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THE OPPORTUNITIES AND CHALLENGES FOR PERSONS WITH A
DISABILITY IN KENYA: ULEMAVU SI KUKOSA UWEZO

COLMAN



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The Opportunities and Challenges for Persons with a Disability in Kenya:
Ulemavu Si Kukosa Uwezo

by
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Submitted in partial fulfillment of the requirements for Intercultural Studies
Honors in
the Intercultural Studies Department

Houghton College, Houghton, New York
April, 2013

Honors Committee

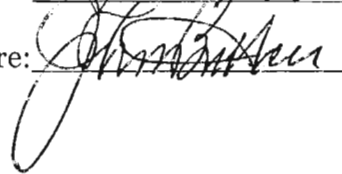
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Acknowledgements

I would like to acknowledge and thank many individuals and organizations that have played a significant role in the completion of this research. First, I wish to thank my parents who continually provide a loving and supportive foundation for me to build on. Also, I would be remiss to not thank my flaming red-headed sister for her constant encouragement and excitement throughout this process. I wish to thank Dr. Ndunge Kiiti (Houghton College) who provided the opportunity and means for this research to be carried out. She has served as a friend, guide and mentor through this entire research process. This research was conducted under Dr. Kiiti's research in collaboration with Dr. Jane Mutinda (Kenyatta University-Nairobi, Kenya). Their research focused on the experience of persons with visual impairment and their use of mobile money services and was funded by the Institute for Money, Technology & Financial Inclusion (IMTFI). Thus, I am grateful for IMTFI's indirect support for my research. Gratitude is extended to Aaron Routhe (PhD Candidate in the department of Sociology at the University of Tennessee-Knoxville) for equipping me with the necessary skills and passion for this research. Also, I am thankful to Dr. John Brittain (Houghton College) for his insights throughout this research process.

I wish to also thank all of the students, administrators and teachers at Thika School for the Blind and Machakos Technical Institute for the Blind for sharing their experiences to help me engage and learn. I wish to thank the Karogoto community and their leaders for continually welcoming me and teaching me. Gratitude is extended to the Wangai family who adopted me as one of their own for three weeks in Nairobi, Kenya as interviews were conducted.

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Chapter 1: Introduction

Background

According to Ingstad and Whyte (1995), 25% of the world's population is affected by a disability. In their World Report on Disability (2011) the World Health Organization (henceforth written WHO) and the World Bank state that of the 25% who are affected by a disability, 10% actually have one. Of the world's population that has a disability, 80% live in a developing country (Albrecht, 2000). The 2009 Kenyan Census notes that 1,330,315 citizens live with a disability, which is 3.5% of their population (Kenya National Bureau of Statistics, 2009). According to Opini (2010) the majority of Kenyans living with a disability reside in the rural areas.

It is anticipated that the number of persons with a disability, particularly in developing countries, will continue to increase in the coming years (World Disability Report, 2011). "The number of people with disabilities is growing. This is because populations are aging—older people have a higher risk of disability—and because the global increase in chronic health conditions associated with disability, such as diabetes, cardiovascular diseases, and mental illness" (*Ibid*, p. 8). In Kenya, the increase in disability numbers is attributed to road traffic accidents resulting in injury and the increasing prevalence of mental illnesses

(Kenya Disability Report, 2007; WHO-Country Cooperation Strategy at a Glance, 2009).

In 2008, I became interested in the topic of disability, particularly in Kenya (East Africa). Through a development organization, the 410 Bridge (Alpharetta, GA), I made my first trip to the community of Karogoto, located in the Central Province of Kenya, during June of 2008. There I met a young boy with autism named Tian (this is a pseudonym for the purpose of confidentiality). Over a five year period, I have observed Tian deal with many social struggles such as stigma, poverty, loss of primary caregivers, and an inability to access to formal education. All of these were a result of and an exacerbation to his disability.

For a length of time, he had access to an informal education setting which provided an opportunity for him to flourish socially and linguistically. The more time I spent with Tian, the more I wanted to understand his experience as a human being. I began asking myself the following questions: Are/how are persons with a disability included in the development process? What is stigma and how can it be challenged? What challenges has Tian faced? What opportunities has Tian been given? Eventually these questions and more evolved into my research question of: What are the opportunities and challenges for persons with a disability in Kenya?

There are a plethora of models used to understand, explain and describe the phenomenon of disability (Devlieger, Rusch, & Pfeiffer, 2003). Devlieger et al (2003) would argue that there are distinct models of disability such as medical, social and religious. Historically and culturally speaking, the medical model of disability has been primarily utilized in the Western world (Barnes & Mercer,

2003). In the medical model, disability is “a feature of the person, directly caused by disease, trauma, or other health conditions, which requires medical care” (WHO/ICF, 2002, p. 8). Treatment for such a condition is a means to correct the problem of the individual. As Barnes and Mercer (2003) describe the medical model, disability is viewed as a personal tragedy. It is an individual problem that medical knowledge and treatment may be able to ‘fix’. Later, in the twentieth century, the social model provided a shift for understanding disability.

The social model of disability, which views disability as a social construct, finds its roots in the theory of primary and secondary deviance coined by sociologist Charles Lemert (Barnes & Mercer, 2003). Primary deviance occurs when social norms are broken without long-term consequences; secondary deviance germinates significant social consequences for social norms substantially broken. In the social model, disability is viewed as a socially constructed secondary deviance in which social consequences—such as stigma, oppression and discrimination—take root.

Despite the understanding of the medical and social models, Crawford and Stodolska (2008) claim that “Kenyan society ascribes to the religious model of disability in which disability is seen as a problem, a curse, and a result of punishment by God” (p. 130). Persons with a disability have been culturally viewed as a bad omen or useless (Wamocho, Karugu, & Nwoye, 2008).

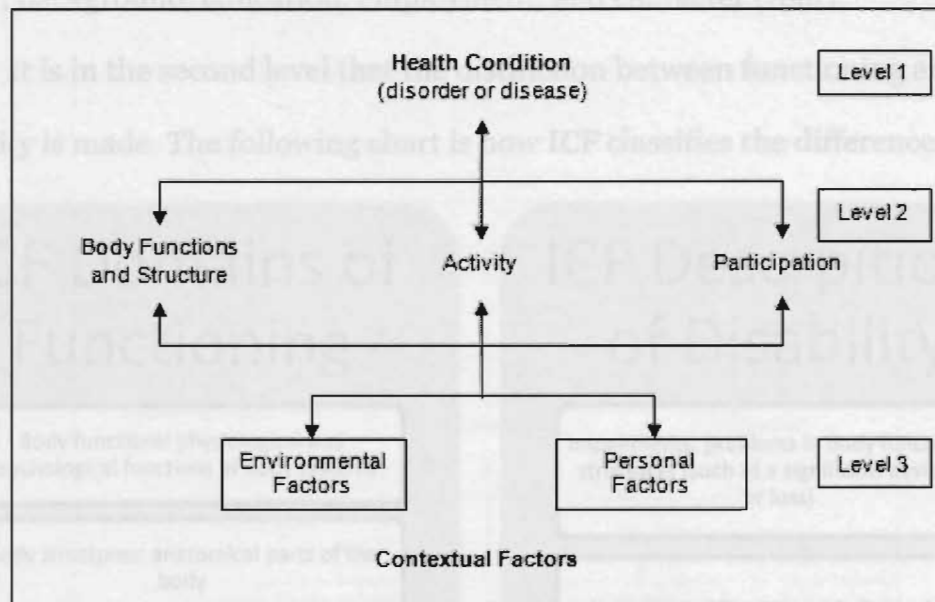
In recent years, another shift to understanding, explaining and describing disability has occurred. Many academics, such as DePoy and Gilson (2011), are realizing that disability needs to be looked at through a multi-disciplinary lens. To view disability through distinct models, as Devlieger et al (2003) suggests,

limits and reduces the complexity of understanding and analyzing disability. Granted, within a multi-disciplinary understanding of disability, it is crucial that each discipline be explored thoroughly while mindfully aware of the other contributing disciplines. DePoy and Gilson (2011) have created a disjuncture theory that integrates a multi-facet of professions and disciplines to explain disability as a break between one's body and one's environment. Through such a holistic approach, a theory of juncture is then offered to bridge the gap between the body and environment of a person with a disability, so that the body and environment are no longer separate entities. DePoy and Gilson's (2011) disjuncture theory has been proven an adequate fit in the Western context of disability. However, further research needs to be conducted to see if such a model is relevant cross-culturally.

This research recognizes the importance of understanding disability holistically; ergo it employs the biopsychosocial model of disability, used by WHO's International Classification of Functioning, Disability and Health (henceforth written ICF) in an effort to develop a common tool for assessing and improving disability internationally. This model combines the medical and social model of disability to see one's disability experience through the lens of health and contextual factors (WHO/ICF, 2002). "Some aspects of disability are almost entirely internal to the person, while other aspects are almost entirely external" (*Ibid*, p. 9). This shows the medical and social models of disability to be appropriate. However, the two models integrated together allows for a more holistic depiction of disability. This model will be explained in-depth in the "Framework" section of this paper.

Framework

The ICF, a family member of the WHO's international classifications, provides a biopsychosocial framework for understanding, describing, and assessing disability. The biopsychosocial model of disability seeks to integrate the medical and social models, which on their own reduce the complex nature of disability, but together provide a more holistic model (WHO/ICF, 2002). The framework considers one's health condition(s) and contextual factors that result in one's experience of body function/personal impairments, activity/activity limitations and/or participation/ participation restrictions:

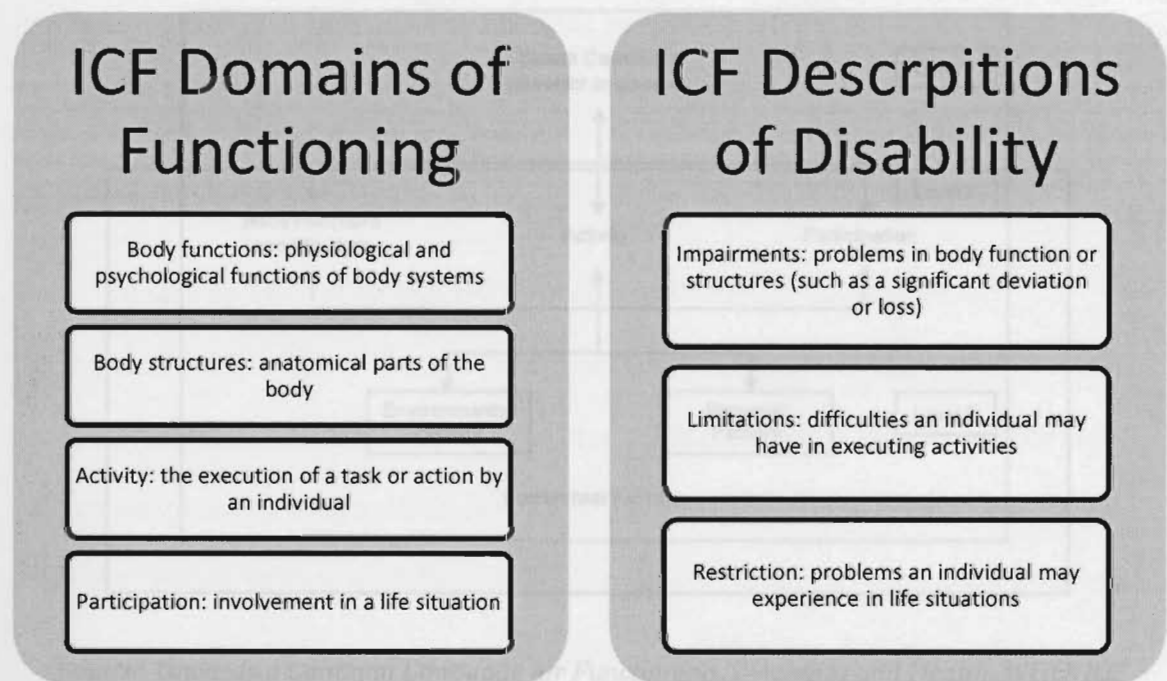


Source: *Towards a Common Language for Functioning, Disability and Health, WHO/ICF (2002)*

ICF's (2002) biopsychosocial framework includes three levels of human functioning. The health condition is the first level which identifies functioning as the body or body parts. ICF (2002) conceptualizes *health conditions*, as any

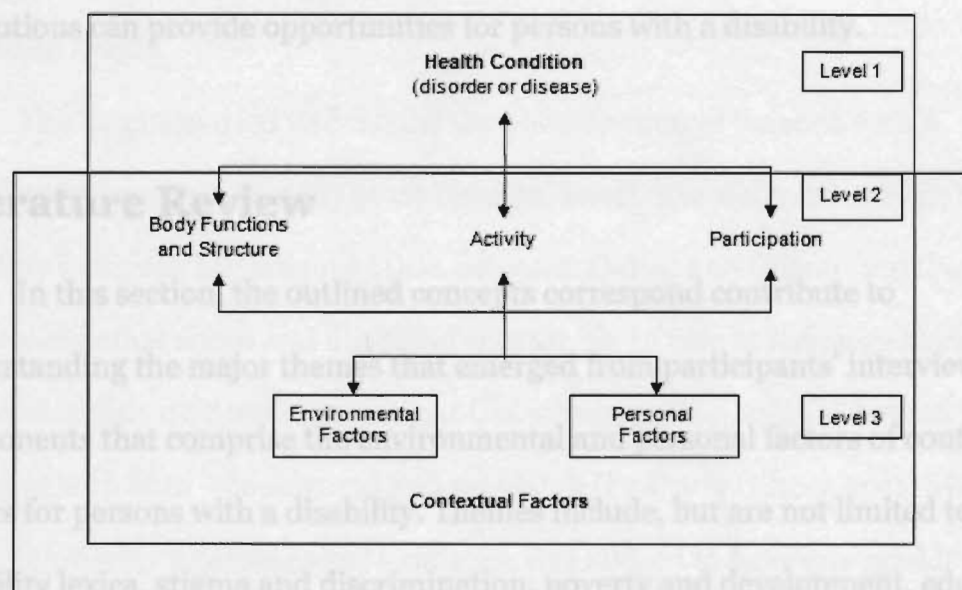
diseases, disorders, disabilities or injuries one acquires. The second level, the functioning of the whole person, includes the domains of body functions/structures, activity and participation. In this level of the biopsychosocial model *impairments* are designated as dysfunctions or ill structures of one's body. "The execution of a task or action by an individual" is conceptualized as *activity* (*Ibid*, p. 10). *Participation* "is the involvement in a life situation" (p. 10). The third level identifies functioning of the whole person within the context of one's environment. *Contextual factors* include the categories of *environmental factors*, such as social attitudes, social institutions, legal structures, and physical locations; and *personal factors* which include age, gender, background, education, employment, and character (*Ibid*).

It is in the second level that the distinction between functioning and disability is made. The following chart is how ICF classifies the differences:



Source: Colman based on ICF literature (April, 2013)

This research focused on the contextual factors of persons with a disability in Kenya that contribute to their functioning or disability experiences designated in the second level of the ICF biopsychosocial model of disability. This is to say, this research describes the contextual factors (both environmental and personal) that create opportunities and challenges in the domains of functioning, activity and/or participation for persons with a disability. This is not to ignore the health condition aspect of the biopsychosocial model, but to describe the aspect of contextual factors thoroughly. It is suggested that further research be conducted on the health conditions of persons with a disability in Kenya to gain the whole picture of the disability phenomenon in this specific country. The following diagram shows specifically the portion of the ICF biopsychosocial model of disability that this study examined:



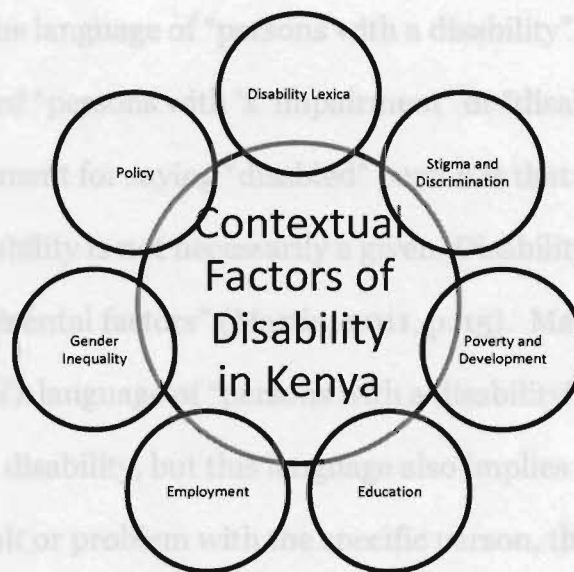
Source: *Towards a Common Language for Functioning, Disability and Health*, WHO/ICF (2002)

Environmental factors and personal factors fall under the umbrella of contextual factors. Environmental factors are the primary focus of this research, but the ICF (2002) notes that environmental factors and personal factors cannot be fully understood apart from one other. Therefore, this research cannot entirely discuss environmental factors without addressing personal factors as well. The World Disability Report (2011) highlights the environmental factors that limit participation for persons with a disability as: inadequate policies and standards, negative attitudes, lack of provision of services, problems with service delivery, inadequate funding, lack of accessibility, lack of consultation and involvement, and lack of data. Such environmental barriers result in poor health outcomes, low educational success, lack of ability to participate in the economy, increased dependency, and restricted ability to participate within their community (*Ibid*). Despite the barriers to education and employment, if attained, these social institutions can provide opportunities for persons with a disability.

Literature Review

In this section, the outlined concepts correspond contribute to understanding the major themes that emerged from participants' interviews as components that comprise the environmental and personal factors of contextual factors for persons with a disability. Themes include, but are not limited to: disability lexica, stigma and discrimination, poverty and development, education, employment, gender inequality, and policy. The following diagram was created to help organize the themes highlighted in this literature review. This diagram

recognizes the interconnectedness between the themes presented, but does not attempt to draw relational lines. The themes all intersect with each other at one point or another:



Source: Colman based on literature review (April, 2013)

Disability Lexica

The language used to describe the phenomenon of persons with a disability has evolved over the years (Martin, 2011). The different models of disability influence the language that one uses. DePoy and Gilson (2011) also acknowledge that social and historical context play a role in language choice. The idea of disability originated in Ancient Greece where “the atypical human” was looked at with both wonderment and repulsion (DePoy & Gilson, 2011; Martin, 2011). “Disability’s predecessor, handicap, was alleged to have emerged from the cap-in-hand proclamation, in which Henry VII in 1504 CE, recognizing the plight

of injured soldiers, formally allowed these worthy citizens to beg in the streets as a means to their own subsistence” (DePoy & Gilson, 2011, p. 10).

Martin (2011) argues that those aligned with the medical model of disability prefer the language of “persons with a disability” whereas the social model leans toward “persons with ‘x’ impairment” or “disabled person.” “The social model argument for saying “disabled” person is that the impairment is a given, but the disability is not necessarily a given. Disability occurs as a result of disabling environmental factors” (Martin, 2011, p. 15). Martin (2011) notes that the medical model’s language of “persons with a disability” seeks to honor the person before the disability, but this language also implies that the disability is attributed as a fault or problem with the specific person, thus such language fails to acknowledge anything potentially disabling about the social environment.

A disability lexicon in Kenya is evolving toward the language of the social model; however Kenyan policy employs the phrase “persons with a disability.” For this report, the language “persons with a disability” will be utilized for relevance to Kenyan policy. The Kenya Disability Report of 2007 defines persons with a disability as “any person with a physical, sensory, mental, or other impairment including any visual, hearing, learning, or physical incapacity which impacts adversely on social, economic, or environmental participation” (p. 18). The social model of disability defines disability as “an outcome of the interaction between a person with an impairment and the environmental and attitudinal barriers that he/she faces” (Martin, 2011, p. 15). The difference between these two definitions is apparent. Kenyan policy focuses the definition of “disability” on the individual’s impairment that affects areas of his or her life, whereas the social

model takes into consideration the individual's impairments as well as barriers of the environment and cultural attitudes.

Stigma and Discrimination

Sociologist Erving Goffman (1963) defines stigma as “an attribute of a person that is treated as deeply discrediting by others in society” (p. 3). The relationship between an attribute and a stereotype is formed by a particular social context. O'Brien (2011) comments, “This relationship transforms a given trait into a negatively considered stigma carrying the potential for undesirable social consequences” (p. 292). The concept of “stigma” originated with the Greeks where they used signs burnt or cut on the body to show a person as socially different based on his personal attribute (Goffman, 1963). Goffman (1963) identifies three forms of social stigma: external deformations, deviations in personal traits, and “tribal stigmas.” Of Goffman's three forms of stigma, this research focused on the external deformations under which the category of disabilities falls.

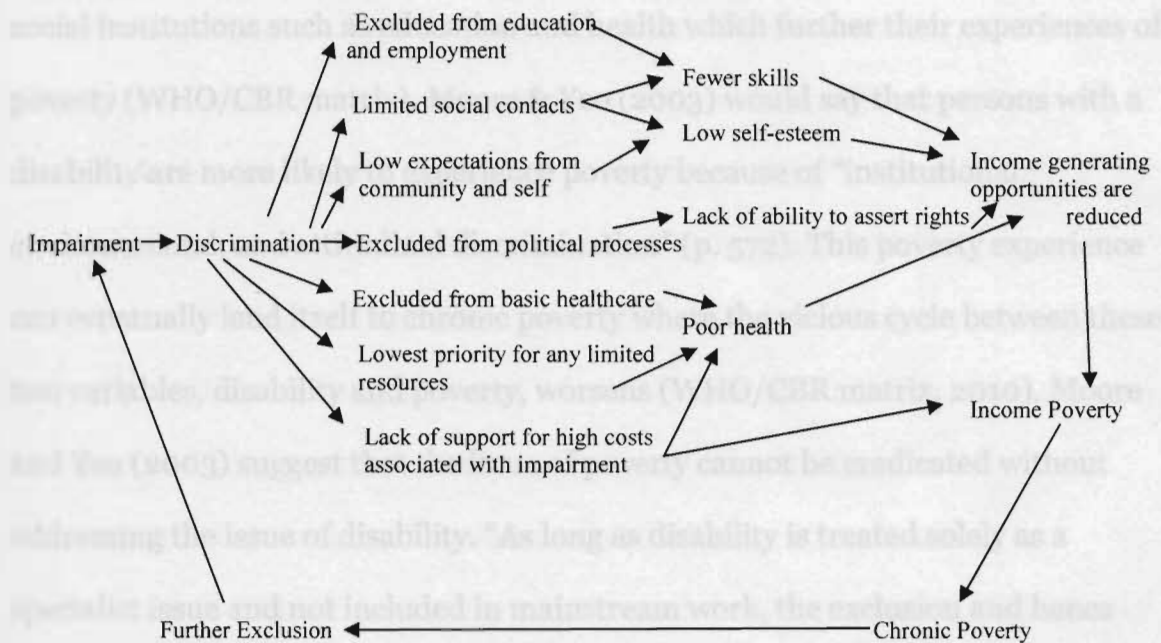
In Kenyan context, persons with a disability have culturally been seen as a “bad omen” or “useless” (Wamocho, Karugu, & Nwoye, 2008). A person with a disability is traditionally seen having done something wrong or some sort of evil to bring about his or her impairment. Crawford and Stodolska (2008) explain that this stigma stems for a lack of knowledge about persons with a disability and religious beliefs. There are dominant perceptions that inability comes with disability and such persons cannot contribute to the common good (Wamocho, Karugu, & Nwoye, 2008).

Discrimination, acting on stigma, is something many persons with a disability experience (Nkansah & Unwin, 2010). Dandaneau (2001) states “when concepts are dehumanizing in any way, their inherent simplification and distortion can legitimize action that renders actual what before was only symbolic” (p. 97). In essence, discrimination is the legitimate action stemmed from stigma. The Kenya Human Rights Report (2011) notes that the law forbids discrimination against persons with a disability in various social institutions such as employment or education. Despite having this policy in place, the report acknowledges that many persons with a disability in Kenya face discrimination daily, particularly in the rural areas (*Ibid*).

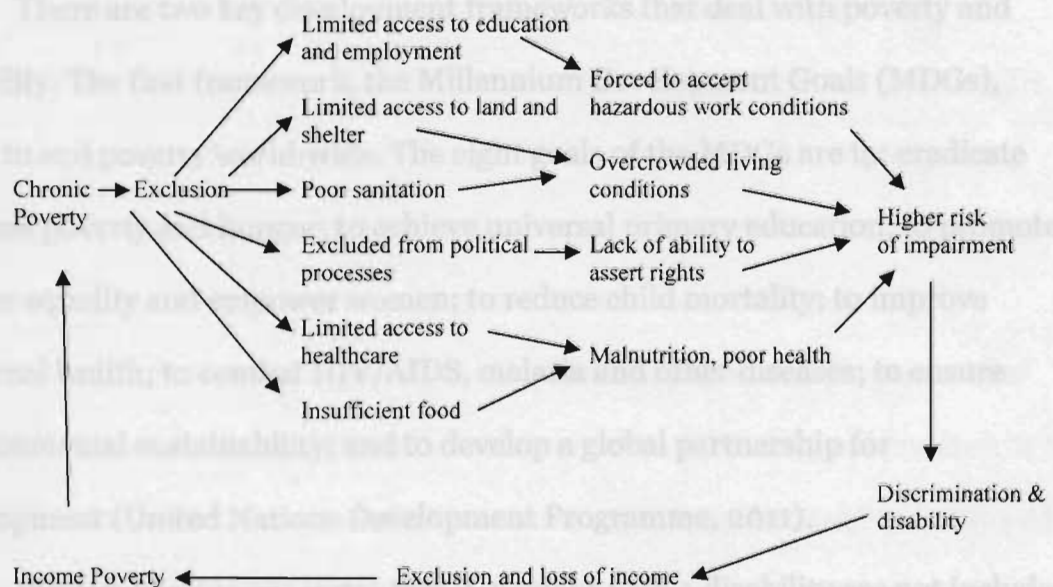
Poverty and Development

“Disability and poverty are inherently linked” (Parnes et al, 2009, p. 1172). The most poor and powerless people on earth are persons with a disability (Charlton, 2004). According to the frequently referenced World Bank statistic, persons with a disability make up 20% of the world’s poorest of the poor (World Disability Report, 2011). Moore and Yeo (2003) define poverty as “limited access to adequate health care, food, education, shelter, and employment” (p. 574). Parnes et al (2009) note a cycle between disability and poverty that begins with economic poverty, which lends itself to poor nourishment, which brings about disability, and then contributes to “lower levels of human development” (p. 1172). Not only does poverty create disability, but disability “creates and exacerbates poverty by increasing isolation, economic strain, not just for the individual but for the family: there is little doubt that disabled people are among the poorest in

poor countries” (Coleridge, 1999, p. 64). Moore and Yeo (2003) have models that show the cycles of disability/poverty and poverty/disability:



Source: *Disability leads to Poverty; Moore & Yeo (2003)*



Source: *Poverty leads to Disability; Moore and Yeo (2003)*

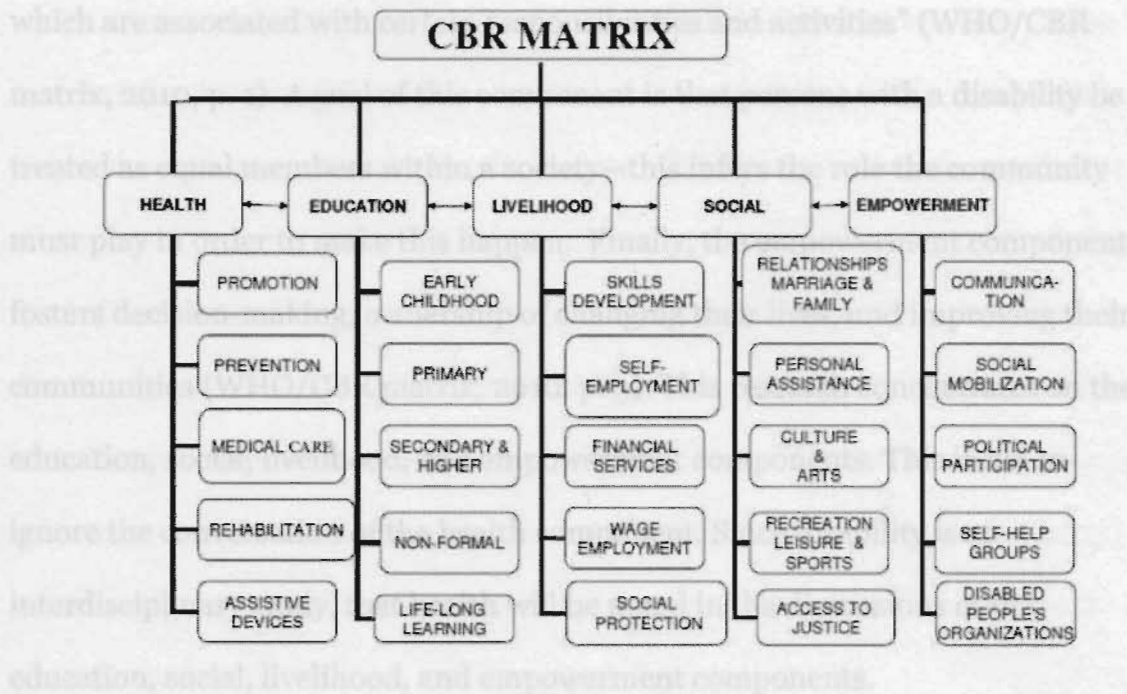
WHO (2010) discusses that persons with a disability in developing countries are often neglected, discriminated against, and find it difficult to access social institutions such as education and health which further their experiences of poverty (WHO/CBR matrix). Moore & Yeo (2003) would say that persons with a disability are more likely to experience poverty because of “institutional, environmental, and attitudinal discrimination” (p. 572). This poverty experience can eventually lend itself to chronic poverty where the vicious cycle between these two variables, disability and poverty, worsens (WHO/CBR matrix, 2010). Moore and Yeo (2003) suggest that the issue of poverty cannot be eradicated without addressing the issue of disability. “As long as disability is treated solely as a specialist issue and not included in mainstream work, the exclusion and hence the poverty that disabled people face will not be addressed” (Moore and Yeo, 2003, p. 587).

There are two key development frameworks that deal with poverty and disability. The first framework, the Millennium Development Goals (MDGs), seeks to end poverty world-wide. The eight goals of the MDGs are to: eradicate extreme poverty and hunger; to achieve universal primary education; to promote gender equality and empower women; to reduce child mortality; to improve maternal health; to combat HIV/AIDS, malaria and other diseases; to ensure environmental sustainability; and to develop a global partnership for development (United Nations Development Programme, 2011).

Wolfensohn (2002) states that if, persons with a disability are not included in the implementation of the MDGs, then none of the goals can be fully achieved. “The fact that persons with disabilities are not included in any of the MDGs’

Goals, Targets or Indicators represents a lost opportunity to address the pressing social, educational, health and economic concerns of millions of the world's most marginalized citizens" (United Nations Development Programme, 2011, p. 1). The obvious relationship between poverty and disability makes the MDGs relevant to this issue under discussion. It is also necessary for persons with a disability to be involved in efforts promoting MDGs (Ibid). WHO's Country Cooperation Strategy at Glance (2009) comments on how Kenya's progress toward the MDGs has been slow and it is ambiguous as to whether the MDGs can be achieved. This progress is attributed to "poor infrastructures, weak institutions and poor regulatory enforcement" (*Ibid*, p. 2). In Geneva, Switzerland, the World Health Organization and the Convention on the Rights of Persons with a Disability added a category for "disability" to the MDG chart (see Appendix C).

The second development framework, WHO's Community Based-Rehabilitation (CBR) matrix, was birthed out of the knowledge that people with disabilities fall into the category of the world's most vulnerable people groups, because of discrimination which stems from prevailing stigmas. The matrix was constructed to encourage community-based inclusive development to help improve the life experience of persons with a disability in developing countries (WHO/CBR matrix, 2010). How is this model relevant? CBR is implemented in over 90 countries, Kenya included, demonstrating its cross-cultural versatility as well as its universal applicability. This model stresses the interconnectedness of its components, which will be further defined shortly (*Ibid*).



Source: WHO's CBR Matrix, 2010

The CBR matrix is comprised of five components—health, education, livelihood, social, and empowerment. Each of these components has five elements to help deepen its understanding. The first component, health, is defined by WHO as “complete physical, mental, and social well-being and not merely the presence of disease or infirmity” (WHO/CBR matrix, 2010, p. 3). The goal of this component is to see people with a disability attain their highest standard of health possible. Education is defined in terms of formal, non-formal, and informal. The goal of this component is for people with a disability to access education in a way that will lead to “a sense of dignity” and “effective participation in society” (WHO/CBR matrix, 2010, p. 1).

The livelihood component seeks to allow such persons to earn enough income to be able to contribute to the economy of their families, communities, and countries. WHO defines social roles as “the positions people hold in society

which are associated with certain responsibilities and activities” (WHO/CBR matrix, 2010, p. 1). A goal of this component is that persons with a disability be treated as equal members within a society—this infers the role the community must play in order to make this happen. Finally, the empowerment component fosters decision-making, ownership of changing their lives, and improving their communities (WHO/CBR matrix, 2010, p. 3). This research concentrates on the education, social, livelihood, and empowerment components. This is not to ignore the conversation of the health component. Since disability is an interdisciplinary study, that health will be noted in the discussions of the education, social, livelihood, and empowerment components.

Education

The United Nations Educational, Scientific and Cultural Organization (UNESCO) estimates that 90% of children with a disability in a developing country do not have access to formal education (UNESCO as cited in Parnes et al, 2009). WHO (2010) classifies education as formal and informal, recognizing the home, schools, and communities as educational facilities. Most persons with a disability do not receive education due to the barriers of poverty, marginalization, and discrimination (WHO/CBR matrix, 2010). Regardless, education is a vital experience for all human beings, but particularly vital to persons with a disability. The importance of including persons with a disability in the education sector is not only significant for persons with a disability, but is also needed to enhance the education experience of all persons (Parnes et al, 2009).

Moore and Yeo (2003) write that “disabled children are less likely to be sent to school (even if physically possible), for fear that they will not cope, their disclosure will stigmatize the family, [potentially] affect marriage prospects for siblings and they are not worth the investment, so others should get priority” (p. 573). Those who do receive a formal education are often treated poorly and develop low expectations for themselves. Schools in developing countries often lack the appropriate transportation, equipment, materials, and teachers necessary to meet the needs of disabled students (*Ibid*). However Freire (1973) acknowledges the vitality of education for persons with a disability because it provides self awareness and a new sense of dignity.

Gona et al (2011) discuss the lack of knowledge and understanding caregivers of persons with a disability have. Caregivers often report feelings of hopelessness because they do not know how to properly care for such persons (*Ibid*). When it comes to higher education, Opini (2010) writes, “only a small percentage of disabled persons make it to the university in Kenya, compared with the non-disabled student population” (p. 279). The level of education one achieves contributes to his or her opportunity to be employed. Poverty contributes to one’s access to education and education directly determines one’s economic status (*Ibid*).

(2010) also comments that a male with a disability is more likely to be hired

Employment

“As adults, disabled people have restricted employment and income-earning opportunities. This is due to early and/or on-going discrimination, resulting in lack of education, job opportunities, work experience, and

confidence” (Moore & Yeo, 2003, p. 574). Opini (2010) discusses barriers, for Kenyan persons with a disability in the workplace such as attitudes, inaccessible infrastructure, and unequal pay. Also, while the law states that there should be no discrimination in the potential employment of a person with a disability, discrimination is still a common experience (*Ibid*). WHO (2010) notes the lack of education children with disabilities face, which lends itself to lack of training the youth receive, and results in the lack of work adults with disabilities face. There is an underlying perception that persons with a disability are incapable or too incompetent to work (WHO/CBR matrix, 2010). Moore and Yeo (2003) comment:

The main motivation for governments that do introduce inclusive approaches to working with disabled people has generally been economic. There is growing recognition of the high economic costs of exclusion. If disabled people are unable to contribute to society then they will inevitably be an economic burden on others (p. 580).

Within the experience of disability, differences vary on the type of disability one has and the individual’s gender. Those who are physically impaired are more likely to be employed than those who are hearing, visually, mentally, or intellectually impaired (Opini, 2010; World Disability Report, 2011). Opini (2010) also comments that a male with a disability is more likely to be hired before a female.

Gender Inequality

The World Report on Disability (2011) states that “while disability correlates with disadvantage, not all people with disabilities are equally disadvantaged. Women with disabilities experience gender discrimination as well as disabling barriers” (p. 8). According to Kenya National Bureau of Statistics (2009), there are more Kenyan females (684,623) with a disability than males (647,689). The United Nations Convention for Persons with a Disability (2004) require state parties to take appropriate measures to ensure that women with disabilities experience “the full and equal enjoyment of all human rights and fundamental freedoms” (p. 1). According to Parnes et al (2009) children and women with disabilities are more vulnerable to abuse, poverty, and social exclusion than other persons with a disability. Women with disabilities are two to three times more likely to be sexually abused than women with an able-body (*Ibid*).

Moore and Yeo (2003) highlight gender discrimination in the social institution of education because it is likely that twice as many boys will be enrolled in school than girls. Young girls with disabilities have less access to a formal education and adolescent girls with disabilities have fewer opportunities to enter training programs. Thus, the consequence is that women with disabilities are less likely to be employed than men (Parnes et al, 2009). Compared to women with an “able-body,” women with a disability are less likely to enter into a marriage relationship or to obtain economic security (*Ibid*). Kenya National Commission on Human Rights (KNCHR) addresses how women with a disability are treated by the medical institution:

In Embu town during the year, pregnant women with disabilities encountered harsh treatment in maternity wards. Nurses demanded to know how they became impregnated and questioned their right to bear children. Mute mothers claimed that hospital staffs ignored them during delivery. Other unconfirmed reports indicated that hospital staffs performed--or tried to perform--tubal ligations on mothers with disabilities without informing them. Other expectant mothers with disabilities were sent away from hospitals for not having pads, cotton wool, or the fee of 2,000 shillings (\$23) required for delivery (Kenya Human Rights Report, 2011, p. 1).

Gona et al (2010) also acknowledge that women are more likely to be caregivers of persons with a disability. This results in “disrupted family and social relationships, exhaustion, financial difficulties, and guilt/parenting distress” (Gona et al, 2010, p. 176).

Policy

Moore and Yeo (2003) critique government policy for their primary focus on the prevention and rehabilitation of disability, rather than focusing on “a rights-based approach to social, economic and political inclusion” (p. 581). The United Nations Convention of Rights for Persons with a Disability (2004) states that discrimination on the basis of disability that prohibits “human rights and/or fundamental freedoms” is not allowed (p.1). The World Disability Report (2011) finds that discrimination still exists due to lack of clearly defined policy and the

poor implementation of policy. To have policy, but to be unable to implement it is a major barrier for persons with a disability, particularly in developing countries (Moore & Yeo, 2003).

The World Disability Report (2011) address issues that people with a disability experience: poor health outcomes, low educational success, lack of ability to participate in the economy, increased dependency, and restricted ability to participate within their community. All of these issues need to be addressed in policy legislation and implementation; the suggested policy framework this involves:

enabling access to all mainstream systems and services, invest in specific programs and services for people with disabilities, adopt a national disability strategy, involve people with disabilities, improve human resource capacity, provide adequate funding, and improve affordability, improve disability data collection, and strengthen support for research for people with disabilities (*Ibid*, p. 17-20).

Chapter 2: Methodology

The central question of this research is: What are the challenges and opportunities for persons with a disability in Kenya? The goal of this research is to describe the contextual opportunities and challenges for persons with a disability in Kenya. The ICF's biopsychosocial model of disability serves as a framework to guide this research. The primary qualitative research strategy utilized was a case study on the contextual factors (environmental and personal factors) of the ICF's biopsychosocial model that are identified and described by persons with a disability at Thika School for the Blind (Central Province of Kenya), Machakos Technical Institute for the Blind (Eastern Province of Kenya), and the rural village of Karogoto (Central Province of Kenya). The research method included in-depth, semi-structured interviews with participants in the locations named above. These interviews served as the primary data while a literature review served as secondary data. This chapter provides a description of the research strategy, the context of interview locations, the characteristics of interviewees, and the methods used to analyze the data.

Research Strategy

This research took on a case-study approach because the purpose is descriptive (Babbie, 2011). It is considered a case study because it looks at a few instances of the social phenomenon of disability in Kenya. An advantage of case study research is that it allows for depth in understanding and describing social phenomena (Babbie, 2011). Furthermore, this research employs an ethnographic strategy as well. Babbie (2011) defines ethnography as “a study that focuses on detailed and accurate description rather than explanation” (p. 324). This research seeks to describe the ICF biopsychosocial model’s contextual factors that bring about opportunities and challenges for persons with a disability in Kenya.

Dandaneau (2001) notes that to study disability is to “analyze the unanalyzable;” outside of the actual experience of disability it cannot be fully known or conceptualized, because the experience varies between cultures and individuals. Theodor Adorno, a German sociologist developed a principle of non-identity which means “the impossibility of words—and the minds that fashion them—to identify wholly and completely with their referents” (*Ibid*, p. 94). The boundaries of what a disability is, and what it is not, is ambiguous because the human experience varies from person to person. What one person is capable or incapable of is different from another person. Drawing distinctions only leads to extensive generalizations about this phenomenon (*Ibid*). Regardless of the ambiguity in conceptualization, it is still vital for trying to understand reality. Adorno suggests that mimesis, “bringing forth more of the ‘voice’ of the object

itself,” should be employed as a means for conceptualizing (*Ibid*, p. 102).

Dandaneau (2001) suggests that such an undertaking requires humility and passivity with the end goal of seeing “‘the other’ not as ‘them,’ but as ‘me’” (p. 102). This research humbly seeks the mimesis approach through ethnographic strategy to describe the contextual factors of persons with a disability in Kenya.

This case study consisted of in-depth, semi-structured interviews with 53 persons with a disability and eight caregivers, administrators, or teachers without a disability in Kenya. According to Babbie (2011), semi-structured interviews guide a conversation, but are flexible and open to what an interviewee may share. Since interviews for this research were conducted in person, advantages included the ability to make observations and the opportunity to ask follow-up questions to a response. Those interviewed in this study were guided to stay in the parameters of discussing disability challenges and opportunities in their society.

For this study, administrators at the institutions of Thika School for the Blind and Machakos Technical Institute for the Blind were the initial informants. In Karogoto, a lead pastor in the community was the initial informant. These informants identified other potential persons to interview. This method for recruiting interviewees is referred to as snowball sampling (Babbie, 2011).

Context of Interview Locations

Interviewees were persons with a disability, ages 6-116 years old, living in the Central (Thika School for the Blind and Karogoto Community) or Eastern (Machakos Technical Institute for the Blind) Provinces of Kenya. These locations

were intentionally chosen for interviews because Thika School for the Blind and Machakos Technical Institute for the Blind are considered the main institutions for persons with a disability not only in Kenya, but in East Africa. This statement is drawn from the international enrollment seen in these institutions. The Karogoto community provided a rural perspective to this research and the data collected will be useful to the development organization involved in the community, the 410 Bridge (Alpharetta, GA).

The context where participants come from is important for a broader understanding of this study. Thika School for the Blind, located in the Central Province of Kenya, was started in 1946 by Salvation Army Church as a rehabilitation center after World War II. In 1951, the first students were brought to the school. Originally, there were no charges for students and the school was run only by the Salvation Army. After Kenya gained independence from Britain, in 1963, the school was handed over to the government, but the Salvation Army remained involved by providing counseling, a chaplain, and sporadic donations. Thika School for the Blind is now an international boarding school for students who are visually impaired. There are students from Kenya, Somalia, and Uganda. The school originally served as a primary school, but in 1967 a secondary school was birthed out of need. It costs students around 15,700 Kenyan shillings (KES) which is approximately \$185 United States dollars (USD) to attend annually. This money covers food and accommodation at the school, while the government provides the education for free. The primary school employs 20 teachers, 14 of whom are totally blind, as well as 31 non-teaching staff. There are 293 primary students and 250 high school students. It takes about 230,000 KES

(approximately \$2,700 USD) to educate a child who is visually impaired, but the government contributes 2,000 KES which is close to \$25 USD (Personal Communication, Thika School for the Blind, July 9-10).

Thika School for the Blind provides not only a formal education, but an informal education. The informal education provides lessons in social skills, mobility, activities of daily living, and agriculture. For the albino students, the school provides special resources such as sunscreen lotion, hats and long sleeved clothes to help protect their skin. The school has 44 computers that have software which allows for the use of internet and the ability to download books. It was mentioned that all of the materials for the blind have been imported. Since Thika School for the Blind holds their students to the same academic standard as the nation's sighted schools, many graduates from the secondary school pursue undergraduate degrees, while others pursue vocational training (Personal Communication, Thika School for the Blind, July 9-10, 2012).

Machakos Technical Institute for the Blind is located in the Eastern Province of Kenya. This institution offers training and rehabilitation, rather than formal education. The institution was started in 1958 by the Kenyan government and was originally an all boys' school. Machakos Technical Institute for the Blind offers training to its 82 enrolled students, representing all ages and levels of education. The professional options include: massage therapy, computer work, knitting, shoe making, carpentry, and leather work. Some people come to this institution after receiving a formal education in search of vocational training rather than pursuing higher education. Others have been sighted persons for the majority of their lives, but for some reason or another they now are visually

impaired or totally blind. This institution offers such persons psychological counseling as well as Braille lessons in English and Swahili which help them cope with their new life experiences as a person who is visually impaired (Personal Communication, Machakos Technical Institute for the Blind, July 12, 2012).

Karogoto is located in the Central Province of Kenya. The community is near Mount Kenya and lies at the base of Tumu Tumu Mountain. It is located five kilometers outside of the town of Karatina. Karogoto is home to approximately 7,000 Kikuyus, who are primarily an agriculturalist people group. In this particular community, people are mainly coffee farmers (Personal Communication, Karogoto, July 15-22, 2012).

Interviewee Characteristics

This section seeks to describe characteristics of interviewees such as sex, age, type of disability, and location of interview. Of the 61 interviewees, 31 were male and 30 were female. The majority (75.5 percent) of the 53 persons with a disability interviewed were visually impaired, blind, or albino. Since two educational institutions for the visually impaired, were locations for this study, it is logical that the majority of interviews would be with persons who are visually impaired or blind. Other disabilities involved in this study were albinism, physical and mental. It is noted that this data does not include persons who are hearing impaired or deaf. This is due to the snowball sampling method. Further research, based on this study, should seek to include data from persons who are hearing impaired or deaf as well.

Characteristics	Number of Participants	Percentage of Participants
Sex:		
Male	31	50.8
Female	30	49.2
Age:		
Youth (0-21 years)	17	26.9
Adult (21-60 years)	36	59.0
Elderly (60+ years)	8	13.1
Location of Interview:		
Thika School for the Blind	26	42.6
Machakos Institute for the Blind	9	14.8
Karogoto Community	26	42.6

Table 1: *Summary of Characteristics of Interviewees N=61 (see Appendix A for expanded version)*

The Interviews

This research interviewed a total of 61 persons, of which 53 self-identified as having a disability, at Thika School for the Blind, Machakos Technical Institute for the Blind, and in the Karogoto community. Before interviews could be conducted, an application was completed and submitted to the Houghton College Institutional Review Board (IRB). An IRB is “a panel of faculty (and possibly

others) who review all research proposals involving human subjects so that they can guarantee that the subjects' rights and interests will be protected" (Babbie, 2011, p. 76). The Houghton College IRB approved this research (see Appendix B for the IRB approval). Each interviewee also needed to give consent to be interviewed with the understanding that his or her name would be kept confidential. A semi-structured interview template was comprised as a guide for the interviews. At Thika School for the Blind and Machakos Technical Institute for the Blind, the interview questions provided background information for the research Dr. Ndunge Kiiti (Houghton College) and Dr. Jane Mutinda (Kenyatta University) were conducting on the use of mobile money services among persons who are visually impaired. In Karogoto, the questions pertaining only to this research were asked. Table 2 shows the semi-structured template for interviews with persons with a disability and Table 3 shows the semi-structure template for interviews with caregivers or teachers without a disability.

1. Tell us briefly about your background.
2. What has been your experience as a person with a disability in your community? In your home?
3. What profession has been most helpful in assisting you in terms of your challenges? (e.g. medical; religious; economic; education; psychology; etc). Do you think they have been successful or failed in assisting you to cope with your challenge? Explain.
4. Do you feel you have equal opportunities compared to those in your community with an 'abled' body? (e.g. education, employment, technology, transportation systems, mobility within buildings, civil service activities?)
5. Any other comments you would add?

Table 2: *Semi-Structure Interview Template for Persons with a Disability*

1. Tell us about your experience as a teacher or caretaker of individuals with challenges/disabilities.
2. What does success look like for a student with a disability? What do they need to succeed? How likely are they to succeed? Why or why not?
3. In general, do students with disabilities obtain employment after their schooling? Why or why not?
4. What can be encouraged or done differently to help a student with a disability succeed in this society?
5. Any other comments you would add?

Table 3: *Semi-Structure Interview Template for Caregivers or Teachers of Persons with a Disability*

At Thika School for the Blind interviews were conducted and observations were made over a two-day period from July 9-10, 2012. The first day of interviews were conducted at the primary school with an administrator, two teachers who are visually impaired, and a focus group comprised nine students (two females and seven males). The interviews with the administrator and two teachers were conducted in the administrator's office. The focus group discussion was held in a classroom. The purpose of focus groups is to start a discussion among participants (Babbie, 2011). Based on previous research experience, Kiiti and Mutinda knew that, for the targeted age group, the best approach was discussion in a small group setting. The second day of interviews at Thika School for the Blind were conducted at the secondary school with an administrator, five teachers who are visually impaired, and a focus group comprised of eight

students (four females and four males). The interviews were conducted in an administrator's office and the focus group discussion was held in the school's chapel. Over the two day period at this institution, four persons with albinism were among interviewees and focus group participants (one teacher and three students). A total of 26 persons were interviewed or participated in a focus group discussion. All of the interviews at Thika School for the Blind were conducted in English and were recorded on an audio recorder. Observations were made of the overall atmosphere of this institution and the spirit of its residents, the physical layout of the buildings, the housing areas, the classrooms, school resources, and the school garden.

At Machakos Technical Institute for the Blind interviews were conducted and observations were made on July 12, 2012. Interviews were conducted with two teachers who are visually impaired and a focus group comprised of seven students (four females and three males). A total nine persons were interviewed or participated in a focus group discussion at this institution. Interviews were conducted in an administrator's office and the focus group discussion was held in a classroom. All of the interviews at Machakos Technical Institute for the Blind were recorded on an audio recorder. The interviews with the two teachers were conducted in English, but the focus group discussion was conducted in Swahili (this was later translated to English during the transcribing process by a trained Kenyan, research assistant). Observations were made of the overall environment of the institution, the physical layout of the buildings, the various programs offered (e.g. Braille, knitting, massage, carpentry, technology, and leather making), and the resources within these classrooms.

them. In the Karogoto community interviews were conducted and observations were made over the length of a week from July 15-22, 2012. One special education teacher in a primary school, five caregivers, and 20 persons with a disability were interviewed. Interviews were conducted in places that were most convenient for the participants; this was typically in their homes. One interview was conducted on the side of the road while a man with a visual impairment herded his cattle. The interview with the special education teacher took place in the classroom setting as observations were made as well. The interviews in this community were not recorded on an audio recorder. The lead pastor of the community said it made the interviewees "uncomfortable", so the interviews were recorded through written notes, key points, and specific quotes. All of the interviews were conducted in Kikuyu (the dominant language in Karogoto) and were translated by the lead pastor of the community during the interviews.

Analysis Methods

Interview tapes were transcribed by a female, Kenyan research assistant hired for Kiiti and Mutinda's research on the use of mobile money services for persons who are visually impaired. Conversational analysis and open coding of the transcriptions were the methods of data processing utilized in this research to understand the contextual factors of persons with a disability in Kenya (Babbie, 2011). The coding of the interviews involved pulling out themes seen in the data that were prevalent topics highlighted by interviewees. Open coding allowed for

themes to emerge from the data collected. The points of topic in the “Data Analysis and Discussion” chapter are the key themes that came from the data.

Chapter 3: Data Analysis and Discussion

As established, ICF’s biopsychosocial model of disability combines the aspects of human conditions with contextual factors to assess, describe and understand disability. This research specifically looked at the contextual factors (comprised of environmental and personal factors) of persons with a disability in Kenya that contribute to their body function, activity and participation in life events. Environmental factors primarily emerged from the data, but as ICF acknowledges, environmental factors cannot be discussed exclusively from personal factors (WHO/ICF, 2002). This chapter will look at environmental challenges, environmental opportunities, personal challenges, and personal opportunities from the data collected at Thika School of the Blind, Machakos Technical Institute for the Blind, and in the Karogoto community.

Environmental Challenges

This first section describes the environmental challenges that persons with a disability experience in Kenya. The data shows that themes of environmental challenges (indicated as italicized sub-headings) include stigma and discrimination, and particular aspects of relationships, transportation, education, employment, and technology. All of these components inhibit the body function, activity and participation aspects of life for persons with a disability.

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Stigma and Discrimination

The first environmental challenge that persons with a disability experience in Kenya is attitudinal barriers. This stigma leads to acts of discrimination.

Stigma is a woven theme throughout the other environmental challenges that persons with a disability experience; it is a justification for discrimination (World Disability Report, 2011). Crawford and Stodolska (2008) find that Kenyan society has held to the religious model of disability like “the early Hebrew people who saw disability as an imperfection incompatible with the sacred” and “early Christians who considered disability as the result of sin” (p. 131). An interviewee at Machakos Technical Institute for the Blind commented on how she is viewed as a “curse” to her family and to her community (Personal Communication, Machakos Technical Institute for the Blind, July 12, 2012).

Some people do not acknowledge that persons with a disability are human. At Thika School for the Blind, a teacher described her experience this way:

Some believe sight is the one who is a person and you hear them saying in their language, ‘Eyes are the person; eyes are the person.’

When they say that and I am around it used to cause me a lot of frustration and I used to be very hostile with my own family, my mum, my brothers and I would tell them I wish I had died. God could have killed me and I would be done. But with my community they are not easy to handle. They do not know how to handle us

even today (Personal Communication, Thika School for the Blind, July 9-10, 2012).

This shows the personal frustration that stigma causes for persons with a disability. To not be accepted as a human being leads to feelings of despair as the interviewee states, to the point of wishing one were dead. The attitude held by community members towards persons with a disability results in the inability to accept such persons. “You are an outcast, you have no guts to go out, you just want to stay in the house because acceptance is a problem in the society” (Personal Communication, Machakos Technical Institute for the Blind, July 12, 2012). Another person interviewed said, “In Karogoto, there is an inability to accept people with a disability. There is a worldview that does not allow acceptance or integration into the community” (Personal Communication, Karogoto Community, July 15-22, 2012). This stigma underlies the challenges of other life experiences for persons with a disability.

Relationships

The social institution of family plays a key role in the experience of persons with a disability, particularly the immediate family (Gona et al, 2011). “In low-income countries where there are limited social services and benefits, families are often the main or only means of this support” (WHO/CBR matrix, 2010). This is the case in Karogoto, where common personal assistants are parents, spouses, children, and in-laws. With this comes the issue of gender, where women serve as primary caregivers. Women caregivers typically have the

social roles of a mother, wife, sister-in-law, or daughter-in-law (Gona et al, 2011). Financial, social, and time burdens of caring for persons who are disabled were reoccurring talking points during the Karogoto interviews. For example, a caregiver of her 53 year old sister-in-law, who is mentally challenged described the financial burden it is for her family to pay for her sister-in-law's monthly medication, biannual shots, and year-round school fees for her two nieces' educational opportunities (Personal Communication, Karogoto Community, July 15-22, 2012). An interviewee at Machakos Technical Institute for the Blind shared, "I think if I am not wrong, when I say that in most of the homes, people who are being given burdens are mothers. Maybe your mum will look after you, but all the other members of the family will see as if it's not you...you are not" (Personal Communication, Machakos Technical Institute for the Blind, July 12, 2012). Thus, an environmental challenge in familial relationships is the issue of gender when it comes to the caretaker's role.

Due to the traditional belief that disability is the result of sin, many caregivers hide their disabled family member out of fear of personal rejection, isolation, or discrimination (Gona et al, 2011). An observation was made in Karogoto as an interview was to be conducted in the home of a 10 year old girl who had a physical disability. When the research team arrived, the girl was found locked away in the house crying, while the mother was out running errands. One of the leaders in the community shared that no one knew this girl existed until two years ago. Her family had intentionally kept her hidden for eight years out of shame (Personal Communication, Karogoto Community, July 15-22, 2012). A teacher who is visually impaired also described her experiences of being hidden

as a child (Personal Communication, Machakos Technical Institute for the Blind, July 12, 2012). Another interviewee at Machakos Technical Institute for the Blind said, "When the visitors come in your home, you will not be allowed to sit at the same table as them. You may be even hidden when they arrive" (*Ibid*).

Since family members are under societal pressures produced by stigma, it was reported by some that acceptance in the home is also a challenge. One person said, "At home, immediately after I lost sight, I had lost support from my brothers and the rest of the family" (Personal Communication, Machakos Technical Institute for the Blind, July 12, 2012). Another commented on how he is viewed as a curse because no one in his family has ever had a disability before (Personal Communication, Thika School for the Blind). A Karogoto community member commented, "I feel like people loved me more before my disability than they do now" (Personal Communication, Karogoto Community, July 15-22, 2012). Gona et al (2011) note that familial and relational acceptance of disability is challenging because of stigma, a lack of understanding, and feelings of inadequacy in caring for persons who is different from them.

The topic of marriage is also an environmental challenge for persons with a disability in Kenya. Some shared that after their incidences of disability occurred, their spouses left them. "When my disability occurred my wife left me. I was left alone like a leaf on an arrow root" (Personal Communication, Machakos Technical Institute for the Blind, July 12, 2012). A single man who is visually impaired said this, "I have thought of raising a family of my own some day, but I have put that dream aside because I would never be able to financially support them" (Personal Communication, Karogoto Community, July 15-22, 2012).

Marred by stigma, or as Goffman (1963) terms it a “spoiled identity”, persons with a disability may have trouble obtaining or maintaining a marriage relationship.

Transportation

The use of public transportation was a challenge that many persons with a disability highlighted in the interviews. Most persons with a disability in Karogoto cannot economically access public transportation. Those at Thika and Machakos, who can access public transportation, reported that the attitudes of the matatu (taxi) drivers are ones that result in mistreatment. Here are three comments on the experience of public transportation from persons who are visually impaired:

On public vehicles and the buses when they see somebody with a visual impairment they think you have gone there to beg, they ask friends you are with, ‘Who will pay for her, who will pay for him?’

(Personal Communication, Machakos Technical Institute for the Blind, July 12, 2012).

Public vehicles are unreliable. They may decide not to move and go where they were going and stop some place and just come back where they were going, so you have to struggle to get to the next means of transport. This makes people vulnerable to abuse, even sexual abuse or physical abuse because when you are left somewhere and it is in the middle of the night, you know people

may also take advantage and harass you sexually or physically or take your things (Personal Communication, Thika School for the Blind, July 9-10, 2012).

I was going to town, I turned back and went home because I was trying to get in a matatu, but it took off too quickly, so what happened? I fell. The driver tells me. 'Take your disability far from here.' I had to call the person I was going to meet to tell them that I was not coming (*Ibid*).

To add to these experiences, persons who are visually impaired noted how overwhelming the music played on public transportation is for them. One person said, "I do not like the music. It disorients me" (Personal Communication, Machakos Technical Institute for the Blind, July 12, 2012).

Merely walking on the street can be of challenge as well. The sidewalks and roads do not have even pavement which makes it difficult for a person who is visually impaired to know if she is on a path that is safe. One woman at Thika School for the Blind gave an example of how she may walk on the road and need help crossing the street. If you ask someone for assistance "what he or she will do is just throw you a ten bob [shilling] or a coin and run away...They have turned us into beggars" (Personal Communication, Thika School for the Blind, July 9-10, 2012). In Karogoto, it was observed that a person who uses the assistive device of wheelchair had a difficult time navigating a courtyard and steps to access the church building.

Education

This data shows that environmental challenges can also be faced in the educational sector. For example, poverty is a challenge to the formal education given at Thika School for the Blind. Much of the equipment used at this institution—computer software, Braille rolls, special paper, and pens are very expensive because they are imported from other countries such as the United Kingdom (Personal Communication, Thika School for the Blind, July 9-10, 2012). It is a challenge for the institution to obtain these materials for their students.

In Karogoto, a collision between the two challenges of this community, stigma and material poverty, occur. Also, the special education teacher in the primary school has a hard time obtaining resources necessary for providing the children a formal education. This lack of access to resources facilitates the non-formal education experience of persons with a disability in this community (Personal Communication, Karogoto Community, July 15-22, 2012).

The chaplain at Thika School for the Blind noted that poverty is an issue for families of the students at the school. He says, “In fact, blindness is associated with poverty because after research and after some medical check-ups, most of the blind children are blind because of measles and also malnutrition. So, the parents are poor” (Personal Communication, Thika School for the Blind, July 9-10, 2012). This shows Moore and Yeo’s (2003) cycle of poverty causing disability as previously discussed in the “Literature Review” section of this paper.

Accessing assistive devices that can aid in one’s education is also limited due to poverty. In Karogoto, caregivers expressed difficulty paying for necessary

assistive devices, medical care, and medicines needed by persons with a disability (Personal Communication, Karogoto Community, July 15-22, 2012). At Thika School for the Blind, it was observed that a student who is totally blind has a hearing impairment as well. The child does not have a hearing aid. When asked why, her teacher explained that her family could not afford it. Most days the child sits in the classroom not even knowing what is going on around her (Personal Communication, Thika School for the Blind, July 9-10, 2012). The poverty that prevents access to an assistive device is directly affecting this student's educational experience.

Families have a difficult time paying for any of their children to go to school, so a child with an able body will more likely be sent to school before a child with a disabled body. A student from Machakos Technical Institute for the Blind commented, "Even parents can sometimes face discouragement because of us, at times you may hear a parent being asking, 'So you are wasting your money on this blind person, yet he/she will not help you'" (Personal Communication, Machakos Technical Institute for the Blind, July 12, 2012). The lack of formal education for a person with a disability in Karogoto negatively affects his or her ability to find paid work. This only further perpetuates his or her cycle of poverty and disability (Personal Communication, Karogoto Community, July 15-22, 2012).

Another challenge experienced at Thika School for the Blind occurs when the students take their national exams. One student commented that, "National exams can be trouble to us especially when they have diagrams" (Personal Communication, Thika School for the Blind, July 9-10, 2012). The students are

instructed to study a diagram and then draw some conclusion about that diagram. Persons who are visually impaired cannot read the diagram because often times it is not produced in Braille. Also, another student shared:

Do you know what the national board for marking exams does?

They de-Braille it (de-Braille means they take that Braille work and put it in print). Instead, the government should employ people that are conversant with Braille so that they mark it in the right way instead of changing it from Braille to print which is a disadvantage to us (Thika Interviewee, Personal Communication, July 9-10, 2012).

When the board “de-Brailles” the exams, there is no guarantee that the board is not making mistakes that the students are being marked for. This is the “disadvantage” the student is referencing.

At Thika Primary School for the Blind the students in a focus group shared their hopes as to their future occupations. Students listed off vocations such as: an attorney general, a speaker of the national assembly, an ambassador, an electric engineer, an accountant, a lecturer, a business man, a judge, and a lawyer (Personal Communication, Thika School for the Blind, July 9-10, 2012). The next day a focus group was conducted with high school students. One of the male students explained:

From high school we join colleges and you find that however much you can pass, there are some certain careers that you are not allowed to pursue. You can be somebody like me. I really like biology and my vision is really, really to major very much in all the

areas that concern biology but when I get to the university I am told I am not fit for it just because I am visually impaired, but there are some areas that I can really handle very well in biology. So in sciences we really get curtailed (Personal Communication, Thika School for the Blind, July 9-10, 2012).

This is another challenge for persons with a disability. In higher education, they are told what they are expected to major in; it is not a choice for them.

Employment

There are aspects of employment that present environmental challenges for persons with a disability. Despite Kenyan policy that states there should be no discrimination in the employment of persons with a disability, this discrimination is still experienced. According to Opini (2010) employment of persons with a disability is a large step toward social inclusion. The ability for one to be employed has a direct link to the level of education one has attained (*Ibid*). The chaplain at Thika School for the Blind described it this way:

People cannot be hired at banks because there are no special computers or machines for them to work with. So, they have limited job opportunities compared to the sighted because actually the Kenyan government is still disabled—disabled and unfriendly because most of the facilities are blind and disabled. The ratio of gaining employment after high school is still minimal because the competition is very high (Personal Communication, Thika School for the Blind, July 9-10, 2012).

A woman said this, "We do not have equal opportunities for employment because we might have the same qualifications as persons with an able-body, but when looking for a job they will see my disability first, not my ability" (Personal Communication, Thika School for the Blind, July 9-10, 2012). To prove this point further, another interviewee shared a story about discrimination she faced when she inquired about a job at the election polls:

If I go there asking them for a job they ask, 'Who will assist you?'

Sometimes you may tell them I may come with a reader. 'Who will pay the reader? Will you share your money with the person who will be assisting you?' However much you say I will come with somebody to assist me and I will pay them. They say, 'Madam go, we shall think...we shall communicate.' And if you go, that is the end. They never call (Personal Communication, Thika Institute for the Blind, July 9-10, 2012).

Technology

The development of technology is linked to the chance that persons with disability will be employed (Opini, 2010). In order to attain a government job one must be able to work a computer efficiently (*Ibid*). Hence, Thika School for the Blind and Machakos Technical Institute for the Blind have computer labs and computer classes for their students. Technology is still disabled in many ways, but there have been strides made to accommodate persons with a disability (Personal Communication, Thika School for the Blind, July 9-10, 2012). However, this technology is very expensive and is often imported from other

countries. These two factors provide barriers for persons with a disability to access technology that would be beneficial to them personally and professionally.

For example:

The Braille machine is the pen of a blind person. A sighted child buys a pen for twenty bob, but the pen of a blind child is the Braille machine and that costs 55 thousand shillings and must be imported either from UK or South Africa or elsewhere (*Ibid*).

Environmental Opportunities

Environmental opportunities are attitudes, social institutions, or policies that are in place which allow persons with a disability to access their greatest capacity for body movement, their activity and their ability to participate in life activities (WHO/ICF, 2002). Since most of the interviews for this research took place in formal education institutions, this data shows that the primary environmental opportunity for persons with a disability in Kenya as the social institution of education.

Education

Education is something that occurs in the home, community, and educational institutions. The objective of education is for people to be able to learn what they “want to and need to” according to their personal potential (WHO/CBR matrix, 2010, p.1). Education can take the form of early childhood, primary, secondary and higher, non-formal, and lifelong learning (*Ibid*).

Hennink, Kiiti, Pillinger, and Jayakaran (2012) stress the role knowledge contributes to empowerment. "Knowledge is the access to education, training and information from formal or other sources" (Hennink et al, 2012, p. 206). A common theme in interviews at Thika School for the Blind and Machakos Technical Institute for the Blind was the ability education provides them to access the same life opportunities as persons with an able-body. A student commented: "I feel like education has given me more access to equal opportunities as those with an able-body" (Personal Communication, Machakos Technical Institute for the Blind, July 12, 2012).

Many students at these two institutions highlighted how encouraging it is for them to be surrounded by persons who are similar to them. They realize that they are not alone in their experience and having others around them who are similar to them contributes to their formation of self-identity and self-empowerment. A student at Machakos Technical Institute for the Blind shared this:

Education has made me realize that I am not alone and as I share with others, I find we have similar challenges, similar problems, and sometimes I feel my problems are a bit lighter because some are so mistreated, others are lightly mistreated. Through education you are empowered to face the challenge socially and your reasoning capacity becomes wide, you try to forgive because the education helps you to know that these people don't know how to handle you. So you turn to be their teacher (Personal

Communication, Machakos Technical Institute for the Blind, July 12, 2012).

The chaplain at Thika School for the Blind powerfully commented:

The sky is their limit because equally they can go even up to the peak where even a sighted child can go to. Blindness is not inability and I to confirm to you if you empower them we proved beyond a doubt that if you lose one sense then all the other sense are very much empowered because these people can really sing, these people can excel in the field of education, they can be very good teachers, they can be very good lawyers, and now they are venturing into sciences (Personal Communication, Thika School for the Blind, July 9-10, 2012).

Both students at these formal institutions of education speak of how they feel responsible to use their education to teach those around them about the capabilities of persons with a disability. Some mention educating or “proving” to their extended families that they are capable by their academic achievements. Others mention educating the wider community. Even more dream big and talk about using their formal education at a national level and international level. An administrator at Thika School for the Blind said, “We have proved beyond a doubt that if you empower the blind, they can be independent and they can assist the nation in the nation building, as well as assist themselves” (Personal Communication, Thika School for the Blind, July 9-10, 2012). A visually impaired student affirmed this by saying, “When I finish my education, I will be a better person. I will be employed somewhere else so that I can also help my country and

my family” (Personal Communication, Machakos Technical Institute for the Blind, July 12, 2012).

Also, there was a relationship found in the data collected between the level of one’s education and his or her participation in voting. The more formal education one has received, the more likely he or she is to vote. Persons with access to the formal education at Thika School for the Blind and Machakos Technical Institute for the Blind are found to be more active in political participation, such as voting, than persons with the non-formal education given at the primary school in Karogoto. There are challenges persons with a disability face in voting as well. A person who is visually impaired commented, “When voting someone assists you, but you never know they may vote for the person they are standing for” (Personal Communication, Thika School for the Blind, July 9-10, 2012).

Primary, secondary, and non-formal learning were highlighted as aspects of education in the Karogoto community. However, the most prevalent was non-formal education. A non-formal education seeks to help “people with disabilities develop knowledge and skills, which help to improve their quality of life” (WHO/CBR matrix, 2010, p. 57). Primary barriers to obtaining educational services are poverty, marginalization, and discrimination—all of which are seen in the community of Karogoto.

In a special education classroom in the community of Karogoto there are 11 students with mental disabilities that inhabit this learning environment. Nine of them are thought to have Down syndrome and two are thought to have autism. Due to a lack of teacher training and government assistance, students in this

classroom are given a non-formal education. The goal of this classroom is to help these students integrate into the community (Personal Communication, Karogoto Community, July 15-22, 2012). Among learning primary health prevention strategies, students are also taught how to manipulate things with their hands. This is done to strengthen their motor skills and promote the use of their hands. Girls are taught how to work in the kitchen—preparing food, cooking, and cleaning up after a meal. Boys learn how to work on the farm, mastering the art of harvesting coffee beans. Both of these abilities are vital to gender roles constructed in Kikuyu culture (Personal Communication, Karogoto Community, July 15-22, 2012).

During a classroom activity, it was observed that only two of the 11 students could verbally communicate in a coherent way. The teacher explained that this is a major challenge for integrating the students into the community. Most of them express themselves best through song, but to sing in the community could potentially only further the stigma they already experience. In talking with persons who have gone through this classroom as opposed to those who have not, it is noted that former students have an easier time integrating into the community than those who have not stepped foot in this classroom. However, it is also important to understand that all students interviewed, who have gone through this classroom experience, have been or have the potential to be economically dependent their whole lives (Personal Communication, Karogoto Community, July 15-22, 2012).

The teacher of this classroom not only seeks to educate her students, but she also intentionally looks to “sensitize” the community on the subject of

persons with a disability. She identifies children who should be in the classroom, but whose parents have kept them hidden. The teacher will visit these homes, explain to the parents the benefits of the child attending the classroom, and affirm that their child's state is neither something to be ashamed of nor something that needs to be kept hidden (*Ibid*).

Most of the students in this classroom do not know their sex, and as a result, they are vulnerable to sexual abuse. Sexual abuse is likely to occur in the home, but primarily during their travels to and from school. For example, a sixteen year old girl has been sexually assaulted on multiple occasions. These instances often occur on her walk home from school (*Ibid*). To counter this, the students are taught how to run and scream if approached by strangers or if touched inappropriately. The exact methods in how these lessons are taught is something that needs further research, as well as the effectiveness of such knowledge. However, it is thought that students will be able to apply these techniques in susceptible situations to help prevent diseases and psychological problems that follow sexual abuse (*Ibid*).

Personal Challenges

Personal challenges fall into ICF's biopsychosocial model of disability in the contextual factors category. These are individual challenges that a person with a disability experiences. In the biopsychosocial model, personal factors and environmental factors of disability are related to one another. Personal factors contribute to the experience of environmental factors and environmental factors

contribute to the experience of personal factors (WHO/ICF, 2002). The data of this research heavily shows environmental challenges and opportunities.

Therefore the discussion and analysis of personal challenges will look at how environmental factors contribute to personal challenges.

Self-identity

The primary personal challenge that came out of the data collected is self-identity. Hennink et al (2012) see human agency, “the capacity to act independently and make choices”, as comprised of three components—self identity, decision-making, and effecting change (p. 206). Self-identity is defined as “self-confidence and self-efficacy to set and achieve goals” (*Ibid*). Decision making is defined as “the ability to make informed decisions that are recognized and respected” (*Ibid*). Effecting change is defined as “the belief in one’s own ability to take action to effect change based on personal goals” (*Ibid*). This section looks at the personal challenges of self-identity for persons with a disability.

Farming is vital to the life of a Kikuyu; the identity of a Kikuyu is rooted in his or her ability to farm. A person interviewed said, “To a Kikuyu, farming is their life. To take away their ability to farm is like taking away their very own life” (Personal Communication, Karogoto Community, July 15-22, 2012). Those who are disabled have found ways to contribute to the farming lifestyle. They develop skills to cope with their disability. For example, one of the persons interviewed is mentally disabled, but she loves working on her farm with her sister-in-law. She

can only work in the farm if someone is with her and if they show her what to do; in this way she can participate through mimicking them (*Ibid*).

Those who are visually impaired have expressed the most difficulty in developing skills to farm. A blind man shared his frustration in cutting grass for his cow, but losing where he places the cut grass. Often times, he walks away from a day of work with nothing to show for it. Those persons who have been sighted their whole lives and then lose their sight later on in life often struggle with psychological problems, such as depression and suicidal thoughts. This is because they equate losing their sight with loss of their ability to farm, thus ultimately a loss of identity. One woman said, "Since losing my sight, I feel like I have lost my purpose in life and I have fallen into a depression" (Personal Communication, Karogoto Community, July 15-22, 2012).

Murugami (2009) notes the low self-esteem, poor self-image, and negative self-concept persons with a disability have in Kenya due to the environmental challenge of stigma. A person interview commented, "There is this attitude that some of the members of the community have. They discourage you so much that you feel you have nothing left to offer. They do not see your talents, they only see disability. Soon, that is all you see too" (Personal Communication, Machakos Technical Institute for the Blind, July 12, 2012). Here, the person is highlighting the toll stigma takes on the formation of self-identity. The ability of a person with a disability to accept himself contributes to the ability of the community to accept him as well. One man commented, "Everyone else accepts me because I choose to accept myself" (Personal Communication, Karogoto Community, July 15-22, 2012).

Personal Opportunities Communication, Thika School for the Blind

With environmental challenges came environmental opportunities; therefore with personal challenges comes personal opportunities. Personal opportunities include positive individual experiences of a person with a disability that contributes to the contextual factors which ultimately influence his or her body functions, activity and participating in life experiences. From the data collected, a personal opportunity presented by interviewees is the role of faith.

Faith

In the community of Karogoto, faith is seen as an opportunity to build upon. A prevalent theme in this community was that faith can form identity, which gives a person with a disability the ability to accept and empower self. This conclusive statement came from quotes such as, “Everybody in this world has a problem. Every person is disabled in some way. God has a purpose for everything” (Personal Communication, Karogoto Community, July 15-22, 2012). Those interviewed at Thika School for the Blind and Machakos Technical Institute for the Blind also expressed the importance of self-acceptance and the role faith has played for them individually. A teacher at Thika remarked:

One thing I have learnt is to appreciate myself, to feel good about myself and to thank God because I am so fearfully and wonderfully made. So, I tell my heart, you have no room to grumble, you have no room to complain, all you need to do is to learn to worship God

in spirit and in truth (Personal Communication, Thika School for the Blind, July 9-10, 2012)

Another person shared:

Religion has given me courage to face things keeping in mind that I am not the only one who has visual impairment. In the spiritual you are well uplifted even when you find that the challenges you face are now of so much difficult to you (Personal Communication, Machakos Technical Institute for the Blind, July 12, 2012).

In the quote from the teacher at Thika School for the Blind, it is seen that she views herself as “fearfully and wonderfully made” in the image of God, therefore she is able to accept herself. For her, faith forms her self-identity and self-acceptance as a person with a disability. The quote from the person at Machakos Technical Institute for the Blind shows the impact faith and community has on the formation of self-identity, self-worth and self-acceptance.

Summary of Contextual Factors

ICF’s biopsychosocial model of disability provided a framework to understand the contextual factors that contribute to the body function, activity and participation of life experiences for persons with a disability in Kenya. Within the contextual factors, the research data primarily showed environmental challenges. However, education is perceived as an important environmental opportunity. The data showed some personal challenges and personal

opportunities that result from the environmental challenges and opportunities that were present. Table 4 summarizes the various components highlighted in each of the four categories this research explored. The components in this table are by no means exhaustive. They are a starting point for further research opportunities.

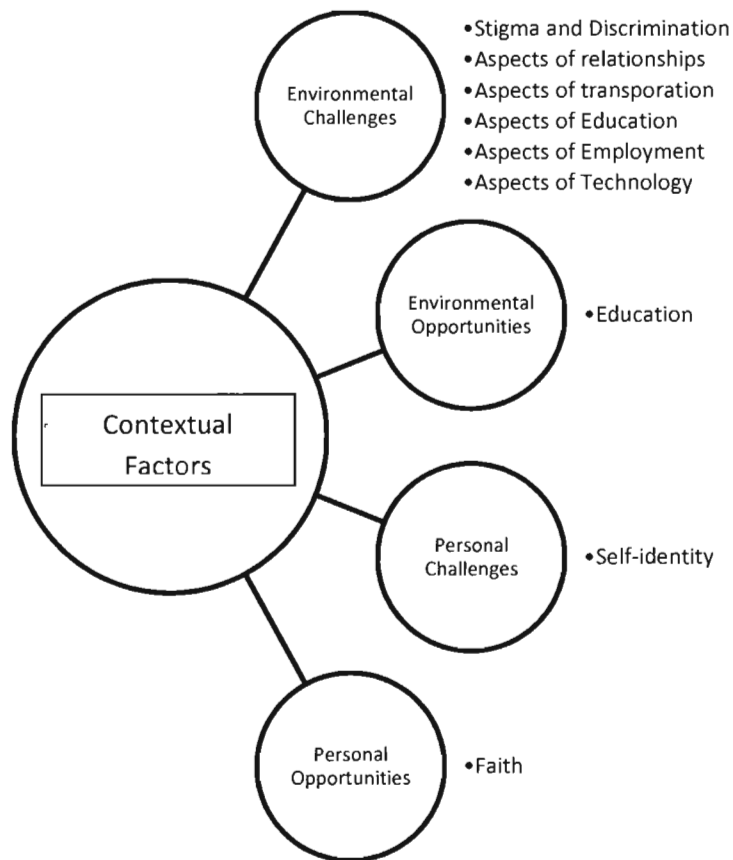


Table 4: *Summary of Contextual Factors for Persons with a Disability in Kenya*

Chapter 4: Research Implications

The contextual factors of persons with a disability in Kenya, have theological, theoretical and policy implications. The environmental and personal challenges and opportunities presented in the data collected call for practical responses.

A Theology of Disability

Earlier in the literature review it was noted that the traditional Kenyan stigma toward persons with a disability is rooted in a religious model of disability taken from early Hebrew texts (Crawford & Stodolska, 2008). The reason for stigma comes from a worldview, a religious perspective. This research has shown that stigma is a significant environmental challenge that persons with a disability experience. Therefore, the case could be made that a Christian theology of disability would be relevant to shaping a new worldview toward persons with a disability. This research acknowledges that other religions could contribute to a response to the stigma persons with disability experience. However, the Christian religious perspective will be the focus here.

How is a Christian theology of disability relevant to the topic at hand? As Hennink et al (2012) state, "individual empowerment is not achieved with agency alone; knowledge and the presence of an enabling environment for change were

also identified as important” (p. 206). A theology of disability for Kenyan society has potential to contribute to an enabling environment. In their study, Gona et al (2011) found that, “caregivers who turned to God and became ‘born again’ believed that God had a purpose for that child to have a disability” (p. 180). A theology of disability provides purpose, whereas stigma says there is no purpose for persons with a disability. Also, according to the Kenya National Bureau of Statistics (2009), it is shown that persons living in the areas under study classify themselves predominately as “Christian”. Therefore, it is relevant to offer a Christian theology of disability for this context:

County	Catholic	Protestant	Other Christian	Muslim	Hindu
Nairobi	861,677	1,452,103	427,248	222,890	34,256
Machakos	433,124	584,206	47,900	6,858	425
Nyeri	207,175	374,407	85,638	4,217	286

Source: Kenya National Bureau of Statistics, 2009

Reynolds (2008) writes:

Full personhood is neither diminished by disability nor confirmed by ability. Instead, it is a factor of the interdependent relationships we share with one another as creatures loved into being by God and in the image of God. There is a wider horizon in which all persons in their uniqueness and vulnerability coexist within the enfolding presence of a gracious God. The horizon is our shared humanity, a fragile and contingent humanity that God is present to, suffers with, and transforms by embracing in Jesus Christ (p. 43).

Holt-Woehl (2012) discusses the implications of all persons being made in the image of God. A theology of humanness allows for the understanding of human suffering and disability. To see persons with a disability made in the image of God shows that God is a vulnerable God—he became vulnerable unto death and is vulnerable to being hurt by human beings (Wolterstorff, 2011; Reynolds, 2008). From a Christian perspective, Reynolds (2008) argues that it is in the vulnerability and the suffering of the cross that inclusive, unconditional love is shown greatest.

“The nature of God’s creative-redemptive love fosters recognition and acceptance of human vulnerability and disability as bearing the image of God. And it does so in a gesture of trusting welcome. The moral thrust of Christian community has its origins here” (Reynolds, 2008, p. 211). Holt-Woehl (2012) comments on how God is a relational God, he seeks out relationships. Therefore, being made in the image of God, all persons are created as relational and social beings like their creator. To isolate, outcast, or excluded persons with a disability is to take away the sociality of such persons. To take away this sociality, robs that person of being viewed as the relational image of God (Holt-Woehl, 2012). For society to move from thinking about disability as sin and moral failure to thinking about disability as bearing the image of God, would radically transform the legitimization of discrimination that persons with a disability in Kenya experience.

Theoretical

This research provides theoretical implications for the social and medical models of disability. ICF's biopsychosocial model has served as an adequate framework for describing and understanding the contextual factors of persons with a disability in Kenya. The medical model focuses on the individual's disability as the factor that needs to be addressed, described, understood, or "fixed" (DePoy & Gilson, 2011). The findings of this research show the vitality of environmental and personal factors (contextual factors) in understanding, describing and working toward an inclusive world for persons with a disability in Kenya (WHO/ICF, 2002). To exclude the context that persons with a disability live in, limits and minimizes the experience. Also, the medical model gives roots for the religious model of disability to be justified. The medical model focuses on the individual and therefore allows stigma rooted in religious beliefs to persist (DePoy & Gilson, 2011). The medical model is limited in the understanding of disability by strictly focusing on the individual and his or her body function or lack thereof.

The social model of disability has its limits as well. While this research highlighted many contextual factors that persons with a disability experience, it also recognizes that the social model alone limits the disability experience. As the World Report of Disability (2011) notes, the experience of disability varies based on the individual, the disability, sex, and age. The individual's disability contributes to how he or she experiences the contextual world (DePoy & Gilson,

2011). To ignore the medical impairment or limitation is to once again minimize or limit the understanding of the disability experience.

Therefore, the biopsychosocial model of disability moves toward a holistic model of understanding, analyzing and describing the disability experience. This model takes into account both the social and medical model. It allows for the two models to take their appropriate understandings of disability and combine them for a more integrated perspective.

Policy

According to the World Report on Disability (2011) legislation does not always include persons with disabilities and existing legislation that is in place is not always implemented or enforced well. The Kenya Disability Report (2007) defines persons with a disability as “any person with a physical, sensory, mental, or other impairment including any visual, hearing, learning, or physical incapacity which impacts adversely on social, economic, or environmental participation” (p. 18). The United Nations Convention of Rights for Persons with a Disability recognizes “that disability is an evolving concept and that (it) results from the interaction between persons with impairments and attitudinal and environmental barriers that hinders their full and effective participation in society on an equal basis with others” (p. 1). The first suggestion this research would offer to Kenyan policy would be to change the definition of disability from a limiting individual focus to include attitudinal and environmental barriers, as well as embracing the United Nations Convention of Rights for Persons with a Disability’s definition. ICF’s biopsychosocial model has shown the importance

combining the internal and external experiences of disability to assess, understand and describe this phenomenon. Therefore, a more holistic definition of disability is one that includes not only individual aspects, but environmental ones as well.

The Kenya Disability Report (2007) legislates that no persons with a disability will be turned away from education due to his or her disability. However, this research has established the interconnectedness between poverty and disability. Kenyan policy for persons with a disability should take into account that such persons are not being excluded from educational opportunities because of their disability, but because of the poverty they experience within their disability. The World Report on Disability (2011) recognizes that often times in the education sector of policy the financial aspect is not considered. Also, this research has shown that when persons who are visually impaired pursue higher education degrees, they are told what they will major in. It is recommended that a policy be put in place so that students with a disability, specifically those who are visually impaired, may have a choice in what subject area they pursue a higher education degree in, rather than being told what they will major in.

Opini (2010) discusses a need for policies to address discrimination toward persons with a disability when they apply for employment and once they have obtained employment. This research has shown the discrimination persons with a disability experience when it comes to employment opportunities. The Kenya Disability Act (2007) presents the employment of persons with a disability more as a voluntary act than a mandatory one. There are financial incentives legislated for employment entities that choose to hire persons with a disability,

but there are no consequences listed for places of employment that do not hire persons with a disability who are qualified.

Finally, in 2000 when the MDGs were birthed, Kenya signed on agreeing to work toward the goals of this development framework. The eight MDGs were stated earlier: to eradicate extreme poverty and hunger; to achieve universal primary education; to promote gender equality and empower women; to reduce child mortality; to improve maternal health; to combat HIV/AIDS, malaria and other diseases; to ensure environmental sustainability; and to develop a global partnership for development (United Nations Development Programme, 2011). As highlighted in the data of this research, poverty is a challenge for persons with a disability. The MDGs seeks to reduce poverty. In order for this to be attained, persons with a disability must be involved. The United Nations Development Programme (2011) acknowledges the poverty gap between those who are disabled and non-disabled. This report recommends that Kenyan policy generates legislation to half the poverty gap between persons with a disability and non-disabled persons. Also, a policy needs to be adapted that increases and equalizes the “employment-to-population ratio for persons with disabilities” (United Nations Development Programme, 2011, p. 29).

understanding of disability experiences in Kenya, an exploration of the human conditions from the ICF's biopsychosocial model is necessary.

Conclusion

In conclusion, the ICF's biopsychosocial model has provided the framework for this research in describing the contextual factors—environmental and personal—that persons with a disability experience in Kenya. The data in this research highlighted environmental and personal challenges and opportunities that persons with a disability face in this particular society. The data primarily showed environmental challenges that persons with a disability face include—stigma and discrimination, and aspects of relationships, transportation, education, employment, and technology. Education was seen as the primary environmental opportunity. The personal challenge was self-identity and the personal opportunity available in this cultural context was faith. These findings allowed for a theology of disability to be offered as a recommendation to combat the environmental challenge of stigma. Also, the findings contributed to theoretical and policy considerations.

For further research, it is suggested that more in-depth studies be conducted on the environmental opportunities, personal challenges, and personal opportunities. In future studies, including persons who are hearing impaired or deaf would round the exploration of various disabilities well. Also, to look at specific interviewee characteristics, such as sex or age, may show a variation in contextual factors across different characteristics. For a more holistic

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Teachers/Administrators without a Disability	2	33
Students with a Disability	17	273
Machakos Technical Institute for the Blind	2	33
Teachers/Administrators with a Disability		

Appendix A- Characteristics of Interviewees

Table: Characteristics of Interviewees (N=61)

Characteristics	Number of Participants	Percentage of Participants
Sex:		
Male	31	50.8
Female	30	49.2
Age:		
Youth (0-21 years)	17	26.9
Adult (21-60 years)	36	59.0
Elderly (60+ years)	8	13.1
Location of Interview:		
Thika School for the Blind	26	42.6
Machakos Institute for the Blind	9	14.8
Karogoto Community	26	42.6
Thika School for the Blind:		
Teachers/Administrators with a Disability	7	11.5
Teachers/Administrators without a Disability	2	3.3
Students with a Disability	17	27.9
Machakos Technical Institutue for the Blind:		
Teachers/Administrators with a Disability	2	3.3

Teachers/Administrators without a Disability	0	0.0
Students with a Disability	7	11.5
Karogoto Community:		
Teachers/Administrators with a Disability	0	0.0
Teachers/Administrators without a Disability	1	1.6
Caregivers without a Disability	5	8.2
Persons with a Disability	20	32.8

Table: Characteristics of Participants with a Disability (N=53)

Characteristics	Number of Participants	Percentage of Participants
Sex:		
Male	27	50.9
Female	26	49.1
Age:		
Youth (0-21 years)	17	32.1
Adult (21-60 years)	28	52.8
Elderly (60+ years)	8	15.1
Location of Interview:		
Thika School for the Blind	24	45.3
Machakos Technical Institute for the Blind	9	16.9

Karogoto Community	20	37.7
Classification of Impairment:		
Visually Impaired/Blind	36	67.9
Albino	4	7.5
Physical Disability	10	18.9
Mental Disability	3	5.7
Thika School for the Blind:		
Visually Impaired/Blind	20	37.7
Albino	4	7.5
Physical Disability	0	0.0
Mental Disability	0	0.0
Machakos Technical Institute for the Blind:		
Visually Impaired/Blind	9	16.9
Albino	0	0.0
Physical Disability	0	0.0
Mental Disability	0	0.0
Karogoto Community:		
Visually Impaired/Blind	7	13.2
Albino	0	0.0
Physical Disability	10	18.9
Mental Disability	3	5.7

Appendix B- Houghton College IRB Approval

Houghton College Institutional Review Board

MEMO

To:

From: Brandon Hoffman, IRB Chair

CC: Aaron Sullivan, Ron Oakerson, Edna Howard, Cynthia Symons, Daryl Stevenson

Date: 4/17/2012

Re:

Principal researcher's name: Ndunge Kiiti (Houghton College) and Vinya Wa Aka Group

Title of study: The Use of Mobile Money Services and Platforms among the Visually Impaired in Kenya: Any Impact on Poverty Reduction?

Type of application: new

Level of review: full board review

Comments:

Approval date: 4/17/2012

Appendix C—Taken from Mainstreaming Disability in MDG Policies, Process, and Mechanisms (2009)

Millennium Development Goals: Situation of persons with disabilities based on available global data¹

Goal 1. Eradicate extreme poverty and hunger

<i>Goals and targets</i>	<i>Indicators for monitoring progress</i>	<i>Disability indicators²</i>	<i>Available global data on the situation of persons with disabilities and the MDGs</i>
Target 1.A. Halve, between 1990 and 2015, the proportion of people whose income is less than one dollar a day	1.1. Proportion of population below \$1 per day	1.1. Proportion of population with disabilities below \$1 per day	▪ “An estimated 80 per cent of all people with disabilities in the world live in developing countries. Of these, it says some 426 million live below the poverty line and often represent the 15-to-20 per cent most vulnerable and marginalized poor in such countries.”³
	1.2. Poverty gap ratio	1.2. Poverty gap ratio between persons with disabilities and non-disabled	
	1.3. Share of poorest quintile in national consumption	1.3. Proportion of persons with disabilities within the poorest quintile in national	

¹ Using as basis data provided by participants of the expert group meeting, the data and information used is based on an internet based research conducted between 1 and 11 June 2009. The research aimed to find evidence or relevant references on the situation of persons with disabilities in relation the each of the MDG indicators. To the extent possible the sources used are from United Nations entities, but may include the work experts commissioned by the United Nations. An attempt was made to find information produced/published after the year 2000. Some of the sources cited in the text found, however, may have been produced before the year 2000; when this is the case, to the extent possible, the citation to the other source is also included in the footnote.

² This column is based on the Appendix, entitled “Millennium Development Goals: mainstreaming disability”, to the report of the Secretary-General on the Fifth quinquennial review and appraisal of the World Programme of Action concerning Disabled Persons, A/63/183, available at: <http://www.un.org/disabilities/images/A-63-183.DOC>

³ Facts on Disability in the World of Work (Geneva, International Labour Organization, Nov 2007), available at: http://www.ilo.org/global/About_the_ILO/Media_and_public_information/Press_releases/lang--cn/WCMS_088028/index.htm

Goals and targets	Indicators for monitoring progress	Disability indicators ²	Available global data on the situation of persons with disabilities and the MDGs
Target 1.B. Achieve full and productive employment and decent work for all, including women and young people	1.4. Growth rate of gross domestic product (GDP) per person employed	1.4. Growth rate of GDP per person with disabilities employed	“There is ample evidence that people with disabilities are more likely than non-disabled persons to experience disadvantage, exclusion and discrimination in the labour market and elsewhere. As a result of these experiences, people with disabilities are disproportionately affected by unemployment. When they work, they can often be found outside the formal labour market, performing uninspiring low-paid and low-skilled jobs, offering little or no opportunities for job promotion or other forms of career progression. Employees with disabilities are often under-employed.”⁴
Goal 2. Achieve universal primary education	1.5. Employment-to-population ratio	1.5. Employment-to-population ratio for persons with disabilities	“The most common form of discrimination is the denial of opportunities to the disabled either to work altogether or to build on their abilities and potential. The unemployment rates of persons with disabilities reach an estimated 80 per cent or more in many developing countries.”⁵ “People with disabilities are often given low-paid, unskilled and menial tasks or belong to the “last hired – first fired”
Target 2.1. By 2015, children everywhere, boys and girls alike, will be able to complete a full course of primary schooling	1.6. Proportion of employed people living below \$1 per day	1.6. Proportion of employed persons with disabilities	

⁴ *Achieving equal employment opportunities for people with disabilities through legislation Guidelines* (Geneva, International Labour Organization, 2007), p. 8. Available at: <http://www.ilocarib.org.tt/portal/images/stories/contenido/pdf/Disability/achieving-emp-through-legislation.pdf>.

⁵ *Time for Equality at Work, Global Report under the Follow-up to the ILO Declaration on Fundamental Principles and Rights at Work*, International Labour Conference 91st Session 2003, Report I (B), (International labour Office Geneva, first published in 2003) , p. 48 ,available at: http://www.ilo.org/wcmsp5/groups/public/---dgreports/---dcomm/---publ/documents/publication/wcms_publ_9221128717_en.pdf.

<i>Goals and targets</i>		<i>Indicators for monitoring progress</i>	<i>Disability indicators²</i>	<i>Available global data on the situation of persons with disabilities and the MDGs</i>
		day	living below \$1 per day	group of workers who are more vulnerable to the effects of recession.” ⁶
Target 1.C. Halve, between 1990 and 2015, the proportion of people who suffer from hunger		1.7. Proportion of own-account and contributing family workers in total employment	1.7. Proportion of own-account and contributing family workers with disability in total employment	
		1.8. Prevalence of underweight children under five years of age	1.8. Prevalence of underweight children with disability under five years of age	
		1.9. Proportion of population below minimum level of dietary energy consumption	1.9. Proportion of population with disabilities below minimum level of dietary energy consumption	

Goal 2. Achieve universal primary education

<i>Goals and targets</i>		<i>Indicators for monitoring progress</i>	<i>Disability indicators</i>	<i>Available global data on the situation of persons with disabilities and the MDGs</i>
Target 2. Ensure that, by 2015, children everywhere, boys and girls alike, will be able to complete a full course of primary schooling		2.1. Net enrolment ratio in primary education	2.1. Net enrolment ratio of children with disabilities in primary education	▪ “Of the 75 million children of primary school age who are out of school, one third are children with disabilities.”⁷ ▪ “Over 90 per cent of children with disabilities in developing countries do not attend school.”⁸
		2.2. Proportion of pupils starting grade 1 who reach the last grade in primary school	2.2. Proportion of pupils with disabilities starting grade 1 who reach the last grade in	▪ Based on data from seven countries, on average a child with a physical disability is half as likely to be in school as a child without disability.”⁹

⁶ Ibid., p. 49.

⁷ “Children with Disabilities”, available at UNESCO’s webpage: <http://www.unesco.org/en/inclusive-education/children-with-disabilities/>.

⁸ Ibid.

⁹ *Education for All by 2015 Will we make it?*, Education for All Global Monitoring Report 2008, Chapter 2, “The six goals: how far have we come?”, Independent Publication(UNESCO Publishing,

<i>Goals and targets</i>	<i>Indicators for monitoring progress</i>	<i>Disability indicators</i>	<i>Available global data on the situation of persons with disabilities and the MDGs</i>
	2.3. Literacy rate of 15- to 24-year-olds, women and men	primary school 2.3. Literacy rate of 15- to 24-year-olds with disabilities, women and men	“Literacy rate for adults with disabilities is as low as three per cent – and, in some countries, as low as one per cent for women with disabilities.”¹⁰

Goal 3. Promote gender equality and empower women

<i>Goals and targets</i>	<i>Indicators for monitoring progress</i>	<i>Disability indicators</i>	<i>Available global data on the situation of persons with disabilities and the MDGs</i>
Target 3. Eliminate gender disparity in primary and secondary education, preferably by 2005, and in all levels of education no later than 2015	3.1. Ratio of girls to boys in primary, secondary and tertiary education	3.1. Ratio of girls with disabilities to boys with disabilities in primary, secondary and tertiary education; ratio of girls with disabilities to boys without disabilities in primary, secondary and tertiary education	“A general trend worldwide is that women with disabilities are less likely to be referred to vocational training; have a harder time gaining access to rehabilitation programmes; are less likely to obtain equality in training.”¹¹

and Oxford University Press, 2007), pp. 48 – 49. Table 2.6: Percentages of children with and without disabilities not attending school in seven countries (various years)

Note: Table 2.6 shows the proportions of children aged 6–11 with and without physical disabilities who were not attending school, in seven countries for various years (Indonesia, 2003; Cambodia, 2000; Jamaica, 1998; Burundi, 2000; Romania, 1996; Mongolia, 2000; Mozambique, 1996). The difference between children with physical disabilities and those without physical disabilities attending school varies from 15 percent to 59 percent.

“Education for All Monitoring Report 2008”, Chapter 2, “The six goals: how far have we come?” PP. 48 – 49.

UNESCO: In a set of three more recent studies, for Malawi, Zambia and Zimbabwe, the chances of a children with disabilities not being in school are two to three times greater than for a child who do not have a disability (Eide and Loeb, 2006; Eide et al., 2003; Loeb and Eide, 2004).

¹⁰ “Children with Disabilities”, available at UNESCO’s webpage: <http://www.unesco.org/en/inclusive-education/children-with-disabilities/>.

¹¹ *The rights to decent work of persons with disabilities* (Geneva, Switzerland, international Labour organization, November 2007), pp. 49-50. Available at: http://www.ilo.org/public/english/region/ampro/cinterfor/news/right_07.pdf.

Source cited in the document above: Mudrick, N. Disabled women and public policies for income support (a study on the influence of income support on the lives of women with disabilities), in M. Fine and A. Asch (eds): *Women with disabilities: Essays in psychology, culture and politics* (Philadelphia, Temple University Press, 1988).

Goals and targets	Indicators for monitoring progress	Disability indicators	Available global data on the situation of persons with disabilities and the MDGs
	3.2. Share of women in wage employment in the non-agricultural sector	3.2. Share of women with disabilities in wage employment in the non-agricultural sector	▪ “Among persons with disabilities, men are almost twice as likely to have jobs as women.”¹² ▪ “When women with disabilities work, they often experience unequal hiring and promotion standards, unequal access to training and retraining, unequal access to credit and other productive resources, unequal pay for equal work and occupational segregation, and they rarely participate in economic decision-making.”¹³ ▪ “Studies have found that, even in rich countries, major programmes designed to assist people with disabilities, such as supplemental security income, disability insurance, workers’ compensation and vocational rehabilitation, disadvantage women because of their relationship to labour market participation. Not only do women receive fewer benefits than men, they also draw lower benefits. Moreover, despite their greater need, disabled women receive less from public income support programmes.”¹⁴

¹² “Facts on Disability in the World of Work” (Geneva, International Labour Organization, Nov 2007), available at: http://www.ilo.org/wcmsp5/groups/public/---dgreports/---dcomm/documents/publication/wcms_087707.pdf.

¹³ *The rights to decent work of persons with disabilities* (Geneva, Switzerland, International Labour organization, November 2007), p. 49. Available at: http://www.ilo.org/public/english/region/ampro/cinterfor/news/right_07.pdf.

Source cited in the document above: “Women swell ranks of working poor” (*World work*, No. 17, International Labour Organization, 1996 Sep- Oct).

¹⁴ *Ibid.*

Source cited in the document above: Mudrick, N. Disabled women and public policies for income support (a study on the influence of income support on the lives of women with disabilities), in M. Fine and A. Asch (eds): *Women with disabilities: Essays in psychology, culture and politics* (Philadelphia, Temple University Press, 1988).

<i>Goals and targets</i>	<i>Indicators for monitoring progress</i>	<i>Disability indicators</i>	<i>Available global data on the situation of persons with disabilities and the MDGs</i>
	3.3. Proportion of seats held by women in the national parliament	3.3. Proportion of seats held by women with disabilities in the national parliament, both in comparison to all members of parliament and to all men with disabilities in the national parliament	

Goal 4. Reduce child mortality

<i>Goals and targets</i>	<i>Indicators for monitoring progress</i>	<i>Disability indicators</i>	<i>Available global data on the situation of persons with disabilities and the MDGs</i>
Target 4. Reduce by two thirds, between 1990 and 2015, the under-five mortality rate	4.1. Under-five mortality rate	4.1. Under-five mortality rate for all children with disabilities	▪ “There is a moderate correlation between the percentage of children screening positive to the Disability Module and country-level U5 mortality.” ¹⁵
	4.2. Infant mortality rate	4.2. Infant mortality rate for all infants born with disabilities	
	4.3. Proportion of one-year-old children immunized against measles	4.3. Proportion of one-year-old children with disabilities immunized against measles	▪ “Of the 200 million children reported living with disabilities, few of those living in developing countries have effective access to health and rehabilitation or

¹⁵ *Monitoring Child Disability in Developing Countries Results from the Multiple Indicator Cluster Surveys* (New York, United States: The United Nations Children’s Fund and University of Wisconsin School of Medicine and Public Health), p 25. Available at: http://www.childinfo.org/files/Monitoring_Child_Disability_in_Developing_Countries.pdf.

Note: The moderate correlation between under-five mortality and percentage children of screening positive could reflect the competing impact of survival on these two measures. For example, it might be the case that, as development progresses, children who would not have previously survived are doing so, but these children are living with disabilities. It is likely that the relationship between measures of development and child disability differs in participating countries. Some countries with high under-five mortality rates reported a larger percent of children screening positive to the Disability Module; in others, a low under-five mortality rate was paired with a small percentage of children screening positive to the Disability Module.

Data are based on twenty participating countries implemented the TQ Disability Module as a component of the MICS (a household survey program developed by UNICEF to assist countries in monitoring the health and situation of women and children in low- and middle-income countries). A combined total of 205,674 children were screened in participating countries. (Albania, Bangladesh, Belize, Bosnia and Herzegovina, Cameroon, Central African Republic, Georgia, Ghana, Iraq, Jamaica, Mauritania, Mongolia, Montenegro, Sao Tome and Principe, Serbia, Sierra Leone, Suriname, TFYR Macedonia, Thailand, Uzbekistan).

<i>Goals and targets</i>	<i>Indicators for monitoring progress</i>	<i>Disability indicators</i>	<i>Available global data on the situation of persons with disabilities and the MDGs</i>
			support services. For example, they may miss out on vaccinations, or treatment for simple fever or diarrhea, easily curable illnesses which can become life-threatening if left untreated.” ¹⁶

Goal 5. Improve maternal health

<i>Goals and targets</i>	<i>Indicators for monitoring progress</i>	<i>Disability indicators</i>	<i>Available global data on the situation of persons with disabilities and the MDGs</i>
Target 5.A. Reduce by three-quarters, between 1990 and 2015, the maternal mortality ratio	5.1. Maternal mortality rate	5.1. Maternal mortality rate for women with disabilities	
	5.2. Proportion of births attended by skilled health personnel	5.2. Proportion of births among women with disabilities attended by skilled health personnel	▪ “Fertility rates have been examined in only few types of disabilities, but where such evidence exists, the results indicate that these rates are similar to rates for women without disabilities.” ¹⁷
Target 5.B. Achieve, by 2015, universal access to reproductive health	5.3. Contraceptive prevalence rate	5.3. Contraceptive prevalence rate among women with disabilities	
	5.4. Adolescent birth rate	5.4. Adolescent birth rate among young women with disabilities	

¹⁶ *Promoting the Rights of Children with Disabilities*, (Florence, Italy, The United Nations Children’s Fund, Innocenti Digest No. 13. ISBN: 978-88-89129-60-9. October 2007), p. 15. Available at: www.un.org/esa/socdev/unyin/documents/children_disability_rights.pdf.

¹⁷ “Reproductive health and disability”, available at the World Bank’s website: <http://web.worldbank.org/WBSITE/EXTERNAL/TOPICS/EXTHEALTHNUTRITIONANDPOPULATION/EXTPRH/0,,contentMDK:20286128~menuPK:632615~pagePK:148956~piPK:216618~theSitePK:376855,00.html>.

<i>Goals and targets</i>	<i>Indicators for monitoring progress</i>	<i>Disability indicators</i>	<i>Available global data on the situation of persons with disabilities and the MDGs</i>
	5.5. Antenatal care coverage (at least one visit and at least four visits)	5.5. Antenatal care coverage (at least one visit and at least four visits) for all women with disabilities who are pregnant	▪ “Many persons with disabilities ... often lack access to sexual and reproductive health information and services.”¹⁸ ▪ “People who are blind, deaf, or have intellectual or cognitive impairments find that information on sexual and reproductive health is often inaccessible to them. Moreover, because of the lack of physical access, the lack of disability-related technical and human supports, stigma and discrimination, sexual and reproductive health services are often inaccessible as well.”¹⁹
	5.6. Unmet need for family planning	5.6. Unmet need for family planning among women with disabilities	▪ “Persons with disabilities often experience forced sterilization, forced abortion and forced marriage.”²⁰

Goal 6. Combat HIV/AIDS, malaria and other diseases

<i>Goals and targets</i>	<i>Indicators for monitoring progress</i>	<i>Disability indicators</i>	<i>Available global data on the situation of persons with disabilities and the MDGs</i>
Target 6.A. Have halted by 2015 and begun to reverse the spread of HIV/AIDS	6.1. HIV prevalence among pregnant women aged 15 to 24	6.1. HIV prevalence among pregnant women with disabilities aged 15 to 24	▪ “A growing literature indicates that individuals with disability are at equal or increased risk of exposure to all known risk factors.”²¹ ▪ “A large percentage of persons with

¹⁸ *Sexual and reproductive health of persons with disabilities* (New York, United State, United Nations Population Fund, after 2006). p. 3. Available at: http://www.unfpa.org/upload/lib_pub_file/741_filename_UNFPA_DisFact_web_sp-1.pdf.

¹⁹ *Ibid.*, p. 2.

²⁰ *Ibid.*.

²¹ Nora Groce, *HIV/AIDS & Disability: Capturing Hidden Voices: The World Bank/Yale University Global Survey on HIV/AIDS and Disability* (Washington, D.C, World Bank, 2004). p. 3. Available at: http://cira.med.yale.edu/globalsurvey/capturing_hidden_voices_english.pdf.

Note: Research paper prepared as part of the World Bank's Global HIV/AIDS Program, in collaboration with the Office of the Advisor on Disability and Development.

Goals and targets	Indicators for monitoring progress	Disability indicators	Available global data on the situation of persons with disabilities and the MDGs
Target 6.A: Address the HIV, tuberculosis and malaria epidemics by 2015 and begin to reverse the incidence of malaria and other major diseases	6.2. Contraceptive use at last high-risk behaviour	6.2. Contraceptive use at last high-risk behaviour among women and men with disabilities	disabilities will experience sexual assault or abuse during their lifetime, with women and girls, persons with intellectual impairments and those in specialized institutions, schools or hospitals being at particularly high risk.” ²²
	6.3. Percentage of population aged 15 to 24 with comprehensive correct knowledge of HIV/AIDS	6.3. Percentage of population with disabilities aged 15 to 24 with comprehensive correct knowledge of HIV/AIDS	▪ “Due to a number of reasons, including insufficient access to appropriate HIV prevention and support services, many persons with disabilities engage in behaviors which place them at risk of HIV infection, such as unprotected heterosexual or male-to-male sex (including in the context of sex work) and injecting drug use.”²³ ▪ “Services offered at clinics, hospitals and in other locations may be physically inaccessible, lack sign language facilities or fail to provide information in alternative formats such as Braille, audio or plain language.”²⁴ ▪ Persons with disabilities may be turned away from HIV education forums or not be invited by outreach workers, because of assumptions that they are not sexually active, or do not engage in other risk behaviors such as injecting drugs.²⁵
	6.4. Ratio of school attendance of orphans to school attendance on	6.4. Ratio of school attendance of orphans with disabilities to	

²² “Disability and HIV Policy Brief: Disability and HIV” (World Health Organization, United Nations Human Rights, and the Joint United Nations Programme on HIV/AIDS. April 2009), p. 2. Available at: http://www.who.int/disabilities/jc1632_policy_brief_disability_en.pdf.

²³ Ibid.,

²⁴ Ibid., p. 3.

²⁵ Ibid.

<i>Goals and targets</i>	<i>Indicators for monitoring progress</i>	<i>Disability indicators</i>	<i>Available global data on the situation of persons with disabilities and the MDGs</i>
	non-orphans aged 10 to 14	school attendance compared both with non-disabled orphans and non-orphans aged 10-14	
Target 6.B. Achieve, by 2010, universal access to treatment for HIV/AIDS for all those who need it	6.5. Proportion of population with advanced HIV infection with access to antiretroviral drugs	6.5. Proportion of population with disabilities with advanced HIV infection with access to antiretroviral drugs	
Target 6.C. Have halted by 2015 and begun to reverse the incidence of malaria and other major diseases	6.6. Incidence and death rates associated with malaria	6.6. Incidence and death rates associated with malaria among individuals with disabilities compared with the non-disabled population	
	6.7. Proportion of children under five sleeping under insecticide-treated bed nets	6.7. Proportion of children with disabilities under five sleeping under insecticide-treated bed nets compared with non-disabled children	
	6.8. Proportion of children under five with fever who are treated with appropriate anti-malarial drugs	6.8. Proportion of children with disabilities under five with fever who are treated with appropriate anti-malarial drugs	
	6.9. Incidence, prevalence and death rates associated with tuberculosis	6.9. Incidence, prevalence and death rates associated with tuberculosis among individuals with disabilities compared with the non-disabled population	
	6.10. Proportion of tuberculosis cases detected and cured under directly observed treatment short course	6.10. Proportion of tuberculosis cases among persons with disabilities detected and cured under directly observed treatment short course	

Goal 7. Ensure environmental sustainability

Goals and targets	Indicators for monitoring progress	Disability indicators	Available global data on the situation of persons with disabilities and the MDGs
Target 7.A. Integrate the principals of sustainable development into country policies and programmes and reverse the loss of environmental resources	7.1. Proportion of land area covered by forest 7.2. Carbon dioxide emissions, total, per capita and per \$1 GDP 7.3. Consumption of ozone-depleting substances 7.4. Proportion of fish stocks within safe biological limits 7.5. Proportion of total water resources used	7.1.-7.7 Deteriorating environments can have a significant — and disproportionate — impact on persons with disabilities	■ Persons with disabilities are among the “most vulnerable to natural and human-made hazards” ²⁶ and are disproportionately represented among “victims of disasters.” ²⁷
Target 7.B. Reduce biodiversity loss, achieving by 2010 a significant reduction in the rate of loss	7.6. Proportion of terrestrial and marine areas protected 7.7. Proportion of species threatened with extinction		
Target 7.C. Halve by 2015 the proportion of people without sustainable access to safe drinking water and basic sanitation	7.8. Proportion of population using an improved drinking water source 7.9. Proportion of population using an	7.8. Proportion of population with disabilities using an improved drinking water source should be proportionate to improved drinking water available to the general population 7.9. Proportion of population with	■ “An estimated 80 per cent of all people with disabilities in the world live in rural areas of developing countries and have limited or no access to services they need.” ²⁸

²⁶ *Global Report on Human Settlements 2007, Enhancing Urban Safety and Security* (published by Earthscan in the UK and US, 2007), United Nations Human Settlements Programme (UN-HABITAT), p 181. Available at: http://www.preventionweb.net/files/2585_2432alt1.pdf.

²⁷ *Ibid.*, p18.

²⁸ “Facts on Disability in the World of Work” (International Labour Organization, Geneva, Nov 2007). Available at: http://www.ilo.org/wcmsp5/groups/public/---dgreports/---dcomm/documents/publication/wcms_087707.pdf

Goals and targets	Indicators for monitoring progress	Disability indicators	Available global data on the situation of persons with disabilities and the MDGs
	improved sanitation system	disabilities using an improved sanitation system should be proportionate to improved sanitation systems available to the general population	
Target 7.D. By 2020 to have achieved a significant improvement in the lives of at least 100 million slum-dwellers	7.10. Proportion of urban population living in slums	7.10. Decrease in proportion of urban population living in slums halved should include proportionate improvements in the lives of persons with disabilities and their families currently living in slums	Persons with disabilities are among those most affected by some of the consequences of urban poverty, including: limited access to assets, thus limiting their ability to respond to risky events or to manage risk (e.g. through insurance); it is also unlikely that they will receive the necessary social services following disasters or other risky events. "In addition, the urban poor are more vulnerable to the undesirable outcomes of risky events because they are already closer to or below the threshold levels of these outcomes, whether they are income poverty or tenure insecurity."²⁹

²⁹ *Global Report on Human Settlements 2007, Enhancing Urban Safety and Security* (published by Earthscan in the UK and US , 2007), United Nations Human Settlements Programme (UN-HABITAT), p. 24. Available at: http://www.preventionweb.net/files/2585_2432atl.pdf.

Goal 8. Develop a goal partnership for development

Goals and targets	Indicators for monitoring progress	Disability indicators	Available global data on the situation of persons with disabilities and the MDGs
Official development assistance			
Target 8.A. Develop further an open, rule-based, predictable, non-discriminatory trading and financial system (includes a commitment to good governance, development and poverty-reduction — both nationally and internationally)	8.1. Net ODA total and to the least developed countries, as a percentage of Organization for Economic Cooperation and Development/Development Assistance Committee (OECD/DAC) donors' gross national income 8.2. Proportion of bilateral, sector-allocable ODA of OECD/DAC donors for basic social services (basic education, primary health care, nutrition, safe water and sanitation) 8.3. Proportion of bilateral ODA of OECD/DAC donors that is untied 8.4. ODA received in landlocked countries as a proportion of their gross national incomes 8.5. ODA received in small island developing States as a proportion of their gross national incomes	8.1.-8.12. Develop further an open, rule-based, predictable, non-discriminatory trading and financial system (includes a commitment to good governance, development and poverty-reduction — both nationally and internationally) and ensure that persons with disabilities are routinely considered in each and all development goals and objectives	

Market access

<i>Goals and targets</i>	<i>Indicators for monitoring progress</i>	<i>Disability indicators</i>	<i>Available global data on the situation of persons with disabilities and the MDGs</i>
Target 8.B. Address the special needs of the least developed countries (includes tariff- and quota-free access for exports; enhanced programme of debt relief for heavily indebted poor countries (HIPC) and cancellation of official bilateral debt; and more generous ODA for countries committed to poverty reduction)	8.6. Proportion of total developed country imports (by value and excluding arms) from developing countries and from least developed countries admitted free of duty 8.7. Average tariffs imposed by developed countries on agricultural products and textiles and clothing from developing countries 8.8. Agriculture support estimated for OECD countries as a percentage of their gross domestic product		
Target 8.C. Address the special needs of landlocked countries and small island developing States (through the Programme of Action for the Sustainable Development of Small Island Developing States and the outcome of the twenty-second special session of the General Assembly)	8.9. Proportion of ODA provided to help build trade capacity		
Target 8.D. Deal comprehensively with the debt problems of	8.10. Total number of countries that have reached their HIPC		

Goals and targets	Indicators for monitoring progress	Disability indicators	Available global data on the situation of persons with disabilities and the MDGs
developing countries through national and international measures in order to make debt sustainable in the long term Target 8.E. In cooperation with pharmaceutical companies, provide access to affordable essential drugs in developing countries	decision points and number that have reached their HIPC completion points (cumulative) 8.11. Debt relief committed under the HIPC Initiative and the Multilateral Debt Relief Initiative 8.12. Debt service as a percentage of exports of goods and services 8.13. Proportion of population with access to affordable essential drugs on a sustainable basis	8.13. Proportion of persons with disabilities within the population with access to affordable essential drugs on a sustainable basis	“Persons with physical disabilities often have difficulties accessing health care, especially in rural areas, slums and suburban settings; persons with psychosocial disabilities may not have access to affordable treatment through the public health system; women with disabilities may not receive gender-sensitive health services. Medical practitioners sometimes treat persons with disabilities as objects of treatment rather than rights-holders and do not always seek their free and informed consent when it comes to treatments.”³⁰
Target 8.F. In cooperation with the private sector, make available the benefits of	8.14. Telephone lines per 100 population	8.14. Telephone lines per 100 population must include persons with disabilities in	“Only in few countries have solutions been implemented for persons with disabilities which have made possible or

³⁰ Office of the United Nations High Commissioner for Human Rights (after 2007), World Health Organization “The right to health”, available at: http://www.who.int/hhr/activities/Right_to_Health_factsheet31.pdf. P. 16.

<i>Goals and targets</i>	<i>Indicators for monitoring progress</i>	<i>Disability indicators</i>	<i>Available global data on the situation of persons with disabilities and the MDGs</i>
new technologies, especially information and communications		proportion to their presence in the general population; telephones must also be made accessible to persons with disabilities	improved access to telecommunication services.” ³¹
	8.15. Mobile telephone subscribers per 100 population	8.15. Mobile telephone subscribers per 100 population, including persons with disabilities in proportion to their presence in the general population	While “equipment and software is now available that provides amazing breakthroughs for people with disabilities....there are many barriers to finding the most appropriate equipment, particularly at a price that is affordable.”³²
	8.16. Internet users per 100 population	8.16. Internet users per 100 population, including persons with disabilities in proportion to their presence in the general population	- A snap shot of the current ICT accessibility for persons with disabilities challenges and initiatives in various regional blocks include lack of fully developed infrastructure and absence of policies.³³ - In the Africa region the challenges is unaffordable access (31 countries in Africa are LDCs) and the multiplicity of languages within one country (ICT for persons with disabilities initiatives such as the South Africa National

³¹ “Question 20/1: Access to telecommunication services for people with disabilities” (International Telecommunication Union). Available at: http://www.itu.int/ITU-D/study_groups/SGP_2006-2010/documents/Questions/Q20-1.pdf p. 1.

³² “ITU and accessibility”. Available at: International Telecommunication Union webpage <http://www.itu.int/themes/accessibility>

³³ “ITU Regional Workshop on ICT Accessibility for Persons With Disabilities for Africa Region” (International Telecommunication Union, July 2008) . p. 2. Available at: <http://www.itu.int/ITU-D/sis/PwDs/Seminars/Zambia/Documents/Meeting%20Report.pdf>.

Note: This report is a summary of the issues presented and discussed during the two day workshop in Lusaka, Zambia as well as conclusions which emerged from the event for follow up and implementation by policy makers and other stakeholders as well as the participants for Africa region,

Goals and targets

Indicators for monitoring progress

Disability indicators

Available global data on the situation of persons with disabilities and the MDGs

Accessibility portal project in 11 official languages).³⁴

- In the Arab region, the lack of statistics on persons with disabilities continues to be a challenge.³⁵
 - Initiatives include: in the Asia Pacific region, standards setting such as in the tsunami preparedness project; in the Americas, strides have been made in training (50% of countries trained); in Europe the i2010 initiative is monitored by the European Disability Forum.³⁶
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³⁴ Ibid.

³⁵ Ibid.

³⁶ Ibid.