western Cape

WHO World Health Organization

WWD Women with Disabilities



DEFINITION OF TERMS

Activity Limitation- a difficulty encountered by an individual in executing a task or action (Bowe, 2008). According to the study activity limitation refers to the inability of a person with physical disability for example one without both upper limbs to drive as in the case of employment.

Amputee is a person who has had one or more limbs removed by amputation (Mungcal, 2010). According to the study an amputee refers to persons whose both or one lower or upper limb have been removed as a result of accident or disease.

Attitudinal barriers- Attitudes, fears and assumptions that prevent persons with and without disabilities from meaningfully interacting with one another (Yeo, 2005). According to the study attitudinal barriers refer to persons or communities perception towards persons with physical disabilities.

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Barriers- Circumstances or obstacles that keep person or things apart or prevent communication or progress. A law, rule, problem, etc., that makes something difficult or impossible (Rosenthal, 2008). According to the study, barriers refer to obstacles that inhibit a person with physical disability from accessing opportunities in health, employment, infrastructure and recreational facilities.

Challenges- An objection or query as to the truth of something, often with an implicit demand for proof (Hickey, 2004). According to the study, challenges are factors that inhibit a person with physical disability from accessing opportunities in health, employment, infrastructure and recreational facilities.

Cultural Beliefs- The ideas and thoughts common to several individuals that govern interaction between these person and other groups and differ from knowledge in that they are not empirically discovered or analytically proved (Bandura, 2007). According to the study, cultural beliefs are the community's thoughts/ perceptions regarding the integration of persons with physical disabilities in the community.

Disability- this refers to an individual functioning which includes physical impairment (Masala, 2008). According to the study, disability means the absence of one to execute the activities of daily living due to his/her physical inability.

Education- the practice of imparting or acquiring general knowledge (Stoner, 2002). According to the study education is the process of acquiring knowledge by attending primary, secondary, tertiary and university level.

Employment- the ability to earn a living (WHO, 2001). According to the study, employment is a **UNIVERSITY** of the way of earning a living in both formal and informal sectors.

Equalization- this refers to equal treatment of persons with physical disabilities with respect to access to employment, education, health and recreation on equal basis with their non-disabled counterparts (Dalal, 2006). According to the study, equalization means both disabled and non-disabled getting the same treatment in accessing employment, education, health, infrastructure and recreational facilities regardless of one's disability.

Health- health is a person's anatomical functioning level (Lin & Yen, 2010). According to the study, access to health by persons with physical disabilities without discrimination from the health personnel and also easy access to infrastructures of health.

Hemiplegia paralysis of one side of the body (Meyer, 2008). According to the study, hemiplegia refers to inability of one part of the body to execute a task as a result of paralysis.

Impairment- It is any loss or damage to a part of the body due to diseases, accident, or genetic factors (Thomas, 2008). According to the study, impairment means the inability of one part of the body for example the upper limb not able to function at all.

Infrastructure- the basic physical and organizational structures and facilities (e.g., buildings, roads, and power supplies) needed for the operation of a society or enterprise (Starrett, 2008). According to the study, these are facilities like buildings, roads among others which assist physically disabled person's equal accessibility as their non-disabled counterparts.

Models- a system or thing used as an example to follow or imitate (Connor, Scandary & Tulloch, 2008). According to the study models are views, suggestions or laws enacted to assist in equal treatment for persons with physical disabilities

Monoplegia is a paralysis of a single limb, usually an arm (Meyer, 2008). According to the study, monoplegia means paralysis of one upper or lower limb.

Myths- A myth, in its simplest definition, is a story with a meaning attached to it other than it seems to have at first; and the fact that it has such a meaning is generally marked by some of its circumstances being extraordinary, or, in the common use of the word, unnatural (Dalal, 2006). According to the study, a myth means a community's/tribe belief bad perceptions towards persons with physical disabilities.

Opportunities- Exploitable set of circumstances with uncertain outcome, requiring commitment of resources and involving exposure to risk (Stephen, 2004). According to the study,

opportunities are openings in employment, health, education, infrastructure and recreation for persons with physical disabilities.

Paraplegia is impairment in motor or sensory function of the lower extremities (Meyer, 2008). According to the study, it is inability of the lower limbs to function due to paralysis.

Participation Restriction- It is the disadvantage or restriction of activity due to a disability (Bowe, 2008). According to the study, participation restriction is the inability of a physically disabled person to participate in community activities for example participation in church activities.

Physical Barriers- Physical barrier is the environmental and natural condition that acts as a barrier in communication in sending message from sender to receiver. Organizational environment or interior workspace design problems, technological problems and noise are the parts of physical barriers (Gary, 2005). According to the study physical barriers are Physical obstacles that hinder person with physical disabilities from gaining access to education, health, employment, infrastructure and recreation.

Physically Disabled - Having a physical problem that makes it difficult to do things as easily as other person do (Bowe, 2008). According to the study physically disabled means a person whose limbs are not able to perform activities as a result of disease, accident or due to genetic factors.

Policies - a course or principle of action adopted or proposed by a government, party, business, or individual (Metts, 2000). According to the study, policies are laws or legislations enacted to protect or promote equalization of opportunities to persons with physical disabilities.

Quadriplegia is paralysis caused by illness or injury that results in the partial or total loss of use of all their limbs and torso (Meyer, 2008). According to the study, quadriplegia means the inability of a person to execute an activity due to paralysis of all limbs and the trunk.

Recreation- activity done for enjoyment when one is not working (Badia et al, 2011). According to the ability of a physically disabled person to participate in leisure activities.



CHAPTER ONE

1.0 INTRODUCTION

1.1 BACKGROUND

Persons with disabilities form one of the most vulnerable groups in the society and are susceptible to poor health. This could be attributed to unfavorable social conditions in health care, employment, education, infrastructure and recreational facilities (Lin & Yen, 2010). Persons who are in-charge of this social institutions view persons with disabilities as either unreliable if employed or worse would be an extra burden as clients in recreational facilities. Teachers also have phobia dealing with disabled students and it is also quite surprising that teachers who attended special education have never managed to overcome this fear (Forlin, 2005).

According to Lin et al. (2010), attitude towards individuals with disabilities are often negative resulting in decreased opportunities and chances at successful integration into the community. Persons with disabilities have agitated for their rights in a bid to react to stereotypes of inadequacy and insufficiency (Hobbs, 2003). Hobbs discusses further that disable persons believe that to change the conventional perspective about disability it is imperative that one understands the experiences of the disabled persons. Interactions and dialogue with other disabled persons over the years have given him a different angel of looking at vulnerability. Without taking issue with the notion that many disable persons are vulnerable, Hobbs is astonished by how much vulnerability is a societal creation and assumption rather than an inborn physical or cognitive trait.

Persons with disability (PWD) more often suffer from social prejudice than from their physical disability (Dalal, 2006) they feel that they suffer more from stigma and neglect by the rest of the

society than how they suffer from physical disabilities. In the case of education, parents to a physically disabled child would rather have the child stay at home than in school (Braithwaite & Mont, 2008). The main reason for this is that the parents themselves are ashamed of their own children and would not have them exposed. The persons themselves are also ashamed of attending other social services as they think how other people in the society will perceive them (Dalal, 2006).

There is also an issue of mobility that impede the physically disable persons from navigating and accessing social services or participating in social activities. According to Brownson, Kelly, Eyler, & Carnoske (2008) environmental barriers prevent those with disabilities from having equal opportunities. Terrain, accessibility of transport and climate are among the many environmental barriers. It is only till late that architecture of infrastructure has started incorporating the PWDs factor in their designs. However, this cannot be banked upon since old design still exist and were built with no provision for renovation or future inclusion of PWDs. These environmental factors can be disabling if it cannot provide access to PWDs. It can only be a facilitator if it can facilitate the disabled person to access by provision of ramps, parking areas and wide toilet doors to accommodate wheelchairs among others.

Participation in leisure activities has been identified as a factor that favor's inclusion in the community and it also contributes to better quality of life (Badia, Verdugo, Ullan & Martinez, 2011). However, personal factors like attitudes, personality and character and other perceived barriers have hindered the disabled from participating in leisure activities (Badia et al, 2011). The current technology has enhanced modification of facilities like swimming pools, artificial gadgets for athletes and special key boards for computer games among others. Van, Yeargin & Lollar (2006) discusses that the type of disability does not seem to impede participation in leisure

activities. This is supported by bio-psychosocial model of disability definition, which sees disability as an interaction between a person's health condition, and the environment they live in (WHO, 2001).

According to the council of disabled persons in the United Kingdom, the link between physical disability and poverty is credited to factors that promote equalization of resources (Abosi & Ozoji, 2005). It has been established statistically that there exists a mutual relationship between special needs and poverty. That is, there is a high likelihood that disabled persons are poor and those persons who poor have a high likelihood of being disabled (Amoak, 2005). Obstacles presented to physically disabled persons can deprive them of the right to obtain key resources such as chances to education and employment hence causing them to be poor (Forlin, 2005).

Similarly, inadequate health care, lack of proper sanitation, nutrition and working in unsafe environments due to poverty can consequently lead to disability (Aillo, 2005). In most societies, persons with disabilities have not been equally integrated to the society as indicated by a study conducted in Croatia on employed and unemployed disabled women, it showed that the employed disabled persons have been fully integrated into the society as opposed to the unemployed (Andreja, Tomislav & Gorka, 2011). Physically disabled persons in developed countries also face barriers in accessing health. Katania, (2012) an ophthalmologist reports in her monthly article that the physically disabled in United States are an underserved group when it comes to health care accessibility. Katania (2012) reports that access to health is inadequate due to physical barriers like lack of wheel chairs, ramps, narrow doorways, bathroom facilities without grabbers geographical isolations and poor attitude towards the disabled persons.

In Africa, discrimination against persons with disability has been seen to negatively affect the success of disabled persons .A study of the life experiences of disabled children in South Africa

found that the children described their main challenge as being the discrimination they faced from their peers and adults in their community. More discrimination therefore makes disability be more pronounced in populations that are already marginalized (Birch & Johnstone, 2005). Discrimination towards disabled persons and women is more rampant in certain ethnic groups and they therefore suffer more and have to put up with the negative outcomes such as discrimination in employment (Pearl & Sherma, 2006). Some researchers impute this to what they regard as' double rejection' of disabled females using sex as a basis for their desires. These attributes are accompanied by stereotypes that have made disabled females seem more dependent on others thus heightening the notion that they are a burden (Whiting & Young, 2005).

Likewise, a survey carried out in Zimbabwe on equipment accessibility by the physically disabled persons showed that; there was little or no compliance to standards of the amenities such as parking spaces and ramps for wheelchair users. All these portray that disability experts are never consulted in decision making and also during construction (Useh, 2001).

WESTERN CAPE

In Kenya, a survey carried out in five locations in Nandi district showed a correlation between poverty, education and disability. Mitra et al (2013) found that in Kenya whilst 52 % of individuals without disability were poor, 67% of individuals with disability were poor representing a 15 per cent difference. However, even after the enactment of rights of persons with disabilities 2003 as evidenced by the UNCRPD (2006), PWDs are yet to be fully integrated to the society. Uasin Gishu is one of the largest counties in Kenya. Despite having advanced equalization policies in the current county devolution, persons with physical disabilities have been given preferential considerations. Hence the study in Kenya will assist to find out the gaps that exist in equalization of opportunities towards the physically disabled persons.

1.2 PROBLEM STATEMENT

Kenya has enacted legislations to cater for rights of person with disabilities among them are Persons with Disabilities Act, 2003 which came into force in June, 2004. In one of the objectives, it states that persons with disabilities should have equalization of opportunities. They should enjoy these opportunities in many ways for instance, in terms of inclusive education, career development, employment, accessible physical environment and access to healthcare. It is notable that there are great strides in the area of inclusive education. There are many graduates with physical disabilities who have pursued college and university education but after completion, they are shocked to come to the reality that the job market is not fully accommodative. This forces the graduates to venture into self-employment where the same trend of discrimination is prominent (Wanjiku, 2013b).

However, the Kenya government through the Ministry of Gender and Social Services and in conjunction with the National Fund for the Challenged of Kenya (NFDK) has been assisting persons with disabilities with assistive devices, access to health and education. Despite all the efforts from the government, many barriers still exist which actively discourage participation of the physically disabled persons in accessing the above services. The mainstream of the society see the disability first and see the person afterwards which makes confidence issue a major barrier for challenged entrepreneurs. There are also barriers to external facilities and support that limit the ability of disabled persons to participate on equal basis with non-disabled persons for instance in access to infrastructure.

Should these barriers not be removed the situation of the disabled person will continue getting worse and Kenya as a country may not realize some of its vision 2030 goals. As a result of marginalization, persons with physical disabilities lack economic empowerment and hence

depend on state resources (Gathiram, 2007). Kenya is a member state to the United Nations Convention for the Rights of Persons with Disabilities (UNCRPD, 2006), which she signed on 30th March 2007. As member of UNCRPD, Kenya is under the obligation to ensure full rights of persons with disabilities, and failure to do so will contravene UNCRPD policy. These claims about the physically disabled persons not being able to have equal opportunities in employment, health, education, infrastructure and recreational facilities cannot be generalized until a study is done on the same.

1.3 RESEARCH QUESTION.

What are the factors inhibiting equalization of opportunities to persons with physical disabilities with regards to services in health, education, infrastructure, employment and recreational facilities in Uasin Gishu county Kenya?

1.4 AIM OF THE STUDY

To determine factors inhibiting equalization of opportunities with regards to health, education, employment and to explore the factors inhibiting equalization of opportunities with regards to infrastructure and recreational facilities, to persons with physical disability in Uasin Gishu County, Kenya.

1.5 STUDY OBJECTIVES

- 1.5.1 To determine the factors inhibiting equalization of opportunities to persons with physical disabilities with regards to
 - employment opportunities
 - access to health
 - access to education

1.5.2 To explore the factors inhibiting equalization of opportunities to persons with physical disabilities with regards to

- Access to infrastructure

- Access to recreational facilities

In Uasin-Gishu County Kenya

1.6 SIGNIFICANCE OF THE STUDY

The findings of this study thus create an insight for the government to enact employment legislations and intensify awareness in both public and private sectors in order to encourage the employers to employ persons with physical disabilities. Attention is thus needed from the health sector to fill the gap experienced by persons with physical disabilities such as staff attitudes, distance to the nearest health facility, low beds and low toilets in the hospitals; ramps and floors that are adapted to disability; vehicles which are adapted, widen corridors and doorways and also for priority services to be given to the persons with disabilities in the hospitals. The Ministry of Education and its partners should now assist in modification of the infrastructure to suit the needs of pupils with disabilities as well as training of teachers on special needs education. The government through the study's findings is now enlightened on the importance of recreation for persons with physical disabilities and thus be in a position to consider equal opportunities to PWD such as offering safe, accessible, and attractive trails for wheelchair activities. This study has created a knowledge gap and literature which will be useful to other scholars who wish to pursue a study in the same field.

1.7 SUMMARY OF THE CHAPTERS

Chapter one: This chapter dealt with the background of the study, statement of the problem, research question, the aims, objectives and the significance of the study.

Chapter Two: This chapter presented literature review to aid in the comprehension of the study. In its introductory part, it focused on the definition of disability and its prevalence worldwide and regionally. It further discussed on the various models of disability and the implementation of the different models in different sectors. This chapter also presented the summary and results of the recent studies relating to the study variables.

Chapter three: This chapter described methods used in conducting the study. The study begun by detailing the research setting, the design of the study, population of the study and the sample for both the quantitative and qualitative phases explained. In addition, the course of action followed in the collection of both quantitative and qualitative data and the instrument used for analysis of the study were outlined. Clear elaborations of the Ethical considerations followed in the study were also highlighted.

Chapter four: In this chapter, quantitative results were presented as descriptive statistics. Use of means, frequencies, standard deviations and percentages were employed in presentation whereas themes were generated in presenting qualitative results. The correlation between dependent and independent variables was achieved by use of chi-square test.

Chapter Five: Quantitative and qualitative results were discussed in this chapter in relation to each other and likewise gaps existing were identified and solutions to the same were laid out.

Chapter Six: This chapter concluded the findings of the study and based on the strengths and limitations of the study recommendations were provided.

CHAPTER TWO

2.0 LITERATURE REVIEW

2.1 INTRODUCTION

This chapter will review the literature sources pertaining to barriers inhibiting equalization of opportunities towards persons with physical disabilities both in developed and developing countries. It will also include literature based on the definition of disability and also incorporate models of disability. The disability legislations and policy globally, in Africa and in Kenya shall be discussed and shall assist in identifying the gaps that still inhibit equalization of opportunities to the physically disabled persons. Special emphasis shall be discussed on barriers inhibiting equalization of opportunities in Health care, Infrastructure, Education, Employment and Recreation.

2.2 DEFINITION OF DISABILITY

Disability does not have one uniformly accepted definition because the circumstances causing disability and the understanding of disability vary greatly from society to society and from one culture to the other (Hammel, 2006; Bury, 2003). There are so many definitions of disability in literature with two main definitions in medical model and social model. Both evolved at different times with varying definitions of disability. The most widely used definition is the International Classification of Functioning, Disability and Health (ICF) referred to as bio-psychosocial model which incorporates the medical and social model and it defines disability as an interaction between the individual (internal factors) and the environment (external factors) (WHO, 2001). The interaction with environment as described by ICF emphasizes the need to look at both the individual and environment if a person's experience of disability is to be described accurately

and comprehensively. However the United Nations Convention defines persons with disabilities as those who have long term physical, mental, intellectual or sensory impairment which in interaction with various barriers may hinder their full and effective participation in society on equal basis with others (UN, 2006).

2.2.1 Prevalence of Disability.

According to the World Bank and World Health Organization (WHO) report in 2011, one billion people in the world have some sort of disability. About 15% of adults worldwide have moderate disability while about 3% have severe disability. About 5% of children worldwide have moderate disability while about 0.7% has severe disability. Females have a higher prevalence of disability than males. The prevalence of disabilities around the world will be increasing in the future because of global aging trends. Of the total population living with disabilities, only 20% of persons with disabilities live in already developed countries while 80% live in countries that are still developing. The United States has a disability prevalence of 19.4%, Canada 13.7%, Bangladesh 1% Kenya 10% and New Zealand 20% (Mont, 2007). High-income countries like United States and Canada have high disability prevalence because they look at any condition that hinders ones physical wellbeing a disability even if it does not restrict a person's activity and participation (Mont, 2007).

Improved accessibility to health and improved economic status for persons with disabilities in developed countries make them to have a higher survival rate. Mont (2007) affirms that in developing countries lack of quality health care, insufficient nutrition and unfriendly living conditions significantly contribute to the reduced survival rates of the disabled. It is estimated that 4.6% of Kenyans experience some form of disability and more disabled persons are living in rural than in urban areas (Census, 2009). There is no recent data on the situation of persons

living with disabilities in Kenya. Applying the WHO recommended 10% to today's Kenya's population of approximately 40 million it would indicate there may be some 4million disabled persons. In Uasin-Gishu County, based on the 2009 Kenya population census Volume II (August 2010), persons with physical disabilities total 5949 while the total population of persons with disabilities in Uasin-Gishu was 20,039. Otherwise to date, there are no current available statistics on the prevalence of persons with disabilities in Kenya, however national census was carried out in all counties in July 2015 and the results are yet to be released.

2.2.2 Causes of Disability

The causes of disability are specific and unique to each individual. Disabilities can be caused by environmental factors, genetics or in some individuals the cause is unknown. Genetically, one inherits the disability from the parents in certain cases however; a new genetic error can occur leading to symptoms of the condition. These include conditions such as Amelia, phocomelia and muscular dystrophy.

Environmental factors that can lead to disability include accidents, injury, disease or infection. Acquired brain injury, complications arising from diabetes and injury to the spinal cord are some of the examples. In certain cases, the cause of the disability is not known. Many physical and intellectual disabilities have arisen from unknown origins. Disabilities are specific to individuals (Miller, 2001).

Spinal Cord Injury can be a cause of physical disability with the end results being complete or partial loss of the ability to move a body part. The degree of paralysis/paresis and the affected part of the body depends on the part of the spine that has been damaged and the affected cord. An injury to the upper region of the spine will result in Quadriplegia that is, paralysis of both arms and both legs. Paraplegia on the other hand is caused by injury to the mid-lower back hence

a person is paralyzed from the waist down.

In the US it is estimated that 150,000 to 175,000 people have suffered injuries to the spinal cord with a projected annual increase of 7,000 - 8,000. 47% of individuals who had injuries to the spinal cord are paraplegic, 53% on the other hand suffer from quadriplegia. Car accidents are the leading cause accounting for (38%), jumps come in second with (16%) and while gunshot wounds account for (13%) (NSCISC, 2013).

Cerebral trauma commonly referred to as head injury refer to injuries such as concussion, brain stem injury, anoxia, closed head injury, cerebral hemorrhage, depressed skull fracture, foreign object (e.g. bullet), closed head injury, and post-operative infections. Head injuries and strokes too often lead to paralysis and paresis; however they can have other effects. 1 in 250 Americans is estimated to suffer from effects of head injuries and 400,000 - 600,000 people get head injuries every year. Most of them fortunately are not permanently disabled (Marglin, 2001).

Stroke (cerebral vascular accident; CVA) can be as a result of hemorrhage which is mostly caused by high blood pressure or rapture of an aneurysm, thrombosis or embolism. Brain tissue responds to injury in the same way inconsiderate of whether the injury is from direct trauma or stroke. In each case function in the affected part of the brain is completely lost or is impaired (Marglin, 2001).

Loss of Limbs (Amputation or Congenital) is usually as a result of trauma e.g. explosions severe burns, explosions or severance. It may also be due to surgery as a result of cancer or diabetes. Amputees wear prosthetics which in most cases aid in movement but do not lead to complete return of function. In Sept 2010, US public health service National center for Health statistics estimated more than one million limb amputees. It is estimated that more males are prone to amputation with their percentage standing at 77% .90% of this involve amputation of the legs,

40% of amputations are above the knee, 50% are below the knee while hip amputations take the least percentage of 10% (Costas, 2002).

Muscular Dystrophy (MD) is a group of hereditary diseases causing progressive muscular weakness, loss of muscular control, contractions and difficulty in walking, breathing, reaching, and use of hands involving strength. About 4 cases in 100,000 are reported. When a child is born with one or more limbs absent, a shrunken or deformed limb it is said to suffer from a condition referred to as Amelia. For example, a child born with malformations on the face or without a forearm. The term may be modified to indicate the number of legs or arms missing at birth, such as tetra-amelia for the absence of all four limbs (Costas, 2002). When the process of limb formation is interfered with too early, it results in complete absence of an arm or leg. This occurs between 24 and 36 days following fertilization.

Tetra—amelia syndrome appears due to inheritance as a result of a recessive gene. This is to mean that parents of a child each carry a copy of the mutated genes but do not show any signs of the condition. Amelia in a few individuals can be credited to health complications in early pregnancy that include infections, botched abortions, use of the drug Thalidomide or complications arising from the removal of IUD (Costas, 2002).

Phocomelia is a condition whereby there is malformation of the limbs due to congenital disorder. The two key causes of phocomelia are thalidomide and inheritance. This malformation results to abnormalities and underdevelopments in various parts of the body including the limbs, face, ears, and vessels among others. Fixing of these abnormalities can be done through surgery though it is quite a challenge due to the lack of important components of the human body like nerves and bones (Costas, 2002). As a result of the barriers encountered by persons with disabilities, several theoretical models evolved at different times to define disability.

2.3 MODELS OF DISABILITY

To define disability and to be able to come up with a foundation through which governments, societies and all stakeholders can use to meet the needs of the disabled, we require tools. These tools are what are referred to as models of disability (Altman, 2001).

Models are a useful framework in which to gain understanding of disability issues and also of the perspective of those creating and applying the models (Altman 2001). Models are influenced by two fundamental philosophies; the first sees the disabled dependent on the society which can lead to the society being prejudiced against them (Ferguson, 2001). The second looks at persons with disability as part of the society and as functional members of the society and thus they are accorded equal opportunities and chances, their human rights are respected and they are integrated into the society (Altman, 2001).

The lack of consistency in the definition of disability led to evolvement of several theoretical models which have been used in the definition of disability and among these are; the Medical model, Social model and Bio-psychosocial model (Altman, 2001). Other models which are related to the study include Nagi's Model, religious/moral model and the economic model. All these models emerged at different times; however, they all discuss the way in which disabled persons are perceived, and allocation of health care resources, including rehabilitation services (Hammel, 2006; Bury, 2003). It is therefore essential for health care givers to understand how a particular society perceives disability so that planning and implementation of service for example rehabilitation services may become relevant to the targeted group of people or society. It is important to note the two theoretical models, the medical model and social model have provided the most dominant but opposite ways of understanding disability. The three models will be discussed separately in order to understand how definition of disability has evolved at different

times with different interpretations.

2.3.1 Medical Model.

The medical model was developed in the western world during the era of industrialization and relates disability to physical or functional abnormality; it was developed so that it could be used in classifying the different types of disabilities for example above knee amputation was classified as severe (Glenton, 2002). Glenton (2002) discuses in the medical model that disability is a problem of a person directly caused by trauma, disease or other health conditions. This therefore means the medical professionals plan all interventions and the disabled person cannot make any decision on his management. Disability therefore requires medical care provided for in the form of individual treatment by medical professionals for example in rehabilitation (Altman, 2001).

In the medical model health professionals also make decisions for the disabled person in other fields that have little to do with medicine such as access to employment and education (Swain & French, 2001). Nevertheless, the positive contribution from the medical profession cannot be ignored since urgent medical care and rehabilitation is provided for by the medical team (Davis & Madden, 2006). The rehabilitation modalities like crutches, wheelchairs, calipers and artificial limps alleviate the physical and mental conditions of many persons with disabilities.

Medical interventions also increase survival rates for the disabled for example those who are asthmatic, hypertensive and diabetic who depend on daily medication and those who receive rehabilitative services in physiotherapy. The disabled persons viewed the medical model as discriminatory and they came up with the social model of disability (Terzi, 2009).

2.3.2 The Social Model of Disability

The social model of Disability discusses that it is the society that has not responded to the plight of the disabled (Shakespeare & Watson, 2001). According to Swain & French 2000, the social

model was borne out of the experiences of disabled people, challenging the dominant individual models espoused by non-disabled people. Non-disabled people can generally accept that a wheelchair-user cannot enter a building because of steps. Non-disabled people are much more threatened and challenged by the notion that a wheelchair-user could be pleased and proud of the person he or she is (Swain & French, 2000). The society must therefore make the necessary adjustments to be all inclusive if disability is to be reduced. At political level this becomes a question of human rights hence for social model, disability is a political issue (WHO, 2001).

In Kenya, disability issues have been based on the United Nations Standard Rules of 1993 which promote social model practice but with the coming up of UNRCPD (2006) and the enactment of persons with disabilities Act 2003, followed by promulgation of the new constitution, 2010, disability issues in Kenya have taken a social-political approach where by disability issues are located in the environment under the Ministry of social services.

The social model has been criticized for assuming that all problems affecting the disabled are purely social ignoring the positive contribution medical professionals have contributed. The failure to recognize one as the most appropriate, led to evolvement of Bio-psychosocial model in International Classification, Disability and Health which incorporates the other two models (WHO, 2001).

2.3.3 Bio-psychosocial Model.

In Bio-psychosocial model disability is described as an interaction between the individual (internal factors) and the environment (external factors), (WHO, 2001). As opposed to the two other models bio-psychosocial model indicates the need for one to look at both the individual and the environment if a person's experience of disability is to be understood accurately and comprehensively. The ICF refers to this way of thinking as the Bio-psychosocial model and it

incorporates both medical model and social model. It is important to note that in ICF, the environment can be a disabling factor if it cannot provide access and it can be a facilitator if can facilitate the disabled to access for example by provision of ramps, parking areas and, wide toilet doors to accommodate wheelchairs among others (WHO, 2001). The disabled person should therefore be attended according to the disability he has but not a generalized approach.

The evolvement of models of disability led to the campaigns for equal rights by persons with disabilities and in response legislations were enacted globally, in Africa and also in Kenya to address the rights of persons with disabilities.

2.3.4 Other models

2.3.4.1 Nagis Model of disability

Nagi's model of disability relates to factors in family, community, and society that affect disability as an outcome. According to Nagis model of disability, the social demographic characteristics of the individual and family, the individual's prior occupation and the industry in which the individual was previously employed, the flexibility of the workplace with respect to the physical tasks of work and hours of work, the nature of the local economy, customs and laws governing employment, and the extent of income transfer programs all affect the accommodation of persons with disabilities (Yelin, 2002).

2.3.4.2 Religious/ Cultural Model of Disability

The Religious Model views disability as a punishment inflicted upon an individual or family by an external force. It can be due to misdemeanors committed by the disabled person, someone in the family or community group, or forbears. Birth conditions can be due to actions committed in a previous reincarnation (Lansdown, 2001). In a Western Judea-Christian society, the roots of understanding bodily difference have been grounded in Biblical references, the consequent

responses and impacts of the Christian church, and the effect of the enlightenment project underpinning the modern era. These embodied states were seen as the result of evil spirits, the devil, witchcraft or God's displeasure. Alternatively, such people were also signified as reflecting the "suffering Christ", and were often perceived to be of angelic or beyond-human status to be a blessing for others (Good, 2003).

Therefore, themes which embrace notions of sin or sanctity, impurity and wholeness, undesirability and weakness, care and compassion, healing and burden have formed the dominant bases of Western conceptualizations and responses to, groups of people who, in a contemporary context, are described as disabled. In the past, various labels have been used for such people. These include crippled, lame, blind, dumb, deaf, mad, feeble, idiot, imbecile, and moron (Barnes, 2007).

2.3.4.3 Moral Model of disability

The Moral model is historically the oldest and is less prevalent today. However, there are many western cape cultures that associate disability with sin and shame, and disability is often associated with feelings of guilt, even if such feelings are not overtly based in religious doctrine. For the individual with a disability, this model is particularly burdensome. This model has been associated with shame on the entire family with a member with a disability. Families have hidden away the disabled family member, keeping them out of school and excluded from any chance at having a meaningful role in society. Even in less extreme circumstances, this model has resulted in general social ostracism and self-hatred (Corker and Davis, 2002).

2.3.4.4 Economic Model of Disability

Under this Model, disability is defined by a person's inability to participate in work. It also assesses the degree to which impairment affects an individual's productivity and the economic

consequences for the individual, employer and the state. Such consequences include loss of earnings for and payment for assistance by the individual; lower profit margins for the employer; and state welfare payments (Pfeiffer, 2002).

The Economic Model is used primarily by policy makers to assess distribution of benefits to those who are unable to participate fully in work. In recent years, however, the preoccupation with productivity has conflicted with the application of the Medical Model to classify disability to counter fraudulent benefit claims, leading to confusion and a lack of co-ordination in disablement policy (Verbrugge & Jette, 2005).

Employers may recognize compensations for any loss in employing less-productive disabled employees through kudos, publicity, customer alignment and expansion arising from their presentations as an organization with community values. However, employers are not generally altruistic and hold the economic viability and operational effectiveness of their organization as higher priorities than demonstrating social awareness. Their economic option is to pay disabled employees less or have the losses met through subsidy (Verbrugge & Jette, 2005).

2.4 DISABILITY LEGISLATION

2.4.1 Disability Legislation Globally

The International Labor Organization (ILO) was the first to advance the rights of persons with disabilities. In a series of conventions adopted since 1925 it has promoted the rights of persons with disabilities to a decent standard of living. The United Nations is another body that has advocated for rights of the disabled persons.

In 1948 the United Nations defined a universal declaration of human rights which stated among others the right to non-discrimination, the right of equal opportunity and the right to full

integration of the disabled persons (ILO, 2004). This was followed by 1971 United Nations declaration on the rights of disabled persons which proclaimed among others that, disabled persons shall enjoy all the rights set forth in the declaration which include the respect for the human dignity. This was followed in 1975 by world programme of action to do with equal rights for people with disability and 1993, declaration on Standard Rules on ensuring equality in access of opportunities for the disabled. This culminated in 2006 United Nations Convention on rights of persons with disabilities (UNCRPD) and it advocates for implementation of the articles of which access to education, health, employment, infrastructure and recreational facilities are part of the articles. Community Based Rehabilitation Programme under CBR matrix covers all the important aspects in the UNRCPD articles which include health, education, livelihood, social and empowerment.

The United Nations Convention on rights of persons with disabilities was adopted by Kenya on 30th Dec 2006 and came into force in May 3rd 2008 and as of July 2008, 129 countries had signed the convention. The convention on the rights of persons with disabilities is the first legally binding human rights instrument of the 21st century that comprehensively protects the rights of persons with disabilities. It clarifies and quantifies how all categories of rights apply to persons with disabilities. It also identifies areas where adaptations have to be made for persons with disabilities to effectively exercise rights and identifies areas where protection of rights have been violated and where protection of rights must be reinforced.

2.4.2 Disability Legislation in Africa

Disability legislation in Africa can be traced to 1983 when the United Nations declared the period 1983-1992 the decade of persons with disabilities. In response the Organization of African (OAU) Head of state and government meeting in Togo Lome in July 1999 adopted a

resolution to declare the period 1999-2009 as the African decade of persons with disabilities.

The goal of the African decade was to ensure full participation, equality and empowerment of persons with disabilities in Africa (Gumede, 2007). To operationalize this, a continental plan of action was adopted in 2002 with objective number six to ensure access to education of persons with disabilities. To ensure the African decade activities were well coordinated a secretariat was established in Cape Town South Africa in 2004 (Chalken, Colleen & Alberts, 2006).

The first meeting to evaluate the success of the African decade activities was held in Addis Ababa Ethiopia in 2005. However, in the year 2006 the first legally binding universal human rights instrument (UN Convention, 2006) was declared by the United Nations, African Countries had no otherwise but to become signatory to the convention. South Africa signed on 30 March 2007 and ratified on 30 November 2007 while Kenya signed on 30 March 2007 and ratified on 19 May 2008. Since then African countries have been meeting to review the implementation of United Nations 2006 convention on the rights of persons with disabilities and the last meeting was held in South Africa on 25 July 2012.

2.4.3 Disability Legislation in Kenya.

In the 1960's to 1970's, pressure from national and international disability rights movement mounted (Metts, 2000). This prompted the government of Kenya to establish frame works on how the disabled persons could access education and employment. This led to legislative framework of 1968 under sessional paper number 5 whose aim was to provide training to persons with disabilities aged 16 and 43 years which would finally assist the disabled persons in accessing employment.

Persons with disabilities continued agitating for their rights subsequently leading to the declaration of the United Nations of 1993 Convention which stipulated equal access to

opportunities for disabled persons. Consequently, lobbying campaigns by disabled organizations continued in Kenya and in 1997 the government formed a task force which included representation by organizations for disabled persons in Kenya. After five years, the taskforce put forth their recommendations after collecting data across the country. Consequently, a draft bill was brought to government and as a result the persons with disabilities act of 2003 was enacted in the month of December, 2003 (ILO, 2004).

The act called for the formation of a National Council for Persons with Disabilities. It was set up by Act of parliament in 2004 to promote the rights of persons with disability in Kenya and mainstream disability issues into all aspects of national development. Currently, the NCPD is a Semi-Autonomous Government Agency (SAGA) under the Ministry of Gender, Children and Social Development and coordinates efforts to mainstream disability within Government Ministries.

The work of (NCPD) would be to come up with and develop measures and policies which would ensure the achievement of equal opportunities for persons with disabilities by making sure that they got access to education, employment, equal access to health and infrastructure to the maximum extent possible. It was also to ensure that they take part fully in sporting, leisure and cultural activities hence, full access to services in their societies. The rights of persons with disabilities were enshrined following the promulgation of Kenya's new constitution in 2010 under Article 54.

The Constitution of Kenya (2010), states that the Government is committed to progressively implement 5% representation at every elective and appointive position for Persons with Disabilities. In addition, the 2003 Persons with Disabilities Act calls for: the reservation of 5% of all casual, emergency and contractual positions in employment in the public and private sectors

for persons with disabilities (Section 13).

Disability mainstreaming is a target in the Performance Contracts of all Ministries and their departments yet in 2010 an NCPD survey of 3 ministries found that only 1% of Ministry staff were persons with disabilities. This is far below the 5% statutory requirement. In reaction to this, the government on 31st August 2011 instructed Ministry of Labour to conduct a man power survey of all persons with disabilities in order to develop training and skills inventory in the country for the present and future employment. Such records should include information on gender, ethnicity, disability and age, which can be analyzed to monitor recruitment practices and to achieve an inclusive workforce.

Legislations to cater for the rights of persons with disabilities in Kenya have been enacted however; with the above discussion it is evident that persons with disabilities still experience difficulties in accessing education and health care among others. It is therefore necessary to discuss the barriers persons with disabilities may be experiencing in accessing their rights particularly in education, health, infrastructure, employment and recreation facilities.

2.5 BARRIERS EXPERIENCED BY PHYSICALLY DISABLED PERSONS

Physically disabled persons are limited more by external barriers than the disability and the barriers include accessing employment, education, health, infrastructure and recreation facilities (Milles, 2009). Each sub heading shall be discussed below:

2.5.1 Barriers in Employment

Employment is for all persons in working age a key element towards combating poverty and to achieve social inclusion and participation on society (Thornicroft, 2009). This applies equally to persons with disabilities. In addition, employers need to be able and willing to employ persons with disabilities in order to ensure that they can hire the most competitive candidates (WHO,

2001).

The problem of disability poses a challenge for persons with disabilities to favorably compete for the few available jobs in the market. Employment is very low in India; only 0.4% of the employed people are disabled persons in top 100 companies while the percentage of employed disabled females is less than only 0.3% (Venter et al., 2004). Australia has in the recent decades endeavored to ensure that there is equality in the work places even for the disabled. The Disability Discrimination Act 1992 (DDA) is meant to ensure that people with disability are protected from any form of discrimination.

In 2004 the act (DDA) was reviewed to further ensure protection of equality of opportunities of the disabled. The National Disability Agreement (NDA) has been providing support for persons with disabilities from 2009. Over the sixteen years from 1993 to 2009 in Australia, a study showed the rate of unemployment for 15 -64 year olds with disability reduced from 17.8% down to 7.8%. Similarly, there was a reduction in the rate of unemployment for those with no disability (from 12.0% in 1993 to 5.1% in 2009). In spite of this, the rate of unemployment among the disabled was still comparatively higher than that of people without disability in 2009.

To ensure prosperity, South Africa, needs the contribution of every skilled worker. People with disabilities have played a key role in making positive contribution in the workplace (Inge, Strobel, Wehman, Todd & Targett, 2000). If they are embraced, accepted and given a chance to utilize their skills, persons with a disability have been found to become well-adjusted, productive worker. They can also perform better that other workers, are always present at work and are more loyal hence they deserve a chance in the workforce (Inge et. al, 2000). Disability is a human rights and development issue, meaning that persons with disabilities should enjoy equal rights and responsibilities like other people (McClain, 2002).

Unemployment rate among disabled persons in Ghana is higher than the non-disabled persons in Ghana. According to statistics, persons with disabilities in Ghana are estimated to be 10% of the total population. Most of them are without job roaming on the streets begging to make ends meets. Even though begging is illegal and a shameful thing to do, a good number of them engage in it (Sarpong, 2004). The government of Ghana and Non-Governmental organization (NGO) have made effort to raid or eliminate begging but the attempt was in vain or unsuccessful (GFD, 2004).

Countries in East Africa, views on persons with disabilities especially women are still considered to be second class citizens. For example in Tanzania, they are discriminated against and denied most of their rights. They are devalued first because of their gender, and secondly because of the myths and misconceptions about impairment (Boylan, 2001). There are often far reaching and mistaken assumptions that women who are disabled do not need to work, that their financial security will be provided by their families and that their main role will be at home because their capacity to do much else is limited. These attitudes need to be changed in order to ensure that the right to employment for women with disabilities is realized (Boylan, 2001).

Just as the case is in most developing countries, disabled persons in Kenya too turn to self-employment due to the limited chances of employment in the job market. Most of them prefer employment with a steady income but cannot get one hence self-employment is often the only option available. In Kenya, in every five disabled persons one is employed while four are self-employed in the informal sector. In developed countries however, less than three per cent of persons with disabilities are self-employed (Roulstone, Barnes & Colin, 2005)

Agriculture is the main source of livelihood in Kenya; tourism too is a key sector of the economy. Reliance on agriculture consequently determines the kinds of jobs the population takes

part in. The international labor office report in 2004, affirmed that 75% of Kenya's labor forces were employed in agriculture, with the remaining quarter employed in services (16%) or industry (9%) (ILO, 2004). The government of Kenya has made significant effort in recognizing the importance of education and vocational training in improving the status of persons with disability in spite of the many challenges (Roulstone *et al*, 2005). Vocational rehabilitation for persons with disability has focused on skilled and semi-skilled work such as, dress making, clerical work, carpentry, leather work, driving and motor repair which are sometimes not needed in the country's mainstream job market (Roulstone *et al*, 2005).

The training does not fit to the available job opportunities. In addition, employers both in the public and private sector prefer to employ people who are not disabled to employing disabled persons (Roulstone *et al*, 2005). The same is echoed by Roggero, Tarricone & Mangiatera (2006) by saying that it is not just the perceptions of disability that limit job opportunities but also the conspicuous lack of competitive employable skills that lead to the disabled being discriminated against in the job market by employers. In addition, the declaration of the year of the child (1979) and the UN declaration of 1981 as the international year of the disabled helped bring to light the challenges and limitations that disabled person's experience. The concern of the disabled was highlighted by the events related to these years in Kenya and the rest of the world (Roulstone *et al*, 2005).

In Kenya, the enactment of the persons with disability act in 2003 and the inclusion of disability policy in the new constitution 2010 under article 54 was as a result of activism from the events of those years. The disable however continue to face challenges in accessing education and vocational training compared to the non-disabled despite of the milestones that have been achieved.

2.5.2 Barriers in Education.

Challenges in accessing education faced by the disabled and other vulnerable groups continue to deny them an escape route out of poverty (WHO, 2001). Education is one of the most important human rights that are essential to an individual and to a community as a whole. Through Education, one is able to develop socially, personally and academically. Education is also a requirement for one to be employed and to fit into the society. One of the places a child develops their socialization skills are in school through relating and interacting with others. Children begin to understand themselves and the world around them through relating to their peers (WHO, 2001).

Accessibility still remains as the greatest obstacle to education for both the disabled and the non-disabled today according to Birch & Johnstone (2005). It is paramount that all children whether disabled or not should be served equally no matter the situation. Society needs to accept and embrace persons with disability and turn away from any form of discrimination against them.

Attitude change towards disability is crucial to ensure that the disabled live in a peaceful and accepting environment. Avoidance of labeling terms such as handicapped which brings out the disability and overshadows their ability is critical conventions recognize such as; the Covenant on Economic, Social and Cultural Rights, the Convention on the Rights of the Child and the Declaration of the Rights of Disabled Persons have served to bring to fore the fundamentality of education to persons with disability (Eide & Ingstad, 2011).

In Canada, education is recognized and legislated as a fundamental social good. A publicly funded education system, accessible to all, is recognized as a core responsibility of government. However, not all have achieved this; studies done in India have revealed that half of the total population of persons with disabilities has never gotten a chance to go to school while only 5 %

of children with disabilities have had a chance to go to school (Lang, 2007). There has been great advocacy for inclusion and inclusive education in the recent past both nationally and internationally. Grounded in UNESCO's education policy, adopted at the Salamanca Conference 1994 (UNESCO 1994), inclusive education is a way of reducing discrimination and bringing positive attitude change towards students with disability (Pearl Subban & Umesh Sharma 2006). The Salamanca Statement and framework for Action advocates for education for every individual as a basic human right for all irrespective of individual differences (UNESCO, 1994). In addition, international focus through the "Education For All," 1989 United Nation Convention on the Rights of Children, the 1990 Jomtien Declaration and the World Summit on children, required countries to commit themselves in providing education to all children including marginalized children (United Nations Organization 2004). These international developments have had significant impact on national policy and practice. Improving access to education for disabled children is seen as an important strategy in ensuring inclusion hence employment and self-sustainability.

In Africa, Southern Africa for example, poor accessibility, low quality of education and lack of adequate opportunities in the labour market pose as a major challenge to disabled youth. This creates a difficult situation for youths with disability and hinders the efforts towards equity (Lang, 2008). In West Africa specifically Mali, schools are still not accessible to the disabled since the classrooms do not have suitable infrastructure for their use for example poor lighting in classrooms lack of ramps and adequate sanitary facilities for the disabled (Denhart, 2008). To fully talk of inclusiveness, teachers too need to be trained on inclusive education for their attitudes to change and for them to learn to handle these learners. The Ministry of Education adopted a national policy on special needs education in 2010.

The Kenyan Government is also a signatory to various international conventions and declarations such as, UN declaration of the rights of children (1948), World conference on Education For All (EFA (1990), World Conference on Special Needs Education (1994), Dakar Forum for Action (2000) and the UN Convention on the Rights of Persons with Disabilities (2006). Additionally, the government is committed to providing Universal Primary Education (UPE) by the year 2015. Children's right to basic education (special needs education) is also provided in the Children's Act (2001). However disabled persons are not yet able to fully access education and training in Kenya compared with the non-disabled. This makes it difficult for persons with disabilities to compete favorably for the minimal available jobs.

2.5.3 Barriers in Provision of Health Services

Individuals with physical disabilities are less likely to utilize primary health care services than the general population; however they are at a greater risk to secondary infections since they are likely to engage in unhealthy risk behaviors like other persons (Lin and Yen, 2010). The far distant and inaccessible health care facilities, lack of disability related knowledge for service providers and lack of accessible prevention focus information especially in the rural areas are the main barriers. A part from curative services, rehabilitation is very essential to the disabled person.

The United Nations Standard Rules on equalization (1993) of opportunities for persons with disabilities provided a definition of rehabilitation which states that it is a process aimed at enabling persons with disabilities to reach and maintain their optimal, physical, sensory and higher functional levels, therefore higher levels of independence. This may include measures to provide or restore functions or compensate for a functional limitation. Likewise article (9) of the United Nations Convention for Rights of Persons with Disabilities (UNCRPD) (2006) also

recognizes access to essential services to persons with disabilities such as health.

International studies with reference to Cambodia shows a constraint in the health care system; In spite of the massive evolution of the health system in Cambodia lack of adequate resources and financial barriers continue to hinder access to health care (Annear, 2010). Persons with disability bear the greatest burden in meeting health care costs given that evidence from developed countries suggests that people with disabilities: (1) need specialist services more (2) have a higher expenditure on health (3) spend more of what they earn on health than people without disability (WHO 2011). As a matter of fact, a Cambodian study found that almost all disabled persons had sold their assets with the hope of raising income to seek medical care with the hope of curing their acquired impairments (Gatrell, 2004). The Ministry of Health (MoH) has come up with several initiatives to improve access to health services including the operations, since 2000 for health equity funds (HEFs) to ensure the poor are exempted from paying user fees. (Ministry of Planning 2010; Annear, 2010), some being the disabled.

Studies done between 1982 and 1997 in developing countries such as Botswana, Guyana and Zimbabwe found success rate in provision of rehabilitative services to persons with disabilities at a rate of 26% to 91%. The improvement was in communication, integration to schools and social integration. In South Africa, provision of rehabilitation services to the disabled is an important part of health care system (DOH, 2001). Rehabilitation services take place at various levels of care, at a variety of institutions namely the public sector, (about 60%) non-governmental and disabled person's organization and private sector (DOH, 2000). This kind of organization ensures that the disabled get rehabilitation services efficiently.

In Kenya rehabilitation services is provided in form of community or institutional based, like in special schools, hospitals or training centers. In developing countries including Kenya, about

70% of persons with moderate to severe disability live, however only about 3% receive rehabilitation services (Helander, 2005). This has been attributed to lack of published information on rehabilitation services. However with the introduction of community based rehabilitation services countrywide, service delivery to persons with physical disabilities has improved.

2.5.4 Physical Barriers (Infrastructure)

Access entails being able to get and use something (Masakwe, 2004). Article 9 of the UNCRPD affirms that accessibility as one important requirement to ensure that the disabled persons are able to live independently and become fully functional members of the society. The Government should therefore identify and remove all hindrances to accessibility including using transport services. Accessible public land transport is essential to enable disabled persons to be part of all activities in the society. A substantial number of persons with disability do not have independent access to motor vehicle and so are dependent on public transport to move around (UNCRPD, 2006).

The disabled in the United States are the underserved group (Katania, 2000) due to poor accessibility. The access is inadequate due to physical barriers like lack of wheelchairs ramps, narrow door-ways and bathroom facilities without grasp bars, parking space and toilets also deny the disabled the right to co –exist with the others.

In Africa, Masakwe (2004) argued that Africa still lacks adequate infrastructure and facilities and where they are they do not adequately meet the needs of the disabled. In Zambia, a report on the study of living situation of the disabled revealed that, a community developed program in which sanitary facilities were built to increase sanitation was carried out without the consultation with persons living with disabilities, doorways were not wide enough to incorporate wheelchairs and

the same toilets were used as bathroom which could not be used by disabled persons. The situation in Zambia is not an isolated case; it is also replicated in Zimbabwe. A survey carried out in Zimbabwe on disability compliance showed that there was still little compliance on items such as ramps and that there still lacked consultation with disability experts(Useh, 2000).

In other developing countries like Mali, most persons with disabilities live in acute poverty with a lot of problems to deal with including difficulty in accessing services. A look at the road network clearly shows that they are not suited for the disabled since they lack pavements and designated crossing areas this makes it difficult for the disabled to move around and even endangering their lives (McClean, 2002).

The situation is not different in Kenya it is existent in all the sectors both private and public. A disabled university employee in Kenya who was interviewed on the challenges disabled employees face at their work environment narrated the inaccessible buildings due to lack of elevators and wheelchair access areas which are not clearly marked. The individual's physical condition does not therefore necessarily cause the disability but the society's arrangement (Oliver, 2008).

2.5.5 Recreational Barriers

Recreation is that time free from the required activity of daily living. Everyone needs regular recreations that develop skills, promote good health, relieve stress, facilitate social interaction and provide the general joy for living (Abosi, 2003).

Persons with disability have not had a chance to take part in these activities this is partly due negative attitudes and lack of information on the sporting activities .most institutions have also not put in place policies to facilitate this .Lack of physical infrastructure for use by the disabled, societal perceptions and communication barriers play a major part in denying the disabled a

chance to take part in this activities (Lord & Stein, 2009).

A study conducted in Ireland found that children with disabilities experience negative attitudes while using leisure and play facilities (Braithwaite & Mont, 2008). In another research undertaken by a UK based organization, it was found that of the parents surveyed, 52 % believed their children with disabilities were better off within segregated services as the problem associated with the community recreational facilities relate to lack of training facilities, transport, public attitudes and rigid rules.

In developing countries, persons with disabilities often face additional barriers to participation in sport and society and these may include for example, complex issues including attitudes towards disability, traditional and religious beliefs, physical education systems, and access to sporting infrastructure including services, facilities and equipment (Pearl & Sharma, 2006). Many studies reveal that the implementations of accessible design for recreation in public are less considered (Imrie, 2000). In Bangladesh for instance, inaccessible leisure environment both physically and socially have given restriction for disabled persons to participate equally in their daily life (Lee, 2005). Likewise in South Africa, disabled persons who live in low-income settlement have to struggle more to do their daily leisure activities because universal design for recreation is rarely discussed (Imrie, 2000). The inaccessible condition for recreational activities in built environment merely has to be accepted naturally by disabled persons by adapting their condition to the environmental features which were designed insufficiently for the condition of impaired body (Imrie, 2000).

Through participation in the international Special Olympics and the use of volunteer coaches, Kenya has been able to ensure that the disabled persons take part in sporting and recreational activities Kenyatta University through its Department of Exercise, Recreation and sports science has been able to train its students as volunteer coaches for people with disability. A notable effort has been made in Kenya towards offering a viable solution to the aforementioned situation. Kenya has been an active participant in international Special Olympics competitions that are held every year preceding the Olympic Games. Many of the coaches used in Special Olympics programmes work with athletes on voluntary basis. However, the few developed recreational facilities in Kenya are concentrated in urban areas and cannot cater sufficiently for all persons with physical disabilities.

2.6 SUMMARY OF LITERATURE

The challenges faced by persons with physical disabilities vary from one country to another on all aspects of life ranging from health, education, employment, infrastructure and recreational facilities. The literature review has highlighted the various models of disability with evolution to bio-psychosocial which embraces the other models. Barriers faced by persons with physical disabilities were also discussed and finally the legislations which have been enacted globally, in Africa and in Kenya to address the barriers were also discussed.

CHAPTER THREE

3.0 METHODOLOGY

3.0 Introduction

This chapter described methods used in conducting the study. The study begun by detailing the research setting, the design of the study, population of the study and the sample for both the quantitative and qualitative phases explained. In addition, the course of action followed in the collection of both quantitative and qualitative data and the instrument used for analysis of the study were outlined. Clear elaborations of the Ethical considerations followed in the study were also highlighted.

3.1 Research Setting

The research was carried out in Kenya, Rift Valley province, Uasin Gishu County that is comprised of 3 districts: Eldoret East, Eldoret West and Wareng. The research was carried out in Moi Teaching and Referral Hospital (MTRH), as well as the Mobile Outreach Centers for the Physically Disabled of Kenya (APDK) within Uasin Gishu County. Moi Teaching and Referral Hospital is situated in Eldoret town and was upgraded to a referral and teaching Hospital in the year 2000, it has a workforce of three thousand one hundred and fifty (3150) on permanent and pensionable terms. Sixty eight employees are with disabilities among them twenty six female and thirty two male all on permanent and pensionable terms. Other employees are six hundred (600) on contract basis (Human Resource Manager, 16th October, 2015). Likewise the APDK is a government funded programme where people with physical disabilities are among others supplied with rehabilitative services. Clinics are conducted monthly in every center and this provided the best and opportune time to access as many participants as possible (De Vaus, 2001). The above centers therefore were chosen because they were representatives of persons with

physical disabilities in the County. The actual data collection delayed up to 1st October 2015 because ethical clearance had not been obtained from University of Western Cape; however by end of October 2015 data collection had been completed.

3.2 Research Approach

This study used quantitative and qualitative approach. The qualitative results elaborated the results of quantitative data so as to get in-depth information through qualitative data collection (Creswell & Clark, 2007).

3.3 Research Design

Cross-sectional descriptive design was used in this study with quantitative data (Polit, Beck, & Hungler, 2001). Explorative design was employed in this study for qualitative data (Denzin & Lincoln 2008). According to Tashakkori and Teddlie (2010), use of mixed methods design provides a clearer and more credible comprehension of the problem under study other than simply using the qualitative/quantitative approach. A concurrent approach (triangulation, convergence model) was employed in this study whereby the researcher integrated the information in the final interpretation of the results (Creswell, 2003). The convergence model is a mixed method triangulation design (Figure 3.1). The results were collected and analyzed in the same situation and the different results are converged by comparing and contrasting them at interpretation phase as discussed in Chapter five (Creswell, 2003). This study included a quantitative and qualitative phase.

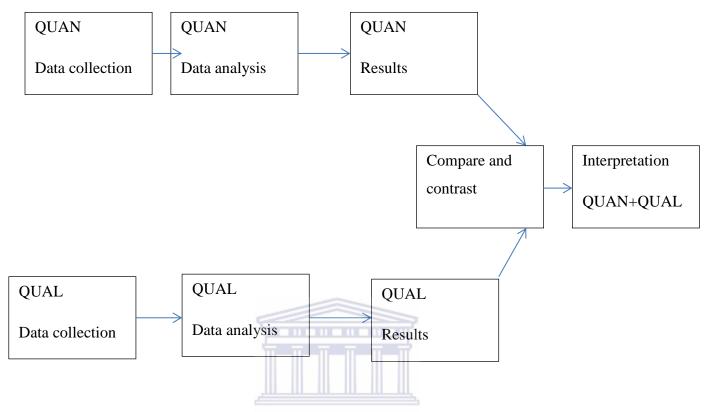


Figure 3.1 Triangulation Design: Convergence Model (Creswell, 2003)

3.4 Quantitative Phase

3.4.1 Study Population

The researcher used a large sample for the quantitative phase to enable generalization of results to the whole population (Mugenda & Mugenda, 2003). Based on the 2009 Kenya Population and Housing Census Volume II (August 2010), persons with Physical disabilities total 5949 while the total population of persons with disabilities in Uasin Gishu was 20,039.

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3.4.2 Sampling

The researcher calculated the sample size using Yamane formula of persons with physical disabilities from nine sites namely: MTRH and the eight APDK centers (Langas, Chepkanga,

Moi's Bridge, Olesurungai, Segero, Burnt Forest, Kesses and Static clinic in Uasin-Gishu District Hospital).

Calculating the sample size the study employed Yamane's formula.

$$n = \frac{N}{1 + N(e)^2}$$
 (Israel, 1992).

Where, n - Sample size, N – Population size, e- the level of precision.

Therefore the assumed sample size is calculated as;

$$n=\frac{5949}{1+5949(0.05)^2}$$
 =374.799 \approx 375 participants. Based on a sample size of 375 proportionate sampling at various sites of the study was done. Proportionate sampling was used to select the persons with disability from MTRH and the eight APDK mobile clinics (see table 3.1). Proportionate sampling is a sampling strategy (a method for gathering participants for a study) used when the population is composed of several subgroups that are vastly different in number. The number of participants from each subgroup was determined by their number relative to the entire population. For this study the current approximate number of persons with physical disabilities in the sites indicated below was 489 (APDK records, 2015). However according to the above calculations 375 participants equates to 77% of 489. Therefore according to proportionate sampling, 77% of the participants in every station participated in the study (see table 3.1).

Table 3.1 Target Population

Sites	Approximate No. of	Approximate Expected sample
	Physically disabled persons	size (77% of N)
	(N)	$n = \left[\frac{375}{489} \times 100\%\right] N$
MTRH	52	40
Langas	70	54
Chepkanga	60	46
Moi's Bridge	50	38
Olesurungai	55	42
Segero	60	46
Burnt Forest	35	27
Kesses	42	32
Static clinic in Uasin-Gishu	65	
District Hospital		50
Total	489	375

3.4.1.1 Inclusion and exclusion criteria

Persons with physical disabilities aged between 18-60 years and able to communicate in Kiswahili participated in the research. Only persons with physical disabilities attending APDK centers were considered because they could easily be accessed on clinic days hence representative of persons with physical disabilities in Uasin Gishu County. The researcher purposively chose the age bracket because this was the active age group that would easily identify with the research questions based on their current and recent past experiences. Those having other kinds of disabilities like visual, speech and mental disabilities were not included. The clients under the age of 18 years were excluded purposively to avoid involving proxies in the study which could have led to biasness.

3.4.2 Data collection instruments

The data was collected using a structured self-administered questionnaire that was developed by the researcher based on literature available since the researcher found no standardized questionnaires that met the specific needs of the study. Different standardized questionnaires among them facilitators and barriers survey/mobility questionnaire were used in formulating questions (FABS, 2006) and the researcher also used existing literature related to the topic. Among the literature used were; a study done by Plsek and Greenhalgh (2001) on barriers faced by persons with disabilities in accessing health care, another study done by Najjingo (2009) on challenges of accessing all inclusive education, a study by Jameson (2005) on challenges in accessing employment by persons with physical disabilities, a study by Khasoa (2013) on opportunities and challenges faced by women with physical disabilities and a study by Kassa (2012) on factors affecting persons with physical disabilities in participation of physical activity. All these but not limited to helped the researcher in formulation of questions. The questionnaire had sections A, B, C and D. Section A included demographic characteristics of the respondents and sections B, C and D had questions on factors inhibiting equalization of opportunities to persons with disabilities in employment, health and education (Appendix D). Two professional translators were used to independently translate the questionnaire to Kiswahili and back to English after the data collection in order to make sure that that the meaning of the question retained even during translation.

3.4.2.1 Pilot study

Reliability and validity of the research instruments was done at Eldoret social hall. Twenty participants who were not to participate in the actual study were selected for the pilot study. The participants were selected from the eight APDK centers and Moi Teaching and Referral Hospital with the assistance of the chairpersons of the different groups and gender factor was considered. In MTRH the disability mainstreaming chairperson assisted in selecting the participants. Before filling the questionnaires, the participants were enlightened on nature of the study and were given information sheets. Willing participate in the study completed the consent form and each was given an average of twenty five minutes to fill the questionnaire.

3.4 2.2 Reliability of the research instrument.

For research instrument to be said to be reliable, it must produce consistent results each time it is used repeatedly (Sarantakos, 2005). The participants did test retest reliability by filling the questionnaire twice at interval of two weeks. To verify that the questionnaires had similar or different responses in the two pilot studies, the responses were recorded for each set of data collected and the internal consistency of the two sets of data was accomplished by use of Statistical Package for Social Sciences (SPSS) software version 22. The results of Cronbach's Alpha value of 0. 718 was obtained indicating good internal consistency reliability of the research instrument proving that there was a strong relationship between answers from the first phase and the second phase. Item means range between 1.5 to 3.5 and a SD between 0 to 1.0. The range of the Cronbach Alpha coefficient if item is deleted is in the range of 0.702 to 0.733 indicating no item seriously required rescaling. According to Gays and Airasan (2003), results obtained from Cronbach's Alpha coefficient shall always be accepted if it is greater or equals to 0.7 of which the above results conform (See Appendix L).

3.4.2.3 Validity of the instrument.

For an instrument to be Valid it must measure what is supposed to measure to a great extent (Sarantakos, 2005). Content validity was ascertained through discussion with the supervisor and lecturers from the department who are experts in the field. Their feedback helped in modifying the instrument (Fraenkel & Wallen, 2000). Face validity was determined through piloting to assess clarity of the questions and how long the clients would take to complete the questions. The research team addressed the issues raised by the participants in the pilot before the actual study. Among the issues raised were time taken to fill the questionnaire to be increased from 25 minutes to 30 minutes and also rephrasing of the Kiswahili questionnaire to simple language that

would be understood by everybody. Questions 12 and 15 in the English questionnaire were not clear (initial Q12 was; who takes care of you, however the participants felt as though they are not able to cater for themselves, it was therefore paraphrased to a more acceptable question; who do you stay with?-current Q9. For question 15 the initial question was; what is your employment status? It was paraphrased to a more understanding question which read; please indicate which of the following best describes your employment status-current Q14.). Question 12 and the initial question 18 were very much similar hence it was agreed that question 18 be deleted and question 12 remains. For the initial questions 26 to 33 the participants could not differentiate the meaning of the questions, it was therefore agreed unanimously that the questions be collapsed to form one question (current question 24) which reads; how often do you seek help from family members and friends in accessing healthcare?

3.4.3 Data collection, procedure

Before the commencement of the study, the University of Western Cape gave permission and ethical clearance through the Research Grant and Study Leave Committee (Appendix H) and further clearance was obtained from international Research and Ethics committee of Moi University and Moi Teaching and Referral Hospital (Appendix I). Further permission was also obtained from National Council for Persons with disability and the County Government of Uasin-Gishu. To collect data from the participants the principal researcher trained two research assistants, one physiotherapist and one orthopedic technologist who are fluent in Kiswahili and English and therefore skilled in assisting the study professionally. The role of the research assistants entailed identifying the PWDs, distributing and collecting questionnaires and assisting illiterate participants to complete the questionnaires. The principal researcher visited Moi Teaching and Referral Hospital in advance to meet the human resource manager and agreed on the day of the study. The research team also met with the APDK North Rift Coordinator and

planned for a meeting with service providers and the group leaders and agreed on the research day in each of the eight centers namely Langas, Chepkanga, Moi's Bridge, Olesurungai, Segero, Burnt Forest, Kesses and Static clinic in Uasin-Gishu District Hospital. On the particular day of the study, the purpose of the study was explained to the respondents then information sheet (Appendix A) was distributed to the respondents and those who agreed were issued with consent forms to fill (Appendix B). Questionnaires were in two versions of Kiswahili and English languages (Appendix D1 and D2) and the respondents picked their respective preferred versions. All the completed questionnaires were collected immediately. Respondents who were not able to fill the questionnaire on the same day assured the principal researcher that he would return on a later date to collect them. Two independent professional translators ensured that there was no loss of information in the questions during translation by translating Kiswahili version to English version.

3.4.4 Data analysis

Quantitative data was collected and analysed using SPSS version 22. Univariate analysis was done in form of frequency distribution, percentages, mean and standard deviations. Bivariate analysis was carried out to determine the relationships between the variables using Pearson chi-square statistical test. The chi-square test was applied to determine whether there was a significant association between the two variables. For example the association between variable gender (male or female) and co-variable (the nature of disability), in inhibiting equalization of opportunities in employment. This was achieved through the chi-square statistic whose significance level was evaluated at 5% (p≤0.05). The results were presented in form of tables and graphs (histograms, bar and pie charts).

3.5 Qualitative Phase

3.5.1 Study Population

The study population comprised of PWDs at APDK centers, human resource managers at MTRH, County Government and APDK coordinator. The APDK centers included Static clinic, Ziwa, Burnt Forest, Chepkanga, Kesses/Cheptiret, Langas, Segero and Osurungai.

3.5.2 Sampling

Human resource managers and the Ministry resource persons were considered as key informants and were purposively sampled for this study owing to the fact that they deal with high numbers of PWDs within the county. The key informants are also well versed in disability policies. Out of the eight APDK centers focus group discussions were only done at the 6 APDK mobile clinic centers (Static clinic, Ziwa, Burnt Forest, Chepkanga, Kesses/Cheptiret and Osurungai) because saturation level had been attained. Each focus group had 6-10 persons with physical disabilities stratified by gender. Fewer than six participants could have limited the conversation and subsequently could have led to poor data while more than ten could have led to unmanageable discussion. (Krueger, 2000). Focus groups were constituted in all the six APDK centers by nomination rule. In nomination rule, nominees are familiar with the topic, known for their ability to respectfully share their opinions, and willing to volunteer. The method was applicable because the key individuals in the groups which included the chairman, secretary, treasurer and committee members nominated respondents in each group who have been long serving members and were well versed with disability issues and would give information willingly.

3.5.3 Inclusion and Exclusion Criteria

The inclusion and exclusion criteria applied as in quantitative phase. However the participant must have been attending APDK clinics.

3.5.4 Data collection methods and instrument

The data were collected through focus group discussions (FGDs) (Appendix F), observation check lists (Appendix G) and structured interviews (Appendix E). Focus group discussion elicits different reactions in order to get people's experiences and knowledge (Kitzinger, 2004). The FGDs sought to establish the accessibility of recreational facilities and the available infrastructure through an interview guide which included; demographic data and questions on challenges faced by persons with physical disability with regards to recreational facilities and infrastructure. The structured interview guide was formulated based on the study's objectives and literature and aimed at the key informants who are well placed to articulate disability policies in their respective workstations. The structured interview guide for key informants included sections A which included demographic data and section B included questions on disability policies in place, challenges faced by persons with physical disabilities and recommendations from the key informants. All interviews were audio recorded after seeking consent from respondents. The observation check list was developed by the researcher by listing down the facilities that enhance participation of persons with disabilities in the areas of study for example the presence or absence of ramps, stairs, lifts, zebra crossings among others and they required photographic evidence as proof of evidence (Appendix G). Qualitative research methods were enhanced in-depth and in detail (Patton, 2000).

3.5.5 Data collection procedure

After all the ethical clearances had been obtained from the University of the Western Cape (UWC) Research Grant and Study Leave Committee (Appendix H) and International Research and Ethics committee of Moi University and Moi Teaching and Referral Hospital (Appendix I), appointments were made with the targeted participants based on a time and venue convenient to them, and the researcher inspected the rooms where the interviews were conducted to make sure

that the interviews would go on well uninterrupted to ensure good quality of the recordings. Two research assistants who were willing and able to speak Kiswahili and English language were trained by the principal researcher to assist in data. The role of the principal researcher was to lead the discussion (moderator) by asking participants to respond to open-ended questions (these are questions that require an in-depth response rather than a single phrase or simple "yes" or "no" answer). Likewise, the role of the research assistants entailed tape recording of interviews, taking notes (sound and body language) and taking photographs to ascertain the presence of mentioned adaptations like lifts, ramps among others in the study. The principal researcher visited Moi Teaching and Referral Hospital in advance to meet the human resource manager and agreed on the day of the study. The research team also met with the APDK North Rift Coordinator and planned for a meeting with service providers and the group leaders and agreed on the research day in each of the eight centers namely FGD 1- Static Clinic, FGD 2- Ziwa, FGD 3- Chepkanga, FGD 4- Burnt Forest, FGD5- Kesses/Cheptiret, FGD 6- Osurungai, FGD 7-Langas and FGD 8- Moi's Bridge. On the particular day of the study in the various study centers, the participants were served with refreshment before the discussion began; this enabled interactions and this served to create a rapport. The researcher then welcomed all the participants to the focus group discussion, and then the purpose of the study was explained to the respondents. The participants introduced themselves to other members of the group and the group norms were discussed where permission was sought for audio taping, then information sheets were distributed to the respondents and those who agreed and met the inclusion criteria were issued with consent forms (Appendix B) and focus group confidentiality binding forms (Appendix C) to fill. The participants were also made aware again that they could withdraw if they wanted to do so without any victimization. Open ended semi structured questions with probes was used during the focus group session in order to obtain the necessary information

required (Appendix F). Focus group sessions lasted for an average of forty five minutes (45). Out of the eight focus groups only six focus group discussions were conducted at Static clinic, Ziwa, Burnt Forest, Chepkanga, Kesses/Cheptiret and Osurungai because saturation had been attained and each FGD involved 6-10 participants. The discussions were moderated by the principal researcher the research assistants took notes and the discussion was audio taped. Focus group and key informants' interviews sessions were audio recorded and field notes taken. Member checking was done to ensure trustworthiness. Kiswahili being the national language was used as language of communication. Two professional translators translated the interview guide, from English to Kiswahili and from Kiswahili to English in all sessions to avoid any loss of information. After the interviews the audio recordings were replayed for the participants to ascertain that indeed that is what had been discussed. The principal researcher and the research assistants met to consolidate the information from the audio recording and note taking. In preparation for data analysis the researcher and research assistants used a checklist and also took photographs in respect to each checklist in order to obtain tangible evidence. Consent was also obtained when participants had to be taken photographs and also permission was obtained from the County government when facilities had to be photographed.

3.5.6 Data analysis

According to Creswel (2003), the process of qualitative data analysis involves generic steps that must be taken to obtain valid data. Data was analyzed through thematic content analysis and all the data translated from Kiswahili to English by a professional translator and then transcribed verbatim. The transcripts were supplemented with additional data obtained from field notes made by the research assistants. Transcripts were compared to recording to verify accurate reflection of the responses in Kiswahili. The data was classified systematically by means of coding to identify key concepts and were assigned categories using different colors of ink as Patton (2002)

suggested then refined into themes. Two excerpts were used to come up with the themes in this study to increase trustworthiness (Babbie & Mouton, 2001). As supportive evidence, the photographs from the checklist were also incorporated in the analysis. Afterwards qualitative data was compared with the existing literature and the quantitative data to ensure full findings of the study.

3. 5.6.1 Trustworthiness.

According to Skosana (2006) qualitative research is trustworthy when it actually represents the experiences of the participants. Four techniques to ensure trustworthiness namely; credibility, transferability, dependability, and confirmability were used in this study to ensure accuracy of the study findings (Mouton, 2001).

Credibility, according Silverman (2000) is being able to bring forth the truth in the research findings. Credibility and truthfulness was ensured through the procedure of identifying the participants, triangulation brought about by the different research strategies, member checking and peer debriefing of collected data (Patton, 2000).

Dependability means same findings to the same study by different researchers if repeated (Silverman, 2000). Participation of the research assistants confirmed dependability and also the use of a comprehensive methodological description to allow the study to be repeated as well as through open discussions with the research team enhanced dependability.

Confirmability is the extent to which the findings of a study are determined by the respondents and not by researcher's interest, aspirations and motivation (Silverman, 2000). Confirmability was achieved by keenly examining respondents for clarity during questioning together with member checking. It was also enhanced by data collection and analysis which was described with clarity to readers.

Transferability is a situation where the research methodology must be clearly described so as to enable the study be repeated (Lundman & Graneheim, 2004). Transferability was achieved by ensuring that PWDs who participated in the study were representative of the entire population (De Vaus, 2001).

3.7 Ethics

Approval was obtained from the University of the Western Cape Senate Research Grants and Study Leave Committee before the study commenced (Appendix H). Ethical clearance was also obtained from the Institutional Research and Ethics Committee of MTRH and Moi University (Appendix I). Permission was also obtained from Uasin Gishu County Government (Appendix K), and the regional coordinator of Association of Physically Disabled of Kenya (Appendix J). The participants were guaranteed that the information would be confidential and that the data collected would be kept safely and only the researcher would have access to it. The participants were equally assured that they had a right to withdraw from the study anytime they wanted to (Appendix A). The participants began by completing informed consent forms (Appendix B), thereafter they completed the questionnaire and signed the confidentiality binding form (Appendix C), that information for the FGD would be kept confidential. Before focus group discussion commenced Consent to audio tape the discussion was also obtained. Any participant who seemed to need further treatment was referred to the appropriate health professional. The researcher gave an assurance that the results would be submitted to the relevant institutions of research and to submit the final copy to the University of Western Cape.

3.8 SUMMARY OF THE CHAPTER.

This chapter described methods used in conducting the study. The study begun by detailing the research setting, the design of the study, population of the study and the sample for both the

quantitative and qualitative phases explained. In addition, the course of action followed in the collection of both quantitative and qualitative data and the instrument used for analysis of the study were outlined. Clear elaborations of the Ethical considerations followed in the study were also highlighted. The procedures of data collection and data analysis were outlined and the research findings will be presented in Chapter four.



CHAPTER FOUR

RESULTS

4.0 INTRODUCTION

Two sections (A and B) are carried in this chapter. Section A presents the quantitative data that are in line with the first three objectives, and Section B presents the qualitative data that are in line with the fourth and fifth objectives. The results of the quantitative data in Section A are presented in the form of descriptive and inferential statistics (association between variables in the study). The results are presented in tables and graphs in accordance to the following objectives.

- To determine the factors inhibiting equalization of opportunities to persons with physical disabilities with regards to employment in Uasin Gishu county Kenya.
- To determine the factors inhibiting equalization of opportunities to persons with physical disabilities with regards to health in Uasin Gishu county Kenya.
- To determine the factors inhibiting equalization of opportunities to persons with physical disabilities with regards to education in Uasin Gishu county Kenya.
- To explore the factors inhibiting equalization of opportunities to persons with physical disabilities with regards to recreational facilities, programs and facilities in Uasin Gishu county Kenya.
- To explore the factors inhibiting equalization of opportunities to persons with physical disabilities with regards to infrastructure in Uasin Gishu county Kenya.

Thematic content analysis has been used to present the qualitative data in Section B. The researcher clearly describes the participants of the focus group to enable understanding of the participants and the emerged themes and categories. In the presentation of the findings, the exact words as used by participants during the interview were used to illustrate response themes and

categories. The quotations are presented in italics, omission was used were necessary in cases where the participants had repeated information or had given information that was not important for the study. Three ellipsis points (...) were used to show the omission. To protect the identity of the participants, they were given cryptograms (P1 to P8) and key informants were given cryptograms (K1 to K4). The final part of the chapter gives a summary of the results.

SECTION A: QUANTITATIVE RESULTS

4.1 DESCRIPTION OF THE SAMPLE SIZE

A total of 375 questionnaires were distributed of which 354 properly filled questionnaires were received which represented 94.4% of the expected feedback. 4% (n=14) of the questionnaires were also received but incorrectly filled while 1.6% (n=7) of the questionnaires were not returned. The response rates in the respective stations were obtained as indicated below;

UNIVERSITY of the

Table 4.1 Response Rate

Sites	Approximate	Approximate	Response rate	Unfilled	unreturned
	No. of	Expected sample size	(%)		questionnaires
	Physically	[77% of N (489)]			
	disabled	$n = \left\lceil \frac{375}{489} \times 100\% \right\rceil N$			
	persons (N)	[489]			
MTRH	52	40	97.5 (n=39)	0	1
Langas	70	54	94.4 (n=51)	2	1
Chepkanga	60	46	97.8 (n=45)	1	0
Moi's	50		100 (n=38)	0	
Bridge		38			
Olesurungai	55	42	83.3 (n=35)	4	3
Segero	60	46	91.3 (n=42)	2	2
Burnt	35		96.3 (n=26)	1	0
Forest		27			
Cheptiret	42	32	96.9 (n=31)	1	0
Static clinic	65	50	94 (n=47)	3	0
Total	489	375	94.4 (n=354)	14	7

4.2 DEMOGRAPHICS

4.2.1 Demographic Information of the Respondents

This survey constituted of 354 participants of who majority were female 57.6% (n=204). The age group most represented was that of 46-60 years 38.4% (n=136) and this could postulate why the majority of the study participants were married 61.6% (n=218). In this survey, majority of the participants were unemployed 55.4% (n=184) with only 26.5% (n=45) of those employed being in formal employment. Disease was the most common cause of disability in this survey 51.1% (n=181) and despite the fact that majority of the participants did not belong to a disability support group 61% (n=216) they were still able to live independently 67.0% (n=237) (Table 4.2)



Table 4.2: Demographic Characteristics of the Respondents (N=354)

Variable	Category	Frequency	Percentage
Gender (n=354)	Female	204	57.6
	Male	150	42.6
Age (n=354)	18-25	40	11.3
	26-35	78	22.0
	36-45	100	28.2
	46-60	136	38.4
Marital	Married	218	61.6
Status (n=354)	Single	116	32.8
Status (ii 22 i)	Widower/widow	9	2.5
	Separated	7	2.0
	Divorced	4	1.1
Religion (n=354)	Catholic	96	27.2
,	Protestant	240	68
	Muslim	5	1.4
	Others	13	3.4
Employment (n=354)	Employed	170	48.0
Status	Unemployed	184	52.0
Type of employment (n=170)	Formal	45	26.5
	Informal	125	73.5
	1-2JNIVERSITY	of the 78	22.0
	3-4VESTERN C	APE100	28.2
	5-6	53	15.0
No. of Siblings (n=354)	more than 6	53	15.0
	None	70	19.8
Living Arrangement (n=354)	Independent	237	67.0
	Personal attendant	27	7.6
	Parents	72	20.3
	Church members	1	0.3
	Others (e.g. home	17	4.8
	for the disabled)		
Cause of Disability (n=354)	Congenital	77	21.8
	Accident	96	27.1
	Disease	181	51.1
Belonging to a Disability	Yes	138	39.0
Group (n=354)	No	216	61.0

4.2.2 Age Distribution stratified by gender

The age distribution for persons with physical disabilities in the study is presented in figure 4.1. It was found that majority (40%) was aged 46-60 years and the least were aged 18-25 (12.5%). There was an almost equal distribution of male and female respondents in each age category in this study.

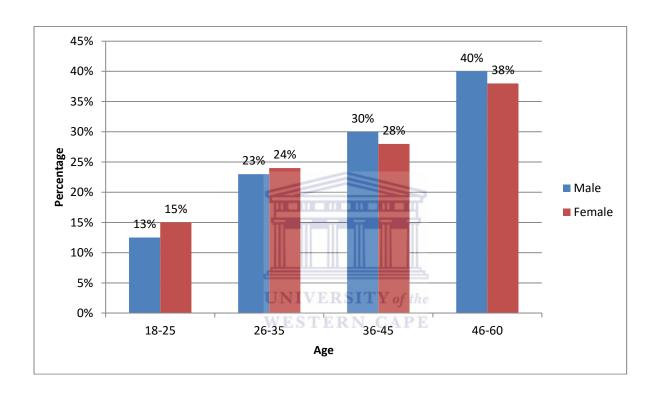


Figure 4.1: Age distribution stratified by gender.

4.2.3 Distribution of cause of disability by Gender (n=354)

The study sought to establish the distribution of cause of disability by gender in Table 4.3 below. From this table it was noticed that the main cause of disability among our respondents in this study was disease accounting for 50% in females and 52.7% in males.

Table 4.3: Distribution of cause of disability by gender

Sex of respondent	Cause of disability	Frequency	Percent
female	Congenital	41	20.1
	Accident	61	29.9
	Disease	102	50.0
	Total	204	100.0
Male	Congenital	36	24.0
	Accident	35	23.3
	Disease	79	52.7
	Total	150	100.0

4.3 EMPLOYMENT BARRIERS

The study sought to determine the barriers inhibiting equalization of opportunities in Uasin-Gishu County Kenya to persons with physical disabilities with regards to employment. As depicted from figure 4.2, the study revealed that majority of the respondents 52% (n=184) did not engage in employment activities in the last 14 days prior to the survey such as work for pay, business, farming, construction or maintenance while 48% (n=170) agreed that they engaged in the above activities. On a follow-up question of those who were not engaged in activities for the past 14 days, majority of them 62% (n=114) indicated that they shall finally return to employment while 38% indicated they will never work (figure 4.3).

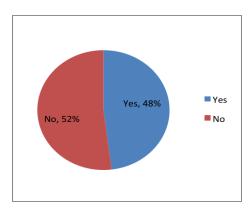


Figure 4.2: Work for pay, did business, farming, construction or maintenance (n=354)

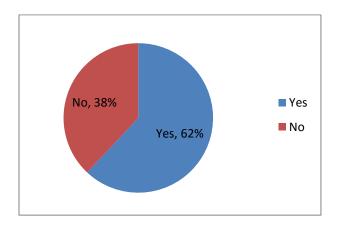


Figure 4.3: Expect to return to work or not (n=184)

4.3.1 Type of Employment (n=170)

With regards to the type of employment, majority of those respondents with other forms of employment were between the ages of 18-25 standing at 62%. In farming majority of the respondents (37%) were between 46-60 years. 36% in informal employment are aged 36-54 while 26% in formal employment are 26-35. This can be seen in Figure 4.4

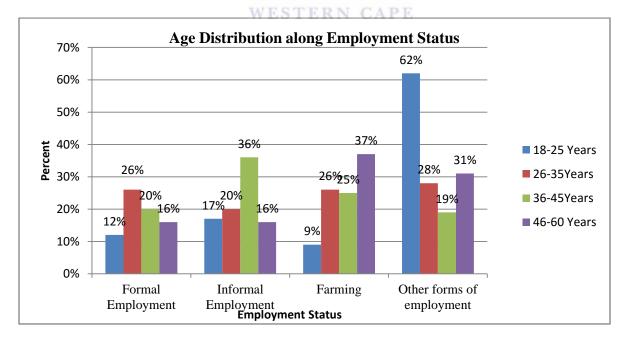


Fig 4.4: Age Distribution along employment status

From fig 4.5 below, a high proportion of males 34% (n=58) participate in farming while majority of the women 38% (n=65) were engaged in other forms of employment.

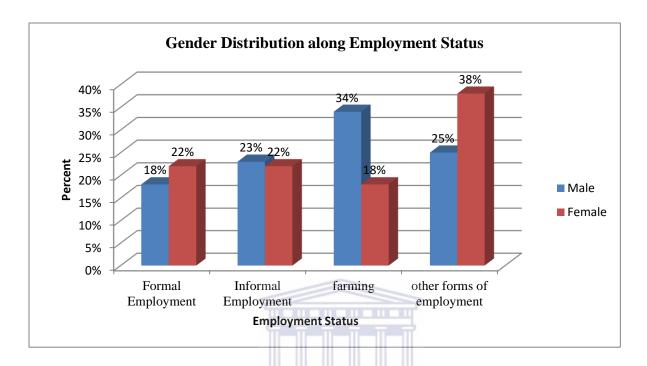


Figure 4.5: Gender distribution along employment status

4.3.2 Terms of Employment (n=170) ESTERN CAPE

Majority of the study participants 33.8% (n=57) were in self-employment whereas those on contract had the minimal representation 10.6% (n=18). The rest are as stipulated in Table 4.4 below.

Table 4.4 Terms of employment

Terms of Employment	Freq	0/0	
Permanent	45	26.4	
On contract	18	10.6	
Casual	50	29.2	
Self Employed	57	33.8	
Total	170	100	

4.3.3 Reasons for not having worked (n=184).

Respondents gave reasons as to why they were not able to work in the last 14 days prior to the study.

Table 4.5: Reason for not working in the last fourteen days (n=184)

	UNIVERSITY of the		
	WESTERN CAPE	Frequency	Percent %
	On leave from work	17	9.1
	Scholar or student	21	11.4
Main reason	Housewife	13	6.8
	Pensioner or retired person	8	4.5
why you do	Unable to work due to illness/disability	49	27.3
not have work	On maternity leave/paternity leave	25	13.6
not have work	Seasonal worker	17	9.1
in last 14 days	My financial needs are met	13	6.8
	Could not find work	21	11.4
	Total	184	100

A section of the respondents, 27.3% (n=49) who never worked prior to this survey was due to the nature of disability of the respondent that could not allow him/her to engage in any type of

employment. A significant 11.4% (n=21) were able to work but could not find any employment and others were students. Other reasons are presented in table 4.7.

4.3.4 Workplace policies

From table 4.6 below policies in workplace include vocational policy, work schedule, frequency of breaks and workload. Although majority 64.7% (n=229) of the respondents indicated in this study that the policies of the work place are not applicable to them and 12.4% (n=44) help a lot, a significant percentage 3.9% (n=14) indicated that the policies have no effect. In this study 2.8% (n=10) and 7.6% (27) of the respondents say that these policies limit somewhat and limit a lot respectively.

Table 4.6: Influence of Work place policies on employment (n=354)

		Frequency	Percent
How do policies in work	Not applicable	229	64.7
place influence	Help a lot	44	12.4
participation in	Help somewhat		8.5
employment?	No effect STERN CAPE	14	3.9
	Limit somewhat	10	2.8
	Limit a lot	27	7.6
Total		354	100.0

4.3.5 Bivariate Analysis (Inferential Statistics)

4.3.5.1 Relationship between any form of employment and inhibitors

Bivariate Analysis (p \leq 0.05) showed there was a significant relationship between "Having any form of Employment" with cause of disability and work place policies. Sex of respondent and Age was not significantly associated with having any form of employment (Table 4.7)

Table 4.7: Association between "Having any form of employment" and Inhibitors

Inhibitors		Employed	Un -	Business	Business	χ^2	Df	p-
(Covariate)			employed	(formal)	(Informal)	value		value
	18-25	5	27	3	5			
Age of	26-35	20	33	6	18	16.77	9	0.052
respondent	36-45	27	43	11	17			
	46-60	25	85	9	17			
C	Congenital	18	43	7	9	28.46	6	0.001
Causes of	Accident	35	40	11	9			
disability	Disease	23	104	11	38			
Sex of	Female	43	104	17	38	2.43	3	0.489
respondent	Male	34	84	12	19			
	N/A	17	142	18	42			
	Help a lot	31	6	2	5			
Work place	Help somewhat	9	10	1	2			
policies	No effect	3	3	0	3	110	15	0.001
	Limit somewhat	3	0	0	0			
G: :c 1	Limit a lot	3	2	1	1			

Significance level p value= p≤0.05

4.4 HEALTH

The study sought to determine the barriers inhibiting equalization of opportunities to persons with physical disabilities with regards to access to health in Uasin-Gishu County, Kenya. The results were determined using a number of variables. The findings are presented below:

UNIVERSITY of the

Table 4.8 Frequency of seeking healthcare (n=354)

Age of	Once/Twice	More than	Once/Twice	Once	Rarely	Never
respondent	a week	twice a	a month	/Twice a		
		week		year		
18-25	0	1	7	3	24	6
26-35	2	1	15	2	48	6
36-45	1	2	13	10	67	4
46-60	3	2	29	6	86	16
Total	6	6	64	21	225	32

The findings revealed that majority of the respondents 91% (n=322) sought health care with 63.6% (n=225) indicating that they rarely seek healthcare, while a section of the respondents 18% (n=64) sought health care once or twice a month while 9% (n=32) did not seek healthcare at all.

4.4.1 Reasons for not seeking healthcare at all (n=32) of the

Respondents gave various reasons as to why they do not seek healthcare at all. From table 4.9 9% (n=32) of the respondents in this survey did not seek health care with the major reason for not seeking healthcare being due to the nature of disability of the respondents 62.5% (n=20) which cannot allow him or her to access healthcare. The other main reason was lack of finances 21.9% (n=7).

Table 4.9: Reasons for not seeking healthcare (n=32)

		Frequency	Percent %
Why don't you	My disability does not allow	20	62.5
seek	I am not aware	2	6.3
healthcare?	I don't have financial resources	7	21.9
	Community workers take care of me	3	9.4
	Total	32	100.0

4.4.2 Healthcare Institutions.

Majority of the respondents 91% (n= 322) sought healthcare. An average of 94.3% sought health care from public health facilities. This was the case across all ages and gender, as shown in figure 4.6 below;

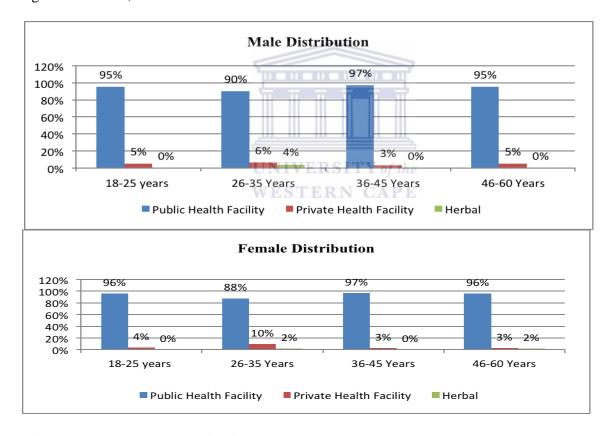


Figure 4.6: Healthcare Institutions

4.4.3 Distance to the nearest Healthcare facility (322)

Majority of the study participants 82% (n=264) accessed healthcare if the nearest health facility was within 0-10 km, however a minority 18% (n=58) could only access health care if the facility was within the radius of 11km and above (Figure 4.7)

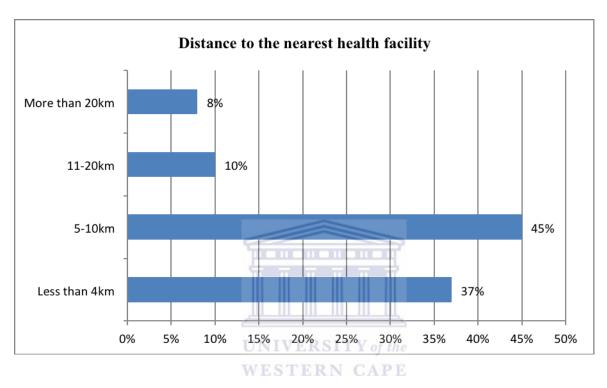


Figure 4.7: Distance to the nearest Healthcare facility (n=322)

4.4.4 Health care providers attitudes

The influence of healthcare providers was a factor in health seeking behavior among persons living with physical disabilities. From table 4.10 below, majority of the respondents 38% (n=133) believe that that influences of healthcare providers limit a lot health care seeking compared to 16.7% (n=59) who believe that providers' attitude has no influence in their participation on healthcare seeking.

Table 4.10: Influence of attitude of health care providers on participation on health care seeking (n=354)

		Frequency	Percent %
How Does attitude of	Help a lot	93	26.3
healthcare providers influence	Help somehow	59	16.7
your participation on seeking	Have no effect	59	16.7
for care?	Limit some	10	2.8
	Limit a lot	133	37.6
Total		354	100.0

4.4.5 Frequency of seeing a therapist

As indicated in Table 4.11 this study revealed that 34.5% (n=122) of persons with disabilities rarely sought therapists services, whereas at least 5.1% (n=18) sought the therapists services more than twice a week. However, 32.2% (114) never sought services of a therapist.

Table 4.11: Frequency of seeing a therapist (Occupational and physical therapist, orthopedic technologist) (n=354)

	EDILLIN CILL	Frequency	Percent
How often do you see a Therapist?	More than twice a week	18	5.1
	Once or twice a month	60	16.9
	Rarely	122	34.5
	Once or twice a week	2	.6
	Once or twice a year	38	10.7
	Never	114	32.2
_ Total		354	100.0

4.4.6 Frequency of seeking help for accessing Healthcare

Table 4.12 shows how often the respondents sought help from family members and friends. According to this survey, 41% (n=143) rarely sought help from family members. Only 1.4%

(n=5) seeks help once or twice a week and 61.3% (n=214) of respondents say that they rarely seek help from friends whereas 13.8 (48) seek help from friends once or twice a year.

Table 4.12: Assistance from Family members or Friends to access Health Care (n=354)

		Friends	Family Members
How often do you ask for help from family	More than twice a week	6.3%(27)	18.6%(70)
members to access health care?	Once or twice a month	11.5%(40)	19.5%(68)
	Rarely	61.3%(214)	41%(143)
	once or twice a week	.6%(2)	1.4%(5)
	Once or twice a year	13.8%(48)	12.6%(44)
	Never	6.6%(23)	6.9%(24)
	Total	100.0%(354)	100.0%(354)

4.4.7 Bivariate Analysis (Inferential Statistics.

The table 4.13 below shows analysis of relationships ($p \le 0.05$) between health seeking behavior and the various inhibitors. The results show that health seeking behaviour is significantly associated with marital status, distance to facility, attitudes of healthcare givers and help from family members.

Table 4.13: Association between "Seeking Healthcare" and various Inhibitors

		Once/Twi	More than	Once/Tw	Once	Rarely	χ^2	Df	p-value
Inhibitors (Covariates)		ce a week	twice a	ice a	/Twice a		value		
			week	month	year				
	18-25	0	1	7	3	24	10.43	10	0.050
	26.25	2	1	1.7	2	40		12	0.379
	26-35	2	1	15	2	48			
Age of respondent	36-45	1	2	13	10	67			
	30-43	1	2	13	10	07			
	46-60	3	2	29	6	86	1		
	40 00	3	2	2)	O	00			
G C 1 .	Male	4	3	43	10	138	1.706	4	0.790
Sex of respondent	Female	2	3	34	11	93			
	Married	6	2	54	14	137			
	Never	0	3	19	5	83	32.1	16	0.010
Marital status	Married								
Maritar status	Widowed	0	0	2	0	7			
	Separated/	0	1	2	2	4			
	Divorced								
	<4 Km	0	2	15	4	103		12	
Distance from	5-10 Km	2	1	29	8	107	65		0.001
residence to facility	11-20 Km	2	2	18	5	13			
	>20 Km	2	1	14	4	7			
	Help A lot	3	111111	15	6	63			
	Help	2	3	26	6	21			
Attitude of healthcare	Somewhat			10		2.6			
providers	Have no	1	1	13	4	36	43.43	16	0.001
•	effect	0	0	2		7	43.43	10	0.001
	Limit some Limit A lot		NITER						
	More than	0 II	2	20 19	$\frac{3}{3}$	103 33			
	2/week	XA7	FSTE	DNI C	DE	33			
	Once/Twic	3	3	35	A.I. E.	24			
Help from family	e/Month	3	3	33	1	24			
	Rarely	0	1	15	8	116	102.13	20	0.001
	Once/Twic	0	0	3	2	0			
	e/Week				-				
	Once/Twic	0	0	1	4	38	1		
	e/Yrs								
	Never	0	0	3	2	18			

Significance level p value= p≤0.05

4.5 EDUCATION

The study sought to determine the barriers inhibiting equalization of opportunities to persons with physical disabilities with regards to access to education in Uasin-Gishu County. The results were determined using a number of variables. The findings are presented below:

4.5.1 Highest Level of Education

The study participants had its majority 83% (n=294) attending school and 16.9% (n=60) missing out on school. Majority of the respondents 62% (n=182) attained primary level of education while the minority of the respondents 10% (n=29) attained tertiary level of education.

Table 4.14 Highest level of education (n=294)

T 1 C 1 4	F	D 4
Level of education	Frequency	Percentage
Primary	182	62
Secondary	83	28
Tertiary	29	10
Total	294 NIVERSITY of the	100

^{*60} respondents never went to school

4.5.2 Reasons for not attending school (n=60)

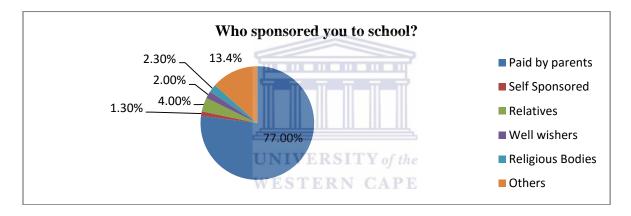
A section of the respondents that never attended formal education cited various reasons such as inability of parents to pay school fees 50% (n=30), 41.7% (n=25) cited their nature of disability, while sound siblings were given preference over the ones with disability 5% (n=3) and 3.3% (n=2) cited distance as a factor (table 4.15).

Table 4.15: Reasons for not attending school (n=60)

		Frequency	Percent %
Why did you	My parents were unable to pay fees	30	50
not go to	My disability	25	41.7
school?	My non-disabled siblings were favored	3	5
	The school was far	2	3.3
	Total	60	100

4.5.3 Sponsors

Among those who attended school, 77% (226) were paid for by their parents while 1.3% (4) was self-sponsored amongst others as depicted in figure 4.8 below.



^{*}Missing value 60 indicated they never went to school at all

Figure 4.8: Sponsors for Persons with Disabilities (294)

4.5.4 Influence of school policies on participation in education

The study showed that a section of the respondents 29.9% (n=106) believed that school policies helped a lot and 10.2% (n=36) believed the policies helped somewhat to participate in education. Only 16.9% (n=60) said the policies had no effect on participation because they never attended school as indicated in the table 4.16 below;

Table 4.16: Influence of school policies on participation in education (n=354)

		Frequenc	Percent
		y	%
How do the policies of schools influence	NA	136	38.4
your participation in education? (e.g. Such	Help a lot	106	29.9
as vacation policy, scheduling, frequency	Help somewhat	36	10.2
	No effect	60	16.9
of breaks, workload, Exam time, reporting	Limit somewhat	16	4.5
time etc.)	Total	354	100.0

4.5.5 Infrastructural influence on participation in education (n=354)

Majority 73.4% (n=243) of respondents are of the view that the infrastructure (classroom design/school offices) listed in table 4.17 below have no influence in education. There was a resounding majority 88.4% (n=127) of respondents who felt that listed infrastructure (assistive/walking aids) help a lot in influencing education.

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Table 4.17: Infrastructural influence on participation in education

Do the following infra	structure/p	oolicies	Direction of Influence			
influence participation	influence participation in education?					
Type of Infrastructure	Yes	No	Help a lot	Help somewhat	Limit somewhat	Limit a lot
Paved Surfaces	107(31.6%)	232(68.4%)	82(77.4%)	13(12.3%)	4(2.8%)	8(7.5%)
Stairs	133(39.2%)	206(60.8%)	56(42.2%)	13(9.6%)	22(16.3%)	42(31.9%)
Classroom design/School	88(26.6%)	243(73.4%)	52(59.6%)	6(6.7%)	13(14.6%)	17(19.1%)
offices						
Ramps	107(31.7%)	231(68.3%)	88(84%)	5(4.7%)	5(4.7%)	7(6.6%)
Distance to nearest School	104(30.6%)	236(69.4%)	46(44.8%)	10(9.5%)	11(10.5%)	37(35.2%)
Toilets	104(30.4%)	238(69.6%)	53(51.4%)	10(9.5%)	8(7.6%)	33(31.4%)
Mode of transport	111(33.3%)	222(69.6%)	60(54.05%)	22(19.8%)	21(18.9%)	8(7.2%)
Teaching aids	81(26.6%)	250(73.4%)	50(59.6%)	6(6.7%)	1014.6%)	15(19.1%)
Assistive/Walking Aids	144(43.6%)	186(56.4%)	127(88.4%)	12(8.2%)	3(2.0%)	2(1.4%)
Teachers' Participation	83(24.8%)	252(75.2%)	54(67.1%)	9(11%)	5(6.1%)	13(15.9%)
Parents' attitudes	148(44.3%)	186(55.7%)	108(74.1%)	11(7.5%)	4(2.7%)	23(15.6%)
Time allocated for	87(26.6%)	235(73.4%)	65(74.7%)	10(11.5%)	5(5.7%)	7(8%)
Activities (Exams, Learning						
etc.)						

4.5.6 Mode of transport used to school

Public transport was the common mode of transport used by a majority 14.4% (n=42) of the respondents in this survey. Crutches and wheelchairs were also commonly being used by 7.6% (n=22) and 4.8% (n=14) of the respondents respectively (table 4.18).

Table 4.18: Mode of transport used to school (n=294)

		Frequency	Percent %
What	Wheelchair	14	4.8
means of	Crutches	22	7.6
transport	public transport	42	14.4
did you use	private transport	7	2.3
to school?	Others (e.g. walking stick)	7	2.3
	Total	111	31.4
Used none of	the above	202	68.6
Total		294	100.0

^{*}Missing value 60 (354)

4.5.7 Accessibility to school facilities

In this study it was found out that majority of the persons with disabilities had a good access to school facilities, however, 1.4% (n=5), 1.2% (n=4), 0.9% (n=3), 3.2% (11), 1.7% (n=6) and 0.98% (n=3) could not access classrooms, library, dining hall, laboratory, playing ground and dormitories respectively (table 4.19).



Table 4.19: Accessibility to school facilities (n=354)

	Very	Somewhat Accessible	Not accessible	Doesn't	Not
	accessible			Know	Applicable
Classroom	208(60.1%)	84(24.3%)	5(1.4%)	1(0.3%)	48(13.9%)
Your school library	132(38.7%)	75(22.0%)	4(1.2%)	2(0.6%)	128(37.5%)
Dining hall	99(28.9%)	63(18.4%)	3(0.9%)	2(0.6%)	176(51.3%)
Laboratory	85(24.9%)	61(17.8%)	11(3.2%)	1(0.3%)	184(53.8%)
Playing ground	135(39.2%)	101(29.4%)	6(1.7%)	1(0.3%)	101(29.4%)
Dormitory	86(25.1%)	59(17.2%)	3(0.98%)	1(0.3%)	194(56.6%)

4.5.8 Questionnaire filling

From table 4.20, it was observed that only 36.7% (130) of the respondents were able to fill in the survey questionnaires without assistance whereas 61.3% were helped by family members or by friends or personal attendance. This alludes the illiteracy level persons with disabilities have and may be some of the participants had paralysed hands and hence could not write.

Table 4.20: Physical assistance with filling the questionnaire (n=354)

	Frequency	Percent %
No One helped me	130	36.7
Friend	63	17.8
Others	27	7.6
Family member	66	18.6
Personal attendant	68	19.2
Total	354	100.0

4.5.9 Bivariate Analysis

4.5.9.1 Association of attaining formal education and various inhibitors

In this study, a majority 64.6% (n=191) of the respondents below the age of 45 years had access to formal education. As the number of siblings increases, the percentage of those with disabilities that access formal education reduce in preference of what the participants stated was for the sound siblings. A section of the respondents 32.1% (n=93) indicated that distance was a factor in accessing formal education and similarly 20.8% (n=10) attended formal education however did not agree that distance influence access to formal education. Likewise 26.7% (n=77) of the respondents who attended formal education indicated that teacher's perception was a factor in contribution to access of formal education (Table 4.21).

Table 4.21: Cross-tabulation of access to Formal education with the various variables

Variables	Levels	Formal Education	on
	UNIVERSITY of the	Yes	No
Age	WES 18-25N CAPE	11.6%(34)	10.7%(6)
	26-35	22.4%(66)	16.1%(9)
	36-45	31.0%(91)	16.1%(9)
	46-60	35.0%(103)	57.1%(32)
No. of siblings	1-2	22.8%(67)	17.9%(10)
	3-4	31.6%(93)	8.9%(5)
	4-5	14.6%(43)	16.1%(9)
	6 or more	10.9%(32)	37.5%(21)
Distance to School	Yes	32.1%(93)	67.9%(197)
	No	20.8%(10)	79.2%(38)
Teachers Perception	Yes	26.7%(77)	11.1%(5)
	No	73.3%(211)	88.9%(40)

4.5.9.2 Relationship between attending formal education and various inhibitors

Table 4.22 below shows the relationship between "Going through formal education" with various inhibitors. It was found out that going through formal education was significantly related

with age, children, sponsor, school policies, occupation of respondents and family members at p<0.05.

Table 4.22: Association between "Attending formal education" and various Inhibitors (354)

Covariates		χ² value	df	p-
				value
Age of respondent		10.53	3	0.015
Causes of disability		4.50	2	0.105
Belonging to a disability group		0.111	1	0.739
Sex of respondent		2.47	1	0.116
Marital status		0.97	4	0.914
Number of siblings		31.26	4	0.001
Distance to school		2.454	3	0.117
Sponsor		316.64	6	0.001
School Policies		41.37	5	0.001
Paved surfaces	THE REPORT OF THE PARTY OF THE	0.267	1	0.605
Occupation of Respondent	W W W W W	35.72	3	0.001
School policies		14.03	5	0.015
Attitudes of providers		3.23	4	0.520
Family members		52.05	5	0.001
Stairs	UNIVERSITY of the	0.327	1	0.567
Classroom design	WESTERN CAPE	1.616	1	0.204
Ramps		0.263	1	0.608
Toilets		0.010	1	0.922
Transport to School		0.957	1	0.328
Teaching aids		0.816	1	0.366
Assistive/walking Aids		0.024	1	0.876
Teachers perception		5.12	1	0.024
Parents attitude		1.16	1	0.281
Time allocated		2.37	1	0.124

Significance value p value= p≤0.05

SECTION B: QUALITATIVE RESULTS

4.6 INTRODUCTION

After collecting data using the questionnaire, the researcher sought in-depth interviews through focus group discussions and from Key informants. Debate has been on the quality of qualitative research interpretation (Mays & Pope, 2000), however, most researchers pinpointed that qualitative research gives a better understanding of the issues under discussion (Wong, 2008). The researcher conducted focus groups discussions on factors inhibiting equalization of opportunities for persons with physical disabilities with regards to services in infrastructure and recreational facilities in six centers to saturation (Static clinic, Ziwa, Burnt Forest, Chepkanga, Kesses/Cheptiret and Osurungai). Thematic content analysis in both focus group and structured interviews was used. The researcher also used observation checklists to ascertain the existence of the facilities by taking photographs. The researcher gives a description of the focus group participants and the emerged themes and categories. In the presentation of the findings, the audio taped discussions in the participants own words from interviews were used to illustrate response themes and categories. The quotations were presented in Italics and repetitive or unnecessary material was omitted from the quotes by two ellipsis points (...). To protect the identity and ensure anonymity of the participants, they were given cryptograms (P1- P8) and K1-K4 for key informants. Finally a summary of the results concludes the chapter.

4.7 DESCRIPTION OF FOCUS GROUP PARTICIPANTS

The focus groups were conducted on different days. Saturation was reached in six focus groups namely Static clinic, Ziwa, Burnt Forest, Chepkanga, Cheptiret and Osurungai. The participants comprised of 40% female and 60% male. The group leaders had been requested to identify 6-8 participants in each station (nomination rule was applied), however only a total of 42 participants

in all the stations participated in the focus group discussion (see table 23). In Osurungai 2 participants withdrew before the start of the interview citing personal commitments. The participants in Cheptiret, Chepkanga and Ziwa withdrew in the process of the focus group without citing any reasons. The mean age of the respondents was 40 years. The table 4.23 below details the participants' demographic characteristics.



Table 4.23: Participants Demographic characteristics

Focus group	Participants	Age	Gender	Marital status	Level of education	Disability	Cause
FGD 1-	P1	35	Female	Married	Secondary	Paraplegia	Accident
Static clinic	P2	42	Male	Married	Primary	RT hemiplegia	Disease
	P3	35	Female	Single	Primary	Paraplegia	Congenital
	P4	45	Female	Married	College	Paraplegia	Accident
	P5	54	Male	Married	Primary	Hemiplegia	Disease
	P6	40	Female	Single	Secondary	Amputee bilateral lower limbs	Accident
	P7	48	Male	Married	Secondary	LT Hemiplegia	Disease
	P8	38	Female	Married	Secondary	Paraplegia	Congenital
FGD2- Ziwa	P1	48	Male	Married	Primary	Amputee bilateral lower limbs	Accident
	P2	50	Male	Married	Primary	Paraplegia	Congenital
	P3	45	Female	Married	College	RT hemiplegia	Disease
	P4	36	Female	Married	College	Paraplegia	Congenital
	P5	25	Female	Single	Primary	Amputee bilateral lower limbs	Accident
	P6	53	Male	Married	Primary	Hemiplegia	Disease
	P7	47	Male	Married	Primary	Paraplegia	Disease
FGD3- Burnt	P1	38	Male	Married	Primary	RT monoplegia upper limb	Disease
forest	P2	44	Female	Married	Secondary	Paraplegia	Accident
	P3	40	Female	Married	Secondary	Quadriplegia	Accident
	P4	52	Male	Married	Primary	Paraplegia	Congenital
	P5	36	Female	Single	Primary	Quadriplegia	Accident
	P6	32	Male	Married	Primary	Amputee bilateral lower limbs	Accident
	P7	47	Male	Married	Primary	Paraplegia	Congenital
	P8	55	Male	Married	Primary	Amputee bilateral lower limbs	Accident
FGD4-	P1	50	Male	Married	Secondary	Paraplegia	Accident
Chepkanga	P2	28	Male	Single	Primary	Hemiplegia	Disease
	P3	32	Female	Single	Secondary	Paraplegia	Disease
	P4	39	Female	Married	Secondary	Hemiplegia	Disease
	P5	46	Male	Single	Primary	Paraplegia	Accident
	P6	41	Male	Married	No formal ed	Paraplegia	Congenital
FGD5-	P1	56	Male	Married	Primary	Paraplegia	Congenital
Cheptiret	P2	28	Male	Single	No formal education	Amputee bilateral lower limbs	Accident
	P3	54	Male	Married	Primary	Paraplegia	Congenital
	P4	32	Female	Married	Secondary	RT hemiplegia	Disease
	P5	29	Female	Married	Primary	Monoplegia left upper limb	Disease
	P6	31	Male	Married	Primary	Hemiplegia	Accident
	P7	26	Male	Married	Primary	Monoplegia RT lower limb	Disease
FGD6-	P1	37	Male	Married	Secondary	Amputee LT lower limb	Accident
Osurungai	P2	38	Female	Married	Primary	Amputee RT lower limb	Disease
	P3	39	Female	Single	No formal ed.	Paraplegia	Accident
	P4	44	Male	Married	Primary	Hemiplegia	Disease
	P5	22	Male	Single	In college	Monoplegia LT upper limb	Disease
	P6	25	Male	Single	Primary	Paraplegia	Congenital

4.8 RECREATIONAL FACILITIES

Four themes and sub themes from focus group discussion on access to recreational facilities. The themes and subthemes emerged as a result of questions which were asked on the available recreational facilities in the area which include the events/sports offered. Accessibility was assessed by raising questions on the availability ramps, lifts and tarmacked entrances among others. Public recognition for persons with disabilities was also raised in particular in social gatherings and religious functions among others. Participation in recreational facilities with respect to presence of sports facilities in the respective areas was also raised.

Table 4.24: Emerging themes and Sub-themes on access to recreational facilities

THEME	SUB-THEMES
Availability of recreational facilities	✓ Events
Accessibility of recreational facilities	✓ Tarmac entrances
UNIVER	SIT ✓ ₀ Ramps
Public recognition for persons with disabilities	✓ Meetings
	✓ Churches
Participation in recreational facilities	✓ Sports
	✓ Swimming

4.8.1 Availability of recreational facilities

Recreational facilities are used by persons with disabilities in the activities which involve enjoyment, amusement and pleasure.

4.8.1.1 Events

The findings indicated that majority of the respondents from the rural areas (FGD 2, 3, 6) and peri urban areas (FDG 4, 5) noted that recreational facilities were only available for the able persons. The findings also indicated that a few respondents from urban area (FGD 1) indicated

the presence of recreational facilities to persons with physical disabilities. Participants in the above mentioned FGDs expressed the following regarding the availability of recreational facilities:

"...ehe with the issue of availability of recreational facilities...we have been given 4 hectares of land...for our recreational leisure like playing...but to date the land is still vacant it has not been developed...P3(FGD 4)"

"... I love games so much and since I got my disability through stroke...ooh No... I have never participated in such leisure. I ask if we can be given areas where we can play or see those play activities if given a chance...P3 (FGD 2)".

"yes...I am disabled and I have been using wheelchair for the last 15 years after a traffic accident mmm of which I broke my back.. I have participated in paralympic games...I have represented my County twice...P1 (FGD 1)"

The observations showed the absence of recreational facilities to persons with physical disabilities in rural areas, however there is presence of sports facilities for persons with disabilities in urban areas. The facilities are used during Paralympics sports for athletics (see appendix N, Photo 1).

4.8.2 Accessibility of recreational facilities

Persons with physical disabilities access recreational facilities with assistance of well tarmacked surfaces and ramps.

4.8.2.1 Tarmacked entrances and ramps

Majority of the respondents from rural areas (FGD 2, 3 6) and peri urban areas (FGD 4) noted that they cannot access recreational facilities. The findings also indicated respondents from urban

area (FGD1) and others from peri urban area (FGD5) agreed that they have access to recreational facilities. Participants in the above mentioned FGDs expressed the following regarding the accessibility of recreational facilities:

"... the only time I participate in recreation is watching primary and secondary school events, but because I use wheelchair, mmmh... it is so difficult to access the field because it is not tarmacked but I am always assisted by friends...P2 (FGD3)"

"ooh yes... I have been using a wheelchair since 5 years,"... I have participated in Paralympics games more than three times and... we always participate at the stadium where the entrance is tarmacked... with ramps which assist in entering the terraces...P4 (FGD1)"

"ehe...I have been using crutches since childhood...I like sports and I always participate in Paralympic and county games for the disabled persons ...aided by the tarmacked surfaces" P2 (FGD1)

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On observation the facilities in the rural areas and peri urban areas are suitable to none disabled persons however the disabled persons can access with difficulty since the facilities are not tarmacked. However the facilities in town are accessible to all persons (See Appendix N, Photo 1)

4.8.3 Public recognition for the disabled persons

Persons with physical disabilities in public meetings and churches have rarely been recognized because of their disability.

4.8.3.1 Public Meetings and churches

Majority of the respondents from rural areas (FGD 2, 3, 6) and peri urban area (FGD 4) noted that they are being discriminated in public meetings. The findings also indicated a minority of

the respondents from an urban area (FGD 1) noted that they are being recognized in public meetings and churches. Participants in the above mentioned FGDs expressed the following on public recognition for persons with disabilities:

"... I like participating in meetings like the chief meetings, however... I always lack where to sit and I am rarely given chance to contribute and participate in discussions...P4 (FGD 6)".

"... in our churches we are abit considered, I am happy I am given chance to participate in choir because I am a member...P3 (FGD5)"

"... I am a choir member in my church...and I also participate in chief meetings ... I am always given chance like any other person... I have never been discriminated... P6 (FGD 1)

4.8.4 Participation in recreational activities- affordability

Persons with physical disabilities rarely participate in recreational activities because of the long distance where recreational facilities are located and also financial constraints

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4.8.4.1 Sports/ Swimming

The study findings showed majority of the respondents from the rural area (FGD 2, 3 6) and peri urban areas (FGD, 4, 5) noted that the recreational facilities are not affordable. The study also showed that a small number of respondents (FGD, 1) from urban area noted that they can afford the recreational facilities.

"... to speak the truth, we have a problem with playgrounds for practice...the stadium is far in town and I cannot afford fare and stadium entry charges... the Government should make entry charges free...P2(FGD 6)"

"..eeh...In sports, we have not been given free access to ... We urge the Government to assist us in such things..." P3 (FGD 6)

"...Yes we participate in sports and swimming particularly while preparing for Paralympics games...and we are able to pay for the charges...P6 (FGD 1)

Observation indicated the presence of recreational facilities in Eldoret town which provides among others swimming and netball and participants pay to access the facility (See Appendix N Photo 2).



4.9 INFRASTRUCTURE

The focus group discussion deliberated on the infrastructure in place and how they inhibit access to employment, health and education. Three major themes and several sub themes emerged from the discussion.

Table 4.26: Emerging themes and Sub-themes with regards to infrastructure

THEME	SUB-THEMES
Access to employment	Sidewalks
	Zebra crossing
	Car parks
	Traffic control lights
	Benches and rest areas
Access to health	Transport adaptation
	Building adaptation
Access to education	Toilets
	Ramps/ lifts
	Distance to the nearest education facility

4.9.0 EMPLOYMENT

In the focus group discussion on the influence of the existing infrastructure on access to employment the following subthemes emerged- pedestrians walking areas/sidewalks, zebra crossings, car parks, traffic control lights and rest areas

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4.9.1 Presence of sidewalks/ pedestrian walking areas in roads

Pedestrian walking areas/sidewalks also known as footpath as a factor in accessing employment was discussed. This came up as an inhibiting factor to employment particularly because it allows the physically disabled easy access or inhibits access if it is not in place. The discussion elicited different responses in the different focus groups based on the location of the groups; this is

because the participants came from different locations namely urban, peri-urban and rural areas.

The responses were further categorized into two subthemes of design and location.

4.9.1.1 Design and Location

The participants in the various focus group discussions had positive and negative responses of the design and location of infrastructure in their respective areas (depending on where they come from, urban, peri-urban and rural areas).

"...the roads are bad... and there are no sidewalks it is therefore difficult for me to engage in my business... yea.. and therefore is risky for me when walking because cars can easily knock me down..." P7 (FGD2).

...I find it difficult to wheel myself on the road because there are no reserved areas along the road for wheelchair users..Even when going to town for my personal businesses...it is difficult...vehicles can knock me down..."P1 (FGD 6).

...nowadays in town, I am able to commute using the sidewalks and I can easily transact my businesses not as it was before... aaa...For example the sidewalk from the stadium to town..and I feel secure P8 (FGD 1)".

On the observation checklists it was observed that sidewalks are not in existence in rural areas as indicated in Appendix N photo 3. It was also observed that sidewalks are available in in periurban areas, however they are not tarmac as indicated in Appendix N Photo 4. In the urban area sidewalks are in existence for example one running alongside Iten road from stadium to town and one running alongside Kisumu road from Langas to Pioneer (See Appendix N, Photo 5) however they are still under construction while those in town particularly in central business district are present but they are not continuous

4.9.2 Zebra crossings

A zebra crossing is a type of pedestrian crossing and it gives priority to rights of way to pedestrians. The presence of zebra crossing as an inhibitor or a promoter to employment was discussed and positive and negative responses were recorded and were categorized into design and location of the zebra crossings.

4.9.2.1 Design and Location

Majority of the respondents from the rural areas (FGD 2, 3, 6) and peri urban area (FGD 4) expressed that there are no Zebra crossings. However, a minority (FGD1) in urban area expressed their feelings that Zebra crossings exist in town and they are able to cross in the designated areas. Participants had the following responses;

"aa... I have a problem..with my hand and leg, there are no Zebra crossings designed for the disabled...aa...sometimes accidents are caused because there are no road indicators to guide... and even crossing the road is difficult P6(FGD 2)" Yes the

"ehe...I have never seen Zebra crossings in our rural roads...we just cross the road...accidents happen because vehicles speed..." P5 (FGD 6)

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"mmm... yes, crossing the road in some areas in town...the Zebra crossings assist and we are able to cross the road...with ease and I can do my businesses without any problem as it was before... P5 (FGD 1)"

According to observation, the above are not in existence in the rural areas as indicated in Photo 6 Appendix N. In Peri-urban areas, the zebra crossings are not in existence (See Appendix N, Photo 7). Zebra crossings are in existence in Eldoret town particularly the intersection of Kenyatta and Uganda road however they are a few (see Appendix N, Photo 8).

4.9.3 Traffic control lights

Traffic control lights are stations in road intersections and gives priority to rights of way to both motorists and pedestrians. Traffic control lights as an inhibitor or promoter to employment was discussed in the various focus groups and the positive and negative responses were categorized into two subthemes installation and operation.

4.9.3.1 Installation and Operation

From the focus group discussion, it is indicated that there were completely no traffic control lights designed for the disabled persons in all the areas under study (FDG, 1, 2, 3, 4, 5, and 6). The participants expressed the following regarding installation of traffic control lights;

"I am a disabled person... aaa.. I have lived with this disability using wheelchair for the last twenty years yes... and when in town it is difficult to cross the road because there are no light to control traffic... P2 (FGD 2)"

"ooh no..i have never... seen traffic control lights... anywhere...I always cross the road with difficulty particularly when the police officers are not there to control the traffic flow P4(FGD 3)"

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"...Yes I have seen things which look like traffic lights but... I I, I... have never seen them operational otherwise we are always assisted by the police to cross the road...P7 (FGD 5)"

According to observation the traffic lights are in existence only in urban areas particularly in Eldoret town, for example at Oloo Street and Uganda road intersections however they are no longer operational (See Appendix O, Photo 9). Traffic police officers control the traffic flow and those on wheelchairs are accorded chance to cross the roads by traffic police officers (Appendix N, Photo 10)

4.9.4 Benches/Rest areas/Toilets and car parks.

Benches/rest areas and toilets were discussed in the various focus group discussions and them all elicited positive and negative responses which can be categorized into subthemes, construction and accessibility.

4.9.4.1 Construction and Accessibility

On Benches, toilets and areas where persons with disabilities rest when they are tired or waiting for means of transport. Majority of respondents from rural areas (FGD 2, 3, 6) peri urban (FGD, 4, 5) said that they are not constructed however a small percentage of the respondents from urban areas (FGD 1) noted that benches, toilets, rest areas and car parks are constructed and also accessible.

"..yea...yea... whenever I am tired while in our rural shopping centers, I always don't get any resting place but I only prefer tree shades...the present toilets are also a problem because I cannot maneuver my wheelchair when I am in and there are no rails to hold into...when I am in the offices it's a real problem when going for a long call but friends help me P6 (FGD 3)".

"...i use crutches when walking and whenever I come to town, mmm... I get areas where to rest when I am tired... Nandi Park and other areas in town, however some benches are highly raised and not suitable for persons with disabilities... P4 (FGD 1)"

...I visit supermarkets and I am happy to say they have car parks reserved for the disabled persons and also motorized wheelchairs P3 (FGD1).

Observations indicated that benches, rest areas and toilets are absent in rural areas however in the peri urban areas (FGD 4, 5)construction of benches, rest areas and toilets are at stage of completion particularly at the markets. Observations also revealed that the benches and rest

areas are present in town in areas marked as a resting points and also found in the Central Business District, however some benches cannot be accessed easily by persons with disabilities because they are more raised (Appendix N, photo 11). Parking areas are also present in leading supermarkets and at county headquarters offices (Appendix N, photo 12).



4.10 HEALTH

In the focus group discussion on the influence of the existing infrastructure on access to health the following subthemes emerged- transport adaptation and building adaptation.

4.10.1 Adaptations in buildings

Adaptation in buildings as an inhibitor or promoter in access to health was discussed in the various focus group discussions and was best categorized into ramps and lifts

4.10.1.1 Ramps and Lifts.

Majority of the respondents from the rural areas (FGD, 2, 3, 6) and peri-urban area (FGD 4) said adaptation in buildings in their areas have not been undertaken. However minority of the respondents from urban area (FGD 1) indicated the presence of lifts and ramps in some buildings. Participants expressed the following regarding the presence of ramps and lifts in their various areas;

"...it is even difficult to access our sub-district hospital because there are no ramps. get our bosses because the offices are situated up...our county health boss is situated upstairs... and we cannot reach him when we have issues...look at the county offices...i wish there were lifts also to help us reach our bosses..." P3 (FGD 2).

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"...ehe.. our rural dispensary does not have lifts and ramps...the offices of the health personnel are situated upstairs ...not easy to reach them when you have a problem" P4 (FGD 3)

"ooh yes ooh yes... there are ramps and lifts in some buildings particularly in Moi teaching and referral hospital... so so.. I have also... been to a teaching and referral hospital and I have managed to use my wheelchair to the director's office which is at the top floor, and I can also

access all the wards because of the presence of ramps and lifts aaa... however some buildings don't have...P3 (FGD 1)"

Observations revealed that some buildings have instituted adaptation to PWDs like provision of lifts and ramps among others; however some buildings have lifts and stairs and no ramps. In a teaching and referral hospital ramps are in existence (Appendix N, Photo 13).

4.10.1.2 Transport adaptation

Transport adaptation was also discussed as an inhibitor or promoter in accessing health and the positive and negative responses were categorized in transport affordability and accessibility.

4.10.1.3Transport affordability and accessibility

Majority of the respondents from the rural areas (FGD 2, 3, 6) and the peri urban area (FGD 4) noted that transportation is not affordable. The findings also indicated that respondents from urban area (FGD, 1) and others from peri urban area (FGD 5) agreed that some vehicles are accessible. Participants expressed the following regarding transport affordability and accessibility;

"ooh yes... some vehicles are accessible... though we are assisted in boarding...P1 (FGD 1)"

"aaa...I use wheelchair... when I am waiting for a vehicle to take me to hospital... People see my wheelchair and neglect me because they have nowhere to keep in the vehicle and when they accept me they charge me extra fare...P8 (FGD 4)"

"...ooh yes...public vehicles have difficulty in accommodating us particularly for me I use a wheelchair and at times they charge fare for the wheelchair also...P6 (FGD 3)"

Observations revealed that the vehicles operating in the roads covering the above areas have space to accommodate wheelchairs and crutches (Appendix N, Photo 14). Observation also revealed that none of the vehicles in town were accessible to persons with disabilities; there were no elevators to assist in accessing the vehicles (Appendix N, Photo 15). An example of an ideal adapted private vehicle for disabled persons (Appendix N, Photo 16)

4.11 EDUCATION

In the focus group discussion on the influence of the existing infrastructure on access to education the following subthemes emerged-toilets and ramps/lifts.

4.11.1 Ramps

Majority of the respondents from the rural areas (FGD 2, 3, 6) and peri-urban areas (FGD 4, 5) indicated the absence of ramps in the schools while a small number of respondents from an urban area (FGD 1) indicated the presence of ramps in the schools in the respective area. Participants expressed the following with regard to presents of ramps;

"...during my school days it was difficult... accessing classrooms because of the steep entrances...even a friend of mine who was on a wheelchair dropped out of school very early in standard three... because he could not access the classrooms alone without assistance..." P6 (FGD 6)

"...well... nobody considered disabled persons when constructing schools... for me I have been using a wheelchair... and it was difficult accessing classrooms but I changed to school for the disabled and I completed my education..." P4 (FGD 3)

"...well for me I learnt in an integrated school and all was well...I could access classrooms and dormitories..." P8 (FGD 1)

Observation revealed the presence of ramps in institutions of learning. In one leading institution of learning lifts are installed and also operational, however there are no ramps to facilitate wheelchair users from ground floor to other floors in the building (Appendix N, Photo 17). An example of an ideal design of a ramp (Appendix N, photo 18)

4.11.2 Toilets

Majority of the respondents from rural areas (FGD 2, 3, 6) and peri-urban area (FGD 4) indicated the absence of adapted toilets in the learning institutions. However few participants from the urban area (FGD 1) and others from peri-urban (FGD 5) indicated the presence of adapted toilets to persons with disabilities. Participants expressed the following with regard to toilets in schools in their various areas;

"...oo yes... the toilets we have in our learning institution are too narrow ...and my wheelchair cannot maneuver... when I am inside particularly when you are... attending meetings in our local school..." P3 (FGD 6)

"... when I was in school...it was difficult to access the narrow wooden toilets...I preferred going to the bush...other children used to laugh at me..." P1 (FGD 4)

"... oo when I was in school...I could easily access the toilet and my wheelchair could maneuver well..." P4 (FGD 1)

Observation revealed the absence of adapted toilets in institutions of learning in the rural areas. The doors were narrow and therefore not adapted to persons with disabilities particularly wheelchair users because the wheelchair cannot maneuver (Appendix N, Photo 19). However

there were adapted toilets in some learning institutions in the urban area but did not have side rails for wheelchair users (Appendix N, Photo 20). An example of an ideal toilet for PWDs with both vertical and horizontal grab rails (Appendix N, Photo 21)

4.12 STRUCTURED INTERVIEWS-KEY INFORMANTS

4.12.1 Introduction

The key informants interviewed are human resource managers and coordinators who are well versed in the policies dealing with persons with disabilities in the various institutions hence they are able to articulate the information well. For the purpose of identification in the study the following initials represent the key informants from the various study areas K1-MTRH, K2-County Government, K3- Social Services, and K4- National Council for PWDs

Table 4.27 Demographic Characteristics of the Key Informants

Institution/quiz	MTRH	County	Social Services	National Council
	M	For PWDS		
Job Title	Acting senior	Hr. Officer	Director Of Social	County
	assistant director		Services	Coordinator
	human resource			
	training			
Job experience	1 year	Over 5	Over 5 years	3 YEARS
		Years		
Gender	Female	Male	Male	Male
Age	50 years	52 Years	48 Years	42 Years

The structured interviews sought to explore factors inhibiting equalization of opportunities to persons with physical disabilities and the policies in place. Four themes emerged from the discussions and several sub-themes.

Table 4.28: Emerging themes and Sub-themes

THEME	SUB-THEMES
Legislation governing PWDs	✓ Policies
Recruitment of persons with disabilities	✓ Education level✓ Nature of disability
	✓ Gender
Challenges faced by PWDs in employment	✓ Personal factors
	✓ Physical factors✓ Information dissemination
Provisions in place to integrate PWDs in	✓ Environmental adaptation
workplace	✓ Code of conduct
UNIVER	Guidance and counseling
WESTER	✓ Medical insurance cover
	✓ Further education

4.12.2 Legislation governing PWDs

Discussion on legislation governing PWDs in workplace was discussed with the key informants and the sub-theme that emerged was on policies in place.

4.12.2.1 Policies in place for PWDs

The findings from the Key informants indicated that all of the respondents noted that there are policies in place for PWDs (KI, 1, 2, 3, 4), for example key informant highlighted the following about policies

"... there is committee in place to handle issues with people with disability, and that the current constitution 2010 also caters for PWDS" (K1)

"... yes..the Constitution 2010 and the Disability act 2003 caters for PWDs...mmm and in particular 5% of employment is reserved for PWDs" (K2).

...Also mmm... PWDs have been reserved 30% of all the contracts in the county... (K3)

Yes... yes...PWDs are allowed to register their companies...aaa... and are catered for in Article 54 of 2010 Constitution... (K4).

Observation indicated that in Moi Teaching and referral Hospital, minutes of the Board meeting constituting Disability Mainstreaming Committee was availed dated 20th September 2010 and in Uasin-Gishu County Government and in the North Rift disability coordinators office copies of 2010 Constitution and Act. 2003 were availed.

4.12.3 Recruitment of PWDs

On recruitment of persons with disabilities, the discussion resulted in the following sub-themes; All the four key informants (KI, 1, 2, 3, 4), concurred PWDs undergo recruitment process like the able persons. Key informants expressed the following regarding recruitment of PWDs

"...mmm..whenever there is a recruitment process in the institution a person with disability and is suitable for the advertised job is always given a priority..." (K1)

"...mmm..a person on a wheelchair has to be considered... if the institution or place of work has been adapted..." (K2)

"...aaa...If the female/male participant in the recruitment process is able to fill position balancing in the department, mmm... then he/she will be considered depending on his qualification for the post..."(K3)"

On observation, at MTRH Disability Mainstreaming Committee file was availed and the committee chair participates in all recruitment process.

4.12.4 Challenges faced by organization in employing/managing PWDs

The challenges faced by the organization were discussed with Key informants and were classified in the subthemes below.

4.12.4.1 Personal factors

Employees with physical disabilities are difficult to manage in workplace because they feel as though they are despised and not productive like the other employees.

"Yes...People with disabilities have the perception... of lack of respect from co-workers because they feel. they are looked down upon because of their disability..." (K1)

"... they feel.. discriminated and despised by the able bodied yee... persons" (K3)

"aaa...and they want to be assisted whenever... he/she is faced by any mmm... challenge for example during illnesss..." (K2)

"mmm....PWDs feel stigmatized and they cannot do as the others" (K4)

4.12.4.2 Physical factors

The key informants also highlighted the problems faced by PWDs in workplace and of concern were physical factors.

"yes.. yes.. accessibility to the facility is a problem mmm, our County offices are housed in an old building... which has not been adapted to suit them...does not have ramps and no lifts (K2)".

"...Yes our buildings are accessible... ramps are in place to assist those on wheelchairs..." (K1)

"mmm...our regional offices are not accessible ...we are housed in old buildings" (K3)

"...only our regional offices are accessible..." (K4)

4.12.4.3 Information dissemination

Information dissemination was raised as a challenge by all the key informants.

..lack of access of information... pertaining to health and legal matters mmm among others...

makes... them difficult to manage (K4)..."

...we always sensitize our staff through workshops and seminars... (K1)

...We do monthly sensitization to all members of staff on employment matters legal affairs (K3)

...we sensitize our staff on all employment matters through the department of human resource (K2)

Observation revealed three workshops have been held in MTRH to sensitize persons with disabilities in legal matters.

4.12.5 Availability of provisions put in place by the government

4.12.5.1 Environmental adaptation

Environmental adaptation was discussed and all the key informants mentioned that employees with disabilities work in conducive environment.

"... mmm..the toilets in our institution... are accessible to all persons with disabilities..(K2)"

"..yes our building is friendly.., toilets are also okay, ramps in administration block and wards and.. parking slots have been well identified for PWDs... (K1)".

"...our buildings are old...but we have tried our level best to create a conducive working environment..." (K3)

"...our buildings are disability friendly...(K4)

Observation in all institutions indicated that toilets have been adapted to suit persons with disabilities and ramps leading to administration block and wards exist in MTRH.

4.12.5.2 Code of conduct

The key informants highlighted that the code of conduct have been integrated for persons with disabilities in their institutions.

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"...code of conduct in our institution... has been integrated for PWDs... (K2)"

"...there is a uniform code of conduct for all employees (K1)

"...code of conduct is a must to all employees..." (K4)

"...code of conduct for all employees is in place..." (K3)

Observation showed that there was harmonized code of conduct for all employees in the institutions.

4.12.5.3 Guidance and counseling

The key informants highlighted the existence of guidance and counseling systems in their institutions.

"...guidance and counseling department..mmm.. has been established in our institution to cater for all employees... (K1)."

"...we have established a guidance and counseling department" (K2)

"...in case of any issues arising we have guiding and counseling department" (K3)

"...all units in the County have guidance and counseling department...(K4)

Observations showed existence of guidance and counseling department at a leading Teaching and Referral Hospital.

4.12.5.4 Medical insurance cover and assistive devices

The key informants also mentioned the existence of insurance covers for all employees in their institutions.

"...yes...they are being taken care of all their... insurance cover like all other employees...
(K1)."

"...and also provided with assistive devices... (K2)".

"...all permanent and pensionable employees have medical insurance covers...(K3).

"...all employees of NCPWD have national insurance cover..." (K4)

Observations showed that insurance cover caters for all employees in the institutions; however we were not able to ascertain if persons with disabilities working in stations outside town are also covered by NHIF.

4.12.5.5 Further education

Further education for persons with disabilities was also discussed and a Key informant had this to say

."..people with disabilities in our institution mmm.. are also given chance to further... their education... (K1)"

"...a staff in our institution aaa... who had worked with us for over 15 years... fell ill and finally lost his sight... we took him for Braille training and he is with us to date... (K2)".

"...we encourage all employees to pursue further education..." (K4)

"...employees who request for further education are always supported..." (K3)

Observation-Several files were availed for those had been sponsored by the County Government for further education.

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4.13 SUMMARY OF THE CHAPTER

The aim of the current study was to determine factors inhibiting equalization of opportunities towards persons with physical disabilities in accessing employment, health and education and to explore factors inhibiting equalization of opportunities towards persons with physical disabilities in accessing infrastructure and recreational facilities in Uasin-Gishu County Kenya. The results therefore indicated that in both quantitative and qualitative access to the above services in towns and peri-urban areas have been achieved though some areas particularly buildings and transport system need adaptation. The results also indicated that access to the above services in rural areas is yet to be achieved. These findings will therefore be further discussed in Chapter Five.

CHAPTER FIVE

DISCUSSION

5.0 INTRODUCTION

The aim of this study was to determine factors inhibiting equalisation of opportunities with regards to the services in health, education, employment, and to explore factors inhibiting equalisation of opportunities with regards to infrastructure and recreational facilities, to persons with physical disability in Uasin Gishu County, Kenya. This chapter discussed both the quantitative and qualitative findings of the study in relation to the relevant literature.

5.1 Equalization of opportunities in context of Employment

The UN convention 2006 urges States Parties to recognize the right of persons with disabilities to work, on an equal basis with others. Disability Act 2003 of Kenya stipulates the same rights.

5.1.1 Gender

The contribution of gender in inhibiting equalization of opportunities was assessed. In this study the bivariate Analysis showed that there was no significant relationship between "Having any form of Employment" with gender of respondent (p-value = 0.489). Furthermore, there was a lower proportion of males (18%) who participated in the formal sector employment compared to the female counterparts (22%). In the informal sector there was male predominance (23%). In addition, the findings showed that the unemployment status of females (38%) was slightly higher than in males (25%). Similarly in the structured interviews with key informants, the results obtained indicated that employment rate showed more male were employed than the female at a ratio of 2:1. This study therefore found that men constitute a higher proportion of those in employment though not statistically significant. These findings are similar to World Health

Survey findings in 51 countries which found that employment rates of 52.8% for men with disability and 19.6% for women with disability, compared with 64.9% for non-disabled men, and 29.9% for non-disabled women (WHO, 2011). The findings are also consistent with O' Reilly (2003) that showed that in USA more men (42%) with disabilities are in the labour force compared to women (24%). O'Reilly study also found that while more than 30% of disabled men work full time, only 12% of disabled women are in full-time employment and that women with disabilities working full time earn only 56% of the earnings of full-time employed men with disabilities. A study carried out in Ghana in 1996 produced similar results as in the above studies which indicated, only 3% of disabled women are registered in employment, 19% in the Phillipines (1997), 0.3% in India (1991) (1997) (Reilly, 2003). The findings is also similar to Nganga (2013) whose study in Kenyan revealed that a low proportion of women (32.6%) are involved in farming due to various cultural challenges mainly on land ownership and that more male than female are in formal employment sector. The low employment for female population could be due to low education level and the social cultural background whereby the girl child is rarely given education compared to the male counterparts. Similarly Act, 2003 and the new 2010 constitution of Kenya on equal employment to PWDs have not been internalized.

5.1 .2 Age

In the present study the findings found that there was no significant relationship between having any form of employment and age (P-value = 0.052). However the findings still indicated majority of the unemployed are between the ages of 18-25 standing at over 60%. Majority of those between 46 and 60 years are engaged in farming. The majority in informal employment are aged 36-45 while majority in formal employment are 26-35. Similarly in the focus group discussion, those aged between 22-45 were in formal employment. Those aged between 46-60 were engaged

in farming. It is an indication that the older persons with disabilities do not engage in competitive labour force but opt to do farming.

The contribution of age in inhibiting equalization of opportunities was assessed in other countries and produced similar results of the above study. A number of studies have linked age with employment status of people living with disabilities. A study by Cheeks (2012) in the UN found that a greater proportion of younger persons aged 16 to 64 (70.8%) reported a barrier to employment compared to their older counterparts of age 65 and above (29.8%), perhaps reflecting the fact that older workers are, in general, less likely to participate in the labor force. Similar results to the above study were also obtained in the report released by the Organization for Economic Co-operation and Development (OECD) report (2004). The report showed that in 27 countries, working-age persons with disabilities experienced significant labour market disadvantage and worse labour market outcomes than working-age persons without disabilities. On average, their employment rate, at 44%, was over half that for persons without disability (75%). The inactivity rate was about 2.5 times higher among persons without disability (49% and 20%, respectively). The compulsory free primary education in Kenya has resulted in more disabled children attaining higher education necessitating stiff competition in the labour market with the sound counterparts whereas the old persons with disabilities only engage in farming where competition is rare.

5.1.3 Disability

The contribution of disability in inhibiting equalization of opportunities was assessed. A number of studies have shown relationship between disability status and employment. The present study findings showed that disability status had a significant association with employment status (p-value=0.001). However, the type of employment engaged by persons with disabilities were of

low status with 38.4% (n=116) indicating having done the making and selling of products while 24.7% (n=73) did domestic work and 55.8% (n=168) worked in their farms while 37% (n=112) were employed in the formal sector. In the focus group discussion more participants from the rural areas (FGD 2, 3, 6) and peri-urban areas (FGD 4, 5) indicated difficulty in accessing employment due to their nature of disability particularly those on wheelchairs. The same was also highlighted by the key informants K1 and K4 that those with severe disabilities face stiff competition during employment because of lack of adaptation. This is consistent with Stevens (2002) findings which showed that the employment of disabled people in UK are concentrated in secretarial or junior technical roles which are not popular and associated with low wages and that insignificant number were in management roles. A study done by Mintrom & True (2004) in New Zealand produced similar findings. The study showed that disabled people are underrepresented in more lucrative professional, managerial, administration and legislative roles and that disabled persons are motivated to work by ensuring that jobs are financially and socially rewarding. Barnes (2000), study is also consistent with above results. The findings indicate that disabled persons are offered with less lucrative jobs, mostly low waged occupations with poor working conditions and few opportunities for advancement. Other studies with consistent results include a study by Wanjiku (2013a) done in Kenya showed similar results as in the above studies. The findings indicated that disability related issues are more pronounced barriers in starting employment by the disabled persons. The study observed that physically disabled persons have difficulties in obtaining suitable premises (26%) and mobility barriers (22%) among other factors. This is despite the fact that up to 22% of the respondents had mobility problems and needed a totally barrier free environment. Furthermore, 15% of the respondents had skill-related problems whereby they dealt with businesses that required skill which they did not have. It was also shown in Wanjiku's study that the physically disabled entrepreneur

experience difficulties in accessing start-up capital. The lack of adaptation in place of employment make the physically disabled person more disadvantaged during recruitment process and this could be lack of implementation of Act 2003 on infrastructure.

5.1.4 Policies

The contribution of policies in inhibiting equalization of opportunities was assessed. Workplace policies were statistically significant with employment status (p-value =0.001). In this study majority 64.7% (n=229) of the respondents indicated that the policies are not applicable to them, however a significant percentage indicated that they have an influence of which 2.8% (n=10) and 7.6% (n=27) of the respondents said the policies limit a lot and limit somewhat, respectively. In contrast 12.4% (n=44) indicated that policies in workplace help a lot. Similarly, all the key informants K1, K2, K3 and K4 indicated the presence of policies regarding employment to persons with disabilities in their respective institutions in particular 5% reservation of employment and 30% of all contracts reserved to persons with disabilities. However the key informants highlighted that persons with disabilities rarely utilize the provisions in the policies due to lack of awareness and those aware of the policies face stiff competitions from established firms. The high figure of 64.7% indicating that the policies are not applicable to them implies the rights in Act 2003 on employment may have not been internalized into the community hence not aware of the rights. Likewise Article 54 of the new constitution 2010 of Kenya on the rights of employment for persons with disabilities is purely only on paper but yet to reach the community. These findings are consistent with Stevens (2002) which found that, on the employment of disabled people in industries, there was contrasting results in that the policies enacted have had a tremendous impact on employment of persons with disabilities. Acemoglu & Angrist (2001) study in UK is also consistent in that Legislation has led to a reduction in the physical barriers preventing people with disabilities in accessing employment though this was contrasted by Mitra

and Stapleton (2006) which found that in America, the enactment of Disabilities Act 1995 led to a decline in employment of people with disabilities. This was due to the fact that employers possibly were avoiding potential litigation simply by not employing people with disabilities or perhaps the obligation to provide reasonable accommodation acted as a disincentive to taking on staff with disabilities.

5.1.5 Pedestrian walking areas/Sidewalks

The findings indicated that a minority of the respondents from the urban indicated presence of pedestrian walking areas however on observation they are only available in some Eldoret town roads with one running alongside Kisumu road and another running alongside Iten road. The pedestrian walking areas in some parts of the town are not continuous necessitating persons on wheelchairs to be assisted to cross over hence impeding access to some parts of the town.

Similar results were obtained in a study done in Maputo by LaPlante and Kaeser (2004), however the pedestrian walking areas are only provided alongside the main road but not at the underground railway stations. High quality footways have been demonstrated in Maputo, Mozambique, next to Via Rapida, a major arterial where approximately 4 kilometers of paved footway has been provided. The footway is on level with the road surface, but separated from it by a low kerb. At intersections the kerb is opened to allow for the access of non-motorised vehicles. Studies in the United Kingdom have also revealed the existence of pedestrian environment around the bus stops and railway stations. The few pedestrian walking areas could as a result of lack of knowledge on road safety measures to those who are undertaking road constructions

5.1.6 Zebra Crossings

Zebra crossings allow wheelchair users and other persons to cross between roads and sidewalks.

In the current study majority of the respondents from rural areas (FGD 2, 3, 6) and peri urban areas (FGD4) noted the absence of zebra crossing whereas a small number of respondents from urban area (FGD 1) and from peri-urban area (FGD 5) noted the presence of Zebra crossings. This could be attributed to the fact that since they live in town they must have used the facility. This was confirmed on observation that zebra crossings are in existence in the urban areas particularly in Uganda road, Oloo, Kenyatta and Elijah Cheruiyot streets. Other streets do not have zebra crossings hence impeding access to persons with physical disabilities.

Similar results were obtained in a study done by Barker, Hesketh & Smythe, (2006). The study indicated the use of zebra crossing (dropped kerbs or kerb cuts) is fairly widespread in Europe to allow wheelchair users and visually impaired people to cross between roads and sidewalks. Studies done in Costa Rica, Mexico City, and Rio de Janeiro produced similar results whereby zebra crossings were installed along key streets. However a study done in South Africa had similar results as those of the above studies but with enhanced security whereby instead of zebra crossing raised walkways across busy streets have been constructed (European Conference of Ministers of Transport, 2000). The existence of Zebra crossings in the urban areas could be as a result of implementation of new constitution 2010 on road safety measures and the absence in the rural areas could be as a result of lack of knowledge on road safety measures to those undertaking constructions.

5.1.7 Car Parks

Car and wheelchair parking is essential during the start or end of a journey and omission of the parks means a disabled motorist or passenger cannot use the park and hence cannot transact business leading to frustration and social exclusion of PWDs (Rogerson, McNamara, Winters & Marsh, 2005). In the current study the results revealed that car parks for persons with physical

disabilities particularly wheelchair users are very isolated. A majority of the participants from the rural areas (FGD 2, 3, 6) and peri urban areas (FGD 4, 5) indicated the absence of car parks while minorities of the respondents living in the urban areas were of opinion that they are in existence. Since they reside in town estates then they may have used the facilities. However on observation it revealed that most car parks for persons with disabilities are located in central business district, County headquarters and major supermarket constituting only 5% of the parking bays in town which are not sufficient.

Similar results were also obtained in studies done in Australia, Canada, Denmark, U.K. and Finland by Rogerson, et al. (2005) on building regulations. The results indicated that the number of accessible parking bays at car parks for PWDs was only 5-6% in England and Wales, 4% in Finland, and 10% in Denmark indicating that persons with disabilities are recognized though the parking bays are still few. The lack of car parks in the rural areas could be as a result of lack of knowledge on parking areas for PWDs. Whereas PWDs in towns have advocated for their rights hence the inclusion of car parks.

5.2 Equalization of opportunities in the context of health

UN Convention (2006) States persons with disabilities have the right to the enjoyment of the highest attainable standard of health without discrimination on the basis of disability. Likewise Disability Act 2003 of Kenya and Article 54 of the new constitution (2010) legalize the rights of persons with disabilities as regards to access to health.

5.2.1 Gender

This study found that gender was not a significant factor in utilization of health care services among persons living with disabilities (P=0.790). The statistics indicated that majority of the respondents 67.7% (n=231) indicated in the survey that they rarely seek healthcare while 1.8% (n=6) (0.6 % males and 1.2% female), 22.6% (n=77) (10% male and 12.6% female), 5.5% (n=19) (3% male and 2.5% female) and 6.2% (n=21) (2.2% male and 4% female) seek healthcare more than twice a week, once or twice a month, once or twice a week and once or twice a year respectively. Overall male respondents rarely seek healthcare than female counterparts and in both male and female, majority seek health care in public hospitals (90%) while a minority seek healthcare from private institutions (8%) and 2% seek herbal medication. Similarly in the focus group discussion respondents from urban area (FGD 1), peri-urban areas (FGD 4, 5) and the rural areas indicated that more female access healthcare. This is consistent with a survey findings in United States which indicated that people with disabilities particularly women are more likely to have health insurance coverage than their male counterparts hence easy access to health care. This was also consistent with a study findings by, Hanson et al., (2003) which found out that 95% of women with disabilities had health insurance coverage therefore have no difficulty in accessing healthcare. This was also consistent with Centers for Medicare and Medicaid Services (CMS), 2009 report that showed that in 2008, 48.1 million Americans were enrolled in Medicaid, with women living with disabilities comprising majority. These however contrast Oliver (2003) findings in Kenya which showed that women with disabilities generally have less access to rehabilitation services compared to their male counterparts. This could be due to traditional social and cultural norms in most village societies in Kenya. Most WWDs do not go out of their houses to seek help for healthcare, especially if the care-provider is male. According to the current study women access healthcare more than the

male counterparts. This could be attributed to increased awareness on primary healthcare whereby campaigns are carried out in villages and most participants are females since they most available whereas men are busy in the farms.

5.2.2 Attitude of health care providers

This study found a significant relationship between the frequency of seeking healthcare and attitude of healthcare workers (p-value 0.001). From table 4.9, 26.3% (n=93) of the respondents believe that attitude of health care providers help a lot in accessing healthcare whereas 36.2% (n=128) of the respondents feel that attitude of healthcare providers limit a lot in seeking healthcare and 16.7% (n=59), 16.7% (n=59) and 4.2% (n=15) feel that the attitudes of healthcare providers help somehow, have no effect and limit some, respectively. In the focus group discussion majority of the respondents from rural areas (FGD 2, 3, 6) indicated that healthcare providers feel that they should also access healthcare like the non-disabled counterparts and even regard them at times as difficult persons to handle while those from the rural areas and periurban areas indicated that healthcare providers are friendly to persons with physical disabilities. The results of this survey showed a significant proportion of people with physical disabilities are experiencing difficulty in accessing adequate and appropriate primary healthcare services could be due to lack of information from healthcare workers on access to healthcare by persons with physical disabilities like provision of health insurance covers and free medical services.

This findings are similar to Veltman *et al.*, (2001) study whose findings indicated that the negative perceptions of primary healthcare workers towards people with physical disabilities in Canada has led a decline in seeking access to health services by persons with disabilities. Veltman et al (2001) found that up to a third had difficulty in accessing family doctor while one fifth felt that their family doctor was insensitive or oversensitive about their disability. Also,

26.9% of respondents in the same study felt that inadequate time is allotted to medical appointments and they also report that their doctors hurry too much when they treat them. This situation have also been observed in several studies (Maart and Jelsm; 2013; Munthali et al. 2013b; Coomer, 2012; Ravim and Handicap International 2010; Barrat and Penn 2009). Many respondents in these studies narrated experiences with regards to inappropriate or unprofessional conduct on the part of the service providers. The study by Barrat and Penn (2009) revealed that just under half of the respondents were unwilling to use healthcare facilities due to the negative attitudes of the health care workers. The negative attitudes included the use of demeaning and offensive language and the general lack of patient-health worker rapport. Similar observations have also been reported in Kenya by Becker (2007) which revealed that most women with disabilities are mistreated by medical practitioners when they go to hospitals for treatment. These left them with a feeling of alienation in reference to provision of health services as they feel they are burdensome, especially when providers are unable to provide adequate facilities, consultation time, or advice to meet their needs. The negative attitudes from healthcare workers could be as a result of lack of disability training.

5.2.3 Distance/ Geographical condition

The study indicated that there is a significant relationship between distance to the health facility and access to healthcare (p-value= 0.001). Majority of the respondents 43.7% (n=152) lived 5-10 km away from the healthcare facility, while 36.5% lived less than 4km away from the health facility. A minority of 13% and 10% access healthcare at 10-20km and more than 20km respectively. Distance is a factor in accessing healthcare, the further the healthcare facility the difficult it is for persons with disabilities to access because their disability may not allow to cover the long distances. Similarly in the focus group discussion majority of the respondents from the rural areas (FGD 2, 3, 6) indicated that long distances to healthcare facility may not

allow them to access healthcare. However those from urban area (FGD 1) and peri-urban areas (FGD 4, 5) indicated that distance is not a factor in accessing healthcare. These findings are similar to Oanh, (2009) which showed that geographical conditions greatly affect access to health services by PWDs. People in mountainous areas irrespective of their economic status, access health services less frequently than people in delta regions. Geographical challenges such as mountains, gullies, rivers, unpaved roads etc. present physical barriers to accessing healthcare especially by PLWD. It is also similar to Chipp *et al.*(2010) study that found that due to geographic challenges, some rural residents rarely seek health care. This findings has also been observed by Van Rooy (2012), Brems, Johnson, Warner & Roberts (2006) in Namibia.

The distance to a health care center determines the utilization of health services. The distance affects the mode of transport utilized and the time taken to reach a health facility. In South Africa studies by Maart and Jelsma, 2013; Grut *et al.*, 2012; Barrat and Penn(2009) and Saloojee *et al.* 2006;,and in Mozambique by Ravim and Handicap International, (2010), Namibia by Coomer (2012), and in Malawi (Muntahli *et al.* 2013b) and in Kenya by Chipp *et al.* (2010) have all shown long distance as a barrier. The high access of health care in urban and peri-urban areas could be attributed to the close proximity of health facilities hence PWDs are able to commute to the facilities.

5.2.4 Affordable/Accessible transport

The design of buses and taxis present major obstacles to their use by persons with disabilities. Focus group discussion indicated majority of the respondents from rural areas (FGD 2, 3, 6) and peri-urban area (FGD 4) agreed that transport is neither affordable nor accessible while others from urban area (FGD 1) and peri-urban (FGD 5) indicated that transport is affordable and accessible. This could be attributed to the fact that those living in the rural areas use the

unadapted vehicles. Participants in identified barriers which can affect all users of public transport, even non-disabled passengers. These included among others but not limited to, lack of sufficient grab rails at entrances and inside vehicles; narrow door openings; narrow seat spacing, and slippery vehicle floors. The focus group participants noted that the presence of the above barriers hinder Passengers with severe walking difficulties, and users of calipers, wheelchairs, and crutches, were mostly unable to enter buses independently.

The above findings are consistent with the findings of studies done in South Africa and Malawi. The findings indicated that minibus-taxis are often the only mode accessible to disabled persons, but this is also the most expensive option. The same has been witnessed in Mozambique and India where persons with disabilities are restricted to certain modes of transport but turns out to become expensive in the long run. The design of buses and taxis present major obstacles to their use by persons with disabilities. According to a study done in Mexico City by Dejeammes, Frye and Hultgren, (2001) taxis and other means of transport tend to charge disabled persons extra for the space their mobility aids occupy, especially wheelchair users and also the person accompanying. Likewise in the current study the transport is not affordable because extra charges levied on the wheelchair and the persons accompanying PWDs. The low financial status of PWDs does not also allow for the high commuter fare.

5.3 Equalization of opportunities in the context of Education

UN convention 2006 urges State Parties to recognize the right of persons with disabilities to education. With a view to realizing this right without discrimination and on the basis of equal opportunity, States Parties shall ensure an inclusive education system at all levels and lifelong learning. Disability Act 2003 of Kenya stipulates the same and Article 54 of the new Constitution 2010 operationalizes Act 2003 on the same rights.

5.3.1 Age

The study indicated that there was a significant relationship between age and access to any formal education (p-value=0.015). Between the ages of 18-25, 11% (n=34) attended formal education, 22.4% (n=66), 31.0% (n=91), 35.0 (n=103) attended formal education in the age brackets of 26-35, 36-45 and 46-60, respectively. Overall majority of the respondents 64.6% of below the age of 45 years had access to formal education. In the focus group discussion, respondents aged between 46-60 years indicated that during their time education was not compulsory therefore they did not attend formal education; however with the enactment of Education Act of 1995 this led to compulsory free primary education hence the increase in access to education in the age bracket less than 45 years. This seems to contradict Kobiane, James and Thomas (2013) findings that found that in Burkina Faso a rapid decline in school enrolment of children with disabilities after the age of 12. The schools are very far and unevenly distributed hence the school going age of 5-18 not be able to commute hence low enrolment. These findings are also similar to World Health Survey data that found that in over 69 countries, 18.6% of adults over the age of 18 reports most often having moderate, severe or extreme difficulty related to moving around hence difficult in accessing educational facilities (WHO, 2011). This is also similar to various studies carried out in Fiji, India, Indonesia, Mongolia and the Philippines, which indicated that age was a barrier in education and that about one in five people has at least some difficulty walking or climbing stairs, and one in 20 people has severe difficulty. This has resulted in starting or accessing education late among physically challenged persons (Mont, 2007).

This has also been demonstrated by a study by McFerran (2005) that found that one in every ten children in Kenya and in most African countries has disabilities and 98% of those children were not in school. In Kenya, despite the government's order on all regular schools not to reject any

child, many CWDs are still waiting for placement in learning institutions. The trend shows high dropout rate in the country (MoEST, 2003b).

5.3.2 Number Siblings

This study found that there was a significant relationship between accessing education for a physically person in a family and the number of siblings in that family (p-value= 0.001). In a family with more than 6 children the chances of accessing education was at 10.9% (n=32) whereas a family with 1-2 children the chances of accessing education was 22.8% (n=67), similarly for a family having 3-4 and 4-5 children, the chances of accessing education was at 14.6% (n=43) 31.6% (n=93) respectively. In the focus group discussion majority of the respondents from the rural areas (FGD 2, 3 6) indicated that their sound siblings were preferred to pursue education. This could be attributed to the fact that compulsory free primary education had not been enacted during their time. In overall as the number of siblings increases in a family the chances of accessing education for a physically disabled person becomes low. This is consistent with Freidson (2008) study findings that showed that in many developing countries there are large gaps in meeting needs for support for persons with disabilities due to their large family sizes. For instance, in China there was a shortage of education support services for people with disabilities who need education due to lack of family support. Another study by Stewart (2009) in New Zealand, showed similar findings that among 14,500 children with physical disabilities, 10% of families reported unmet needs for household care, and 7% for funding for their education due to their large family sizes (Stewart, 2009). Another study Hogan (2003) in Ghana was also consistent with the findings of the above studies. The results revealed that large families have a negative impact on a person with disability in accessing education. Children with disabilities with many younger siblings had a lower likelihood of school enrolment, a greater probability of dropping out, and fewer overall numbers of schooling attained. However, this

contrast Eloundou-Enyegue and Davanzo (2003) that reported that family size does not seem to affect the educational inequalities for persons with disabilities within the family in the context of Cameroon. This is due to compulsory inclusive education for all which has been internalized and enforced in Cameroon.

5.3.3 Distance to the Nearest School

The study revealed that that there is no significant relationship between accessing education and the distance to the school (p-value=0.117). 32.1% (n=93) of the respondents agreed that distance to the nearest school affected access to education whereas 67.9% (n=197) felt that distance did not affect access to education. Similarly in the focus group discussion majority of the respondents from the rural areas indicated distance to the nearest school was a factor in accessing education. This could be attributed to the few schools in the rural areas. The longer the distance, the more difficult it was to access education. The findings are similar to a study done in Zambia by Ndhlovu (2008) which reported that long distance to school hindered most children with disabilities from accessing education. For instance, in Chinyunyu, children had to walk 12 kilometres to reach school. Similar results were obtained in a study done by Moberg and Kasonde-Ng'andu (2001) which reported that 40% of school children with disabilities in Western and North Western provinces of Zambia dropped out of school system because they could not afford transport to school due to the long distance.

5.3.4 Teachers Perception

The study indicated that there is a significant relationship between teachers perception and access to formal education (p=0.024). Up to 20.8% indicated that teachers' perception was a factor in contribution to access to formal education. Similarly in the focus group discussion respondents from urban areas (FGD 1) and peri-urban area (FGD 5) indicated that teacher's

perceptions was a factor in access to education. The teacher's attitude towards a physically disabled person will discourage or encourage access to education

This is consistent with study findings done by Gregory, Knight, Power, Wendy and Lend (2008) those children who find themselves in unsatisfactory relationship with their teachers; life in school becomes a punishing experience. Availability of structures and well prepared teachers to accommodate CWDs in their regular classroom activities is a must. For example Lesotho adopted a policy of an intensive three week training workshops for nearly all the teachers in schools. The teachers would then go to neighboring communities and work through local chiefs, and persuade parents to allow CWDs attend school. Furthermore, valued support was provided by trained itinerant special needs inspectors (for example for sensory and intellectual disabilities) and by local district inspectors (Khatleli et al, 2005). It is also consistent with Mushoriwa (2001) Australian study that found that teachers were more positive on learners whose programmes focused on social inclusion than those requiring physical changes in their school or classroom. The teachers were also more accepting to learners with physical disabilities than to those who necessitated academic modification. In another study done in Kenya by Mutisya (2010), Rachuonyo County the results contrasted the above studies. The findings indicated that overwhelming majority 92.9% of the teachers stated that children with special needs should be educated. A negligible 7.1% however stated that those children should not be educated. From the results, there was a strong indication that teachers strongly supported education for children with special needs. This is encouraging in the sense that; a positive attitude for teachers is a positive step towards achievement of the EFA goals. Although the 7.1% of the respondents believed that those children should not be educated, more encouragement and sensitization needs to be done to help such people to change their attitude. The teacher perceptions according to the current study

could be as a result of poor knowledge of the teachers on disability matters and may be the current teacher curriculum has not factored in disability related studies.

5.3.5 Mode of transport-assistive devices/cars

In this study, assistive devices which included walking aids like crutches wheelchairs were not statistically significant with access to education (p-value=0.876). Similarly, other means of transport in accessing education were not significant to access to education (p=0.328). Public transport was the common mode of transport used by a majority 14.4% (n=51) of the respondents in this survey. Crutches and wheel chair were also commonly being used by 7.6% (n=27) and 4.8% (n=17) of the respondents respectively. Private transport was used by only 2.3% (n=8) of the respondents interviewed. Likewise in the focus group discussion, seventeen respondents from rural area (FGD 2, 3, 6) indicated that public transport was the most common means of transport. This is due to the fact that private vehicles are few in rural areas.

The current study contradicts WHO (2011) report. The report showed that people needing orthoses or prostheses and related services represent 0.5% of the population in developing countries; including Kenya and that the number of people with disabilities in developing countries who require a wheelchair is approximately 1% of the population (WHO, 2006). The WHO(2006) findings is similar to findings of other studies in Malawi, Mozambique, Namibia, Zambia and Zimbabwe which found huge unmet needs in the provision of assistive devices for PLWD (Loeb & Eide 2004; Eide & Kamaleri 2009; Eide, van Rooy & Loeb 2003; Eide & Loeb 2006; Ide et al. 2003). These studies found that only 17–37% of people received the assistive devices they needed. Gender inequalities were also evident in the proportion of individuals with disabilities who had an assistive device in both Malawi (men 25.3% and women 14.1%) and Zambia (men 15.7% and women 11.9%) (Eide & Loeb 2006; Loeb & Eide 2004;). In Tanzania, only 2.5 percent of children were using assistive devices the remaining 97.5 percent of children

who needed these devices were not using. This is due to that fact that majority of children and their families are not aware of the services and those that are aware majority cannot afford the cost of these devices. In Tanzania, there are thirteen (13) orthopedic centers but of those, only five centers are actively working. Most health personnel, working at rehabilitative departments are involved in the provision of mobility devices (Kadobera, Sartorius, Masanja, Mathew & Waiswa, 2012). Private transport was rarely used in the current study because of the low economic status of families with persons with physical disabilities.

5.3.6 Time Allocated- curriculum/examinations

The study indicated that there was no significant relationship between the time allocated for class attendance and examinations and access to education (p=0.124). Majority, 73.4% (n=235) agreed that the time allocated for class attendance and examinations did not influence access to education while 26.6% (n=85) felt that the time allocated for the above influenced further access to education. In the focus group discussion minority of the participants from urban area (FGD 1) which represents a negligible number indicated that they were allocated extra time during examination. This is an indication that the curriculum on disability studies had been internalized in various schools particularly in the integrated schools in urban areas. This is similar to Uganda study findings by Peters (2004) that found that despite children with disabilities being enrolled in primary schools, small proportion complete the primary cycle of education in Uganda due to unresponsive and absolute primary curriculum that does not serve the needs of the disabled person.

5.3.7 Toilets/ramps

The study revealed that there was no significant relationship between the accessibility of toilets and access to education (p= 0.922). Upto 30.4% (n=104) of the respondents noted that toilets

have a great influence to access of education while majority 69.6% (n=222), agreed that accessibility of toilets has no influence to access to education. Likewise in the focus group discussion majority of the respondents from the rural areas (FGD 2, 3, 6) and peri-urban (FGD 4) indicated that the design of the toilets was a factor in accessing education in that most toilets were narrow and did not have ramps and was difficult to maneuver the wheelchairs. Those who did not support the influence of toilets may be explained by lack of awareness and ignorance of disability facilities like toilets. However on observation most toilets are not disability friendly at all with some having very narrow space which do not allow for wheelchair manauver. This could still be attributed poor law enforcement on the same

This contrasts with a study done by Najjingo (2009) which found that teachers and key respondents agreed that the absence/presence of disability friendly facilities affect access to all inclusive education with the same non special facilities. This could be explained by the reason that teachers and key respondents by virtue of their education levels, roles and responsibilities being policy formulators and implementers have been exposed to the requirements of CWDs.

A study done in Nigeria by Lang (2006) produced similar results with the above study. The results indicated that some buildings had satisfactory restrooms for persons with disabilities which included among others very low-level water closets, vertical and horizontal grab rails and hand washbasins close to them with amble maneuvering space. However the survey indicated that restrooms in most buildings were not designed for persons with disabilities.

The above results however contrasts with a study done by Bichard, et al., (2006) in UK which indicated that many toilets in public buildings restrooms did not follow standardised design guidance to accommodate persons with disabilities. The contrast could be because of the research setting or the methodology employed.

5.3.8 School Policies/Legislations

The findings indicated a significant relationship between school policies and access to education (p=value = 0.001). Analysis of school policies on respondents' participation in education showed that a high 42.5% (n=117) of the respondents indicated that institutional policies are not applicable in influencing their participation in education. Only 18.2% (n=50) indicated that these policies had no effect whereas 2.2% (n=6) and 31.3% (n=86) were of the opinion that these policies "limit somewhat" and "help a lot" respectively. The study also showed that a majority 29.9% believed that school policies helped a lot and 10.2% believed the policies helped somewhat. Only 16.9% said the policies had no effect on participation whereas 4.5% indicate the policies limit somewhat. In the focus group discussion majority of the respondents from the rural areas (FGD 2, 3 6) indicated that reporting time was a factor in accessing education. Those on wheelchairs could not report on time like their non-disabled counterparts resulting in being punished. This is consistent with a study on inclusion policies related to education of learners with disabilities in European countries. The findings showed that if funds are not allocated in line with an explicit inclusion policy, inclusion is unlikely to happen in practice (UNESCO 2003). Rustermier (2002), study contrasts with the above findings. The study findings indicated that Norwegian policy of not providing special schools has made parents to send their children to substitute centers. That shows that, though inclusion is generally viewed as a good option for achieving the Education for All (EFA) that has not yet been fully reflected in practice. The existence of legislation supporting inclusive education in those countries did not necessarily mean that inclusion was happening in everyday lives of CWDs. Such discrimination could lead to either dropout from school, low enrolment or opting to learn in special institutions.

Studies by Bosa (2003), Mittler (2002), Miles (2000), produced similar findings as those the current study. The findings indicated that some African countries such as South Africa, Uganda,

and Lesotho among others do have a national policy in favour of inclusion with Uganda having addressed the educational needs of CWDs as part of Universal Primary Education (UPE) since 1996. This has led some children especially CWDs who were still out of school to enroll for education. In Kenya before the Special Needs Education (SNE) policy was put in place in March 2010, the implementation and practice of special education programmes was guided by the policies stated in the Sessional Paper No. 5 of 1968 and No. 6 of 1988. These policies pointed out that the needs of the children with special needs should be catered for in special schools. Other policies had been adapted from presidential directives, education commissions and legal notices from the Ministry of Education (MoEST, 2005a). The recently launched SNE policy clearly points out on the need to implement inclusive education as a viable means of achieving EFA goal (MoE, 2009). The implementation of Free Primary Education (FPE) by the government was a positive milestone towards that achievement. Although this has been done and the enrolment in regular primary schools increased from 5.9 million in 2002 to 8.5 million in 2008, the number of children of school going age who do not access educational services is still high. Out of the estimated 750,000 CWDs of school going age, only 45,000 (6%) children are placed in learning institutions (MoE, 2009). This therefore implies that about 94% of the estimated CWDs are out of school or hopefully some may be in regular schools (MoEST/ UNESCO, 2004; MoEST, 2004; 2005a MoE, 2009). The lack of implementation of the policies and international frameworks may have led to implementation of curriculum which do not have disability related courses.

5.3.9 Ramps/Lifts/Rails

In the focus group discussion, majority of the respondents from rural areas (FGD 2, 3, 6) and peri urban area (FGD 4) indicated lack of lifts and ramps in the buildings. This is attributed to the fact may be persons with disabilities act 2003 on design and construction has not been

internalized by the architectures in the said areas. Few respondents from the urban area (FGD 1) indicated the presence of ramps and lifts in their area. However on observation it was noted that a few of the buildings had lifts and ramps well designed for persons with physical disabilities was witnessed at the main Teaching and Referral Hospital, in leading supermarkets and a few of the buildings which constituted only 15% of the compliance. In a leading institution of learning lifts were installed but ramps are not in existence therefore leading to inaccessibility of the building particularly for students using wheelchairs in case of failure of the lifts to function. More disturbing is the fact that upcoming buildings do not have disability friendly lifts and ramps.

Literatures from various studies are similar to the findings of the current study. They have discussed the need for ramps and lifts in buildings to accommodate persons with disabilities. Inclusive education in Zambia has been advocated for by Ministry of Education however it has been hindered by lack of adopted infrastructure (which include lack of rails, ramps among others) to accommodate children with disabilities. This situation made the learning environment somewhat hostile to pupils with disabilities. This observation was consistent with a study done by Savolainen, (2000) in Finland

Similarly a study done in a Nigerian University and hospital (Lang, 2006) on accessibility in buildings with regard to persons with disabilities indicated similar results with the above study indicating inadequate lifts and ramps in the facility. The ramps were not initially designed to create access for PWDs but for wheelchairs and hospital stretchers an indication that PWDs are not taken into consideration in the construction of the campus.

5.4 Equalization of opportunities in the context of Recreation

The UN Convention states that PWDS will not only participate in disability-specific sporting activities, but also in mainstream sports (Cevera, 2007). While the focus on disability specific

sports is important in improving the quality and availability of such sports for PWDS, the inclusion of PWDS in mainstream sports will allow for greater social inclusion accessibility and sensitization of the public regarding PWDS (Cevera, 2007). Article 30 of the UNCPRD addresses equal participation of PWDS in recreational, leisure and sporting activities

5.4.1 Participation in recreation

Focus group discussion elicited different responses as regards to participation in recreation. The study findings showed majority, majority of the respondents from rural areas (FGD 2,3,6) and others respondents from peri-urban areas (FGD 4, 5) noted the absence of participation in recreational activities. However minority, respondents from urban areas (FGD 1) noted full participation in recreational activities. This could be attributed to the presence of recreational facilities within the urban areas. Similar results were obtained in WHO (2004) estimates. The results indicated that, worldwide 60% of persons with disabilities do not engage in levels of physical activity that will benefit their health compared to their non-disabled counterparts. The participation vary depending on circumstances, incentives, barriers and personal factors however where barriers have been significantly dismantled participation rate increases. Other studies which produced similar results were by Flynn & Hirst (2003)

5.4.2 Accessibility of recreational facilities

The findings revealed that, indeed persons with disabilities undergo tremendous challenges in accessing recreational facilities ranging from inaccessible roads, lack of adapted vehicles for transport, distance to the recreational areas among others. In the focus group discussion minority of the respondents from the rural areas (FGD 2, 3, 6) indicated that the recreational facilities present particularly at the rural areas are not accessible more so for those using wheelchairs. However majority from urban area (FGD 1) and peri-urban area (FGD 5) indicated

the existence of accessible recreational facilities however those living in rural areas cannot travel all the way to the urban areas due to financial constraints, distance and lack of adapted transport system in the rural areas as the main cause of high commuter fare.

Similar results were found in the Kerry Network of People with disabilities who carried out a needs assessment of 104 people with disabilities in County Kerry (2000). The results indicated barriers in accessing recreational facilities included lack of transport, the absence of companion, and negative attitudes (Mitchell & Sloper, 2001). Other studies that have produced same results include those done by Beresford (2002), Zeegers (2004) and Johnston, Wheeler, and Rattray (2009). The lack of activities which are inclusive within the vicinity leads to boredom and loneliness hence persons with disabilities spend more time at home and more time watching television than non-disabled children.

5.4.3 Availability of recreational facilities

The findings revealed that recreational facilities available are situated in urban areas and none in the rural areas with majority of the respondents living in rural areas (FGD 2, 3, 6) and Peri-urban areas (FGD 4, 5) indicating the absence of recreational facilities while a minority of the respondents who live in urban areas (FGD 1) indicating availability of recreational facilities. This could be attributed to the fact that those who live in urban areas have been accessing recreational facilities present in urban areas.

Sport and disability thematic Profile (2009) indicated the existence of recreational facilities from grassroots level for people with a disability to display their abilities in the domain of sport and physical activity. However, this is not uniform around the world but more pronounced in developed than in developing countries. According to thematic profile (2009) Respondents of PWDs in Ethiopia were asked to rate generally the availability and condition of the public

recreation facilities in their area. The majority 157 (78.5%) of the participants indicated that the condition of the public recreation facilities in Addis Ababa is poor and hence not available to persons with disabilities. while 10 (5%) and 22 (11%) of the respondents think that the situation is good and fair respectively.

5.5.4 Public recognition for persons with disabilities in recreation

The UN Convention (2006) provides the expectation that PWDs will not only participate in disability-specific sporting activities, but also in mainstream sports. The Convention further states that disability specific sports are important in improving the quality of life for persons with disabilities (Cevera, 2007).

Results of the current study indicate that a majority of the respondents from rural areas (FGD 2, 3, 6) in the focus group discussion felt they are rarely recognized in accessing recreational facilities. However only a small percentage of the respondents from urban area (FGD 1) indicated that they are recognized by their respective institutions. This could be due the awareness that has been undertaken by the Ministry of Social services in the county in the integration of persons with disabilities in recreation. The same awareness has been done in the rural areas however the myths surrounding the persons with disabilities may not allow the inclusion of persons with disabilities in recreation resulting in them not participating.

However a study by Arthur and Finch (2009) contrasts the UN Convention. It indicated that families and family members rarely recognize the participation of PWDs in recreational activities for fear of injury or accidents occurring during participation. The study further indicates that the influence of family friends and coaches in providing assistance and moral support affect the confidence and self- esteem of people with disability.

5.5 SUMMARY OF THE CHAPTER

This chapter discussed the major findings of the study in line with the study objectives and further related to similar or contrast findings by other studies in the literature. Studies were limited especially in Kenya on factors inhibiting equalization of opportunities for persons with physical disabilities therefore this study adds more knowledge to the existing gap. Chapter Six will now present the conclusion, recommendations and a summary of the chapter.



CHAPTER SIX

CONCLUSIONS AND RECOMMENDATIONS

6.1 INTRODUCTION

This chapter is a conclusion of the study that highlights the strengths and limitations and the recommendations for the study.

6.2 CONCLUSION

From the findings, it is clear that physically disabled persons still face challenges in accessing employment services, health, education, infrastructure and recreational facilities. In the urban areas adaptations in buildings and transport sectors have been undertaken but in isolated cases. The recently completed buildings and the upcoming buildings in urban area are yet to implement Act 2003 therefore rendering the facilities inaccessible to persons with disabilities. Likewise adaptation in buildings and transport sector in the peri urban areas has been undertaken on very isolated cases. In contrast the infrastructure in the rural areas has completely not been adapted to suit persons with physical disabilities. The research also found out that a few persons with physical disabilities are educated hence cannot access employment competitively with the educated none disabled counterparts. Likewise due to low employment rate accesses to the health care and recreational facilities becomes difficult to persons with physical disabilities.. Policy and law formulation to promote, protect and safeguard the rights of persons with disabilities need (WHO 2012) to be viewed in a broader context beyond a single piece of legislation. WHO report on disability stipulates that, lack of equitable access to resources such as education, employment, health, infrastructure and recreational facilities with regards to persons with physical disabilities is disproportionately high (WHO Disability Report, 2012). Sustainable equitable progress in the

agreed global development agenda cannot be achieved without the inclusion of persons with Disabilities. If they are not included, progress in the development will further their marginalization.

6.3 STRENGTHS OF THE STUDY.

- 1 .The mixed method design used in the study helped the researcher to get strong findings. It provided a better understanding of the research problem than either research approach alone hence it managed to offset the weaknesses of either approach.
- 2. The participants came from across the social divide of the county, from rural, peri urban and urban areas hence the findings were rich of information therefore representing the views of persons with physical disabilities living in the county.

6.4 LIMITATIONS OF THE STUDY

This study should be interpreted with caution because of the following reasons;-

- 1. Although the questionnaire was tested for validity from the analysis it is evident from the findings that the questions may have been too detailed to get the correct answers.
- 2. The representatives in FGDs could have been biased since the nomination rule allowed the group officials to pick those who participated in the discussion. Other potential participants may have been left out.

6.5 RECOMMENDATIONS

From the study carried out and the analysis that has been done, it is clear that the physically disabled persons experience challenges in accessing employment, health, education, infrastructure and in recreational facilities. The following recommendations need to be effected in order to solve the above issues;

6.5.1 EMPLOYMENT

The government apart from enacting the legislations should intensify awareness in both public and private sectors in order to encourage the employers to employ persons with physical disabilities. In this regard media should be in the forefront in sensitizing the community on the right to employ persons with disabilities. Having said this government should implement all aspects of the Disability Act (2003) for employment of PWDs. The political goodwill should be backed by level of funds allocated by treasury and advocacy programmes on persons with physical disabilities. This should include tax exemption for the persons with physical disabilities and sensitization workshops on behavior change to demystify their condition and status in society. There are barriers such as lack of lifts and ramps in office buildings, equipment, and reliable transport that are recommended to be removed in order for PWPDs to access buildings easily and feel welcomed to the offices when visiting them. Companies should be sensitized to have disability policies and legislations in workplaces that oversee the employment of PWDs and penalties for those who do not comply. If these systems are in place it is going to make it easier for PWPDs to feel engaged within the departmental structures. Hence it will be important for government to create support groups as a great way for individuals with disabilities or caregivers of persons with disabilities to interact with people who face similar problems. In Uasin-Gishu County, a couple of different community based support groups have already been developed as indicated in the disability groups in existence (Q 10). These support groups are relatively new, and they have a lot of potential. In order to maximize their productivity, the support groups in the country need to develop a purpose. Once the purpose is established, the support groups will need trustworthy and knowledgeable leadership. Once these two actions are completed, the support groups could then start developing action plans and proposals to submit to the National

Disability Fund, which provide financial grants to community based groups. Receiving one grant could really improve the quality of life for disabled persons in the county.

6.5.2 HEALTH

This study provides recommendations for public and private hospitals as well as policy makers on the following:

The public and private hospital administration should ensure facilities such as low beds and low toilets in the hospitals; ramps and floors that are adapted to disability; vehicles which are adapted widen corridors and doorways and also give priority services to the persons with disabilities in the hospitals. This can be achieved by employing doctors and nurses who are trained in disability issues to motivate the persons with disabilities to come for health services at the hospital. Likewise, community health workers in Uasin-Gishu County, Kenya should be provided special in depth disability training, so that they can help counsel and refer disabled persons to the right service provider. This is essential due to the fact that community health workers live in a close proximity to disabled individuals, the community health workers hence will be able to follow up on referrals to make sure disabled individuals are accessing health services. To enhance access to health services APDK clinics should include the services of doctors, physical therapists, occupational therapists, orthopeadic technologists, counselors and social workers among others. By bringing the health professionals to the community would eliminate several barriers that prevent or discourage individuals with disabilities from accessing health services.

6.5.3. EDUCATION

Ministry of Education and its partners should modify infrastructure to suit the needs of pupils with disabilities, to achieve this the government should that ensure that Disability Act 2003 on access to education is fully implemented by ensuring that physical school infrastructures are disability friendly e.g. special latrine facilities, building equipped with ramps and wide corridors for persons with physical disabilities at all schools. Likewise the government should include a module on Special needs in the training of all teachers so that they all know what to do and to achieve the teachers need to be equipped with the concept of all-inclusive education in order to understand the differences between children with and without disabilities. Such opportunities would help teachers understand that all children can learn if they are given the chance. To achieve all inclusive education the government should establish integrated programs or special education programs in existing schools and this will eliminate two barriers that prevent individuals with physical disabilities enrolling in schools and the two barriers are distance and access. Trained disability teachers will be hired to teach in the integrated schools.

6.5.4. INFRASTRUCTURE

Involve persons with disabilities, disabled people's organizations and their family members while formulating and implementing policies, laws, and other related services to persons with physical disabilities for example in designing and provision of accessibility infrastructures. To achieve this, Institutions like the Polytechnics and Universities that train practitioners of the built-environment should introduce topics on barrier-free environment in their curriculum. This will go a long way in preparing their students for future assignments on the built-environment.

6.5.5 RECREATION

The government should provide more choices and programs based on the needs of PWDs for participation in physical activities to minimize several factors which limit participation of PWDS in physical activities and to achieve this, the environment and facilities should be made conducive and easily accessible to persons with disabilities, such as offering safe, accessible, and attractive trails for wheelchair activities. More professionals trained in adapted physical activity are also needed.

6.6 RECOMMENDATION FOR FURTHER STUDIES

This study recommends a comparative study of a county to county level that may indicate whether the opportunities and barriers differ regionally. Similarly, a study on the awareness of the family members and community at large on the special rights, privileges and protection of disabled persons in Uasin-Gishu should be done as it is entitled under the new constitution 2010 Article 54.

6.7 SUMMARY OF THE CHAPTER

The chapter has dealt with the conclusion of the study, the strengths and weaknesses and finally on the recommendations to be undertaken in order for persons with disabilities to attain equal opportunities as their sound counterparts.



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APPENDICES



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APPENDIX A 1: INFORMATION SHEET

Project Title: Factors inhibiting equalization of opportunities towards persons with physical disabilities in Uasin Gishu, Kenya.

What is this study about?

Gishu county Kenya.

This is a research project conducted by Christopher Arap Koech pursuing a Masters degree in Physiotherapy (MSc Physiotherapy) at the University of the Western Cape, South Africa. We are inviting you to participate in this research project because you are the person with physical disabilities living in Uasin Gishu County. The purpose of this research project is to investigate the factors inhibiting equalization of opportunities towards persons with physical disabilities, with regards to education, health, employment, infrastructure, and recreation facilities in Uasin

The outcome of the study could provide recommendation to the Government of Kenya to fully implement the United Nations Convention (2006) on the Rights of persons with physical disabilities to equal access to education, health, employment, and infrastructure and recreation facilities by identifying and eliminating the barriers by the disabled persons.

What will I be asked to do if I agree to participate?

You will be asked to participate in an interview at a time and venue that is convenient for you. The interview is about the factors inhibiting equalization of opportunities towards persons with physical disabilities with regards to education, health, employment, infrastructure, and recreation facilities in Uasin Gishu Kenya. The interview will be recorded after informed consent is obtained and should not take longer than 45-60 minutes.

Would my participation in this study be kept confidential?

We will do our best to keep your personal information confidential. To help protect your confidentiality the following steps will be taken: The rooms where the interviews will be conducted will be assessed prior to commencing the interviews, and all data collected from the interviews will be treated with great respect to ensure your privacy. We shall ensure your name will not be included in the survey and other collected data. The interviews will be recorded after informed consent is obtained. A code will be attached to all audio-taped data that will be linked to an identification key only known to the principle researcher. All tapes will be destroyed once they have been transcribed and documented according to themes. Transcribed data will be stored in a locked filing cabinet with the keys to the cabinet under the custody of the principle researcher. No unauthorized party will be able to access the information. If we write a report or article about this research project, your identity will be protected to the maximum extent possible. We must notify you that in case we collect information on child abuse or neglect, abuse or neglect of disabled or other vulnerable adults or information that may be potentially harmful to you or others then in accordance with professional standards we will disclose information to the authorities. We must also emphasize that all participants included in the focus group discussion must maintain confidentiality.

What are the risks of this research?

There are no expected risks with this study. You are free to leave at your own pleasure in case you feel you do not want to continue with the interview and you will do so without any consequences at all. However, in case anyone is negatively affected by participating in this study then the assistant researcher who is a trained counselor shall attend to the affected participant as the rest continue with the study.

What are the benefits of this research?

This research is not designed to help you personally, but the results may help the investigator learn more about the factors inhibiting equalization of opportunities towards persons with physical disabilities with regards to education, health, employment, infrastructure and recreational facilities. We also hope that in future person with physical disabilities might benefit from this study through the improved access to education, health, employment, infrastructure and recreational facilities.

Do I have to be in this research and may I stop participating any time?

Your participation in this research is completely voluntary. You may choose not to take part at all or you may leave the study at any time. Leaving the study will not result in any penalty or loss of benefits to which you are entitled to. Your decision whether or not to participate in this study will not affect your current or future relationship with Moi University school of medicine, Moi Teaching and Referral Hospital or the County Government.

What if I have questions?

This research is being conducted by Christopher Arap Koech a Master's student in

Physiotherapy at the University of the Western Cape. If you have any questions about the

research study itself, please contact:

Christopher Arap Koech.

Moi University, School of Medicine

Department of Orthopaedics and Rehabilitation.

P.O Box 4606-00100. Eldoret

Mobile number +254721615550/+277721615550.

Email address:chrisko.2009@gmail.com

Should you have any questions regarding this study and your rights as a research participant or if

WESTERN CAPE

you wish to report any problems you have experienced related to the study, please contact:

Head of Physiotherapy Department: NIVERSITY of the

Dr. Nondwe Mlenzana

University of the Western Cape

Private Bag X17

Bellville 7535

nmlenzana@uwc.ac.za

Dean of the Faculty of Community and Health Services: Prof J. Frantz

University of the Western Cape

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This research has been approved by the University of the Western Cape's Senate Research Committee and Ethics Committee.

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APPENDIX A2: KITAMBULISHO: KARATASI CHA TAARIFA(TRANSLATED INFORMATION SHEET)

Mradi Title Mambo maendeleo ya taaluma equalization wa fursa kuelekea watu wenye ulemavu wa kimwili katika Uasin Gishu, Kenya.

Utafiti huu kuhusu ni nini?

Hii ni mradi wa utafiti uliofanywa na Christopher Arap Koech kutafuta shahada ya uzamili katika viungo vya mwili (MSc viungo vya mwili) katika Chuo Kikuu cha Western Cape, Afrika Kusini. Sisi ni kuwakaribisha wewe kushiriki katika mradi huu utafiti kwa sababu ninyi ni watu wenye ulemavu wa viungo wanaoishi katika Uasin Gishu Kata. Madhumuni ya mradi huu utafiti ni kuchunguza sababu za kuzuia equalization wa fursa kuelekea watu wenye ulemavu wa kimwili kwa upande wa elimu, afya, ajira, miundombinu, na vifaa vya burudani katika Uasin Gishu kata Kenya.

Matokeo ya utafiti inaweza kutoa mapendekezo kwa Serikali ya Kenya kutekeleza kikamilifu Umoja wa Mataifa (2006) kuhusu Haki za watu wenye ulemavu wa kimwili kwa fursa sawa ya elimu, afya, ajira, na miundombinu na vifaa burudani kwa kutambua na kuondoa vikwazo kwa watu wenye ulemavu.

Nini mimi kuulizwa cha kufanya kama nakubaliana ya kushiriki?

Utaulizwa ya kushiriki katika mahojiano kwa wakati na ukumbi kwamba ni rahisi kwa ajili yenu. mahojiano ni kuhusu mambo maendeleo ya taaluma equalization wa fursa kuelekea watu wenye ulemavu wa kimwili kwa upande wa elimu, afya, ajira, miundombinu, na burudani vifaa katika

Uasin Gishu nchini Kenya. mahojiano itakuwa kumbukumbu baada ya ridhaa ni kupatikana na haipaswi kuchukua muda wa dakika 45-60 kwa muda mrefu kuliko. Angalia Kiambatisho G ajili dodoso na Nyongeza H kwa ajili ya Mahojiano mwongozo kwa ajili ya muhtasari wa maswali ambayo itatakiwa.

Je, ushiriki wangu katika utafiti huu iwekwe siri?

Sisi kufanya kazi nzuri ya kuweka maelezo yako binafsi za siri. Kusaidia kulinda yako usiri hatua zifuatazo zitachukuliwa vyumba ambapo mahojiano itafanyika watakuwa tathmini kabla ya kuanza mahojiano, na takwimu zote zilizokusanywa kutoka mahojiano itakuwa kutibiwa na heshima kubwa ya kuhakikisha siri yako. Sisi itahakikisha jina yako si kuwa pamoja katika utafiti na nyingine takwimu zilizokusanywa mahojiano .The itakuwa kumbukumbu baada ya ridhaa ni kupatikana. kificho itakuwa masharti yote data audio-taped ambayo itakuwa wanaohusishwa na muhimu kitambulisho inayojulikana tu na mtafiti kanuni. Kanda wote wataangamizwa mara wao wamekuwa transcribed na kumbukumbu kwa mujibu wa mandhari. Data transcribed itakuwa kuhifadhiwa katika imefungwa kufungua baraza la mawaziri na funguo na baraza la mawaziri chini ya ulinzi wa mtafiti kanuni. Hakuna chama bila ruhusa utakuwa na uwezo wa kupata habari. Kama sisi kuandika ripoti au makala kuhusu mradi huu utafiti, utambulisho wako watalindwa kwa kiasi upeo iwezekanavyo. Ni lazima kukujulisha kwamba katika kesi ya sisi kukusanya taarifa juu ya unyanyasaji wa watoto au kupuuzwa, matumizi mabaya au kupuuza walemavu au nyingine wanaoishi katika mazingira magumu watu wazima au habari ambazo zinaweza kuwa uwezekano wa madhara kwa wewe au wengine basi kwa mujibu wa viwango vya kitaalamu sisi kutoa taarifa kwa mamlaka. Ni lazima pia kusisitiza kwamba washiriki wote pamoja na katika kundi lengo mjadala lazima kudumisha usiri.

Je, ni hatari ya utafiti huu ni nini?

Hakuna hatari inatarajiwa na utafiti huu. Wewe ni huru kuondoka katika radhi yako mwenyewe katika kesi wewe kujisikia wewe hawataki kuendelea na mahojiano na wewe kufanya hivyo bila madhara yoyote wakati wote. Hata hivyo, katika kesi yeyote ni vibaya kwa kushiriki katika utafiti huu basi mtafiti msaidizi ambaye ni mshauri mafunzo atahudhuria kwa mshiriki walioathirika kama wengine kuendelea na masomo.

Kuna faida ya utafiti huu ni nini?

Utafiti huu si imeundwa ili kukusaidia binafsi, lakini matokeo inaweza kusaidia uchunguzi wa kujifunza zaidi kuhusu sababu za kuzuia equalization wa fursa kuelekea watu wenye ulemavu wa kimwili kwa upande wa elimu, afya, ajira, miundombinu na vifaa vya burudani. Sisi pia matumaini kwamba katika siku za watu wenye ulemavu wa viungo waweze kufaidika kutoka utafiti huu kupitia upatikanaji bora wa elimu, afya, ajira, miundombinu na vifaa vya burudani.

Je nina kuwa katika utafiti huu na naomba kuacha kushiriki wakati wowote?

Ushiriki wako katika utafiti huu ni hiari kabisa. Unaweza kuchagua kushiriki wakati wote au unaweza kuondoka utafiti wakati wowote. Kuacha masomo haitasababisha adhabu yoyote au hasara ya faida ambayo una haki ya. Uamuzi wako kama au kushiriki katika utafiti huu si kuathiri uhusiano wako wa sasa au baadaye na Chuo Kikuu cha Moi shule ya udakitari, Moi Teaching na Hospitali ya Rufaa au Serikali Kata.

Nini kama nina maswali?

Utafiti huu unafanyika na Christopher Arap Koech mwanafunzi Mwalimu katika Tiba ya mwili katika Chuo Kikuu cha Western Cape. Kama una maswali yoyote kuhusu utafiti utafiti yenyewe, tafadhali wasiliana na

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Christopher Arap Koech.

Chuo Kikuu cha Moi, Shule ya Tiba

Idara ya Orthopaedics na Ukarabati.

SLP 4606-00100. Eldoret

Simu idadi 254721615550/277721615550.

Barua pepe chrisko.2009@gmail.com

Je, una maswali yoyote kuhusu utafiti huu na haki zako kama mshiriki utafiti au kama unataka kuripoti matatizo yoyote una uzoefu kuhusiana na utafiti huo, tafadhali wasiliana na

Mkuu wa Idara viungo vya mwili

Dk Nondwe Mlenzana

Chuo Kikuu cha Western Cape

Private Bag X17

Bellville 7535

nmlenzana@uwc.ac.za

Mkuu wa Kitivo cha Jumuiya na Afya Huduma za Prof J. Frantz

Chuo Kikuu cha Western Cape

Private Bag X17

Bellville 7535

chs-deansoffice@uwc.ac.za

Utafiti huu imekuwa kupitishwa na Chuo Kikuu cha Kamati ya Seneti utafiti na Kamati ya Maadili Western Cape.

UNIVERSITY of the



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APPENDIX B 1. CONSENT FORM

<u>Title of Research Project</u>: Factors inhibiting equalization of opportunities towards persons with

physical disabilities with regards to education, health, employment, infrastructure, and

recreational facilities in Uasin Gishu, Kenya.

The study has been described to me in a language that I understand. My questions about the

study have been answered. I understand what my participation will involve and I agree to

participate of my own choice and free will. I understand that my identity will not be disclosed to

anyone. I understand that I may withdraw from the study at any time without giving a reason and

without fear of negative consequences or loss of benefits.

Participant's name
Participant's signature

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APPENDIX B 2: FOMU YA UIDHINISHO (TRANSLATED CONSENT FORM)

Jina la Mradi wa Utafiti sababu maendeleo ya taaluma equalization wa fursa kuelekea watu wenye ulemavu wa kimwili kwa upande wa elimu, afya, ajira, miundombinu, na vifaa vya burudani katika Uasin Gishu, Kenya.

Utafiti umeelezewa kwangu katika lugha ambayo mimi kuelewa. Maswali yangu kuhusu utafiti wamekuwa akajibu. Naelewa kile ushiriki wangu itahusisha na nakubaliana na kushiriki ya mu uchaguzi wenyewe na uhuru wa kuchagua. Naelewa kwamba utambulisho wangu hautakuwa wazi kwa mtu yeyote. Naelewa nipate kuondoka kutoka utafiti wakati wowote bila ya kutoa sababu na bila hofu ya matokeo mabaya au kupoteza faida.

Jina mshiriki
Mshiriki sahihi
Tarehe



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APPENDIX C 1: FOCUS GROUP CONFIDENTIALITY BINDING FORM

Title of Research Project: Factors inhibiting equalization of opportunities towards persons

with physical disabilities with regards to education, health, employment, infrastructure, and

recreational facilities in Uasin Gishu, Kenya.

The study has been described to me in language that I understand. My questions about the study

have been answered. I understand what my participation will involve and I agree to participate of

my own choice and free will. I understand that my identity will not be disclosed to anyone. I

understand that I may withdraw from the study at any time without giving a reason and without

fear of negative consequences or loss of benefits. I understand that confidentiality is dependent

on participants' in the Focus Group maintaining confidentiality. I hereby agree to the following:

I agree to uphold the confidentiality of the discussions in the focus group by not disclosing the

identity of other participants or any aspects of their contributions to members outside of the

group.

Should you have any questions regarding this study or wish to report any problems you have

experienced related to the study, please contact the study coordinator:

Participant's name.....

Participant's signature.....

Date.....

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APPENDIX C 2: FOMU YA KUNDI YA KUFUNGA USIRI (TRANSLATED FOCUS GROUP CONFIDENTIALITY BINDING FORM)

Jina la Mradi wa Utafiti: sababu maendeleo ya taaluma usawazishaji wa fursa kuelekea watu wenye ulemavu wa kimwili kwa upande wa elimu, afya, ajira, miundombinu, na vifaa vya burudani katika jimbo la Uasin Gishu, Kenya.

utafiti umeelezewa kwangu katika lugha ambayo mimi kuelewa. Maswali yangu kuhusu utafiti wamekuwa akajibu. Naelewa kile ushiriki wangu itahusisha na nakubaliana na kushiriki ya uchaguzi wangu mwenyewe na uhuru wa kuchagua. Naelewa kwamba utambulisho wangu hautakuwa wazi kwa mtu yeyote. Naelewa nipate kuondoka kutoka utafiti wakati wowote bila ya kutoa sababu na bila hofu ya matokeo mabaya au kupoteza faida. Naelewa kwamba usiri ni tegemezi kwa washiriki katika Focus Group kudumisha usiri. Mimi hili kukubali yafuatayo

Mimi kukubaliana na kutekeleza usiri wa majadiliano katika kundi lengo kwa kutotoa utambulisho wa washiriki wengine au masuala yoyote ya michango yao kwa wanachama nje ya kundi.

Je, una maswali yoyote kuhusu utafiti huu au unataka kuripoti matatizo yoyote una uzoefu kuhusiana na utafiti, tafadhali wasiliana na mratibu utafiti

Jina mshiriki
Mshiriki sahihi
Tarehe

APPENDIX D 1: QUESTIONNAIRE

My name is Christopher Arap Koech. I am a student of University of the Western Cape pursuing a Masters Degree in Physiotherapy. I am currently working on my research proposal where I would like to determine and explore factors inhibiting equalization of opportunities with regards to the services in health, education, employment, infrastructure and recreational facilities, to persons with physical disability in Uasin Gishu County, Kenya. You have been identified as one of the respondents in this study and therefore, kindly requested to read through the information sheet, provide informed written consent then complete the following questions. The information provided will only be used for the purpose of this study and confidentiality and anonymity is highly assured. Responding to this questionnaire is voluntary on your part. The questions in this survey will take about 40 - 45 minutes of your time to answer. Thank you for agreeing to participate.

1. Survey site code:

2. Location Name:

SECTION A: Demographic questions

Read the following questions and answer them by marking the relevant response option or for each question.

- 3. Gender
- a) Male b) Female
- 4. Age in years
- 1 = 18 25 yrs
- 2 = 26 35 yrs
- 3 = 36 45 yrs
- 4 = 46 60 yrs
- 5. What is your current marital status?
- 1 = Married
- 2 =Never married

3 = Widower/widow4 = Separated5 = Divorced6. What is your religion? 1 = Catholic2 = Protestant3 = Muslim4 = Others7. Please indicate your occupation 1 = Employed2 = Unemployed3 = Business - Formal4 = Business (*Jua Kali* Industry) 8. How many siblings do you have? 1 = 1-2 children 2 = 3-4 children WESTERN CAPE 3 = 5-6 children 4 = More than 65 = None9. Who do you stay with? Mark one only 1 = Independent in the community (as in functioning independently) 2 = Living with personal attendant 3 = Living in an institution or hospitalized 4 = Parents5 = Church members

6 =Others (specify)

10. Please indicate the cause of your physical disability
1 = Congenital
2 = Accident
3 = Disease
4 = Unknown
11. Do you belong to any disability group?
a) Yes b) No
If yes specify
SECTION B: EMPLOYMENT STATUS
12. In the last 14 days before today, did you do any of the following for one hour or more?
a) Worked for Pay (in cash or kind),
b) Run or did any kind of business,
c) Any farming, construction or maintenance activities of the
1 = Yes Skip to Question 14.
2 = No Go to Question 13.
13. Even though you did not do any of the above activities in the last fourteen days, do you have
a job, business, or other economic or farming activity that you will definitely return to?
1 = Yes
2 = NoGo to question 17
14. Please indicate which of the following, best describes your employment status
1 = Formal employment (Non-farming)
2 = Informal employment (Non-farming)
3 = Farming
4 = Others type of employment.

15. Are you employed permanently	y, self employed, on contract or a casual labourer?	
1 = Permanent		
2 = On contract		
3 = Casual (includes volunteers)		
4= self employed		
16. How do the policies of your wo	orkplace (such as vacation policy, scheduling, frequency of	
breaks and workload) influence you	ur participation in employment?	
☐ Not applicable ☐ Help a lot ☐ H	elp some \(\square\) No effect \(\square\) Limit some \(\square\) Limit a lot	
	you did not have work in the last fourteen days? Only mark	
ONE answer.		
01 = On leave from work		
02 = Scholar or student	<u></u>	
03 = Housewife	UNIVERSITY of the	
04 = Pensioner or retired person/too	o old to work N CAPE	
05 = Unable to work due to illness	or disability	
06 = On maternity leave/ paternity	leave	
07 = Seasonal worker not working	presently	
08 = My financial needs are met he	ence i don't need to work	
09= Could not find work		
SECTION C: HEALTH		
18. How often do you seek health c	care?	
☐ More than twice a week ☐ Once or twice a month ☐ Rarely		
☐ Once or twice a week ☐ Once or twice a year ☐ Never (Go to question #21)		
19. Why don't you seek health care	.9	
17. WHY UUH I YUU SEEK HEAHH CAIE	r i	

☐ My physical disability does not allow me to move ☐ I am not aware of any health facility
within the vicinity \square I don't have the financial resources to access health care \square Community
health workers come to take care of my needs $\ \square$ My parents/ guardians don't allow me to leave
the homestead
20. Where do you seek health care?
□ Public health facility □ Private health facility □ Herbal health unit □ Witch doctor □
Prayers
☐ Community health workers ☐ Not applicable
21. How far from your residence is the nearest health facility.
☐ Less than 4 km radius ☐ 5 - 10 km radius ☐ 11- 20 km radius ☐ More than 20 Km radius
22. How do the attitudes of the health care providers influence your participation in seeking health care services?
☐ Help a lot ☐ Help some ☐ Have no effect ☐ Limit some ☐ Limit a lot
23. How often do you see a therapist? (For this question, therapists include occupational and
physical therapist, Orthopedic technologist) ERN CAPE
\square More than twice a week \square Once or twice a month \square Rarely
☐ Once or twice a week ☐ Once or twice a year ☐ Never
24. How often do you use the services of family members and friends to access health care?
\square More than twice a week \square Once or twice a month \square Rarely
☐ Once or twice a week ☐ Once or twice a year ☐ Never
SECTION D: EDUCATION
25. Did you go through formal schooling?
□Yes □No
26. What was the highest level of education that you attained?

☐ Primary level ☐ secondary level ☐ tertiary level ☐ Did not go to school (go to Question		
27)		
27. Why did you not go to school?		
☐ My parents were not able to afford school fees for me ☐ My physical disability could not		
allow me to go to school \square My non disabled siblings were favored to go to school first \square The		
nearest school was far		
28. Who sponsored you to school?		
☐ Parents ☐ Maternal relatives ☐ Paternal relatives ☐ Well wishers in the community		
☐ Self sponsored ☐ Religious body ☐ Not applicable		
29. How do the policies of schools (such as class schedules, use of assistive devices, or use of		
personal assistance) influence your participation in education?		
□Not applicable □Help a lot □Help somewhat □No effect □Limit some □Limit a lot		
In your community or school, do the following infrastructures influence your participation in		
education? UNIVERSITY of the		
WESTERN CAPE		
30. Paved surfaces ☐ Yes		
☐ No, paved surfaces did not influence participation - Go to next question.		
If yes, how much?		
☐ Help a lot ☐ Help some ☐ Limit some ☐ Limit a lot		
21 \$4		
31. Stairs		
□ Yes		
□ No, stairs did not influence participation - Go to next question.		
If yes, how much?		
\square Help a lot \square Help some \square Limit some \square Limit a lot		
32. Classroom designs/ school offices		
\square Yes		
☐ No, class room designs/ school offices did not influence participation - Go to next question.		

If yes, how much? □ Help a lot □ Help some □ Limit some □ Limit a lot
33. Ramps □ Yes □ No, ramps did not influence participation - Go to next question. If yes, how much? □ Help a lot □ Help some □ Limit some □ Limit a lot
34. Distance to the nearest school
on promise to the near est senious
 □ Yes □ No, distance to the nearest school did not influence participation - Go to next question. If yes, how much? □ Help a lot □ Help some □ Limit some □ Limit a lot
35. Toilets
☐ Yes ☐ No, toilets did not influence participation - Go to next question. If yes, how much? ☐ Help a lot ☐ Help some ☐ Limit some ☐ Limit a lot
36.Teaching aids
 ☐ Yes ☐ No, teaching aids did not influence participation - Go to next question. If yes, how much? ☐ Help a lot ☐ Help some ☐ Limit some ☐ Limit a lot
37.Assistive/walking aids
\Box Yes
☐ No, assistive/ walking aids did not influence participation - Go to next question.
If yes, how much? □ Help a lot □ Help some □ Limit some □ Limit a lot
38. Teachers' perception
$\square Yes$
☐ No, teacher's perception did not influence participation - Go to next question.

If yes, how much? □ Help a lot □ Help some □ Limit some □ Limit a lot
39. Parents' attitude
 ☐ Yes ☐ No, parents attitude did not influence participation - Go to next question.
If yes, how much? □ Help a lot □ Help some □ Limit some □ Limit a lot
40. While in school, were you given the same time for class activities/ examinations as the non disabled?
☐ No, time did not influence participation
If yes, how much? □ Help a lot □ No effect □ Limits some □ Limits a lot
41.Mode of transport to school
☐ Yes ☐ No, mode of transport did not influence participation - Go to next question. If yes, what mode of transport did you use to school A PE
☐ Wheel chair ☐ Crutches ☐ Public transport ☐ Private transport ☐ Others
How much did the above mode of transport influence access to education? □ Help a lot □ Help some □ Limit some □ Limit a lot

Accessibility to school facilities

Thank you for your time!

For this section, accessibility refers to your ability to go into and move around in the school at various places listed, as well as readily use the facilities as needed. Things that can affect accessibility to school buildings include doorway size, the weight of doors, the direction a door opens or how fast it closes; convenient location and ease of using door handles and facets-handles and availability of grab bars; etc.

	w ☐ Not applicable	
40.37.		
43. Your school library □ Very acces	sible Somewhat accessible	
Not accessible	e	
□ Don't know	w ☐ Not applicable	
44. Dining hall □ Very acces	sible Somewhat accessible	
Not accessible	e	
□ Don't know	w □Not applicable	
45. Laboratory □ Very acces	sible Somewhat accessible	
Not accessible	e	
□ Don't know	w ☐ Not applicable	
46. Playing ground UNIVER □ Very access	sible Somewhat accessible	
Not accessible	e	
□Don't know	w ☐ Not applicable	
47. Dormitory □ Very acces	sible Somewhat accessible	
Not accessible	e	
□Don't know	w □Not applicable	
48. Who assisted you in filling the questionnaire?		
□ No one helped me □ Friend □ Other		
☐ Family member ☐ Personal attendant		

APPENDIX D 2: HOJAJI (TRANSLATED QUESTIONNAIRE)

Jina langu ni **Christopher mwana wa Koech**. Mimi ni mwanafunzi wa Chuo Kikuu cha Western Cape.Nasomea shahada ya Masters, kozi ya '**TIBAMAUNGO**'.Kwa sasa nafanya utafiti unaohusu kutaka kujua mambo yanayoathiri kupatikana kwa usawa kwa walemavu wa viungo katika sekta mbalimbali kama vile;sekta ya afya,elimu,ajira,maeneo ya maburudisho na maeneo ya kupata huduma mbalimbali.Utafiti huu unafanyika katika kaunti ya Uasin Gishu – Kenya. Wewe kama mhojiwa kwenye utafiti huu unahitajika kujibu maswali yanayofuata.Majibu yatatumika kwa ufanisi wa utafiti huu. Hakuna yeyote anayelazimishwa kujibu maswali yanayotokana na hojaji hii. Mhojiwa anahitajika kumaliza kujibu haya maswali kwa muda wa dakika 40-45. Asante kwa kukubali kuwa mshiriki kwenye utafiti huu.

1. Nambari: 2. Eneo lako:

SEHEMU YA A: Maswali yanayohusu washiriki

Soma maswali yafuatayo na uyajibu kwa kusahihisha jibu sahihi kati ya majibu uliyopewa kwenye kila swali

UNIVERSITY of the

3. Jinsia /uana

a) Mwanamume

b) Mwanamke

4. Umri

1 = Miaka 18 - 25

2 = Miaka 26 - 35

3 = Miaka 36 - 45

4 = Miaka 46 - 60

5. Una ulemavu wowote wa viungo?

a) Ndio b) La

Iwapo ni ndio,onyesha ni ulemavu upi wa viungo.

1 = Tangu kuzaliwa kwangu

- 2 = Ajali
- 3 = Maradhi /Ugonjwa
- 4 = Haujulikani
- 6. Tafadhali onyesha hali yako kikazi.
- 1 = Nimeajiriwa
- 2 = Sijaajiriwa
- 3 = Biashara rasmi
- 4 = Biashara ya Jua Kali

7. Hali ya ndoa kwa sasa?

- 1 = Nimeoa/Nimeolewa
- 2 = Mseja
- 3 = Mjane
- 4 = Nimetengana na mchumba wangu
- 5 = Nimetaliki/nimetalikiwa

8. Dini yako niipi?

- 1 = Katoliki
- 2 = Protestanti
- 3 = Muislamu
- 4 = Kanisa la kimataifa la Pentekoste la Kiafrika(AIPC)
- 5 = Nyingine

9. Uko na watoto wangapi?

- 1 = Watoto 1-2
- 2 = Watoto 3-4
- 3 = Watoto 5-6



4 = Watoto Zaidi ya 6
5 = Sina
10 Ti - 1. 2. 1. 2. 1. 2. 1. 2. 1. 2. 2. 2. 2. 2. 2. 2. 2. 2. 2. 2. 2. 2.
10. Unashiriki katika kikundi fulani au muungano wowote?
a) Ndio b) La
Kama ndio, Eleza
11. Uko na ndugu na dada wangapi?
1 = 1-2
2 = 3-4
3 = 5-6
4 =Ndugu na dada wanaozidi 6
12. Je,unaishi na nani?(chagua jawabu moja tu)
1 = Naishi pekee yangu
2 = Naishi na msaidizi wangu wa kibinafsi
3 = Naishi kwenye makazi ya wagonjwa
WESTERN CAPE
4 = Wazazi
5 = Washiriki wa kanisa langu
6 =Wengine (Taja)

SEHEMU YA B: HALI YAKO YA AJIRA

13. Katika kipindi cha siku kumi i yameorodheshwa hapo chini kwa	na nne kabla ya leo, umewahi fanya baadhi ya mambo ambayo muda wa saa moja au zaidi?
a) Kufanya kazi ya kulipwa(pesa t	aslimu aumalipo yasiyo ya pesa taslimu),
b) Kufanya biashara	
c) Kazi ya ukulima, ujenzi au urek	rebishaji
1 = Ndio Swali la 16.	
2 = LaSwali la 15.	
	yote iliyoorodheshwa hapo juu katika kipindi cha siku kumi na ara au njia nyingineo ya kupata pato? UNIVERSITY of the
15. Kati ya maelezo yafutayo,lipi l	linafafanua vyema hali yako kiajira?
1 = Kazi rasmi (Si ukulima)	
2 = Kazi isiyo rasmi(Si ukulima)	
3 = Ukulima	
4 = Sijaajiriwa Swali la 18	

16.Je,umeajiriwa na serikali,kazi ya kandarasi au kazi za sulubu?

- 1 = Ajira ya serikali
- 2 = Kazi ya kandarasi
- 3 = Kazi za sulubu (hujumuisha waliojitolea)
- 17. Iwapo ulifanya kazi yoyote iliyoorodheshwa hapo juu katika kipindi cha siku kumi na nne zilizopita,tafadhali onyesha ni kazi gani hata kama ilifanywa kwa muda wa saa moja tu.

Swali	NDIO	LA
Ulifanya biashara yoyote pekee yako au na mwenzako/wenzako?Kwa mfano	1	2
kuuza bidhaa/mazao,kazi ya ulinzi,ususi au hata biashara ya uchukuzi na		
usafirishaji?		
Ulifanya kazi yoyote kwa minajili ya kupata mshahara,faida au hata malipo	1	2
yasiyo ya pesa taslimu?(Haihusu kazi za nyumbani) Mifano: Ajira ya kawaida,		
Kandarasi, Kazi za sulubu, Kufanya kazi kwa minajili ya kupata chakula au		
mahali pa kuishi.		
Ulifanya kazi yoyote ya kinyumbani kwa minajili ya kupata mshahara au	1	2
malipo yoyote yasiyo ya pesa taslimu? TERN CAPE		
Ulifanya kazi yoyote nyumbani mwako;kwenye shamba,zizi la	1	2
ng'ombe,kukuza mimea, au hata kukuza mifugo yako?		
Mifano:Kulima,Kuvuna na kuchunga mifugo		

18. Iwapo jibu ni LA katika kila sehemu ya swali la 18:

Sababu kuu ya kutofanya kazi katika kipindi cha siku kumi na nne zilizopita ni ipi?Onyesha jibu moja tu.

- 01 = Mapumzikomafupi yakikazi
- 02 = Msomi au mwanafunzi
- 03 = Mke wa kukaa nyumbani
- 04 = Nimestaafu/Uzee hauniruhusu

- 05 = Siwezi fanya kazi kwa sababu ya ugonjwa au ulemavu
- 06 = Mapumziko ya uzazi(baba au mama)
- 07 = Mfanyikazi wa muda
- 08 = Mahitaji yangu kifedha hushughulikiwa kwa hivyo sihitaji ajira.
- 09= Sikuwezapata kazi.
- 19. Sera za mahali pa kazi(kama vile sera za mapumziko mafupi,ratiba na majukumu yako kikazi) huathiriaje jinsi unavyofanya kazi yako?
- □Haihusu□Husaidia sana□Husaidia nyakati zingine□Haiathiri kwa namna yoyote□Huzuia wengine□Huzuia wengi



SEHEMU YA C: AFYA

20. Je, wewe hutembelea kituo cha	afya baada ya muda upi?
□ Unazidi mara mbili kwa wiki □ M	ara moja au mbili kwa mwezi ⊡ Nadra
☐Mara moja au mbili kwa wiki☐	Mara moja au mbili kwa mwaka ⊡ Sijawahi(swali la#22)
21. Ni kwa nini hujawahi tembelea	kituo cha afya ili upate kujua hali yako kiafya?
☐ Ulemavu wangu wa viungo haur	niruhusu ⊈Sijui kituo cha afya ninachoweza kutembelea⊈Sina
fedha za kumudu gharama ya m	atibabu ⊅ Wauguzi wa kijamii hutekeleza mahitaji yangu ya
kiafya □ Wazazi/wasimamizi wangu	hawakubali nitoke nyumbani
22. Wewe hutembelea kituo kipi ch	na afya?
□kituo cha afya cha umma□Kitu	o cha afya cha kibinafsi _K ituo cha afya kinachotumia miti
shamba	
□Mganga□Maombi	UNIVERSITY of the WESTERN CAPE
□ Wauguzi wa kijamii□ Haihusu	
·	umbali gani kutoka kule unakoishi? omita 5 - 10
24. Mitazamo ya wauuguzi wako kupata matibabu?	wa kiafya huathiriaje kushiriki kwako kwenye masuala ya
☐ Inasaidia sana☐ Inasaidia wa	engine $artheta$ Haiathiri kwa namna yoyote $artheta$ Inazuia wengine $artheta$
Inazuia wengi	

25. Wewe hutembelea daktari wako wa viungo mara ngapi?
□Inazidi mara mbili kwa wiki □Mara moja au mbili kwa mwezi □ Nadra
□Mara moja au mbili kwa wiki□Mara moja au mbili kwa mwaka□ Sijawahi
26.Je,wewe huhitaji msaaada wa kufika kwenye kituo cha afya kutoka kwa msaidizi wako wa kibinafsi kwa kiasi gani?
□unazidi mara mbili kwa wiki□Mara moja kwa mwezi □ Nadra
□Mara moja au mbili kwa wiki□Mara moja au mbili kwa mwaka□Siijawahi
27. Ni mara ngapi wewe huhitaji msaada wa kufika kituo cha afya kutoka kwa familia yako?
□Inazidi mara mbili kwa wiki□Mara moja au mbili kwa mwezi□Nadra
□Mara moja mbili kwa wiki□Mara moja mbili kwa mwaka□Sijawahi
UNIVERSITY of the 28. Je,usaidizi wa familia na wasaidizi wa kibinafsi huathiriaje kufika kwako kwenye kituo cha afya?
□Husaidia sana□Husaidia kidogo□Hauathiri kwa namna yoyote□Huzuia wengine□Huzuia
wengi
29. Ni vipi mielekeo ya wasaidizi wa kibinafsi na ya familia huathiri kushiriki kwako kwenye maswala ya afya?
Husaidia sana □Husaidia wengine □haiathiri kwa namna yoyote □huzuia wengine □Huzuia wengi
30. Je,ni mara ngapi wewe huhitaji msaaada kutoka kwa marafiki ili uweze kufika kwenye kituo cha afya?

□ Inazidi mara mbili kwa wiki□ Mara moja au mbili kwa mwezi□ Nadra
☑Mara moja au mbili kwa wiki☑Mara moja au mbili kwa mwaka☑Sijawahi
31. Je,ni mara ngapi wewe huhitaji msaada kutoka kwa wanahirimu ili uweze kufika kwenye kituo cha afya? (wale mnafanyakazi nao au wanafunzi wenzako)
□Inazidi mara mbili kwa wiki □Mara moja au mbili kwa mwezi□Nadra
□Mara moja au mbili kwa wiki□Mara moja au mbili kwa mwaka□sijawahi
32. Je,usaidizi kutoka kwa marafiki/wanahirimu huathiriaje kufika kwako kwenye kituo cha afya?
□Husaidia sana□Husaidia kidogo□Hauathiri kwa namna yoyote□Huzuia wengine□Huzuia
wengi
33.Mielekeo yao inaathiri vipi kushiriki kwako katika masuala ya kiafya?
☐Husaidia sana☐husaidia wengine☐Haiathiri kwa namna yoyote☐Huzuia wengine☐Huzuia
wengi

SEHEMU YA D: ELIMU

34. Je,ulipata kisomo rasmi?
□Ndio □La
35. Je,kiwango chako cha juu kielimu ni ipi?
□ Shule ya msingi□ Shule ya upili/sekondari □ Chuo □ Sikuenda shule (swali la 36)
36. Mbona hukuenda shule?
□Wazazi wangu hawangeweza kumudu gharama ya karo yangu□Ulemavu wangu
haukuniruhusu kwenda shule 🗖 Ndugu na dada zangu wasiowalemavu walipewa kipaumbele
kimasomo 🗆 Shule ilikuwa mbali
37. Nani alikudhamini ili upate kwenda shule?
□ Wazazi□ Wajomba□ Shangazi□ Wasaidizi wa kujitolea
□Nilijidhamini□Kikundi cha kidini□Hakuna uhusiano
38. Sera za shule (kama vile ratiba,matumizi ya vifaa vya usaidizi au msaada wa kibinafsi)ziliathiriaje kushiriki kwako kwenye masuala ya elimu?
□Hakuna uhusiano□zilisaidia sana□husaidia wengine□Hazikuathiri kwa namna
yoyote□Zilizuia wengine□Zilizuia wengi
Je,hivi vijenzi katika jamii au shule yako vinaweza kuathiri kushiriki kwako kwenye masuala ya elimu?

39. Vijia vya wapita njia
☐ Ndio
☐ La, vijia vya wapita njia havikuathiri kushiriki kwangu kwenye masuala ya elimu
Iwapo ni ndio,kwa kiasi gani?
□vilisaidia sana□vilisaidia wengine□vilizuia wengine□vilizuia wengi
40. Vidato
□Ndio
☐ La, vidato havikuathiri kushiriki kwangu kwenye masuala ya elimu–swali linalofuata
Iwapo ni ndio,kwa kiasi gani?
□vilisaidia sana□vilisaidia wengine□Vilizuia wengine□Vilizuia wengi
41. Muundo wamadarasa na afisi za shule
☐ La, muundo wa madarasa au afisi za shule haukuathiri kushiriki kwangu kwenye masuala ya
elimu–Swali linalofuata WESTERN CAPE
Iwapo ni ndio,kwa kiasi gani?
□Ulisaidia sana□ulisaidia wengine□Ulizuia wengine□Ulizuia wengi
42. Vidato vya jukwaa
$\square Ndio$
☐ La,vidatovya jukwaa havikuathiri kushirikikwangu kwenye masuala ya elimu–Swali
linalofuata.
Iwapo ni ndio,kwa kiasi gani?
□Vilisaidia sana□Vilisaidia wengine□Vilizuia wengine□Vilizuia wengi
43. Umbali wa shule iliyokuwa karibu

□Ndio
☐ La, umbali wa shule iliyokuwa karibu haukuathiri kushiriki kwangu kwenye masuala ya elimu–swali linalofuata. <i>Iwapo ni ndio</i> ,kwa kiasi gani?
□Ulisaidia sana□Ulisaidia wengine□Ulizuia wengine□Ulizuia wengi
44. Vyoo
□Ndio
☐ La, vyoo havikuathiri kushiriki kwangu kwenye masuala ya elimu -Swali linalofuata.
Iwapo ni ndio,kwa kiasi gani?
□Vilisaidia sana□Vilisaidia wengine□Vilizuia wengine□Vilizuia wengi
45.Namna ya kusafiri kwenda shuleni
□Ndio
☐ La, namna ya kusafiri haikuathiri kushiriki kwangu kwenye masuala ya elimu- Swali
linalofuata.
Iwapo ni ndio, je, ulikuwa ukitumia namna gani kusafiri?
□Kiti chenye magurudumu□Mikongojo□vyombo vya usafiri vya umma□Vyombo vya usafiri
vya kibinafsi¶Mengine
Namna ya usafiri uliotajwa hapo juu uliathiri kufika kwako shuleni kwa kiasi gani?
□Ulisaidia sana□Ulisaidia wengine□Ulizuia wengine□Ulizuia wengi
46.Nyenzo za kufundisha na kufundishia
□Ndio
☐ La, nyenzo za kufundisha na kufundishia hazikuathiri kushiriki kwangukwenye masuala ya
elimu – Swali linalofuata.
Iwapo ni ndio, kwa kiasi gani?
☑Zilisaidia sana ☑Zilisaidia wengine ☑Zilizuia wengine ☑Zilizuia wengi

47. Visaidizi vya kutembea	
□Ndio	
☐ La, visaidizi vya kutembea ha	wikuathiri kushiriki kwangu kwenye masuala ya elimu-Swal
linalofuata.	
Iwapo ni ndio,kwa kiasi gani?	
□Vilisaidia sana□Vilisaidia wen	gine 🗗 Vilizuia wengine 🗗 Vilizuia wengi
48. Mitazamo ya walimu	
□Ndio	
☐ La, mitazamo ya walimu hai	kuathiri kushiriki kwangu kwenye masuala ya elimu- Swal
linalofuata.	
Iwapo ni ndio,kwa kiasi gani?	ponononon
□Ilisaidia sana□Ilisaidia wengin	e¶lizuia wengine¶lizuia wengi
49. Mielekeo ya wazazi	UNIVERSITY of the
□Ndio	WESTERN CAPE
□La,mielekeo ya wazazi haiku:	athiri kushiriki kwangu kwenye masuala ya elimu – Swal
linalofuata.	
Iwapo ni ndio,kwa kiasi gani?	
☑Ilisaidia sana☑Iisaidia wengin	e⊿Ilizuia wengine⊿Ilizuia wengi
50. Ulipokuwa shuleni ulikuwa u	ıkipewa muda sawa wa kuendesha shughuli za darasa au hata
muda sawa wa kufanya mitihani i	na wale wenzako ambao hawakuwa walemavu?
□Ndio	
☐ La,muda haukuathiri kushiriki	kwangu kwenye masuala ya elimu.
Iwapo ni ndio,kwa kiasi gani?	
□ Ulisaidia sana □ Ulisaidia weng	gine _ Ulizuia wengine _ Ulizuia wengi

Uwezo wa kufikia rasilimali ya shule au vifaa vya shule

Katika sehemu hii,uwezo wa kufikia rasilimali ya shule unamaanisha kuingia ndani na kuweza kufikia na kutumia vifaa unavyohitaji.Vitu vinavyoathiri uwezo huu ni kama;ukubwa au udogo wa milango,uzito wa milango,upande milango hufunguka ukielekea au kasi ya milango kufunguka,urahisi wa kufikia na kutumia vifaa vya kufungia milango na kadhalika.

51. Darasa	□Lilifikiwa kwa urahisi□Halikufikiwa kwa
	urahisi□Halikuwezakufikiwa □Sijui □Hakuna uhusiano
52 N/ 14 1 1 1 1 .	unusiano
52.Maktaba ya shule yako	□Yalifikiwa kwa urahisi□Hayakufikiwa kwa
	urahisi□Hayakuwezakufikiwa
	□Sijui□Hakuna uhusiano
53. Chumba cha maakuli	□Kilifikiwa kwa urahisi□Hakikufikiwa kwa
	urahisi□Hakikuweza kufikiwa
	□Sijui□Hakuna uhusiano
54. Maabara	□Yalifikiwa kwa urahisi□Hayakufikiwa kwa
UNIVERS	urahisi□Hayakuweza kufikiwa
WESTER	□Sijui□Hakuna uhusiano
55. Uwanja wa michezo	□Ulifikiwa kwa urahisi□Haukufikiwa kwa
	urahisi□Haukuweza kufikiwa
	□Sijui □Hakuna uhusiano
56. Bweni	□Lilifikiwa kwa urahisi□Halikufikiwa kwa
	1 · · □ TT 1 · 1 · C'1 · □ C'1 · □ C'1 · □ TT 1
	urahisi□Halikuweza kufikiwa □Sijui□Hakuna
	uhusiano

Asante kwa wakati wako!

APPENDIX E 1: INTERVIEW GUIDE

My name is Christopher Arap Koech. I am a student of University of the Western Cape pursuing a Masters Degree in Physiotherapy. I am currently working on my research proposal where I would like to determine and explore factors inhibiting equalization of opportunities with regards to the services in health, education, employment, infrastructure and recreational facilities, to persons with physical disability in Uasin Gishu County, Kenya. You have been identified as one of the respondents in this study and therefore, kindly requested to read through the information sheet, provide informed written consent then respond to the following questions. The information provided will only be used for the purpose of this study and confidentiality and anonymity is highly assured. Responding to this interview guide is voluntary on your part. The questions in this interview guide will take about 40 - 45 minutes of your time to answer. Thank you for agreeing to participate.

SECTION A: KEY INFORMAN	NTS		
	, income on		
1. Institution name:			
2. What is your job title?	للـــللــللــ		
	UNIVER	SITY of the	
	WESTE	RN CAPE	
3. How long have you serv	ed in this pos	ition?	
Below 5 ye	ears	()	
Between 10) – 15 years	()	
Between 5	- 10 years	()	
Over 15 year	ars	()	

4. What is the total number of employees in your Institution? (Probe on gender, age, gender, employment characteristics - permanent/ temporal/ full time/ part time etc

- 5. How many employees are physically disabled persons in your Institution? (probe on numbers, age, gender, employment characteristics permanent/ temporal/ full time/ part time etc)
- 6. Do you have any policy in place on the physically disabled persons in this Institution? (If yes, probe on the policy, whether government policy or Institutional policy and what it spells out/ contains or what they implement in the policy)
- 7. When employing physically disabled employees, were they subjected to a recruitment process like other able employees?

(Probe on the process and the challenges faced - would you consider offering physically disabled persons personalized services; the standards of employment, proactive encouragement of the disabled persons to apply for jobs in the organization)

UNIVERSITY of the

- 8. What are the challenges faced by the Organization as a result of employing physically disabled persons? (Probe on health access/ health cover, further education/ career growth/ infrastructure support etc)
- 9. What are the challenges faced by the physically disabled persons that you employ as they go about discharging their duties (probe on stigma, mobility to all service areas including washrooms, training/career growth etc)
- 10. Are there any provisions that the Government has put in place to enable the physically disabled persons to cope? (Probe on acts, manuals of employment, code of good practice etc, you can also ask to see the copies)

11. What disability measures/provisions have been taken up by your Institution to enable
the physically disabled persons cope? (Probe on access to health care, academic growth
mobility aids, stigmatizing disabled persons at work place)
12. What changes have you seen in the output of your physically disabled person's
employees since the enactment of the disability policy? (Probe on employment trends over years since year 2004 in reference to the Disability Act 2003, are the disabled
persons more accepted in the work environment?)
13. In which ways has the physical environment been adjusted to accommodate the needs
of physically disabled persons in your Institution in terms of accessibility? (probe or
infrastructure change/ development to aid the mobility of disabled persons - elevators
ramps, wheel chairs, guard rails, terrain etc)
14. What ways do you think the physical environment can be adjusted to accommodate
the needs of physically disabled person's needs in your Institution in terms of
accessibility? (Probe on what can be done but has not been done)
15. What are the main chellenges/problems found by the Institution when managing
15. What are the main challenges/problems faced by the Institution when managing

human resource of the physically disabled persons?

16. What are the recommendations and suggestions you would propose moving forward in managing the physically disabled person's human resource?

17. Are there any other challenges that you think physically disabled persons face in pursuit of accessing education, Health or employment that you would like to share with us?



APPENDIX E 2: MWONGOZO WA MAHOJIANO (TRANSLATED INTERVIEW GUIDE)

Jina langu ni Christopher Arap Koech. Mimi ni mwanafunzi wa Chuo Kikuu cha Western Cape kutafuta Shahada ya Uzamili katika viungo vya mwili. Mimi kwa sasa nafanya kazi juu ya pendekezo utafiti wangu ambapo. Ningependa kujua na kuchunguza mambo maendeleo ya taaluma usawazishaji wa fursa kwa upande wa huduma za afya, elimu, ajira, miundombinu na vifaa vya burudani, kwa watu wenye ulemavu wa viungo katika Jimbo la Uasin Gishu, Kenya. Wewe umetambuliwa kama mmoja wa waliohojiwa katika utafiti huu na kwa hiyo, unaombwa kusoma kwa njia karatasi habari, kutoa ridhaa ya maandishi kisha kujibu maswali yafuatayo. taarifa zinazotolewa mapenzi tu kutumika kwa madhumuni ya utafiti huu na usiri na kutokujulikana ni yenye uhakika. Akijibu mwongozo huu mahojiano ni kwa hiari kwa upande wako. maswali katika mwongozo huu mahojiano itachukua kuhusu 40-45 dakika ya muda wako

Sehemu ya A: Utambulisho.

kujibu. Asante kwa kukubali kushiriki.

1. Jina Taasisi

2. Cheo cha kazi yako?

.....

3. Muda gani aliwahi katika nafasi hii?

Chini ya miaka 5 ()

Kati 10 - 15 miaka ()

Kati 5 - 10 miaka ()

Zaidi ya miaka 15 ()

- 4. Jumla ya idadi ya wafanyakazi katika Taasisi yako ni nini? (Probe jinsia, umri, jinsia, tabia ajira kudumu / muda / wakati kamili / sehemu ya muda nk
- 5. Wafanyakazi wangapi ni watu kimwili walemavu katika Taasisi yako?

(Wakilsha juu ya namba, umri, jinsia, tabia ajira - kudumu / muda / wakati kamili / sehemu ya muda nk)
6. Je, una sera yoyote katika nafasi ya juu ya watu kimwili walemavu katika Taasisi hii?
(Kama ndiyo, wakilsha juu ya sera, ikiwa ni sera ya serikali au sera ya Taasisi na nini inaelezea / inajumuisha au nini kutekeleza katika sera)
7. Wakati kuajiri wafanyakazi kimwili walemavu, walikuwa wao wanakabiliwa na mchakato wa ajira kama wengine wafanyakazi na uwezo?
(Wakilisha katika mchakato na changamoto zinazowakabili - ungeweza kufikiria sadaka kimwili walemavu watu Msako huduma; viwango vya ajira, makini faraja ya walemavu ya kuomba kazi katika shirika)
8. Ni changamoto zinazowakabili Shirika kutokana na kuajiri watu kimwili walemavu nini?
(wakilsha katika upatikanaji wa afya / cover afya, elimu zaidi / ukuaji wa kazi / msaada miundombinu n.k) UNIVERSITY of the WESTERN CAPE
9 Ni changamoto zinazowakabili watu kimwili walemavu kwamba wewe kuajiri wakati wakiendesha kutekeleza majukumu yao nini (probe juu ya unyanyapaa, uhamaji katika maeneo yote ya huduma ikiwa ni pamoja na vyoo, mafunzo / kazi ukuaji nk)
10. Je, kuna masharti yoyote ambayo Serikali imeweka ili kuwawezesha watu kimwili walemavu ili kukabiliana? (Probe juu vitendo, vitabu ya ajira, kanuni ya mazoezi mazuri nk, unaweza pia kuomba kumuona nakala)

11. Ni nini ulemavu / vifungu wamekuwa kuchukuliwa na Taasisi yako ili kuwawezesha watu
kimwili walemavu kukabiliana? (Probe katika upatikanaji wa huduma za afya, ukuaji wa
kitaaluma, misaada kutembea, watu wenye ulemavu kunyanyapaa kazini mahali)
12. Ni mabadiliko umeona katika pato la wafanyakazi wako kimwili walemavu mtu tangu
kutungwa kwa sera ulemavu? (Probe juu ya mwenendo wa ajira katika kipindi cha miaka tangu
mwaka 2004 akiwa na Ulemavu Sheria 2003, ni watu wenye ulemavu zaidi kukubalika katika
mazingira ya kazi?)
13. Ni kwa njia hiyo mazingira ya kimwili imekuwa kubadilishwa kwa ajili ya malazi mahitaji
ya watu kimwili walemavu katika Taasisi yako katika suala la upatikanaji? (Probe juu ya
mabadiliko ya miundombinu / maendeleo na misaada uhamaji wa watu wenye ulemavu -
elevators, ramps, gurudumu viti, walinzi reli, ardhi ya eneo nk)
14. Ni nini njia unafikiri mazingira ya kimwili inaweza kubadilishwa kwa ajili ya malazi
mahitaji ya mahitaji kimwili walemavu mtu katika Taasisi yako katika suala la upatikanaji?
(Probe juu ya nini kifanyike lakini haijawahi kufanyika)

15. Je, ni changamoto kubwa / matatizo yanayowakabili Taasisi wakati kusimamia rasilimali watu ya watu kimwili walemavu?

16. ni mapendekezo na mapendekezo ungependa kupendekeza kusonga mbele katika kusimamia rasilimali watu kimwili walemavu mtu ni nini?

17. Je, kuna changamoto nyingine yoyote ambayo unadhani kimwili walemavu uso katika harakati za kupata elimu, afya au ajira ambayo ungependa kushiriki nasi?



APPENDIX F 1: FOCUS GROUP DISCUSSION

My name is Christopher Koech. I am a student of University of the Western Cape pursuing a Masters Degree in Physiotherapy. I am currently working on my research proposal where i would like to determine and explore factors inhibiting equalization of opportunities with regards to the services in health, education, employment, infrastructure and recreational facilities, to persons with physical disability in Uasin Gishu County, Kenya. You have been identified as one of the respondents in this study and therefore, kindly requested to respond to the following questions. The information provided will only be used for the purpose of this study and confidentiality and anonymity is highly assured. Participating in this Focus Group Discussion is voluntary on your part. The questions will take about 40 - 45 minutes of your time to answer. Thank you for agreeing to participate.

Remind participants you want to hear about positive experiences, negative experiences, and ideas for improvements.

WARM-UP QUESTION

Good morning/ afternoon, my name is Christopher Arap Koech, i love working with physically disabled persons and would like to learn more about the issues you face in your daily lives with regards to Infrastructure and Recreational facilities. I work in Moi University school of Medicine in the department of Rehabilitation and Orthopedics and have worked with the Physically disabled persons for the last twenty years. I would like to know something brief about each of you as we start (What is your name, residence, what you do for a living, what they enjoy doing etc)

What is it like to live in (name of the city/county/town) for a physically disabled person?

Sample prompts:

• Good features? WESTERN CAPE

• Problems?

Topic 1: Infrastructure

1. What is it like to step outside of your home to go for a walk to get fresh air, run errands or visit?

Sample prompts: (appropriateness of the infrastructure)

- Design and maintenance of sidewalks and curbs?
- Street intersections and zebra crossings?
- Traffic? (both human and motor vehicle)
- Particular times of day, like at night?
- Pedestrian walking areas?
- Protection from sun, rain or wind?
- Benches, rest areas?
- Sense of physical safety and security?

2. What is it like to go into buildings, such as public offices or stores/ supermarkets?

Sample prompts: (appropriateness of infrastructure)

• Stairs, ramps, doors, lift devices, corridors, floors, lighting, signage, toilets, rest areas?

Topic 2: TRANSPORTATION

3. Describe your experience using public or community transportation services in the community.

Sample prompts:

- Affordable?
- Easy to get to?
- Easy to board?
- Adapted for disabled persons?
- Frequent enough when you want to travel?
- Extensive routes to go wherever one wants?
- Waiting areas and stops with benches, lighting, protection from the elements?

Topic 3: RECREATIONAL FACILITIES

4. In what ways does your community show, or not show, respect for you as a physically disabled person?

Sample prompts:

- What recreation facilities are available in the community?
- Choices offered in terms of access (for physically disabled persons)?

5. In what ways does your community include, or not include, you as a physically disabled person in recreation activities and events?

Sample prompts:

- Recreational activities?
- Choices offered (for physically disabled persons)?
- Public recognition of the contributions of physically disabled persons in social events?

UNIVERSITY of the

6. How easily can you socialize in your community?

Sample prompts:

- Acceptance?
- Social halls/rooms?
- Cultural events?
- Community barazas? Religious functions?

7. Tell me about your participation in recreation activities?

Sample prompts:

- · Affordable?
- Accessible?
- Frequent?
- Convenient location?
- Convenient times?
- Offer choices?
- Interesting?

WRAP-UP OUESTION

Before we finish, are there any other issues or areas we haven't discussed that you want to raise?

APPENDIX F 2: KUNDI KINACHO ANGAZIA MAZUNGUMZO (TRANSLATED

FOCUS GROUP DISCUSSION)

Jina langu ni Christopher Koech. Mimi ni mwanafunzi wa Chuo Kikuu cha Western Cape kutafuta Shahada ya Uzamili katika viungo vya mwili. Mimi sasa kufanya kazi juu ya pendekezo utafiti wangu ambapo napenda kujua na kuchunguza mambo maendeleo ya taaluma wa fursa kwa upande wa huduma za afya, elimu, ajira, miundombinu na vifaa vya burudani, kwa watu wenye ulemavu wa viungo katika jimba la Uasin Gishu, Kenya. Wewe umetambuliwa kama mmoja wa waliohojiwa katika utafiti huu na kwa hiyo, wanaombwa kujibu maswali yafuatayo. taarifa zinazotolewa mapenzi tu kutumika kwa madhumuni ya utafiti huu na usiri na kutokujulikana ni yenye uhakika. Kushiriki katika hii Mjadala Focus Group ni hiari kwa upande wako. maswali itachukua kuhusu dakika 40-45 ya muda wako kujibu.

Asante kwa kukubali kushiriki.

SWALI LA CHEMSHA BONGO

Hujambo, jina langu ni Christopher Arap Koech, napenda kufanya kazi na watu kimwili walemavu na wangependa kujifunza zaidi kuhusu masuala yenu uso katika maisha yako ya kila siku kwa upande wa Miundombinu na vifaa vya Burudani.Mimi kazi katika Chuo Kikuu cha Moi shule ya Tiba katika idara ya Ukarabati na Orthopedics na wana kazi na watu kimwili walemavu kwa miaka ishirini iliyopita.

Ningependa kujua kitu mafupi kuhusu kila mmoja wenu kama sisi kuanza (ni jina lako, makazi gani, nini kufanya kwa ajili ya maisha, wanayo kufurahia kufanya nk)

Kile ni kama kuishi katika (jina la mji / kata / mji) kwa mtu kimwili walemavu?

Mfano papo kwa

Nzuri sifa?

Matatizo?

Mada 1:Miundo msinngi.

1. Ni kitu gani kama hatua nje ya nyumba yako kwa kwenda kwa kutembea ili kupata hewa safi, kukimbia safari fupi au kutembelea?

- Mfano papo kwa (usahihi wa miundombinu)
- Kubuni na ukarabati wa sidewalks na curbs?
- Intersections mitaani na pundamilia itakayovukwa?
- Trafiki? (Wote binadamu na gari)
- Mara fulani ya siku, kama wakati wa usiku?
- Pedestrian kutembea maeneo?
- Ulinzi kutoka jua, mvua au upepo?
- Madawati, kupumzika maeneo?
- Hisia ya usalama wa kimwili na usalama?

2. Ni nini hilo kama kwenda katika majengo, kama vile ofisi za umma au maduka / maduka makubwa?

Mfano papo kwa (usahihi wa miundombinu)

 Ngazi, ramps, milango, vifaa kuinua, korido, sakafu, taa, signage, vyoo, mapumziko maeneo?

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WESTERN CAPE

Mada 2 USAFIRI

3. Elezea uzoefu wako kwa kutumia huduma za umma au jamii usafiri katika jamii.

Mfano papo kwa

- nafuu?
- Rahisi kupata?
- Rahisi kubodi?
- Chanzo kwa watu wenye ulemavu?
- Mara kwa mara ya kutosha wakati unataka kusafiri?
- Njia Kina kwenda popote mtu anataka?
- Kusubiri maeneo na ataacha na madawati, taa, ulinzi kutoka vipengele?

Mada 3 Vifaa vya Burudani	
4. Ni kwa njia gani jamii show yako, au kuonyesha, kuheshimu wewe kama mtu kimvwalemavu?	vili
Mfano papo kwa	
Nini burudani vifaa vya kutosha katika jamii?	
Uchaguzi inayotolewa katika suala la upatikanaji (kwa watu kimwili walemavu)?	
5. Ni kwa njia zipi haina ni pamoja na jamii yako, au ni pamoja na, wewe kama mtu kimwili walemavu katika shughuli na matukio ya burudani?	
Mfano papo kwa	
Shughuli za burudani?	
Uchaguzi inayotolewa (kwa watu kimwili walemavu)?	
Utambuzi wa umma wa michango ya watu kimwili walemavu katika matukio ya kijamii?	
6. Jinsi urahisi unaweza utakusanyika katika jamii yako?	
Mfano papo kwa;	
Kukubalika?	
Kumbi za kijamii / vyumba? UNIVERSITY of the	
Matukio ya kiutamaduni?	
Baraza jamii? Kazi za kidini?	
7. Niambie kuhusu ushiriki wako katika shughuli za burudani?	
Mfano papo kwa	
Nafuu?	
Kupatikana?	
Mara kwa mara?	
Rahisi eneo?	
Rahisi nyakati?	
Kutoa maamuzi?	

SWALI LA KUHITIMISHA

Kuvutia?

Kabla ya kumaliza, kuna masuala yoyote nyingine au maeneo hatuna kujadiliwa kwamba unataka kuongeza?



APPENDIX G: OBSERVATION CHECKLIST

Item	What to be observed	Comment
Roads	- Presence/absence of sidewalks	
	- Zebra crossings	
	- Pedestrian walking areas	
	- Control traffic lights	
Rest areas	- Presence/absence of benches	
	- Shades	
Toilets	- Low and dedicated for PWDs	
	- Availability of water in toilets	
	- Side rails	
Ramps	- Signage	
	- Texture of the floor	
	- How sharp the ramps are	
Lifts	- Height of buttons	
	- Lighting in the lifts	
	- Signage	
Vehicles	- Presence/absence overhead	
	carriers	
	- Elevators	
Car park	- Presence/ absence of reserved	
	parking for	
	PWDs	
	- Signage for the parking	
	- Assistance and security around	
	the parking	
	Area	
Entrance and exits	- Signage	
(stadium, buildings)	- Slippery / non- slippery floors	
	- Partition for pedestrians and	
	PWDs	

	- Width and height of doors
	- Emergency exits
	- Ramps at the entrances
Assistance	- Assistants to help PWDS
	around the health facility



APPENDIX H: RESEARCH APPROVAL-RESEARCH ETHICS COMMITTEE UWC

OFFICE OF THE DEAN DEPARTMENT OF RESEARCH DEVELOPMENT

28 September 2015

To Whom It May Concern

I hereby certify that the Senate Research Committee of the University of the Western Cape approved the methodology and ethics of the following research project by: Mr C Arap Koech (Physiotherapy)

Research Project:

Factors inhibiting equalization of opportunities towards persons with physical disabilities in Uasin-gishu County, Kenya.

Registration no:

15/6/33

Any amendments, extension or other modifications to the protocol must be submitted to the Ethics Committee for approval.

The Committee must be informed of any serious adverse event and/or termination of the study.

UNIVERSITY of the WESTERN CAPE

Ms Patricia Josias Research Ethics Committee Officer University of the Western Cape

Private Bag X17, Bellville 7535, South Africa T: +27 21 959 2988/2948 . F: +27 21 959 3170 E: pjosias@uwc.ac.za www.uwc.ac.za

APPENDIX I: ETHICAL CLEAREANCE- INSTITUTIONAL RESEARCH AND ETHICS COMMITTEE (IREC)



INSTITUTIONAL RESEARCH AND ETHICS COMMITTEE (IREC)

MOI UNIVERSITY
SCHOOL OF MEDICINE
P.O. BOX 4606
ELDORET

MOI TEACHING AND REFERRAL HOSPITAL P.O. BOX 3

P.O. BOX 3 ELDORET Tel: 33471//2/3

Reference: IREC/2015/34

Approval Number: 0001381

Mr. Christopher Arap Koech, Moi University, School of Medicine, P.O. Box 4606-30100, ELDORET-KENYA.

Dear Mr. Koech,

INSTITUTIONAL RESEARCH & ETHICS COMMITTEE

2 5 MAR 2015

APP COVETE

R 0. Box 4606-30100 ELDORET

RE: FORMAL APPROVAL

The Institutional Research and Ethics Committee has reviewed your research proposal titled:-

"Factors Inhibiting Equalization of Opportunities towards Persons with Physical Disabilities in Uasin-Gishu County, Kenya."

Your proposal has been granted a Formal Approval Number: FAN: IREC 1381 on 25th March, 2015. You are therefore permitted to begin your investigations.

Note that this approval is for 1 year; it will thus expire on 24th March, 2016. If it is necessary to continue with this research beyond the expiry date, a request for continuation should be made in writing to IREC Secretariat two months prior to the expiry date.

You are required to submit progress report(s) regularly as dictated by your proposal. Furthermore, you must notify the Committee of any proposal change (s) or amendment (s), serious or unexpected outcomes related to the conduct of the study, or study termination for any reason. The Committee expects to receive a final report at the end of the study.

Sincerely,

PROF. E. WERE CHAIRMAN

INSTITUTIONAL RESEARCH AND ETHICS COMMITTEE

C L

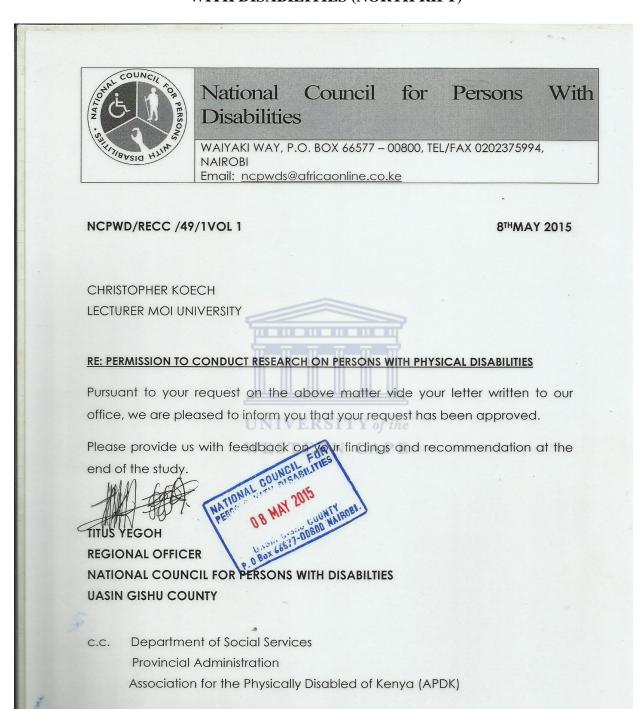
Director -Principal - MTRH CHS Dean Dean SOP

Dean -

SOM

25th March, 2015

APPENDIX J: FURTHER PERMISSION- NATIONAL COUNCIL FOR PERSONS WITH DISABILITIES (NORTH RIFT)



APPENDIX K: FURTHER PERMISSION- COUNTY GOVERNMENT OF UASIN-

GISHU

REPUBLIC OF KENYA

COUNTY GOVERNMENT OF UASIN GISHU

DEPARTMENT OF EDUCATION, CULTURE, YOUTH AFFAIRS AND SOCIAL SERVICES

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UGC/ECYSS/B.I/2015/04



When Replying, Please Address to: Chief Officer, Education, Culture, Youth Affairs and Social Services County Government of UasinGishu

P. O Box 40-30100 ELDORET-KENYA

11th May, 2015

TO WHOM IT MAY CONERN

RE: MR. CHRISTOPHER ARAP KOECH – MOI UNVERSITY SCHOOL OF MEDICINE

The above named has authority to do research on "Factors Inhibiting Equalization of Opportunity towards persons with Physical Disabilities in UasinGishu County".

ERN CAPE

Award him the necessary assistance.

K. K. Misoi

Chief Officer

Education, Culture, Youth and Social Services

UASIN GISHU

Copy: Prof. Were E.

Chairman, Research and Ethic Committee

Moi University

P. O. Box 4606 – 30100

ELDORET (yours dated 25/3/2015)

Mr. Christopher ArapKoech

Moi University

School of Medicine

P. O. Box 4606 - 30100

ELDORET

APPENDIX L: RELIABILITY OF THE RESEARCH INSTRUMENTS

The Cronbach's Alpha reliability coefficient in this study instrument is 0.718. Item means range between 1.5 to 3.5 and a SD between 0 to 1.0. The range of the Cronbach Alpha coefficient if item is deleted is in the range of 0.702 to 0.733 indicating no item seriously requires rescaling.

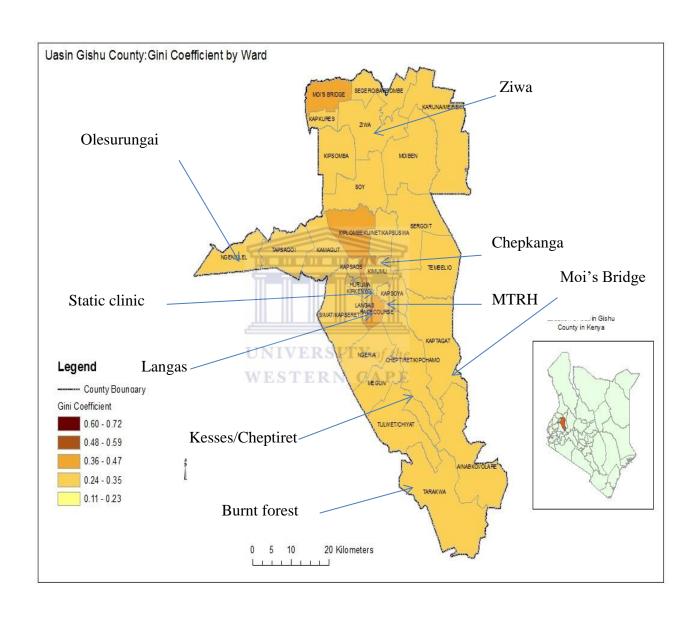
Reliability Statistics		
Cronbach's Alpha	N of Items	
0.718	14	

Item Statistics			
	Mean	Std. Deviation	N
Gender	2.0000	.00000	8
Age	3.0000	.00000	8
Cause of Disability	3.5000	.53452	8
Occupation	3.5000	.53452	8
Marital status	3.5000	.53452	8
Religion	2.5000	.53452	8
Number of children	2.5000	.53452	8
Do you belong to any group	1.5000	.53452	8
Siblings	2.5000	.53452	8
Who do you stay with	1.5000	of the .53452	8
Q13	1.5000	.53452	8
Q14	1.5000	.53452	8
Q15	3.5000	.53452	8
Q16	2.0000	1.06904	8

Item-Total Statistics				
	Scale Mean if	Scale Variance	Corrected	Cronbach's
	Item Deleted	if Item Deleted	Item-Total	Alpha if Item
			Correlation	Deleted
Gender	32.5000	2.571	.000	0.722
Age	31.5000	2.571	.000	0.722
Cause of Disability	31.0000	4.571	-1.000	0.712
Occupation	31.0000	1.143	1.000	0.708
Marital status	31.0000	4.571	-1.000	0.715
Religion	32.0000	4.571	-1.000	0.713
Number of children	32.0000	1.143	1.000	0.708
Do you belong to any	33.0000	4.571	-1.000	.135
group				
Siblings	32.0000	1.143	1.000	0.708
Who do you stay with	33.0000	4.571	-1.000	0.735
Q13	33.0000	1.143	1.000	0.708
Q14	33.0000	1.143	1.000	0.708
Q15	31.0000	1.143	1.000	0.708
Q16	32.5000	.286	1.000	0.733

a. The value is negative due to a negative average covariance among items. This violates reliability model assumptions. You may want to check item codings.

APPENDIX M: MAP OF THE STUDY AREA



APPENDIX N: PHOTOGRAPHS



Photo 1: Photo showing where the disabled persons practice at an urban area

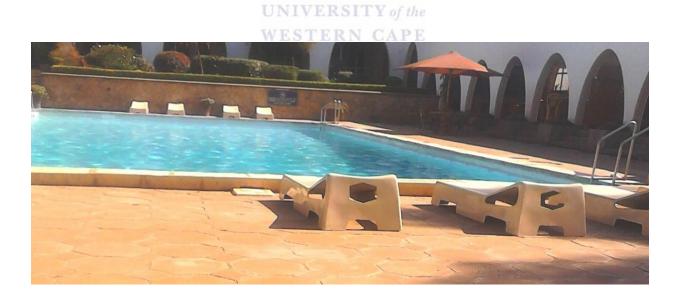


Photo 2: A photo showing a recreational facility in a hotel in an urban area



Photo 3: Road showing absence of sidewalks rural area



Photo 4: Photo showing sidewalks in a peri-urban area (not tarmacked).



Photo 5: Photo showing sidewalks in urban area

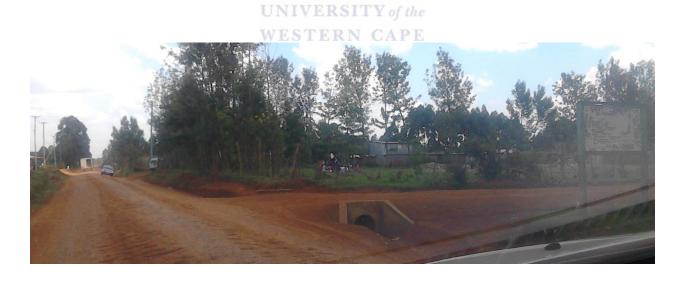


Photo 6: Photo showing the absence of zebra crossing in a road intersection in rural area.



Photo 7: Photo showing the absence of Zebra crossings at a road intersection in a periurban area



Photo 8: Presence of Zebra crossings in an urban area



Photo 9: A photo showing vandalized traffic lights at an urban area

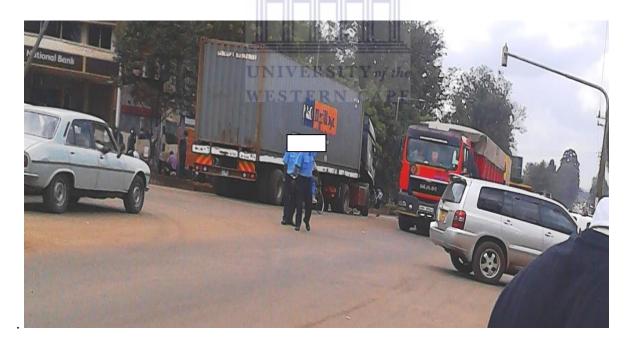


Photo 10: A photo showing Traffic police officers controlling traffic at an urban area (No traffic lights)



Photo 11: Benches and rest areas in urban area



Photo 12: A photo showing parking area reserved for the disabled persons in a leading supermarket



Photo 13: A photo showing presence of ramps in a Teaching and Referral Hospital



Photo 14: Overhead carrier and booth to accommodate wheelchairs and crutches



Photo 15: A vehicle showing lack of elavators for the disabled persons to access the vehicle.



Photo 16: A photo showing an example of an adapted private vehicle for the disabled persons with elevator



Photo 17: A photo showing absence of ramps in a leading institution of learning

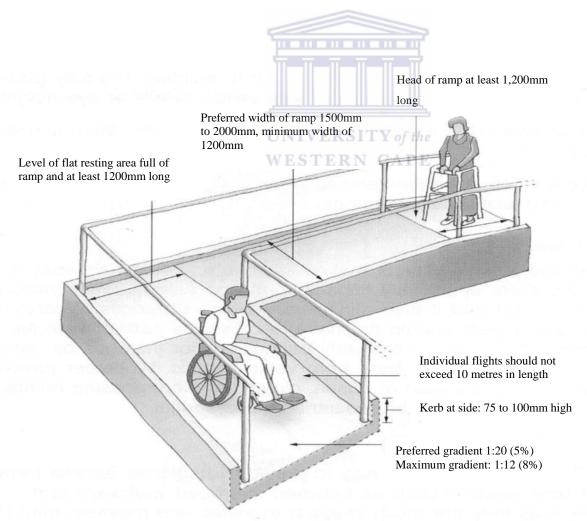


Photo 18: An ideal design of a ramp

Source: Oxley (2002)



Photo 19: Absence of rails to support wheelchair users



Photo 20: Inaccessible toilet for persons with physical disabilities in a learning institution



Photo 21: An example of an adapted toilet for PWDs

Source: Oxley (2002)

APPENDIX O: LETTER FROM THE EDITOR



UNIVERSITY OF THE WESTERN CAPE

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E-mail: nmlenzana@uwc.ac.za

Vc TRANSCRIBERS AND EDITORS

P.O Box 1074
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Email: cherobonvicky@yahoo.com
Tel: +254727546105

To Whom It May Concern

WESTERN CAPE

RE: PROFESSIONAL EDITING OF MSC DISSERTATION (CHRISTOPHER ARAP KOECH)

This serves to confirm that the dissertation entitled Factors Inhibiting Equalization Of Opportunities Towards Persons With Physical Disabilities In Uasin-Gishu County, Kenya authored by Christopher Arap Koech was edited and proof read by VC transcribers and editors in January 2016.

Victorine Sinei

Chief Editor