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# Access to healthcare for people with physical disability in Tanzania: a case of Singida rural district, Singida-Tanzania

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**ACCESS TO HEALTHCARE FOR PEOPLE WITH PHYSICAL  
DISABILITY IN TANZANIA: A CASE OF SINGIDA RURAL  
DISTRICT, SINGIDA-TANZANIA**

**Aika Samson Ndyamukama**

**A Dissertation Submitted in a Partial Fulfilment of the Requirement for the Degree of  
Master of Science in Public Health Research of The Nelson Mandela African Institution  
of Science and Technology**

**Arusha, Tanzania**

**August, 2022**

## **ABSTRACT**

This cross-sectional study explored the availability and affordability of healthcare services for people with a physical disability (PWPDs). Also, it determined whether the existing infrastructure at health facilities in Singida rural district supports PWPDs. The study applied mixed-method approaches involving quantitative and qualitative surveys with 15 key informants and 90 participants PWPDs from 18 wards and all 32 health facilities found in the district. To avoid the chance of the respondent's response being influenced by their parents and to make the respondents feel free to talk about whatever is in their mind about access to healthcare for PWPDs, the researcher selected 5 respondents in each ward aged 18 and above who could express themselves without being represented. The study used simple random, purposive, and snowballing sampling techniques to yield 90 respondents, 15 key informants, and 32 health facilities. Participants with physical disabilities were determined using the Washington Group on Disability statistics questions set to provide basic information on disability comparable worldwide. Data were collected using a questionnaire survey, interview, and observation. The researcher employed SPSS-26 software to analyze quantitative data and NVivo-12 software to analyze qualitative data. The analysis was conducted to obtain frequencies and percentages. Data presented in figures and tables; A thematic analysis was applied to determine certain variables such as age, gender, infrastructure, and access to healthcare services. The Chi-square test was employed to test the relationship between categorical variables. The study found that in Singida rural district, there were no special health facilities and specialist nurses/ doctors for PWPDs. Most of them still experience delays in getting an appointment and other services from nurses, primary care doctors, specialists, treatment interventions, and medical equipment. Similarly, the available healthcare service is not affordable to PWPDs, and most of them were not beneficiaries of health insurance schemes hence depending on the out-of-pocket payment system. Furthermore, the infrastructures at health facilities do not favor PWPDs. Therefore, the findings indicate that access to healthcare for PWPDs in Singida rural district is not available and affordable for PWPDs. Also, the existing infrastructure at health facilities doesn't support PWPDs to access healthcare. The study suggests that the government and other healthcare stakeholders should consider access to healthcare for PWPDs in rural areas where most PWPDs are at risk.

## DECLARATION

I, Aika Samson Ndyamukama, do hereby declare to the Senate of The Nelson Mandela African Institution of Science and Technology that this dissertation is my original work and that it has neither been submitted nor being concurrently submitted for a degree award in any other institution.

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## CERTIFICATION

The undersigned certify that they have read and hereby recommend for acceptance by The Nelson Mandela African Institution of Science and Technology, a dissertation titled “*Access to healthcare for people with physical disability in Tanzania: A case of Singida Rural District, Singida-Tanzania*” in partial fulfillment of the requirements for the degree of Master of Science in Public Health Research of the Nelson Mandela African Institution of Science and Technology.

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## **DEDICATION**

I dedicate this work to all PVPDs and their rights to access healthcare services in rural areas.



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## **LIST OF ABBREVIATIONS**

APD	Association of People with Disabilities
CBR	Community Based Rehabilitation
CHF	Center for Health Statistics
CHF	Community Health Fund
EAC	East African Community
EALA	East African Legislative Assembly
FBO	Faith Based organization
ICD	Information Centre on Disabilities
IDS	Institute of Development Studies
NHIF	National Health Insurance Fund
NPD	National Policy on Disabilities
PPP	Public Private Partnership
PWPD	People with Physical Disability
SHIB	Social Health Insurance Benefit
SIDA	Swedish International Development Cooperation Agency
TFDPO	Tanzania Federation of Disabled Peoples Organizations
TIKA	Tiba Kwa Kadi
UHC	Universal Health Coverage
UN	United Nations
UNCRPD	United Nations Conventions on the Rights of Persons with Disabilities
URT	United Republic of Tanzania
WGS	Washington Group Set of Question
WHO	World Health Organization



## CHAPTER ONE

### INTRODUCTION

#### 1.1 Background of the Problem

Tanzania has the mandate to achieve Sustainable Development Goals (SDG) toward Universal Health Coverage (UHC), leaving no one behind (Johnston, 2016; Mtei *et al.*, 2014; Umeh, 2018; UN, 2018). To attain this goal, the government signed and rectified the United Nations Convention on the Rights of Persons with Disabilities (UNCRPD) and the elective procedure (2006) and adopted the East African Policy on PWPDs (2012). And established the Disability Policy in 2004 and formulated the Tanzania National Health Policy 2017 to ensure access to healthcare services available for all people with and without physical disability (SIDA, 2014).

Access to healthcare services for People with Physical Disabilities is the ability of PWPDs to reach the health services in need (Ward *et al.*, 2015). It is associated with the existence or nonexistence of economic, physical, cultural, or other factors that hamper PWPDs in using healthcare services (Pugh *et al.*, 2019). People with Physical Disability (PWPD) will probably get proper and actual treatment for their condition (Ward *et al.*, 2015). This probability will be reasonable if healthcare services are available, affordable, and acceptable to the PWPDs (Pugh *et al.*, 2019).

Physical disability refers to any impairment that restricts the limbs' biological function, delicate bones, or gross motor ability (Brocco, 2016; Sanou, 2020). It is a lack of physical power to perform regular work to become incapacity in the doings of everyday life (Xie *et al.*, 2018). Several factors mentioned in the rising physical disability in Tanzania include violence, particularly against women and children (TFDPO, 2015). Other factors include injuries resulting from road accidents, psychological trauma, poverty, and failures in the care delivery process like wrongly administered drugs and incorrect intramuscular injection sites (TFDPO, 2015). Moreover, diseases like malaria, tuberculosis, congenital, and noninfectious are the leading factors causing the rise of physical disability (Mwasuka *et al.*, 2018; Schlindwein *et al.*, 2020). Also, the poor healthcare access and quality obtained during pregnancy and the neonatal period are among the causes of physical disability in Tanzania (Ore *et al.*, 2017). Similarly, developed nations managed to control communicable diseases

compared to developing countries, including Tanzania, and thus contribute to physical disability in Tanzania (Uromi & Mazagwa, 2014).

Above one billion people (15%) of the world's population live with disabilities (Kuper *et al.*, 2016). About 93 million children below 15 years of age are affected by a reasonable or unembellished incapacity (WHO, 2015). People with Physical Disability (PWPDs) are a large group of disabilities compared to other types of disability in Tanzania (TFDPO, 2015). The total number of PWPDs in Tanzania is 3 372 000, whereby 850 416 have physical disabilities and different disabilities such as mental health conditions, vision impairment, deaf, intellectual, acquired brain injury, autism spectrum disorder, 2 521 584 (Uromi & Mazagwa, 2014).

Healthcare access is the core challenge for PWPDs, which needs attention (Dassah *et al.*, 2018). The differences in unfulfilled healthcare needs of PWPDs stand as clear notice of the effort made by the government and healthcare stakeholders to expand and promote access to healthcare services for PWPDs (Krahn *et al.*, 2015). PWPDs are more likely to experience social-economic difficulties and consequently at increased risk of poverty and underlying health situations (Zuurmond *et al.*, 2019).

People with Physical Disability (PWPDs) have their own health needs related to their impairments, such as physical medicine and rehabilitation (Zuurmond *et al.*, 2019). The global report shows that in 2013, among the 43 nations, 42% of people with disabilities against 6% of people without disabilities recognized their health as deprived, and 64% of PWPDs who need rehabilitation services could not access them (UN, 2018). In addition, 29% of the birth of PWPDs not attended by qualified healthcare workers, whereby around 22% of married women with disabilities had unfulfilled family planning (UN, 2018). Over 70% of PWPDs have poor health (UN, 2018).

In Tanzania, some of the reasons preventing PWPDs from accessing healthcare are the shortage of medical equipment and supplies at health facilities. The government did not train healthcare workers effectively to make their healthcare inclusive (Greenwood *et al.*, 2016a). High healthcare costs and low enrolment in national health insurance and other protection schemes prevent access to healthcare for PWPDs (Myamba, 2015). In areas where health services are available, affordable, the government-trained health workers effectively offer health services that allow PWPDs to access healthcare (TFDPO, 2015).

## 1.2 Statement of the Problem

Although healthcare access is a fundamental human right, many barriers to accessing healthcare services among PWPDs were have reported (Krahn *et al.*, 2015). Cost is often one of the critical barriers (Kennedy *et al.*, 2017). There is evidence that half of PWPDs (51-53%) cannot afford healthcare costs, while for people without disability, the proportion is only one-third (32-33%) (Carroll, 2012). Equally, the report shows that most PWPDs live in extreme poverty in Tanzania (Kuper *et al.*, 2016). Other barriers include limited availability of healthcare services such as rehabilitation services, physical inaccessibility of healthcare facilities, and inaccessible transport options. In addition, health promotion and prevention activities rarely target PWPDs.

Tanzania has the mandate to achieve Sustainable Development Goals (SDG) toward Universal Health Coverage and ensure that no one is left behind. However, this goal will not be meeting unless barriers that face PWPDs are identified and addressed by healthcare stakeholders. Regardless of the efforts made by the government of Tanzania and various stakeholders to improve access to healthcare services for PWPDs (IDS, 2020), it is still inaccessible to many PWPDs. In Tanzania, few studies have highlighted challenges in accessing healthcare services for PWPDs. Bakar *et al.* (2016) studied the lived experiences of people with disabilities and older people in Tanzania and cited limited accessibility of healthcare, the significant issues include shortage of medical equipment and supplies at health facilities and costs that occurred when seeking healthcare. Kupper *et al.* (2016) studied social protection for people with disabilities in Tanzania; they found that the unaffordability of healthcare costs and the cost of joining social security limits them to access healthcare. Institute of Development Studies (2020) conducted a situational analysis on disability-inclusive development in Tanzania and found that the widespread poverty amongst people with disabilities and their families also limits their access to assistive devices which could enable them to access healthcare services. Thus little is known about how PWPDs are experiencing difficulties in accessing healthcare services. Thus, evidence is needed from regions/district-based studies to reveal the rate of access to healthcare and identify the barriers PWPDs in accessing healthcare. Therefore, this study aimed to assess the access to healthcare services among PWPDs in terms of availability and affordability of services and

explore to what extent the existing infrastructure and design of health facilities in Singida rural district support PWPDs.

### **1.3 Rationale of the Study**

The realization of the above research objectives led to a better understanding of the challenges facing PWPDs to access healthcare in Tanzania, particularly in the Singida rural district. It provided empirical data that will be useful in developing initiatives to improve healthcare access to PWPDs. This study was worthy of being undertaken because many PWPDs in Tanzania face several problems in accessing quality healthcare. There is a need for government to make deliberate efforts to address this problem. People with Physical Disability (PWPDs) have the right to access healthcare and live an independent life, just as people without disabilities as full citizens have equal rights and are entitled to dignity, equal treatment, independent living, and full participation in society and quality of life. They can contribute to the national development if only they are allowed to access quality healthcare services.

These research findings are an eye-opener for changing people's attitudes towards PWPDs. The study yields a working document that stakeholders can use to improve the situation through expanded research and evidence-based practice. The findings will be shared with the Ministry of Health and Social Welfare and other stakeholders in the study area, including the Tanzania Federation of disabled people (SHIVYAWATA). The researcher will submit the article to a peer-reviewed scientific journal for publication.

### **1.4 Objectives of the Study**

#### **1.4.1 Main Objective**

The study's main objective is to assess access to healthcare for PWPDs in the Singida rural district.

#### **1.4.2 Specific Objectives**

- (i) To explore the availability of appropriate healthcare services for PWPDs in the Singida rural district.
- (ii) To determine the affordability of healthcare services among PWPDs in the Singida rural district.

- (iii) To explore if the existing infrastructure at health facilities in Singida rural district supports PWPDs.

## **1.5 Research Questions**

This study focuses on the following questions:

- (i) Does healthcare service delivery in Singida rural district consider PWPDs?
- (ii) Are the available healthcare services affordable to PWPDs?
- (iii) Does the infrastructure at health facilities in Singida rural district accommodate PWPDs?

## **1.6 Significance of the Study**

The study is expected to offer a familiarity that is of vital importance to a variety of health sector stakeholders, particularly those who deal with PWPDs. Therefore, ensuring equal access to healthcare services by the PWPDs, the study intended on making health service providers more aware of, and dedicated to, addressing health problems and the effect of physical disability on access to healthcare. It is essential to deal with factors that hinder the PWPDs from accessing healthcare services. These include addressing their needs for their health concerns and supporting their ability to live healthy lives. The study further will provide information that guides the policymakers on allocating resources to provide equitable preventive, curative and rehabilitative services to different areas to make progress toward Universal Health Coverage, an agenda that has raised great concern for all governments around the world.

## **1.7 Delineation of the Study**

The study was conducted among 90 PWPDs aged 18 years and above without considering PWPDs under 18 years as one of the most important groups in the community. Therefore, the study does not cover the access to healthcare for PWPDs under 18 years. This makes the data obtained to be used more for adult people with physical disabilities rather than PWPDs under 18 years. Since the study was generally looking at access to healthcare for PWPDs. Therefore, it does not consider the healthcare needs for access to healthcare for PWPDs based on gender. Thus the study lacks basic information that will help to specify the challenges in access to healthcare for PWPDs based on gender.

## CHAPTER TWO

### LITERATURE REVIEW

#### 2.1 Overviews of Disabilities

Globally, more than 1 billion people live with some form of disability, while the number of people with disability is dramatically increasing (Ore *et al.*, 2017). The increase is due to demographic trends and chronic health conditions, among other causes (Gudlavalleti, 2018). Virtually everyone is likely to experience some form of disability, be it temporary or permanent, at some point in life (TFDPO, 2015). In Tanzania, more than three million women and men the population have a disability (Kuper *et al.*, 2016). Like in other developing countries in Tanzania, people with disability disproportionately experience challenges when accessing health care; they often experience stigma and discrimination and receive poor quality services (Kuper *et al.*, 2016).

#### 2.2 Theoretical Literature Review

##### 2.1.1 The Medical and Social Model of Disability

The model of disability established is associated with the different characteristics of disability (McDonald & Stack, 2016). Medical and social models describe disability and explain how PWPDs experience disability, specifically when accessing healthcare services (Jackson, 2018).

The medical model is also known as an individual model of disability (Retief & Letšosa, 2018). The medical model describes physical disability as a personal problem, and any lack of ability originated from impairment to perform any activity within the time measured normal for a person (Zajadacz, 2015). The medical model is the health professional model used by health service providers to describe physical disability (Jackson, 2018). But the medical model is famous and is used in various professional societies to describe physical disability (Retief & Letšosa, 2018). Even if few society members still believe in the social model of physical disability (Retief & Letšosa, 2018). From in medical model perspective, if somebody has a physical limitation and inability to walk is said to be PWP (Westbrook & Croft, 2015). The medical model considered a disability within the individual caused by functional limitations or psychological losses (Zajadacz, 2015). another model criticized the

medical approach model as it detects the problem of disability straight with the individual's body rather than describing disability as a social problem and challenging societal attitudes and perspectives (Retief & Letšosa, 2018).

The social model of disability is the model that evaluates and appraises how society examines PWPDs (Jackson, 2018). The social model refers to the social minority model (Retief & Letšosa, 2018). It is considered physical disability not so much as the inability of the PWPDs to accept the demands of the environment or related to incapacity but relatively as the failure of the social environment to regulate the direction and ambitions of society with disability (Retief & Letšosa, 2018). Every community has its way of examining things (Levitt, 2017). In some regions, physical disability is related to witchcraft (Levitt, 2017). Therefore, the social model is the impact of the social response to the PWPDs and their knowledge of health which made them feel lonely and socially oppressed (Friedner, 2019). The social model identifies the problem PWPDs experience within the society's perception and settings (Goodall *et al.*, 2018). These problems are poor healthcare and failure to clear different needs of PWPDs (Greenwood *et al.*, 2016a). Hence results from society's limits hinder access to healthcare for PWPDs (Zajadacz, 2015).

## **2.3 Empirical Literature Reviews**

### **2.3.1 Human Rights and Legal Protection of Disabilities**

The government of the United Republic of Tanzania respected the rights of PWPDs by assurances of equality and equity to all citizens in accessing healthcare and other basic needs. The 1977 constitution of the united republic of Tanzania guaranteed that all human beings are equal and entitled to equal rights and forbids discrimination contrary to PWPDs regardless of disability (LHRC, 2018). People with and without a physical disability have the same right to access healthcare services (Prynn, 2019). Similarly, Tanzania has adopted and ratified the UN-CRPD (LHRC, 2018). The UN-CRPD insists that PWPDs' rights, will, and preferences need to be appreciated; simultaneously, the principle of self-respect, equality, non-discrimination, independence, and social involvement and attachment are required to support PWPDs in accessing healthcare (Ackson, 2020). Health states gatherings at the UNCRDP realized and agreed that PWPDs have the right to satisfy the maximum achievable average of health, lacking discrimination on the substance of disability (LHRC, 2018). State parties are

requested to take suitable procedures for PWPDs to healthcare (Szmukler, 2019). As a member of the UN, Tanzania agreed to be responsible for the PWPDs (Lyakurwa, 2018)

In 2004, the united republic of Tanzania government established a disability policy that offers instructions that are assumed to improve the condition of PWPDs in all sectors and health in Tanzania (Lyakurwa, 2018). It insists on equal access to healthcare services (Ackson, 2020). It needs both government and various stakeholders to take steps to guarantee PWPDs access to healthcare by intensely concentrating on the development, rights, and dignity of PWPDs (Ackson, 2020). As a result, PWPDs cannot access healthcare services, considering that the legislation has not brought answers to challenges facing PWPDs in the health sector (Lyakurwa, 2018).

In 2010 the parliament of the united republic of Tanzania enacted PWPDs Act to give legal effect to the NPD and UNCRDP (LHRC, 2018). The government gave special attention to PWPDs (Lyakurwa, 2018). After that, health sectors in Tanzania are working by following the rights of PWPDs, the concept of UHC to provide equal access to healthcare services for people with and without physical disabilities (Ackson, 2020).

In 2017 the government of the united republic of Tanzania adopted a new health policy (Makani *et al.*, 2015). Through health policy, the government guarantee provision of healthcare to PWPDs based on specific needs of PWPDs, such as physical medicine and rehabilitation (Mwangome *et al.*, 2017). It insisted on reducing physical disability and advancing rehabilitation and healthcare services (Makani *et al.*, 2015). It supports the national provision systems of assistive devices, and further medical distribution promises CBR establishment, and promises accessible, affordable, and quality healthcare services (Mwangome *et al.*, 2017). Additionally, it helps and protects health services for PWPDs and facilitates the Public-Private Partnership (PPP) to establish rehabilitation health services (URT, 2017).

As one of the partner states of EAC, Tanzania adopted the East African Policy on Disabilities of 2012 (EAC, 2014). The policy informs other health policies, programs, and sectoral health strategies among the EAC member states (Ebuenyi *et al.*, 2020). It gives attention to healthcare access, encouraging and guaranteeing quality and equity of healthcare services for PWPDs among member states (Ebuenyi *et al.*, 2020). This guaranteed PWPDs access to healthcare when they cross the border among EAC member states (EAC, 2014).



### **2.3.2 Factors Preventing People with Physical Disability from Accessing Healthcare**

The absence of medical equipment and supplies at health services is a significant problem that deters PWPDs from accessing healthcare services in Tanzania (Greenwood *et al.*, 2016a). The global academic societies, clinical specialists, and campaigners for PWPDs agreed on the significance of access to healthcare facilities, and they claim proper healthcare should be persuaded (UN, 2018). In Tanzania, PWPDs enrolling in NHIF and pre-pay for health services failed to access healthcare due to a shortage of medicine (Greenwood *et al.*, 2016a). And they were unable to compete with people without disabilities in accessing healthcare due to their impairment preventing them from accessing healthcare services (Dassah *et al.* T, 2019).

Health facilities and equipment at health centers and hospital limit the mobility of PWPDs to access healthcare services (Ore *et al.*, 2017). This problem is more common in rural health centers than in district hospitals and referral hospitals in developing countries (Violet, 2014). There are stairs in hospitals and health centers in most private and public buildings that hinder access to healthcare for PWPDs (Ore *et al.*, 2017). In most health facilities, there are inaccessible toilets, sewage canals, and narrow pathways that are difficult to use a wheelchair when PWPDs are accessing healthcare (Uromi & Mazagwa, 2014).

High healthcare costs hinder PWPDs from accessing healthcare in developing countries (Greenwood *et al.*, 2016a). PWPDs are more vulnerable to poverty and are restricted to access to employment, and they don't afford to pay for health services and therefore fail to access healthcare (Banks *et al.*, 2016). Those who access employment manage to access healthcare services, although they are very few compared to people without physical disability (Kuper *et al.*, 2016). The majority of them are not enrolling in health insurance and other schemes, although lack of awareness was the most commonly reported reason for not registering in Tanzania (Kuper *et al.*, 2016). High healthcare demand due to their impairment increases the extra cost for people without disabilities (Jolley *et al.*, 2014).

Physical closeness about transport influences accesses to healthcare for PWPDs (Jolley *et al.*, 2014). Transport can be from one location to another within the hospital or transportation of a patient with a physical disability between hospitals or transport a patient with a physical disability from a non-medical site to the designated hospital (Gudlavalleti *et al.*, 2014). Transportation is one of the factors hindering access to healthcare for PWPDs (Gudlavalleti

*et al.*, 2014). When transportation to the health centers is not well-organized, PWPDs cannot afford to get a transporting assistive device to the health center (Ore *et al.*, 2017). Also, the unfriendly physical structure of the health facilities for PWPDs limits access to healthcare for PWPDs according to their mobility (Schmitz *et al.*, 2020).

The absence of information is an obstacle to attending healthcare for PWPDs (Jolley *et al.*, 2014). They are regularly not aware that they can access healthcare in the typical health Centre (Gudlavalleti *et al.*, 2014). It is difficult for them to access health information from health authorities due to their mobility and low literacy rate (Uromi & Mazagwa, 2014). Thus, they depend on their friends and family members (Violet, 2014). It was reported in a recent study that there is no confidentiality when they access healthcare services (Ore *et al.*, 2017). The majority of them attended the hospital with the escort of their relative's account problems in keeping secrecy (Mavuso & Maharaj, 2015). Information block is for patients with physical disabilities and healthcare staff and indirect communication such as brochures or awareness campaigns (Violet, 2014).

Negative attitudes toward PWPDs are the factors that limit access to healthcare for them (LHRC, 2018; UN, 2018). Societies have negative attitudes toward them (Baart & Taaka, 2017a). Physical disability is associated with witchcraft in African societies (Braathen *et al.*, 2015). They believe that PWPDs should be treated as traditional healers and not in hospitals (Braathen *et al.*, 2015). People with Physical Disability (PWPDs) are not allowed to attend hospital for medication, and if they hear it will be against traditional (Mwasuka *et al.*, 2018). It leads them to a feeling of denial, wariness, and lack of self-confidence (Baart & Taaka, 2017a). It makes them too ashamed to attend health services (Mwasuka *et al.*, 2018).

### **2.3.3 Healthcare Existing to People with Physical Disability**

All healthcare offered for all people, both private and public health facilities, is healthcare offered to PWPDs (WHO, 2015). Healthcare offered to PWPDs includes prevention, promotion, treatment, and palliative care (Makuka *et al.*, 2017). PWPDs require healthcare for the same reasons people without a disability do (Kuper *et al.*, 2016). To be healthy means the same things for all human beings (Baart & Taaka, 2017a). To be healthy, PWPDs need healthcare that meets their needs as the whole people, not just PWPDs (Krahn *et al.*, 2015).

Public and private health facilities offer psychological advice to patients with physical disabilities (Mselle & Kohi, 2016). Those with negative attitudes in their family and society

are psychologically affected due to their physical disability (Iseselo *et al.*, 2016). The aim is to increase happiness between them and reduce depression between them which can create destructive behavior for the PWPDs, and remove introverts to them to allow immediate delivery of medication and openness for their establishment of health services (Iseselo *et al.*, 2016). To some extent, the available health facilities offered proper medical healthcare for PWPDs (Mselle & Kohi, 2016). The health services include: chronic renal insufficiency needs dialyze as for physical disability associated with dysfunction of bone, joints of senses, the high brain that seems to be sustained and rescued by medical rehabilitation healthcare, proper assessment, and progressively rehabilitation program to be implemented by the hospital and health centers (Mselle & Kohi, 2016).

Health facilities offer medical checkups and perinatal, post, and prenatal medical care for pregnant women with physical disabilities (Mwandri *et al.*, 2020). Also, checkups for newborn babies and infants are encouraged in health facilities, and caution was given to them on how to handle babies and avoid situations that can lead to disability of the infants, like shaking the baby, which could lead to shaken baby syndrome (Winkler *et al.*, 2020).

Nutritional healthcare is the healthcare offered to children with down syndrome to reduce the risk of physical disability (Etheredge *et al.*, 2015). The healthcare providers do most nutritional healthcare in their respective villages and the health facilities (Raymond *et al.*, 2017). Providing good nutrition to persons with down syndrome can recover their health and cells (Etheredge *et al.*, 2015).

## **2.4 Research Gap**

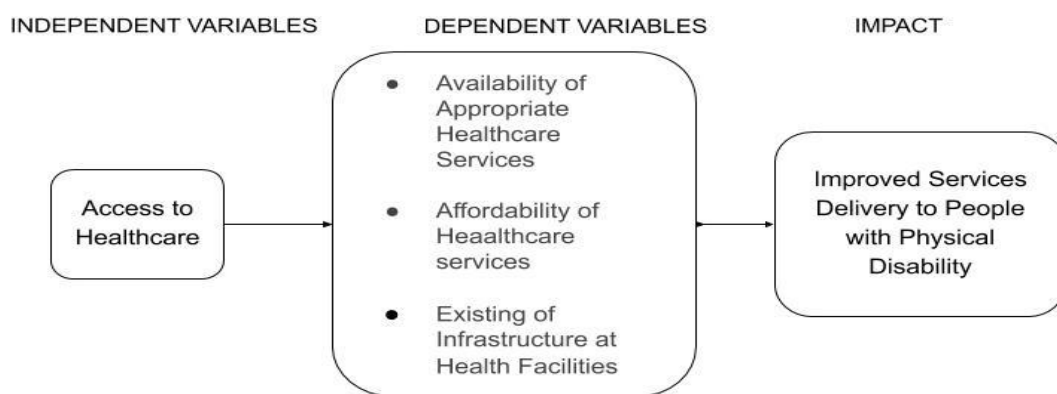
The government signed and rectified the UNCRPD and the elective procedure (2006), adoption of the East African Policy on PWPDs (2012), the established the Disability Policy in 2004, and the Tanzania National Health Policy 2017 to ensure access to healthcare services available for all people with and without physical disability (SIDA, 2014). Regardless of the efforts made by the government of Tanzania and various stakeholders to improve access to healthcare services for PWPDs, it is still inaccessible to many PWPDs.

In Tanzania, few studies have highlighted challenges in accessing healthcare services for PWPDs. Bakar *et al.* (2016) studied the lived experiences of people with disabilities and older people in Tanzania and cited limited accessibility of healthcare. The significant issues include the shortage of medical equipment and supplies at health facilities and costs when

seeking healthcare. Kupper *et al.* (2016) studied social protection for people with disabilities in Tanzania, showing that the unaffordability of healthcare costs and the cost of joining social security limits them to access healthcare.

Thus little is known about how PWPDs are experiencing difficulties in accessing healthcare services. Thus, evidence is needed from regions/district-based studies to reveal the rate of access to healthcare and identify the barriers PWPDs in accessing healthcare. Therefore, this study intends to fill this gap of knowledge by analyzing access to healthcare services among PWPDs in terms of availability and affordability of services and explore to what extent the existing infrastructure and design of health facilities.

## 2.5 Research Framework



**Figure 1: Access to healthcare for people with physical disability (Goddard & Smith, 2001)**

As regarded in the graphic presentation, a conceptual framework explained the concept of access to healthcare for PWPDs and its impact (Goddard & Smith, 2001). The dependent variable in this conceptual framework is access to healthcare. The independent variables are the availability of appropriate healthcare services, affordability of healthcare services, and the existing infrastructure at health facilities. In contrast, the expected impact is the improved service delivery to PWPDs.

## CHAPTER THREE

### MATERIAL AND METHODS

#### 3.1 Study Area

The study was conducted in the Singida rural district in Tanzania. The district has a total population of 225 521, of which 1402 are PWPDS (URT, 2013). The district is divided into 3 divisions, 21 wards, and 84 villages (URT, 2013). The Ikungi district surrounds the district to the south, the Manyara region to the East, and the Mkalama district to the West (Kimaro *et al.*, 2018). The main economic activities are small-scale farming (sunflower, cereals and legumes), fishing, small business, and employment or self-employed (Kimaro *et al.*, 2018). The researcher selected this area due to good experiences of the researcher about the geographical location and the health services provided to PWPDS and the district is one of the three districts in Singida region with a high rate of PWPDS and despite the efforts of the government to improve access to healthcare, the situation is not pleasing to PWPDS that live in rural areas (Njau, 2017).

#### 3.2 Research Design

A cross-sectional study design employed mixed methods involving quantitative and qualitative research methods to collect data to achieve our research objectives (Shorten & Smith, 2017). The only data collection methods were mixed; for specific objectives 1 and 2, qualitative data were used to inform quantitative data, whereas, for specific objective 3, quantitative data were used to notify qualitative data. The mixed-methods allowed the researchers to strengthen the validity and credibility of the study and provided an expanded understanding of access to healthcare services for PWPDS with more emphasis on availability, affordability, delivery, and infrastructure at the health facilities if it accommodates PWPDS (Shorten & Smith, 2017).

#### 3.3 Target Population

The core target population of the study was PWPDS aged 18 years and above and access to healthcare services, while the leaders and health services providers added to inform critical issues. Children are persons who have not attained the legal age for consent to treatment or procedures involved in research. In Tanzania, anyone under the age of 18 is considered a

child, when children are involved in research a researcher is required to obtain their assent and the permission of their parents. In reality behavior and motivations are hard to judge when you interview people under 18 years in front of their parents. In contrast, the researcher to avoid the chance of the respondents' response being influenced by their parents or in other words to avoid pressure from their parents and make the respondents feel free to talk about whatever is in their mind regarding access to healthcare for PWPDs a researcher chose PWPDs aged 18 years and above who can express themselves.

### 3.4 Sample Size

The sample size is a significant component of an empirical study to make inferences about a population from a sample (Etikan *et al.*, 2017).

#### 3.4.1 Sample Size for PWPDs

According to the Singida rural district report of 2017, the number of PWPDs in the Singida rural district is 1402 (URT, 2013). The sample size was calculated using Kothari's 2004 sample size calculation. Since the formula has been practically tested and used by scholars for more than four decades, the researcher considered the procedure to determine the appropriate sample size for this study. Giving "n" is the sample size for PWPDs in Singida rural district, "N" is the total population of PWPDs in the Singida rural district, and "p" is population reliability. Whereas "p" is 0.5, which is taken for all developing countries' populations, and p + q= 1, the "e" margin of error to be considered is 10% for this study. "Z  $\alpha$  /2" standard reduced variable at 0.05 level of significance z is 1.96. Therefore, according to the above formula, the sample size for PWPDs enrolled in this study was 90 respondents.

$$n = \frac{Z^2 pqN}{e^2 (N-1) + Z^2 pq}$$

$$n = \frac{(1.96)^2 (0.5) (0.5) (1402)}{(0.10)^2 (1402-1) + (1.96)^2 (0.5) (0.5)}$$

$$n = 90$$

#### 3.4.2 Sample Size for Key-Informants

A researcher employed 15 key informants to collect data from key informants; the saturation point determined the sample size. According to Kumar (1989), if the study is a mixed-

method, 15 to 25 respondents is enough for research depending on data to be collected, available time, and resources (1989).

### **3.4.3 Sample Size for Health Facilities**

Singida rural district has only 32 health facilities. Due to a low number of health facilities in the study area, the investigator included all 32 health facilities.

## **3.5 Sampling Techniques**

The sampling technique is a procedure whereby an investigator selects their sample units (Shorten & Smith, 2017). It contains the subset of individuals from within a statistical population to estimate features of the whole population (Etikan *et al.*, 2017). It is cheap, data collection is faster, and data accuracy and quality can be revised (Shorten & Smith, 2017). This research employed purposive sampling, simple random sampling, and snowballing.

### **3.5.1 Purposive Sampling**

Purposive sampling is valuable where the sample is taken with a purpose in mind, and the investigator must have one or more well-defined groups they are looking for (Etikan *et al.*, 2017). It is applicable where one wishes to reach a targeted sample rapidly and where sampling is not the main focus (Shorten & Smith, 2017). In this research, the targeted populations were healthcare providers, government leaders, and the leaders of the PWPDs association and health facilities in the district. A researcher assessed participants because they had information regarding our researched topic. The technique helped select health facilities and those specific Key participants for the study.

### **3.5.2 Simple Random Sampling**

Simple random sampling is choosing a sample that allows individuals in the defined population to have an equal and independent chance of being selected for the sample size (West, 2016). Strategy requires minimum people's knowledge to be selected as a sample (Shorten & Smith, 2017). In this study, a researcher used this method to select wards.

### **3.5.3 Snowballing Sampling**

A snowball sample is a non-probability sampling technique where the current study subjects of the researcher recruit future issues from between their associates (Dusek *et al.*, 2015). A

snowball sample is mostly used in the hidden population where it is hard for the researcher to locate the participants (Emerson, 2015). The investigator identified PWDs likely to know others who share the same characteristics. Snowball made them eligible to be included in the research. The investigator selected the participant who led the researcher to another colleague in a different area who could provide more data on the research topic.

### **3.6 Sampling and Sampling Procedure**

A researcher explained the study objective to all participants. The participants were free to decide whether or not to participate. The inclusion criterion was partly grounded based on those who were accessible and could provide information on the topic of interest.

#### **3.6.1 Sampling Procedure for Respondents with Physical Disability**

All participants with physical disabilities aged 18 years and above who can express themselves were screened using the Washington Group short set of questions (WGSSQ) (Kuper *et al.*, 2016). The Washington group short set of questions (WGSSQ) is a set of questions to identify people with disability (Bright & Kuper, 2018). Washington Group short set of questions are targeted questions on individual functioning intended to provide a quick and low-cost way to collect data that allow disaggregation by disability status. The researcher asked the household head or the primary responsible person if there were PWDs within the family. If they are available, the researcher can continue with the process of interviews. Adults aged 18 years and above who can speak themselves with physical disabilities were selected as one of the criteria to get direct information from the respondents with physical disabilities without talking to PWDs' family caregivers. Purposive sampling was used to guarantee the representation of men and women in different age groups. It was used to create a database on access to healthcare services for PWDs and readiness to take part. From 21 wards of the study scope, a simple random sample of 18 wards was employed in the study. From 18 wards, five households with physical disabilities were selected in each ward, and one PWD was chosen for each household to yield 90 respondents to the study. The investigator used snowballing technique to identify other respondents in every ward chosen.

#### **3.6.2 Sampling Procedure for Health Facilities**

Singida rural district has 32 health facilities of which 28 are dispensaries, 3 are health centres, and 1 hospital. Public health facilities are 3 health centres and 27 dispensaries while private



health facilities are one dispensary and one hospital. Purposively the investigator included all 32 health facilities in the study due to the low number of health facilities in the study area.

### **3.6.3 Sampling Procedure of the Key Informants**

Key informants were selected purposively. Those set knew the research topic and contributed to the research topic, and informed understanding of the research problem and the control phenomenon in the study. The key informant's selection was based on a particular person's knowledge of accessing healthcare services for PWPDs within the study area. The key informants answer the questions about policy and the right to free healthcare services to PWPDs. The key informants included healthcare service providers, government leaders, and leaders of the PWPDs association. The study employed 15 key informants, considering that the study was mixed methods. It was sufficed as stipulated by Kumar that the number of key informants depends on data to be collected, available time, and resources; therefore, according to Kumar typically, 15-25 key informants is enough (1989).

### **3.7 Pre-Testing of the Study Tools**

Pre-testing of the study tools was conducted to identify the strength and weaknesses of the questionnaire survey, observation guide checklist, and interview guide for the key informants. The pre-test tools and checklist were administered to one ward that was not selected in the sample size and one health facility within the study area. After pre-testing tools, data collected were reviewed, and the tools were revised accordingly.

### **3.8 Data Collection**

#### **3.8.1 Primary Data Collection**

A researcher collected Primary data through a questionnaire survey, observation checklist, and Key informant interview. An investigator used home visits to collect primary data from PWPDs and key informants, whereas data on existing infrastructure at health facilities were collected at the facilities by the researcher.

#### **3.8.2 Questionnaire Survey**

A questionnaire survey collects information from the sample of individuals through their responses to questions (Moon & Blackman, 2014). Appropriate question design is essential to

ensure that an investigator obtains valid answers to questions (Flick & Flick, 2018). A researcher used a questionnaire to collect data from 90 respondents with physical disabilities. It was in the form of closed and open-ended questions.

### **3.8.3 Interviews with Key Informants**

Interviews involve two persons' the interviewer and the interviewee, and it is face-to-face communication to get direct information from the participant as an advantage (Flick & Flick, 2018). It allows clear contact between the interviewer and the person interviewed as it allows secrecy between the two people (Kumar, 2017). a researcher conducted in-depth interviews in Swahili with key informants. The interview guide was prepared based on the study's specific objectives, and the interview took between 30 to 45 minutes.

### **3.8.4 Observation Checklist**

An investigator used observation to study collaboration among individuals in their situations (Kumar, 2017). Observation involves visualization of the community happenings, then watching, recording, and analyzing the practical issues and data obtained in circumstances of no person's direct interaction (Moon & Blackman, 2014). The researcher used an observation checklist consisting of measurement procedures of the architectural condition of health facilities to assess the existing infrastructures at health facilities and how it accommodates PWPDs (URT, 2014). An observation checklist was designed based on the standard of health facilities in Tanzania, a national guideline for safe care standards for dispensaries, health centers, and district hospitals in 2014, and a national guideline for water, sanitation, and hygiene in healthcare facilities of 2017 (URT, 2015).

## **3.9 Data Management and Analysis**

A researcher conducted quantitative data analysis using Statistical Package for Social Sciences (SPSS-26). At the same time, used Chi-square analyses to detect differences and associations between variables relating to the access to healthcare for PWPDs. In contrast, a researcher conducted a descriptive analysis of frequencies and percentages. An investigator presented data in figures, tables and graphs, and an investigator performed thematic analysis to determine variables such as age, gender, infrastructure, and level of accessing healthcare. Qualitative data were managed and analyzed thematically. The researcher translated and transcribed the audio recordings of the interviews conducted in Kiswahili into English. A

researcher reviewed transcripts to match the audio recordings, and once verified, a researcher imported the transcript into NVivo 12. The coding system enabled logical credentials of reasoned designs evident from the data ideas. After verification of data, a priori researcher draws themes from socio-demographic, availability of healthcare for PWPDs, affordability of healthcare for PWPDs, and existing infrastructure at health facilities that support PWPDs to access healthcare to guide the coding of transcripts. Results were presented as narrative text to support quantitative findings. Data was also analyzed at a 95% confidence interval at  $P < 0.05$  for statistical significance.

### **3.10 Validity and Reliability**

The researcher adequately captured all items within the measure by the domain of the construct a researcher studied. Content validity and reasonable judgment ensure that the measure was indeed related to the build a researcher studied, that is, face validity. A researcher cross-checked all data collected through different techniques to ensure that the instruments used could measure what an investigator expected to measure and obtain from reliable sources.

### **3.11 Ethical Approval**

The ethical approval for this study has been granted by the National Institute of Medical Research and Institutional Review Board of the Ifakara Health Institute (IHI/IRB/No: 28-2020). Each participant provided written consent to participate before the interview. Also, the investigator ensured confidentiality for all study participants.

## CHAPTER FOUR

### RESULTS AND DISCUSSION

#### 4.1 Demographic and Socio-Economic Characteristics of Respondents

A total of 90 respondents with physical disabilities and 15 key informants participated in the research study, of which male respondents were 43.3% (39/90) and female respondents were 56.7% (51/90) ( $\chi^2=1.60$ ;  $df=1$ ;  $p=0.206$ ) (Table 1). Generally, a large percent of the respondents in Singida rural district were found to be female as compared to males. This implies that the physical disabilities among female individual is higher than in male individual (Kuper *et al.*, 2016). Concerning the duration of impairment, the study revealed that there was a significant difference among those who had acute 53.3% (48/90) as compared to the inborn and chronic duration of impairment ( $\chi^2=20.47$ ;  $df=2$ ;  $p<0.001$ ). The high number of impairments related to an acute condition is due to increased accidents, especially among motorcyclists (Boniface *et al.*, 2016). Motorcycle transport has become the leading cause of injuries and physical disabilities, especially in rural areas (Boniface *et al.*, 2016).

Additionally, the study found that the number of families living with PWPDs of more than 46 years was significantly higher than younger household heads ( $\chi^2 =12.67$ ;  $df=3$ ;  $p=0.005$ ), as shown in Table 1. Concerning the education level, the results show that most PWPDs had attended primary school 56.7% (51/90), followed by those who did not attend school 32.7% (29/90). Furthermore, there is significant difference for PWPDs who were married 52.2% (47/90) and those who were single 35.2% (32/90) ( $\chi^2 =128.67$ ;  $df=5$ ;  $p<0.001$ ).

About 72.2% (65/90) of PWPDs in this study had no occupation, and 92.2% (83/90) of them had an income of less than 2500 per day ( $\chi^2=64.18$ ;  $df=1$ ;  $p<0.001$ ). These findings indicate that most PWPDs may not be engaged in economic activities due to their mobility problems. The study found that 65.6% (59/90) of PWPDs were living in extended families and did not have sufficient income to deliver financial support to PWPDs to access healthcare services ( $\chi^2 =88.04$ ;  $df=3$ ;  $p<0.001$ ). These findings suggest that PWPDs face socio-economic problems and thus challenge accessing healthcare in Singida rural district. Previous reports have revealed that families with PWPDs had more significant economic problems than others due to the inability of people with disabilities to carry out economic activities (Angela, 2015).

Similarly, people with disabilities had little or no access to credits from financial institutions because of their condition (Mpofu & Shumba, 2013).

**Table 1: Demographic and socio-economic characteristics of respondents**

Variable	Frequency (n)	Percentage (%)	Chi-square-test
<b>Age</b>			$X^2=12.67$ ; $df=3$ ; $p=0.005$
18-25	17	18.9	
26-35	14	15.6	
36-45	23	25.6	
46+	36	40.0	
<b>Gender</b>			$X^2=1.60$ ; $df=1$ ; $p<0.206$
Male	39	43.3	
Female	51	56.7	
<b>Duration of Impairment</b>			$X^2=20.47$ ; $df=2$ ; $p<0.001$
Inborn	13	14.4	
A cute	48	53.3	
Chronic	29	32.2	
<b>Level of Education</b>			$X^2=66.62$ ; $df=3$ ; $p<0.001$
No education	29	32.2	
Primary	51	56.7	
Secondary	9	10.0	
Collage/university	1	1.1	
<b>Marital Status</b>			$X^2=128.67$ ; $df=5$ ; $p<0.001$
Single	32	35.6	
Living with partner	1	1.1	
Married	47	52.2	
Widowed	6	6.7	
Divorced	1	1.1	
Separated	3	3.3	
<b>Occupation</b>			$X^2=107.87$ ; $df=3$ ; $p<0.001$
Trading	11	12.2	
Farmer	5	5.6	
Craft	9	10.0	
None	65	72.2	
<b>Income</b>			$X^2=64.18$ ; $df=1$ ; $p<0.001$
<2500	83	92.2	
2600-5000	7	7.8	
<b>Relatives Living with</b>			$X^2=88.04$ ; $df=3$ ; $p<0.001$
Alone	4	4.4	
My spouse	22	24.4	
My children	5	5.6	
Extended family	59	65.6	

**The Confidence Level Used 5%**

## 4.2 Consideration of Healthcare for PWPDs

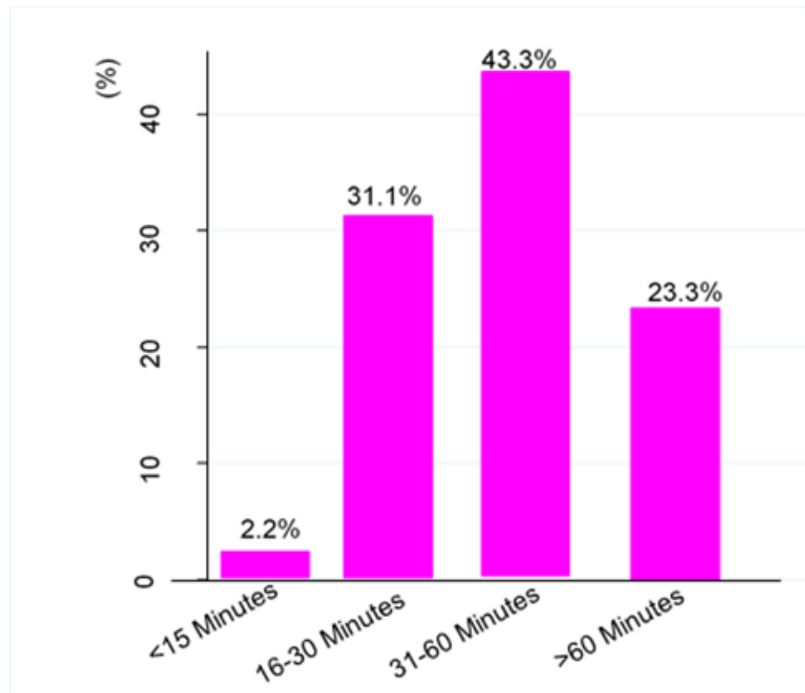
According to their mobility, PWPDs are required to get priority to access healthcare compared to people without disabilities. The study found that the healthcare services delivered in Singida rural district don't consider PWPDs as 78.9% (71/90) of patients with physical disabilities who reported health problems in various health facilities could not get service

### 4.2.1 Location and Distance to Health Facilities

The location and distance to access healthcare services for PWPDs are essential among PWPDs due to their mobility. This study detected that 65.6% (59/90) of the respondents with physical disabilities were not living near the health facilities. Also, 94.6% (85/90) were not near a health specialist (Fig. 2). However, 75.6% (68/90) of PWPDs agreed that pharmacies were located near their homes. The walking time to access healthcare services was more than 60 minutes for 23.3% (21/90), 31-60 minutes for 43.3% (39/90), and 16-30 minutes for 31.1% (28/90) and the minority, i.e., 2.2% (2/90) used < 15minutes. Whereas most PWPDs, 97.8% (88/90), used public transport when accessing healthcare.

*"Most of PWPDs are not visiting healthcare facilities due to long-distance, we always get details from their family members that they are sick! Sometimes I treat PWPDs without understanding that I am dealing with PWPDs" (Female, Healthcare Provider, 42 Years)".*

In several rural areas, both private and public transport, there were no special seats for PWPDs (Rugabela & Llian., 2019). There is a need to improve transport and healthcare services for PWPDs at the village level (Rugabela & Llian., 2019). A similar study conducted in Malawi reported that PWPDs face barriers to care due to a lack of accessible transportation (Harrison *et al.*, 2020).



**Figure 2: Time used to walk or travel to access healthcare for PWDs**

#### **4.2.2 Awareness of Healthcare Services for PWDs**

The results revealed that 83.3 % (75/90) of PWDs enrolled in this study were aware of healthcare services provided for PWDs. To a great extent, they were primarily aware of assistive devices than other healthcare services. For instance, 73.1% (57/78) were not aware of the availability of rehabilitation services, 73.1% (57/78) about healthcare information, 88.5% (69/78) about disabilities counseling, 79.5% (62/78) about routine preventive care while 89.7% (70/78) and 93.6% (73/78) were not aware of reproductive healthcare and welfare services respectively, as indicated in Table 2.

*"We don't have an alternative means of contacting them for training, so they usually come to the hospital at the time of delivery; therefore, it is difficult for us as healthcare providers to prevent this situation if she is pregnant" (Female, Healthcare Provider, 39 years)".*

*"To a large extent, PWDs are not aware of healthcare services offered in health facilities and their right to get healthcare services." unawareness is due to a lack of a clear communication channel from healthcare providers (Female, Healthcare Provider, 49 Years)".*

Similarly, a study conducted in the United Kingdom on access to healthcare for men and women with disabilities reported that unawareness of healthcare services among PWPDs limits them from accessing healthcare services (Sakellariou & Rotarou, 2017). The same study on healthcare services barriers for people with disabilities in developing countries recommended that public health awareness programs on health services for PWPDs would be helpful to counter the anticipated awareness of health services for PWPDs (Baart & Taaka, 2017b).

**Table 2: Awareness of healthcare service for PWPDs**

Variable	Yes (%)	No (%)	Chi-square test
Assistive Devices	70(92.1)	6(7.9)	$X^2=53.895$ , $p<0.0001$
Medical Rehabilitation	21(26.9)	57(73.1)	$X^2=16.615$ , $p<0.0001$
Disability Counselling	9(11.5)	69(88.5)	$X^2=46.154$ , $p<0.0001$
Welfare Services	5(6.4)	73(93.6)	$X^2=59.282$ , $p<0.0001$
Health Information	21(26.9)	57(73.1)	$X^2=16.615$ , $p<0.0001$
Routine Preventive Care	16(20.5)	62(79.5)	$X^2=27.128$ , $p<0.0001$
Reproductive Health Care	8(10.3)	70(89.7)	$X^2=49.282$ , $p<0.0001$

**Confidence level used 5%**

#### 4.2.3 Easy of Accessing Healthcare Information for PWPDs

This study found that access to information on the available healthcare services is abysmal from disabilities association 98.9% (89/90), social media 71.4% (10/14), internet/ website 66.7 (10/15), doctor's practices 63.3 % ( 57/90), insurance companies 54.4% (49/90) and from TV 42.9% (9/21). Also, this study found access to information on the available healthcare services is good at the workplace 53.8% (7/13) and from health facilities 52.2% ( 47/90). In addition, the findings show access to information on the available healthcare services from relatives and peer patients is very good 46.7% ( 42/90) and from public health authorities 43.3% (39/90).

These findings are well supported by a previous study on access to healthcare for people with disabilities. Many PWPDs are poor; it is difficult for them to access information on



television, social media, and the internet as they can't afford to buy televisions and smartphones (Bart & Taaka, 2017b). Also, a study conducted in Tanzania on social protection for people with disabilities reported that most of the relatives living with PWPDs did not have adequate income to provide financial support to them (Kuper *et al.*, 2016).

**Table 3: Easy of accessing healthcare information for PWPDs**

Variable	Very poor (n, %)	Average (n, %)	Good (n, %)	Very good (n, %)	Chi-square-test
Access to information on the available healthcare services at the workplace	1(7.7)	3(23.1)	7(53.8)	2(15.4)	$X^2=6.39$ , $p=0.094$
Access to information on the available healthcare services from doctors' practices	57(63.3)	28(31.1)	2(2.2)	3(3.3)	$X^2=89.8$ , $p<0.001$
Access to information on the available healthcare services from health facility	5(5.6)	26(28.9)	47(52.2)	12(13.3)	$X^2=45.73$ , $p<0.001$
Access to information on the available healthcare services from pharmacies	8(9.0)	22(24.4)	46(51.1)	13(14.4)	$X^2=38.33$ , $p<0.001$
Access to information on the available healthcare services from internet websites	10(66.7)	4(26.7)	1(6.6)	-	$X^2=8.40$ , $p=0.015$
Access to information on the available healthcare services from social media	10(71.4)	3(21.4)	1(7.1)	-	$X^2=9.57$ , $p=0.008$
Access of information on the available healthcare services from TV	9(42.9)	6(28.6)	4(19.0)	2(9.5)	$X^2=5.09$ , $p=0.165$
Access to information on the available healthcare services from the disabilities association	89(98.9)	1(1.1)	-	-	$X^2=86.4$ , $p<0.001$
Access to information on the available healthcare services from relatives and peer patients	3(3.3)	18(20.0)	27(30.0)	42(46.7)	$X^2=35.60$ , $p<0.001$
Access to information on the available healthcare services from public health authorities	4(4.4)	18(20.1)	29(32.2)	39(43.3)	$X^2=30.09$ , $p<0.001$
Access of information on the available healthcare services from insurance companies	49(54.4)	18(20.0)	15(16.7)	8(8.9)	$X^2=43.96$ , $p<0.001$

The confidence level used 5%

#### **4.2.4 Usefulness of the Information Provided to PWPDs**

The findings from this study informed that almost 71.1% (26/90) of PWPDs interviewed agreed that the available healthcare information was easy to understand; however, 98.8 % (89/90) of PWPDs experienced difficulties finding the available healthcare information. On the other hand, 84% (84/89) agreed that the information provided was useful when clarified by healthcare providers. The same study found that most health products, especially drugs, are instructed in the English language while most use the Kiswahili language; therefore, the information becomes useful when clarified by healthcare providers (Ore *et al.*, 2017). Likewise, a study in Uganda reported that it is essential for patients with physical disabilities to have information about their health and assume that having this knowledge will contribute to better health outcomes for PWPDs (Ahumuza *et al.*, 2014).

#### **4.2.5 Satisfaction of healthcare Services for PWPDs**

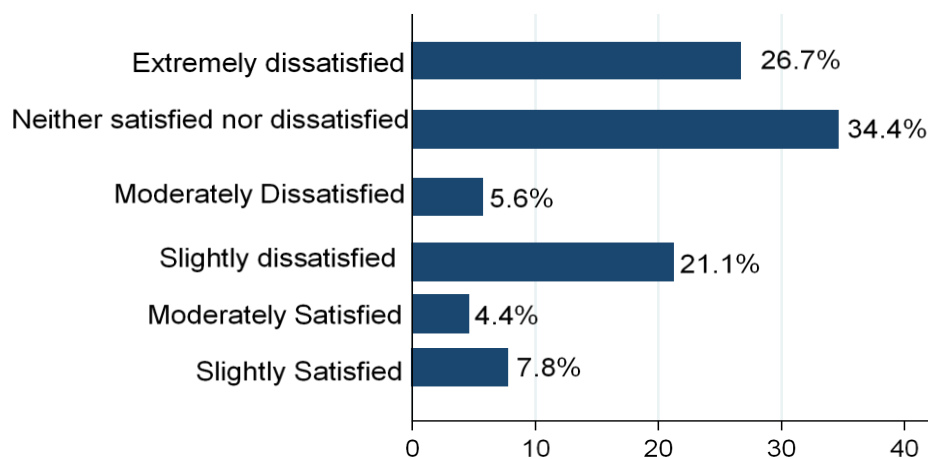
The study shows that 93.33% (84/90) of PWPDs preferred seeking treatment from public health facilities. It also revealed an association between the affordability of healthcare costs and the preference in seeking treatment from public health facilities. Most respondents 82.1% (69/84) reported the unaffordability of healthcare costs in private health facilities. Other factors are the public health facilities being the only available health facility in most villages, the quality of healthcare services offered in public health facilities, and a friendly payment system in public health facilities. A study conducted in Tanzania to assess the private health sector reported that most of the patients, especially those with disabilities, are satisfied with healthcare services provided by private healthcare facilities. Still, they do not use private healthcare facilities due to the unaffordability of healthcare costs (Chee *et al.*, 2013). In addition, the study found that about 54.4% (49/90) of PWPDs preferred to be attended by health workers of any gender. In comparison to the findings of this study, 28.9% (26/90) preferred health workers of the same gender, whereas 16.7% (15/90) preferred the opposite gender; in public and private health facilities.

Finally, a study that investigate whether patients have same-gender primary care physician preferences based on objective data reported that male and female patients often preferred to see a same-gender primary care physician with this preference more pronounced in males (Fink *et al.*, 2020). The findings are different from the findings of this study because in most healthcare facilities, health workers are very few, and they had no option 83.7% (41/49),

some religious factors which do not allow them to be attended by the opposite gender 46.2% (12/26) and confidentiality 34.6% (9/26). These findings suggest that when patient attend to same-sex health worker feels more comfortable, specifically in terms of sexual health (Amir *et al.*, 2018).

Also, it found that 46.7% (7/15) of PWPDs preferred to be attended by opposite-sex health workers for the reason that they devote more time to patients, 26.7% (4/15) is due to good customer care, and 26.7% (4/15) were influenced to confidentiality. The earlier study supports the results that female doctors who care for elderly hospitalized patients get better results, whereas patients cared for by women were less likely to die or return to the hospital after discharge (Tsugawa *et al.*, 2017).

Moreover, this study found that 34.4% (31/90) of PWPDs were neither satisfied nor dissatisfied with how healthcare workers attended PWPDs, while 26.7% (24/90) reported being extremely dissatisfied and 21.1% (19/90) were slightly dissatisfied. A study conducted in the Morogoro Region, Tanzania, on the effect of disability on access to healthcare reported that people with disabilities are not satisfied with how healthcare workers attend them (Rugabela, 2019).



**Figure 3: The percentage PWPDs satisfied the way health workers attended**

### 4.3 Availability of Appropriate Healthcare for PWPDs

The results revealed that 73.33% (66/90) of PWPDs needed specialist healthcare services due to their mobility problems. Among the specialist healthcare services required were medication 45.5% (30/66), physiotherapy 42.4% (28/66), health information 37.9% (25/66),

disability counseling 33.3% (22/66), wheelchair 7.6 % (5/66), other walking aid 24.2% (16/66), home-based care 3% (2/66), surgery 1.5% (1/66) and welfare services 1.5% (1/66).

Additionally, 78.9% (71/90) of patients with physical disabilities who reported health problems in various health facilities could not get service ( $X^2=30.00$ ,  $df=1$ ,  $p<0.001$ ). Some of these services were unavailable in most dispensaries and health centers and sometimes even at the designated district hospital. Healthcare services reported and were not available included services related to chronic pain in joints 40.1%, stroke 22.9%, hypertension 5.7%, some acute conditions 4.3%, communicable diseases 4.3% and work-related conditions 4.3%. In addition, the nutritional deficiency was reported to be 2.9%, injury 2.9%, whereas urologic diseases, surgery, sleeping problems, the problem with the eyes, heart problem, HIV, generalized pain, diabetes, and depression were each reported to be 1.4%.

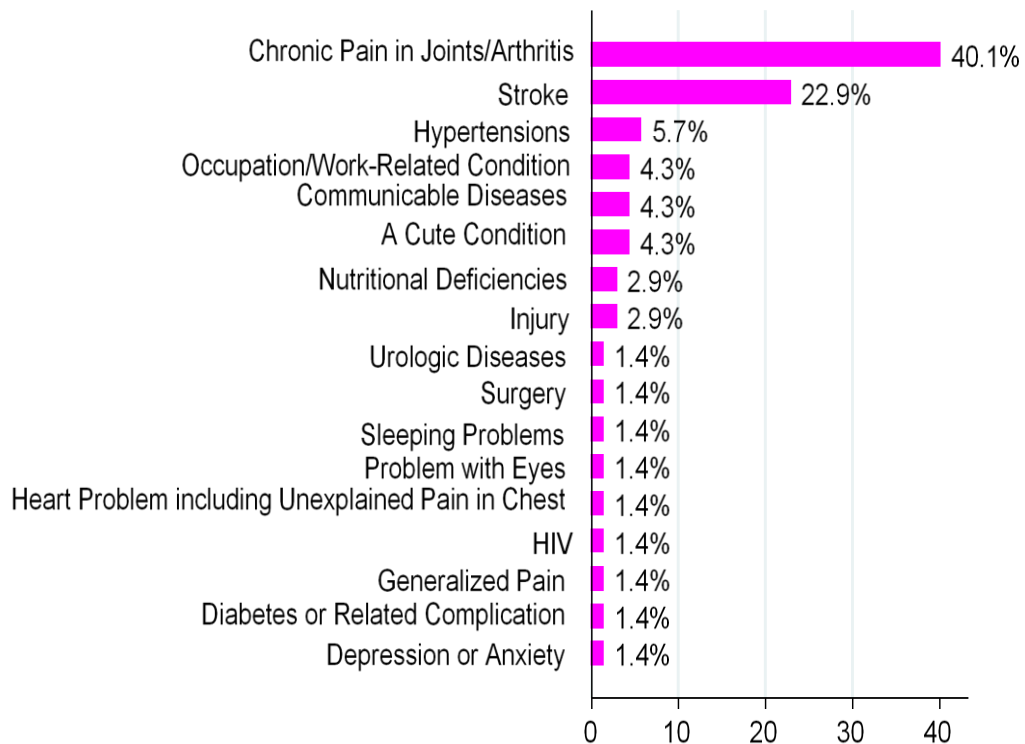
Notably, the results showed that 45.6% (41/90) had experienced difficulties in accessing healthcare services, and 21.1% (19/90) were in a moderate situation. In comparison, 18.9% (17/90) had very problems accessing healthcare, and only 14.4% (13/90) had accessed these services quickly.

In the district, there were no special health facilities for PWPDs and specialist nurses/ doctors dealing with PWPDs. Almost 93.3% (82/87) of PWPDs reported the unavailability of specific doctors for those in need ( $X^2=68.14$ ,  $df=1$ ,  $p<0.001$ ). The findings showed that 96.7 % (87/90) of the interviewed respondents with physical disabilities confirmed the absence of specialist doctors ( $X^2=78.40$ ,  $df=1$ ,  $p<0.001$ ). Most PWPDs rely on specialists from the regional hospital, far away from their neighborhood.

*“Healthcare service delivered is good..., although they can't get rehabilitation services in dispensaries, health centers, and designated district hospitals until waiting for an appointment at the regional hospital several times (Male, Government leader, 39 years)”.*

A study conducted in northern Tanzania on disability needs assessment reported that PWPDs are not accessing healthcare services such as orthopedic, physiotherapy, and counseling (Baine, 2017). A similar study on disability status and multi-dimensional personal well-being among adolescents in the southern highlands region of Tanzania reported that access to healthcare services for PWPDs continued to be a challenge in the rural area. However, the Tanzanian government has to increase its budget by 35% to rescue the situation (Quinones

*et al.*, 2021). Factors that hinder the availability of appropriate healthcare for PWPDs are unaffordability of healthcare and high transport costs, inadequate drugs or equipment, and inadequate skills of healthcare providers (Greenwood *et al.*, 2016b).



**Figure 4: Health problems facing PWPDs but could not get the Service**

#### 4.3.1 Delayed Access to Healthcare for PWPDs

This survey found that delays in accessing healthcare services contributed to the significant increase of health problems for PWPDs. Delays were reported in accessing treatment intervention 65.2% (58/89), medical equipment 63.3% (59/89), medical appointments with nurses 78.2% (68/87), clinicians at primary care levels 67.8% (59/87), and specialists 77.9% (67/86).

*"As I am speaking here, I had my brother with a child with physical disabilities who could not get healthcare due to a lack of follow-up. When I investigated, I found my brother was not ready to be known that he had a child with physical disabilities" (Female, Healthcare Provider, 42 years)"*

*"I went to the hospital to deliver a baby in 2018; before delivery, I found a nurse who attended me, and when she found out that I was pregnant, she clapped her hands and*

*said, where is the devil who did this? To the innocent person! I was a woman with a physical disability. I was scared" (Female, PWPDs, 38 years)".*

This study discovered that one of the factors that cause delayed access to healthcare services for PWPDs is Stigma and fear. Most PWPDs fear seeking treatment from health facilities due to Stigma in society; they choose to get health services from traditional healers, which sometimes leads to death for most patients with physical disabilities (Locke *et al.*, 2020).

This study found that the lack of designated health facilities dealing with healthcare for PWPDs in Singida rural districts was another reason for delayed healthcare services for patients with physical disabilities. PWPDs had their own healthcare needs, such as disability counseling, rehabilitation, medical, surgical, and nursing (Kuper *et al.*, 2016). The availability of designated health facilities for PWPDs helps them with a particular health problem, condition, or service (Dassah *et al.*, 2018). A designated health facility is most important when PWPDs seek care for their specific systematic illness or health issue (Mavuso & Maharaj, 2015).

Notably, this study revealed that poor attitudes and lack of knowledge among healthcare providers for PWPDs were the reason for delayed healthcare services for PWPDs in Singida rural district. Most health workers were reported for not attending in a good way patients with physical disabilities in the health facilities, not addressing patients with physical disabilities with consideration, not advising them, and interacting with them well. This observation has been reported in other studies often health workers do not communicate well and relate to patients with physical disabilities (Gudlavalleti *et al.*, 2014), you can add one or two citations in here). A study conducted in rural Malawi on access to healthcare for people with disabilities reported that patients with physical disabilities are at high risk for the delayed healthcare services because these delays are associated with longer hospital stays (Harrison *et al.*, 2020). Mainly, 82.2% (74/90) of PWPDs reported the existence of cultural practices in the Singida rural district that led to delayed access to healthcare services for PWPDs. Some of the cultural practices reported were: -family members feel shame to escort them to a health facility as they believe that PWPDs are not like ordinary people because of their disability and supernatural beliefs. Also, there was a denial of physical disabilities for an inborn person. Family members thought that a person born with physical disabilities was useless, and therefore they refused to go for treatment in the health facility. Society disrespects PWPDs

and believes they have no right to seek treatment instead of waiting to die (Locke *et al.*, 2020).

This study noticed that PWPDs and their families perceived that it is the government's responsibility and other health stakeholders to care for them instead of finding a source of income to pay for their healthcare costs, especially those capable of doing work. The findings supported by a study conducted in rural Malawi on access to healthcare for PWPDs informed that the major factors that caused delays were unaffordability of healthcare cost, insufficient health care resources, and dependence on others (Harrison *et al.*, 2020).

Although delays in accessing healthcare for PWPDs were reported, there is improvement in the provision of medicine for PWPDs in most healthcare facilities. Almost 52.8% (47/89) of PWPDs said there is no delay in accessing medicine. These improvements could be due to advances in healthcare services in rural areas made by the government and other healthcare stakeholders (Kapologwe *et al.*, 2020).

**Table 4: Delayed access to healthcare for PWPDs**

Variable	Yes (%)	No (%)	Chi-square test
Delay in accessing medicine	42(47.2)	47(52.8)	$X^2=0.281$ , $p=0.596$
Delay in accessing treatment intervention	58(65.2)	31(34.8)	$X^2=8.19$ , $p=0.004$
Delay in accessing medical equipment	59(66.3)	30(33.7)	$X^2=9.45$ , $p=0.002$
Delay in accessing an appointment with nurse	68(78.2)	19(21.8)	$X^2=27.59$ , $p<0.001$
Delay in accessing an appointment with primary care doctor	59(67.8)	28(32.2)	$X^2=11.05$ , $p<0.001$
Delay in accessing an appointment with a specialist	67(77.9)	19(22.1)	$X^2=26.79$ , $p<0.001$

**The confidence level used 5%**

#### 4.4 Affordability of Healthcare Services for PWPDs

Affordability of healthcare is a core measurement of healthcare access for PWPDs (Zallman *et al.* 2015). This survey focused on direct and indirect healthcare cost that limits PWPDs to access healthcare services in Singida rural district. Direct healthcare costs are expenditures for healthcare goods and services, but indirect healthcare costs are expenditures for healthcare that are not related to healthcare goods and services.

The results showed that 97.8% (88/90) of PWPDs can't afford to pay both direct and indirect healthcare costs ( $X^2=82.18$ ,  $p<0.001$ ). And around 80.8% (42/52) of PWPDs need assistive devices, but they cannot afford them. In reality a study found 72.2% (65/90) of PWPDs were not employed ( $X^2=107.87$ ;  $df=3$ ;  $p<0.001$ ) and 92.2% (83/90) of them their income was less than Tsh 2500/= per day ( $X^2=64.18$ ;  $df=1$ ;  $p<0.001$ ). A study found a relationship between access to healthcare services, occupation, and income among PWPDs.

A related study done in Tanzania on differences in accessing sexual and reproductive health services at the intersection of disability and female adolescence has shown that most PWPDs had postponed seeking healthcare due to the unaffordability of healthcare (Mesiäislehto *et al.*, 2021).

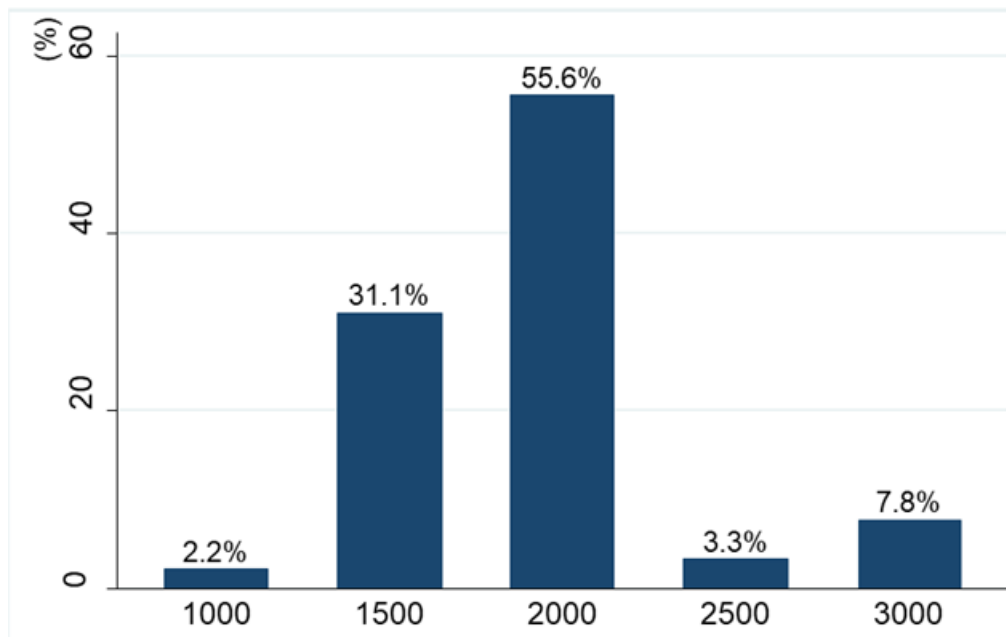
#### **4.4.1 Indirect None Healthcare Costs**

In this study, the majority of PWPDs used between 31-60 minutes (43.3% (39/90) and 16-30 minutes (31.1%) (28/90) to walk or travel to the healthcare facility. Most of them specified that 55.6% (50/90) paid two thousand Tanzania shillings, and 31.1% paid one thousand five hundred Tanzania shillings as a transport fare. It was indicated that 96.7% (87/90) of the PWPDs could not afford to pay the transport cost ( $X^2=78.400$ ,  $p<0.001$ ). Also, 72.2% (65/90) were unable to visit health facilities due to a lack of transport ( $X^2=17.78$ ,  $p<0.001$ ).

*"..... My husband died five years ago and left me with four children; it is difficult to take care of my health and meals. Sometimes I am supposed to pay a person who carries me to the health facility for a medical checkup, but I don't have money"*  
(Female, PWPDs, 41years).

Most PWPDs do not have enough income to afford indirect healthcare costs, and most of them use the little money they find from their work or gift to buy food (Harrison *et al.*, 2020).





**Figure 5: Cost to reach the closest healthcare facilities**

#### 4.4.2 Direct Healthcare Cost

The findings show that 85.6% (77/90) of PWPDs had never accessed free health services from public health facilities ( $X^2=45.5$ ,  $p<0.001$ ). The study revealed that 35.6% (32/90) of PWPDs did not afford the costs ultimately, while 21.1% (18/90) sometimes afforded the charges and only 20% (18/90) always afforded the costs.

Also, the study realized that 70% (63/90) of PWPDs could not afford medical equipment or device costs, and 65.2% (58/89) of those who needed a personal doctor did not afford the cost. Also, 64% (57/89) could not afford specialized healthcare costs, 48.8% (44/90) of those who needed primary care doctors did not afford expenses, and 41.1% (37/90) could not afford medications cost.

The findings revealed that 52.2% (47/89) of PWPDs interviewed postponed more than three times healthcare visits because of not affording healthcare costs. Whereby a total of 78.9% (71/90) of PWPDs were not beneficiaries of social security schemes and thus depended on an out-of-pocket payment system which, on the other hand, hinders access to healthcare for them since most of them did not have cash for healthcare services. Interestingly, about 78.88% (71/90) of PWPDs would like to join the social security scheme, even though 91.5% (65/71) were limited by the lack of finance and lack of clear information on how to join the social security scheme.

*"Finance is a big challenge for PWPDs as most of them postponed healthcare due to lack of money" (Female, Healthcare Provider, 42 years).*

*"PWPDs are economically poor, and the national health policy is not clear for PWPDs to access free healthcare services" (Male, Retired PDA Leader, 54 years).*

*"No! Look, I am a farmer. I managed to join the social security scheme, but when it comes to assistive device and specialist healthcare that are not a part of health insurance yet, I can't afford healthcare costs" (Female, PWPDs, 41 years).*

*"Oh! My daughter... rehabilitation and disabilities counseling are costly sometimes I wish there could be a person who supports me to access rehabilitation service!" (Male, PWPDs, 53 years).*

A study conducted on correlates of out-of-pocket and catastrophic health expenditures in Tanzania found that most PWPDs could not afford to pay direct healthcare costs; most of them get support from their family members, relatives, and sponsors (Brinda *et al.*, 2014). Although PWPDs could not afford healthcare costs in general, they could not afford to pay healthcare costs in private healthcare, where the healthcare services are reported to be higher than in government health facilities (Bright & Kuper, 2018).

**Table 5: Affordability of healthcare cost for PWPDs**

Variable	Always	Very often	Sometimes	Rarely	Never
Affordability to access primary health care doctor	10(11.1)	17(18.9)	16(17.8)	3(3.3)	44(48.8)
Affordability to access personal doctor	2(2.2)	12(13.5)	9(10.1)	8(9.0)	58(65.2)
Affordability to access specialized healthcare provider	2(2.2)	8(9.0)	10(11.3)	12(13.3)	57(64.0)
Affordability to access medicine	18(20.0)	17(18.9)	15(16.7)	3(3.3)	37(41.1)
Affordability to access medical equipment or devices	4(4.4)	6(6.7)	9(10.0)	8(8.9)	63(70.0)

#### **4.5 Access to Supportive Healthcare Facilities for PWPDs**

This study was conducted in 32 functioning health facilities i.e., 1 hospital, 3 health centers, and 28 dispensaries. The results of the observational assessment are described under the broad categories: signage, designated entrance area, parking, health facilities door, ramp,

pathways, staircases, special seat at the health facility, wheelchairs, designated examination table/bed, special weight scales, and designated toilets for PWPDs as presented in Table 6.

This health facility-based assessment revealed that the existing infrastructure in most health facilities in Singida rural district does not support PWPDs to access healthcare. The poor design of health facilities and less attention to PWPDs hinders the right of PWPDs to access healthcare.

The lack of signage, designated parking area, ramps, pathways, mechanism doors, friendly door handle, continued handrails provided at the stairs and floors located before the steps, designated toilets, wheelchairs, designated examination table/bed, special weight scale, and special seats at the clinician's offices and at the reception for PWPDs is part of several examples of infrastructure obstacles (Zuurmond *et al.*, 2019).

The findings show no signage in all health facilities, handrails at the stairs, designated entrance area, designated parking, designated examination table/bed, special weight scales, designated toilets, special seats at the clinician's offices, and special seats at the reception for PWPDs. Besides 1 (33.3%) health center and all dispensaries, 28 (100%) had no ramps and pathways. Also, alternative doors were not available in all health centers and dispensaries. Also, 27 (96.4%) of all dispensaries had no wheelchairs, and in all health centers and dispensaries, door handles were not user-friendly for PWPDs. No one must be left behind from the standpoint of living that access to healthcare should be suitable for people with and without physical disabilities (Harrison *et al.*, 2020). Also, the lack of signage limits PWPDs from knowing if the building is accessible by a wheelchair user.

Similarly, the interviews with key informants illustrated that the accessibility of designated entrance areas and parking was not an essential factor in the design of most health facilities. In fact, due to their mobility problems, PWPDs cannot compete with people without disabilities to access car parking and entrance area. Thus, they need their reserve area for parking and entrance area for themselves.

Furthermore, the clinicians from our study area faced challenges when examining patients with physical disabilities. The available examination table/bed does not favor patients with physical disabilities as they are not height adjustable, have no bed rails, and do not support diagnosis activities. Patients with physical disabilities need a weight scale accessible for wheelchair users or other mobility aid users. The lack of a unique weight scale for PWPDs

observed in this study hinders the clinicians from performing their health check-ups. The variation in individual weight can signify many pathological conditions such as obesity and malnutrition.

In addition, this study found that the inaccessibility of wheelchairs was primarily in a few health centers and dispensaries. The findings from the interviews show that health centers and dispensaries cannot afford to care for a large number of patients who need wheelchairs at one time. If this situation occurred, patients were supposed to wait for one after another, delaying them from obtaining the service in time.

Despite that most of the health facilities in this study had wider doors to support wheelchairs, the doors were unfriendly due to the absence of door handles and lack of continued handrails to favor wheelchairs users. Apart from that, the accessibility of ramp and pathways in the hospital were reasonable compared to health centers and dispensaries. These findings indicate that special attention to the provision of healthcare to accommodate PWDs is necessary.

The findings from this study observed the lack of designated toilets for PWDs. Therefore, patients with disabilities were not comfortable using the available toilets since they did not fit a wheelchair and did not allow shifting between the wheelchairs. Also, there was no slippery floor, no seats for those who could not squat, and no handrails on other sides at an appropriate height.

These findings agree with other studies which demonstrated similar situations, especially in rural areas (Harrison *et al.*, 2020). A study that interviewed PWDs showed that 63.9% of the respondents reported architectural obstacles like ramps and pathways from home to the health facilities (Esmeraldo *et al.*, 2016). Similarly, a study conducted in Perak Malaysia informed the inaccessibility of healthcare infrastructure for PWDs, although all public hospitals had signage (Talib *et al.*, 2016). Another study conducted in Kumasi metropolis in Ghana reported the presence of wheelchairs in 91.7% of primary health facilities, while another infrastructure was inaccessible in all primary health facilities (Harrison *et al.*, 2020). Also, a related study in Brazil indicated that 47.1% of primary health facilities had ramps, 96.8% had special seats, and 59.9% had designated toilets.

In comparison, 24.8% had no stairs, no primary health facilities had height-adjustable examination tables/beds, and only two primary health facilities had accessible weight scales for PWDs (Esmeraldo *et al.*, 2016). However, our findings are contrary to previous studies

in India, where 85% of primary health facilities had accessible pathways, and 90% had ramps for wheelchair users. In contrast, accessible entrance areas and designated parking areas were seen in 85% and 92.5% of primary health facilities. In addition, very few facilities, i.e., 37.3% had accessible doors, and only 10.4% had a friendly user door handle which is similar to our results (Chowdhury & Chakraborty, 2017).

The infrastructure such as ramps, pathways, health facilities doors, and door handles was available in a few health facilities evaluated in the present study. These findings indicate that deliberate efforts should be taken to remove these obstacles so that PWPDs will have to get their healthcare rights. The present study has demonstrated that the inaccessibility of infrastructure at healthcare facilities does not occur only in dispensaries and health centers but also in hospitals. A study conducted in England showed that people with physical disabilities faced a challenge in accessing primary healthcare as a result of poor infrastructure in most healthcare facilities (Read *et al.*, 2018)

These findings indicate that PWPDs are not given priority in providing healthcare. A special initiative should improve access to infrastructure at health facilities for PWPDs. The national guideline has outlined the Tanzania health facilities standard for safe care standards for dispensaries, health centers, and district hospitals in 2014 and the national guideline for water, sanitation, and hygiene in healthcare facilities in 2017. Yet the standards themselves have not included any detailed requirements for PWPDs except the national guideline for water, sanitation, and hygiene in health facilities of 2017, which have included the designated toilets requirement for PWPDs. Similarly, the national guideline for safe care standards for dispensaries, health centers, and district hospitals of 2014 have not addressed vital issues such as accessibility of signage, designated entrance area, parking, health facilities door, ramps, pathways, staircases, special seats at the health facility, wheelchairs, designated examination table/bed, special weight scale and designated toilets for PWPDs. It is important to include accessibility standards of infrastructure at health facilities for PWPDs in the future national guideline for safe care standards for dispensaries, health centers, and district hospitals.

**Table 6: Existing Infrastructures at Health Facilities for PVPDs**

Items	Types of facilities	Available (%)	Unavailable (%)
<b>Signage</b>	Hospital	0(100)	1(100)
	Health centers	0(100)	3(100)
	Dispensaries	0(100)	28(100)
<b>Designated Entrance Area</b>	Hospital	0(100)	1(100)
	Health centers	0(100)	3(100)
	Dispensaries	0(100)	28(100)
<b>Designated Parking</b>	Hospital	0(100)	1(100)
	Health centers	0(100)	3(100)
	Dispensaries	0(100)	28(100)
<b>Floors at the Shared Parking for Wheelchair User</b>	Hospital	0(100)	1(100)
	Health centers	0(100)	3(100)
	Dispensaries	0(100)	28(100)
<b>Health Facility Door Width</b>	Hospital	1(100)	0(100)
	Health centers	0(100)	3(100)
	Dispensaries	0(100)	28(100)
<b>Health Facility Door Handle</b>	Hospital	1(100)	0(100)
	Health centers	0(100)	3(100)
	Dispensaries	0(100)	28(100)
<b>Health Facilities Alternative Door</b>	Hospital	1(100)	0(100)
	Health centers	0(100)	3(100)
	Dispensaries	0(100)	28(100)
<b>Ramp</b>	Hospital	1(100)	0(100)
	Health centers	2(66.7)	1(33.3)
	Dispensaries	0(100)	28(100)
<b>Pathways</b>	Hospital	1(100)	0(100)
	Health centers	2(66.7)	1(33.3)
	Dispensaries	0(100)	28(100)
<b>Stairs Cases</b>	Hospital	1(100)	0(100)
	Health centers	3(100)	0(100)
	Dispensaries	28(100)	0(100)
<b>Floor Located before the Steps</b>	Hospital	1(100)	0(100)
	Health centers	2(66.7)	1(33.3)
	Dispensaries	0(100)	28(100)
<b>Continue Handrails Provided at the Stairs</b>	Hospital	0(100)	1(100)
	Health centers	0(100)	3(100)
	Dispensaries	0(100)	28(100)
<b>Special Seat at Health Facility</b>	Hospital	0(100)	1(100)
	Health centers	0(100)	3(100)
	Dispensaries	0(100)	28(100)
<b>Wheelchair</b>	Hospital	1(100)	0(100)
	Health centers	3(100)	0(100)
	Dispensaries	1(3.6)	27(96.4)
<b>Designated Examination Table/Bed</b>	Hospital	0(100)	1(100)
	Health centers	0(100)	3(100)
	Dispensaries	0(100)	28(100)
<b>Special Weight Scale</b>	Hospital	0(100)	1(100)
	Health centers	0(100)	3(100)
	Dispensaries	0(100)	28(100)
<b>Designated Toilets</b>	Hospital	0(100)	1(100)
	Health centers	0(100)	3(100)
	Dispensaries	0(100)	28(100)

## CHAPTER FIVE

### CONCLUSION AND RECOMMENDATIONS

#### 5.1 Conclusion

The purpose of the study was to analyze access to healthcare for PWDs in Tanzania, particularly in Singida rural district. Although government and healthcare stakeholders make many initiatives to improve access to healthcare for PWDs in rural areas, access to healthcare for PWDs is still challenging, as has been discovered in this survey. To the extent, the healthcare delivery in the rural area is unavailable, unaffordable, and does not consider the situation of PWDs. Also, the existing infrastructure at health facilities doesn't accommodate PWDs. In general, the factors that hinder PWDs from accessing healthcare are the lack of special health facilities and nurses/doctors dealing with healthcare for PWDs in the district. Other factors are distance to access healthcare, lack of awareness of healthcare services for PWDs, lack of information on the appropriate healthcare for PWDs, cultural practices, and stigma among healthcare workers and societies in general. Also, factors such as lack of specific doctors/ nurses, inadequate healthcare providers, inadequate drugs and equipment, inadequate skills of healthcare providers for PWDs, unaffordability of healthcare costs, high cost of joining social security schemes, and poor infrastructure at health facilities are among the factors preventing PWDs from accessing healthcare. Identifying the level of challenges that PWDs face when accessing healthcare makes it important enough to influence health stakeholders to go beyond health services provision and look at how to reduce the problems of healthcare access for PWDs.

#### 5.2 Recommendations

##### 5.2.1 Policy Makers

The government should re-examine the existing building policies and regulations to redesign the existing health facilities' buildings to ensure that health facilities structures support access to healthcare services for PWDs. Thus, the infrastructures should be designed universally to make easy accessibility to PWDs. Moreover, to address the physical facilities, the producers and the health ministry must ensure that medicinal tools at different health facilities go through regular valuation to guarantee accessibility to PWDs. Therefore, more effort must

be made in purchasing equipment, for instance, chairs and beds, which may be easy to access by PWPDs.

### **5.2.2 Recommendations for implementers**

- (i) The study found that access to healthcare information from TV, the internet, and social media for PWPDs is very poor. Therefore, PWPDs should be encouraged to access healthcare information from TV, the internet, and social media due to the rapid increase in the number of users on those platforms.
- (ii) The government should increase the availability of health specialists for PWPDs in various hospitals, health centers, and dispensaries within the district.
- (iii) There is a need to improve the availability of treatment interventions, drugs, medical equipment, and straightforward appointment with nurses/doctors for PWPDs to access primary care and to consult doctors and other health specialists.
- (iv) The social protection scheme should put more effort into visiting rural areas and creating awareness for PWPDs in the rural area to influence them to join the social security scheme.
- (v) The government should take action to reduce enrollment fees in the social security scheme to help those PWPDs who can not manage to join the social security scheme to join.
- (vi) Health facilities infrastructure like designated parking, toilets, entrance area, ramps/pathways, building, doorways, elevators, and stairs case needs to be improved to accommodate PWPDs.
- (vii) The government and other healthcare stakeholders should promote the availability of special weight scales, sleeping beds, examination beds, seats, and wheelchairs at health facilities that favor PWPDs.
- (viii) The study recommends that healthcare providers be coached in attending PWPDs to reduce discrimination against them.

### **5.2.3 Area for Further Studies**

This survey was carried out in Singida rural district to assess access to healthcare for PWPDs and suggest possible interventions to equal healthcare access towards Universal Healthcare



Coverage by exploring the availability, affordability, and the existing infrastructures at healthcare facilities that support PWPDs. A researcher employed respondents with physical disabilities aged 18 years and above to get direct information from the respondents without speaking to their caregivers. Yet, further investigations are needed to discover challenges toward access to healthcare for PWPDs under 18 years.

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## APPENDICES

### Appendix 1: Consent Forms for Participants in English



ID No: \_\_\_\_\_

Greetings,

My name is Aika S. Ndyamukama. I'm a student at the Nelson Mandela African Institution of Science and Technology studying Master of Science in Public Health Research. Currently, I am doing research on *Access to healthcare for PWDs* in Singida Rural District.

#### **Purpose of the study**

The purpose of the study is to assess the availability, affordability and accessibility of healthcare for people with physical disability.

#### **Participation**

If you agree to participate in the study you will be involved in In-depth interviews or filling in questionnaire. We would like to hear your thoughts about the situation of healthcare access to PWDs. We will ask some questions and you will be free to respond based on your opinion.

#### **Confidentiality**

Your information will be treated with great confidentiality and will be used for study purpose only. Personal identifiers including names will not be attached to any of the reports.

#### **Benefits**

Your views and those of other people with regards to healthcare access will help to inform decision and policy makers to come up with specific health programs that will benefit people with physical disability towards universal health coverage. Although this is not a direct

personal benefit but we hope that the entire community and nation will benefit from the improvement of the healthcare access.

### **Risks**

We do not anticipate any major risk in this study but psychological risk associated with some questions which may not be pleasant to you. However, you may feel free not to answer questions which you may feel uncomfortable to answer.

### **Right to withdraw and alternatives**

To participate in this study is completely voluntary. You can freely choose not to participate in this study and even if you have already accepted to participate in this study you can quit at any time if it is necessary. No penalty or loss will be encountered upon refusal to participate or withdraw from the study.

### **Who to consult?**

If you ever have questions about this study, feel free to contact the following:

1. Aika Ndyamukama (Principal Investigator)

Nelson Mandela African Institution of Science and Technology (NM-AIST),

P.O.Box 447, Tengeru-Arusha, Mob: 0756800471 or Email ([andyamukama@ihi.or.tz](mailto:andyamukama@ihi.or.tz))

2. Dr. Angel Dillip (the study Supervisor), or Mob: 0713251518

Email ([adillip@ihi.or.tz](mailto:adillip@ihi.or.tz))

3. Dr Beatrice chipwaza (study co-supervisor) Mob: 0787252303 or

Email ([bchipwaza@ihi.or.tz](mailto:bchipwaza@ihi.or.tz))

4. Dr. Mwifadhi Mrisho (Secretary of the Ifakara Health Institutional ethics committee)

Mob.0655 766 675 or Email: ([mrisho@ihi.or.tz](mailto:mrisho@ihi.or.tz))

**INFORMED CONSENT FORM**

Do you have any question?

If you agree to participate in this study you are requested to indicate by signing below:

I have been informed about this study and my questions have been answered and I am satisfied. I agree to participate in this study and I have not violated my rights by signing [this consent form].

Name \_\_\_\_\_ Signature/thumb  
print \_\_\_\_\_ Date \_\_\_\_\_

Witness \_\_\_\_\_ Signature/thumb  
print \_\_\_\_\_ Date \_\_\_\_\_

Researcher \_\_\_\_\_ Signature \_\_\_\_\_ Date \_\_\_\_\_  
\_\_\_\_\_

## Appendix 2: Fomu ya Ridhaa ya Washiriki kwa Kiswahili



Namba ya Utambulisho: \_\_\_\_\_

Salaam,

Ninaitwa Aika Ndyamukama. Ni mwanafunzi wa Shahada ya Uzamili ya Sayansi ya Utafiti katika Afya ya Jamii, Taasisi ya Kiafrika ya Sayansi na Teknolojia ya Nelson Mandela. Kwa sasa, ninafanya utafiti juu ya upatikanaji wa huduma kwa watu wenye ulemavu wa viungo katika wilaya ya singida.

### **Madhumuni ya utafiti**

Utafiti huu unalenga kuuelewa uwepo, uwezekanaji kifedha na ufikiwaji wa huduma za afya zilizopo kwa watu wenye ulemavu wa viungo

### **Ushiriki**

Ukikubali kushiriki kwenye utafiti huu utajumuishwa kwenye mahojiano ya kina pamoja na kujaza dodoso. Tungependa kusikia maoni yako kuhusu upatikanaji wa huduma za afya kwa watu wenye ulemavu wa viungo. Tutauliza maswali machache na utakuwa huru kuyajibu kulingana na mtazamo wako.

### **Usiri**

Taarifa zitakazokusanywa kupitia dodoso hili zitakua siri na hakuna mtu yeyote atakaye ambiwa

ulichosema. Taarifa zitaingizwa kwenye ngamizi kwa kutumia namba za utambulisho

Taarifa zako zitachukuliwa kwa usiri mkubwa na zitatumika kwa madhumuni ya utafiti tu. Utambulisho binafsi ikiwa ni pamoja na majina hayata jumuishwa katika ripoti yoyote.



## **Faida**

Maoni yako na yale ya watu wengine yanayohusiana na upatikaji wa huduma yatasaidia kutaarifu watengeneza sera kuja na programu maalum za kuboresha huduma za watu wenye ulemavu wa viungo ili kutekeleza mpango wa afya kwa wote Ingawa hii siyo faida ya moja kwa moja kwa mtu binafsi lakini tunatumaini kwamba jamii na taifa kwa ujumla litanufaika na huduma za afya zilizoboreshwa.

## **Hatari**

Hatutegemei hatari yoyote kubwa kwenye utafiti huu ila hatari ya kisaikolojia inayohusianishwa na baadhi ya maswali ambayo hayatacupendeza. Aidha, unaweza kuwa huru kutokujibu maswali ambayo hutajisikia vizuri kuyajibu.

## **Haki ya kujitoa au vinginevyo**

Ushiriki katika utafiti huu ni wa hiari. Kutokushiriki au kujitoka kutoka kwenye utafiti hakutakua na adhabu yeyote na hutapoteza stahili zako zozote endapo utaona ni vema kufanya hivyo.

Ushiriki katika utafiti huu ni wa hiari kabisa. Unaweza bila kusurutishwa kuchagua kutokushiriki katika utafiti huu hata kama umeshakubali kushiriki katika utafiti huu unaweza kujitoka wakati wowote kama ikilazimu. Hakuna adhabu au hasara itakayo patikana pindi utakapokataa kushiriki au kujitoka kwenye utafiti.

## **Nani wa kuwasiliana naye**

Kama utakuwa na maswali kuhusu utafiti huu, jisikie huru kuwasiliana na wafuatao:

1. Aika Ndyamukama (Mtafiti mkuu)

Taasisi ya Sayansi na Teknolojia ya Nelson Mandela (NM-AIST),

S.L.P 447, Tengeru-Arusha, Simu: 0756800471 au barua pepe ([andyamukama@ihi.or.tz](mailto:andyamukama@ihi.or.tz))

2. Dr. Angel Dillip (msimamizi mkuu wa utafiti), Simu: 0713251518 au Barua pepe ([adillip@ihi.or.tz](mailto:adillip@ihi.or.tz))

3. Dr Beatrice chipwaza (msimamizi wa utafiti msaidizi) Simu: 0787252303 au Barua pepe ([bchipwaza@ihi.or.tz](mailto:bchipwaza@ihi.or.tz))
  
4. Dr. Mwifadhi Mrisho (Katibu wa Kamati ya Maadili ya Taasisi ya Afya Ifakara) Simu.0655 766 675 au Barua pepe: ([mrisho@ihi.or.tz](mailto:mrisho@ihi.or.tz))

#### FOMU YA RIDHAA

Je, una swali lolote?

Kama unakubali kushiriki unaombwa kuthibitisha kwa kusaini hapa chini:

Nimeelezwa kuhusiana na utafiti huu na maswali yangu yamejibiwa na nimeridhika. Nakubali kushiriki katika utafiti huu na sijakiuka haki zangu kwa kusaini [fomu hii ya ridhaa].

Jina \_\_\_\_\_ Sahihi/alama \_\_\_\_\_ ya \_\_\_\_\_ dole  
 gumba \_\_\_\_\_ Tarehe \_\_\_\_\_

Shahidi \_\_\_\_\_ Sahihi/alama \_\_\_\_\_ ya \_\_\_\_\_ dole \_\_\_\_\_ gumba  
 \_\_\_\_\_ Tarehe \_\_\_\_\_

Mtafiti \_\_\_\_\_ Sahihi \_\_\_\_\_ Tarehe \_\_\_\_\_

—

**Appendix 3: Survey Questionnaire for Participants on Access to Healthcare for People with Physical Disability**

Introduction

My name is “.....” From Ifakara Health Institute (IHI)

Are you comfortable to participate in this interview?

The consent to participate is accepted?  Yes

No-the interview ended here

Name of Interviewer ..... Phone  
.....

Name of Interviewee ..... Phone  
.....

Date of interview |\_\_|\_\_| |\_\_|\_\_| |\_\_|\_\_| (Date/ Month/ Year)

**SECTION A: DEMOGRAPHIC INFORMATION (circle where is apply)**

0.01 District

1. Singida rural district

0.02 Ward

1. Mrama
2. Maghojoa
3. Msange
4. Ughandi
5. Msisi
6. Makulo
7. Mudida

- 8. Mwasauya
- 9. Mughunga
- 10. Ngimu
- 11. Ntonge
- 12. Kijota
- 13. Mtinko
- 14. Merya
- 15. Itaja
- 16. Kinyeto
- 17. Ikhanoda
- 18. Iongerero
- 19. Other (specify) .....

0.03 Village

- 1. Mwakiti
- 2. Malolo
- 3. Other (specify)  
.....

0.04 Sex 1. Male 2. Female

0.05 Age: 1. 18-25 2. 26-35 3. 36-45 4. >46

0.06 Education level

- 1. No education
- 2. Primary
- 3. Secondary
- 4. College /university
- 5. Others  
(specify).....

0.07 Marital status

1. Single
2. Living with partners
3. Married
4. Widowed
5. Divorced
6. Separated

0.08 Occupation

1. Trading
2. Farmer
3. Craft
4. Employed
5. None
6. Others  
(specify).....

0.09 Duration of impairment

1. Inborn (birth defects)
2. Acute
3. Chronic

0.10 Whom do you live with?

1. Alone
2. My spouse
3. My children
4. Extended family

0.11 Income

1. < 2,500 Tsh per day
2. 2500 -5000 Tsh per day
3. > 5000 Tsh per day
4. Other (specify)  
.....

**SECTION B: AVAILABILITY OF HEALTHCARE SERVICES FOR PWPDS**

0.12 Do you use any assistive devices to help you get around or for selfcare?

- 1. Yes
- 2. No

0.13 If No, do you need any?

- 1. Yes
- 2. No

0.14 Which one do you need?

- 1. Orthopedic footwear
- 2. Artificial limb (leg/foot)
- 3. A cane or walking stick
- 4. Crutches
- 5. A wheelchair
- 6. A walker or a scooter
- 7. An adapted motor vehicle
- 8. Others

(specify).....

0.15 Thinking of access overall, how difficult or easy was it to actually obtain the healthcare services you needed within the past 12 months?

- 1. Very difficult
- 2. Difficult
- 3. Moderate
- 4. Easy
- 5. Very easy

0.16 How would you rate access to information on the available healthcare services from the following channel? for people with physical disability?

Answer choice: 1. Very poor 2. Poor 3. Average 4. Good 5. Very good 6. N/A

- a. Work
- b. The doctor's practice
- c. Healthcare facilities
- d. Pharmacies
- e. Internet/websites
- f. Social media
- g. Tv

h. Association of people with physical disabilities

i. Relatives and peer patients

j. Public health authorities

k. Insurance companies

0.17 Would you agree with the statement: information about available healthcare services is Answer choice?

1. Yes            2.No            3. Unsure

a. Easy to find

b. Easily accessible for PWPDs

c. Easily to understand

d. Useful

e. Transparent on the financial (out pocket) costs

0.18 Are you aware of different healthcare services for PWPDs?

1. Yes            2. No

0.19 Which of the following services do you know?

1. Assistive devices
2. Medical Rehabilitation
3. Disability counselling
4. Welfare Services
5. Health information
6. Routine preventive care
7. Reproductive health services
8. Others (specify)

.....

0.20 Do you need any special healthcare services?

1. Yes            2. No

0.21 What specific service do you need? (tick all that apply)

1. Physiotherapy
2. Medication
3. Wheelchair
4. Transport
5. Walking aid
6. Surgery
7. Home based care

- 8. Disability counselling
- 9. Welfare Services
- 10. Health information
- 11. Other (specify).....

0.22 Are there specific doctors or other health professionals you usually go to when you are sick or in need of health services?

- 1. Yes
- 2. No

0.23 If No, are they available?

- 1. Yes
- 2. No

0.24 If YES, what are the reasons?

- 1. Cost
- 2. Distance
- 3. Lack of appointment
- 4. Others (specify)

.....

0.25 Is there any special health facility dealing with healthcare for PWPDs in Sngida rural district?

- 1. Yes
- 2. No
- 3. I don't know

0.26 Is there any specialist nurse/doctor for PWPDs at the health facility you attended?

- 1. Yes
- 2. No
- 3. I don't know

0.27 Has been a time when you needed to stay overnight in a health facility but did not get that care?

- 1. Yes
- 2. No

0.28 What was the main reason(s) you needed care, but did not get care? (Tick all that apply)

- 1. Communicable diseases
- 2. Maternal and perinatal conditions
- 3. Nutritional deficiencies
- 4. Acute conditions
- 5. Injury
- 6. Surgery
- 7. Sleep problems
- 8. Occupation/work related condition/injury
- 9. Chronic pain in your joints/arthritis
- 10. Diabetes or related complications



11. Problems with your heart including unexplained pain in chest
12. Problems with your mouth, teeth or swallowing
13. Problems with your breathing
14. High blood pressure / hypertension
15. Stroke/sudden paralysis of one side of body
16. Generalized pain (stomach, muscle or other nonspecific pain)
17. Depression or anxiety
18. Cancer
19. Other (specify).....

0.29 What reasons prevented you from accessing healthcare? (Tick all that apply)

1. Could not afford the cost of the visit
2. No transport available
3. Could not afford the cost of transport
4. You were previously badly treated
5. Could not take time off work or had other commitments
6. The health care provider's drugs or equipment were inadequate
7. The health care provider's skills were inadequate
8. You did not know where to go
9. You tried but were denied healthcare
10. You thought you were not sick enough
11. Other (specify) .....

0.30 How frequent could you like to go for medical checkup?

1. On a daily basis
2. On a weekly basis
3. On a monthly basis
4. None at all

0.31 When you are sick where would you prefer to go seek treatment? (Tick all that apply)

1. Public healthcare facilities
2. CBO healthcare facilities
3. Other (specify) .....

0.32 What are the reasons that make you to seek treatment to the above provider?

1. Affordable cost of services
2. Quality of services
3. Good payment system

- 4. It is the only available healthcare facilities
- 5. Distance from home
- 6. Others (specify)

.....

0.33 In your view to what extent were you satisfied by the way healthcare workers attended the last time you visited?

- 1. Extremely satisfied
- 2. Moderately satisfied
- 3. Slightly satisfied
- 4. Neither satisfied nor dissatisfied
- 5. Slightly dissatisfied
- 6. Moderately dissatisfied
- 7. Extremely dissatisfied

0.34 What gender of health workers would you prefer to attend you?

- 1. Any
- 2. Same sex
- 3. Opposite sex

0.35 What are the reasons for preferred to be attended by **any, same** or **opposite sex**?

- 1. ....
- .....
- 2. ....
- .....

0.36 Over the past 12 months have you experienced delay in accessing?

Answer choice: 1. Yes            2. No            3. N/A

- a. Your medicine
- b. A treatment intervention
- c. Medical equipment
- d. An appointment with nurse
- e. An appointment with primary care doctor
- f. An appointment with specialist

0.37 Would you say that the following services are located near enough from your home?

Answer choice: 1. Yes            2. No

- a. A pharmacy
- b. A specialist

c. Healthcare facilities

0.38 Is there any cultural practice in your community that limits PWPDs on accessing healthcare?

- 1. Yes
- 2. No
- 3. I don't know

0.39 Mention cultural practice in your community that limit PWPDs on accessing health service?

- 1. Disrespects
- 2. Denial of disability
- 3. Disproportionate expectation
- 4. Shame
- 5. Insufficient social culture support
- 6. Discrimination
- 7. Other (specify)

.....

0.40 Have you ever felt stigmatized when seeking healthcare because of your physical disability?

- 1. Yes
- 2. No

0.41 What types of stigma or discrimination did you experiences? Mark all that apply

- 1. Attituded of healthcare staff
- 2. Denial of my rights
- 3. An appropriate language
- 4. Lack of healthcare facility in my community
- 5. Refusal to provide me with treatment
- 6. Other (specify) .....

0.42 How satisfied are you with how the healthcare services for PWPDs are run in your district?

- 1. Extremely satisfied
- 2. Moderately satisfied
- 3. Slightly satisfied
- 4. Neither satisfied nor dissatisfied
- 5. Slightly dissatisfied
- 6. Moderately dissatisfied
- 7. Extremely dissatisfied

**SECTION C: AFFORDABILITY OF HEALTHCARE SERVICES FOR PWPDs**

0.43 When you need it, can you afford (financially) to access healthcare?

Answer choice: 1. Always 2. Very often 3. Sometimes 4. Rarely 5. Never 6. N/A

- a. Primary care doctor
- b. Specialist doctor
- c. Specialized healthcare providers
- d. Healthcare facilities
- e. Medicine
- f. Medical equipment or devices

0.44 Do you experience difficulties in affording healthcare costs?

- 1. Never
- 2. Rarely
- 3. Sometimes
- 4. Regularly

0.45 In the past 12 months did you forgo (do without) or postpone health visit because of cost?

- 1. Never
- 2. 1 time
- 3. 2 times
- 4. More than 3 times

0.46 What means of transport you use when you need of health services?

- 1. Public transport
- 2. Private transport
- 3. Other (specify) .....

0.47 Is there any special seat for PWPDs?

- 1. Yes            2. No            3. I don't know

0.48 Time to walk or travel to access healthcare

- 1. <15 minutes
- 2. 16-30 minutes
- 3. 31-60 minutes
- 4. > 60 minutes
- 5. Other (specify) .....

0.49 Cost to reach health facilities

- 1. < 1000/= Tsh

- 2. 1500/= Tsh
- 3. 2000/= Tsh
- 4. 2500/= Tsh
- 5. 3000/= Tsh
- 6. Other (specify) .....

0.50 Do you afford the transport cost?

- 1. Yes
- 2. No

0.51 Have you been in need of healthcare services but unable to visit health facility due to lack of transport?

- 1. Yes
- 2. No

0.52 If yes?

- 1. On a daily basis
- 2. On a weekly basis
- 3. Not at all

0.53 Did you afford to pay healthcare cost?

- 1. Yes
- 2. No

0.54 Can you afford seeking healthcare to private health facility?

- 1. Yes
- 2. No

0.55 Is the support/income adequate to meet direct cost of healthcare services?

- 1. Yes
- 2. No

0.56 If No, how do you cope with the situation?

- 1. Family support
- 2. Friend and sponsors
- 3. Government support
- 4. Health insurance
- 5. Others  
(specify).....

0.57 When you go to any government health facility, do you usually get free health services?

- 1. Yes
- 2. No

0.58 Are you a beneficiary of social security scheme?

- 1. Yes
- 2. No

0.59 If yes what are the social security scheme?

- 1. NHIF
- 2. SHIB
- 3. CHF
- 4. TIKA

6. Others

(specify).....

0.60 If NO, have you ever been interested in joining social security scheme?

- 1. Yes
- 2. No

0.61 If NO, what are the reasons?

- 1. Lack of finance
- 2. High cost of joining healthcare insurance
- 3. Lack of information
- 4. Other (specify) .....

**SECTION D: OBSERVATION CHECKLIST FOR ASSESSING INFRASTRUCTURE AT**

**HEALTHCARE FACILITY**

0.62 Facilities identification

1. Facility name

.....

2. District name

.....

3. Division name

.....

4. Ward name

.....

0.63 Types of facilities

1. District hospital

.....

2. Health

center.....

3. Dispensaries

.....

4. Others (specify)

.....

0.64 Managing authorities/Ownership

1. Government/ public

- 2. Mission/ faith-based organization
  - 3. NGOs private not for profit
  - 4. Private for profit
  - 5. Others (specify)
- .....

1. YES                      2. NO                      3. N/A

S/N	INFRASTRUCTURE TYPE	1	2	3
0.65	<b>SIGNAGE</b>			
a	Is the signage available to favor PWPDS?			
b	The signage is Cleary seen by all people?			
c	The signage is marked with universal symbols?			
d	Are the direction clear indicated?			
e	Is the signage light at night?			
0.66	<b>DESIGNATED ENTRANCE AREA</b>			
a	The entrance is accessible with pathways?			
b	The entrances are even and slip resistance?			
c	Is the mechanism door provided at entrance?			
d	Is patient with and without physical disability that use wheelchair and other mobility Aid use the same entrance to inter the facilities building?			
e	The doorways width enabling PWPDS or wheelchair user or other mobility Aid user to maneuver?			
0.67	<b>DESIGNATED PACKING</b>			
a	The packing is shared with person with and without disability			
b	Health facility has accessible packing for PWPDS			
c	The packing is marked with universal symbols			
d	The packing space is located near to the entrance			
0.68	<b>HEALTH FACILITY DOOR AND DOOR HANDLES</b>			
a	Buildings have easily to use door and door handle for PWPDS?			

0.69	<b>HEALTH FACILITY DOOR WIDER</b>			
a	The door is wider to support PWDs (900mm)?			
0.70	<b>RAMP</b>			
a	Availability of ramp for wheelchair user or other mobility Aid user?			
b	Ramp double handrails provided at height of 700mm and 900mm?			
0.71	<b>PATHWAYS</b>			
a	Health facility building have accessible pathways for PWDs			
b	The pathways are free from any obstacle for PWDs			
c	large enough to facilitate user of wheelchair or other mobility aid user			
0.72	<b>ELEVATORS</b>			
a	Is there any building that needs elevators?			
b	Are the elevators available?			
c	The building has large enough elevators/lift to support user of wheelchair or other mobility aid user?			
d	Handrail provided in the elevators?			
e	The button is accessible for wheelchair user or other mobility aid user?			
f	The space is accessible for wheelchair user or other mobility aid user?			
0.73	<b>STAIRS CASES</b>			
a	Are the stairs available?			
b	Tactical floor located at least 400mm before the steps?			
c	Continues handrails provided at the stairs?			
d	Continue handrails are at height of 900mm for both end?			
0.74	<b>SPECIAL SEAT FOR PWDs AT HEALTH FACILITY</b>			
a	Availability of designated seat for PWDs who are not using wheelchair or other mobility Aid user at at the reception?			
b	Availability of designated seat for PWDs who are not using wheelchair or other mobility Aid user at the doctor's office?			



0.75	<b>WHEELCHAIR</b>			
a	Are the available chairs enough to facilitate PWPDs?			
b	Is it adjustable?			
c	It does not rotate within its fitting?			
d	Is it shifting right and left to support PWPDs?			
e	Does it support diagnosis activity for PWPDs?			
f	It supports positioning and securing the patient leg?			
g	It supports rail removable to patient unobstructed from a mobility device?			
0.76	<b>DESIGNATED EXAMINATION BED/TABLE</b>			
a	Examination bed/ table suitable for PWPDs?			
b	Is it adjustable?			
c	Does it support diagnosis activity for PWPDs?			
d	The available examination bed/table has bedrails			
0.77	<b>SPECIAL WEIGHING SCALE FOR PWPDs</b>			
a	Is there any special designated scales that favor PWPDs?			
b	Is it a wheelchair or in bed scale or other any mobility aid scale?			
c	Is it height adjustable?			
d	It does not rotate within its fitting?			
e	Is it shifting right and left to support PWPDs?			
0.78	<b>TOILETS AND WATER SERVICES</b>			
a	The toilet is separated for PWPDs?			
b	Steps are of low height and are wider enough for PWPDs?			
c	The available toilets ramp support PWPDs who have difficulty using stairs particularly those who use a wheelchair (inclination minimum 1:10) or other mobility aid user?			
d	The door is accessible for wheelchair user or other mobility aid user (80cm)?			

e	Area of the toilet is big enough to fit the wheelchair user or other mobility aid user (circle 90m diameter)?			
f	Floor should not be slippery?			
g	Seat availability at the available toilets for those who cannot squat or commode available?			
h	The available toilets have handrails on either side at an appropriate height for PWDs?			
	No stagnation of water around?			
I	Accessibility of water supply at the available toilets for wheelchairs or other mobility Aid user?			

**SECTION E: INTERVIEW QUESTIONS FOR HEALTHCARE PROVIDERS**

- 0.79 Does healthcare service delivery in Singida rural district consider PWDs?
- 0.80 Is there any special health facilities dealing with healthcare for PWDs in your district?
- 0.81 Is there any specialist nurse/doctor for PWDs at your working healthcare facility?
- 0.82 Are the available healthcare services affordable to PWDs?
- 0.83 Does the infrastructure at health facilities accommodate PWDs?
- 0.84 What are the challenges you faced as a doctor or nurses when attending PWDs?
- 0.85 Are PWDs aware on the Disability policy and the right to free health services?
- 0.86 Is there any culture that limits PWDs to access healthcare services?

**SECTION F: INTERVIEW QUESTIONS FOR GOVERNMENT LEADERS AND OTHER HEALTHCARE STAKEHOLDERS FOR PWDs**

- 0.87 Does healthcare service delivery in Singida rural district consider PWDs?
- 0.88 Is there any special health facility dealing with healthcare for PWDs in your district?
- 0.89 Is there any specialist nurse/doctor for PWDs at your working health facility?
- 0.90 Are the available healthcare services affordable to PWDs?
- 0.91 Does the infrastructure at health facilities accommodate PWDs?
- 0.92 Is there any culture that limits PWDs to access healthcare?
- 0.93 What measure taken by the government to rescue to access healthcare for PWDs?

**Appendix 4: Dodoso la kwa Ajili aa Utafiti wa Hali ya Upatikanaji wa Huduma ya Afya kwa Watu Wenye Ulemavu wa Viungo**

Utangulizi

Habari jina langu ni “.....” nimetokea Taasisi ya Afya ya IHI

Je, uko tayari kushiriki dodoso hili?

Ridhaa ya kushiriki imepatikana:  Ndiyo

Hapana – Mahojiano yaishie hapa

Jina la mhojaji ..... simu

.....

Jina la muhojiwa ..... simu

.....

Tarehe ya mahojiano |\_\_|\_\_| / |\_\_|\_\_| / |\_\_|\_\_| (Tarehe/Mwezi/Mwaka)

**SEHEMU A: TAARIFA BINAFSI (zungushia jibu sahihi)**

0.01 Jina la wilaya

2. Singida rural district

0.02 Jina la kata

1. Mrama
2. Maghojoa
3. Msange
4. Ughandi
5. Msisu
6. Makulo
7. Mudida
8. Mwasauya
9. Mughunga
10. Ngimu
11. Ntonge
12. Kijota
13. Mtinko
14. Merya
15. Itaja
16. Kinyeto
17. Ikhanoda

18. Ilongero  
 19. Nyingine (fafanua)  
 .....
- 0.03 Kijiji  
 1. Mwakiti  
 2. Malolo  
 3. Nyingine (fafanua)  
 .....
- 0.04 Jinsi: 1. Mwanaume 2. mwanamke  
 0.05 Umri: 1.  $\leq 25$  2. 26-35 3. 36-45 4.  $\geq 46$   
 0.06 Kiwango cha elimu  
 1. Hakuna  
 2. Elimu ya msingi  
 3. Elimu ya sekondari  
 4. Elimu ya chuo/chuo kikuu  
 5. Nyingine  
 (fafanua).....
- 0.07 Hali ya ndoa  
 1. Sijaoa/ sijaolewa  
 2. Naishi na mwanamke/mwanaume  
 3. Nimeoa/ Nimeolewa  
 4. Mjane/Mgane  
 5. Nimeachika  
 6. Tumetengana
- 0.08 Chanzo cha mapato  
 1. Biashara  
 2. Mkulima  
 3. Ufundi  
 4. Nimeajiriwa  
 5. Sijaajiriwa  
 6. Nyingine  
 (fafanua).....
- 0.09 Muda wa ulemavu wa vioungo  
 1. Kuzaliwa  
 2. Muda mfupi  
 3. Muda mrefu
- 0.10 Unaishi na nani?  
 1. Peke yangu  
 2. Mke/Mume  
 3. Watoto wangu  
 4. Ndugu na jamaa

- 0.11 Kipato
5. < 2,500 Tsh kwa siku
  6. 2500 -5000 Tsh kwa siku
  7. > 5000 Tsh kwa siku

**SECTION B: UPATIKANAJI WA HUDUMA YA AFYA KWA WATU WENYE ULEMAMU WA VIUNGO**

- 0.12 Unatumia kifaa chochote kwa ajiri ya kukusaidia kutembea au kujihudumia?
1. Ndiyo
  2. Hapana

- 0.13 Kama hapana, unahitaji?
1. Ndiyo
  2. Hapana

- 0.14 Ni kifaa kipi unacho kihitaji?
1. Viatu maalumu kwa wenye ulemavu wa miguu
  2. Mguu wa bandia
  3. Fimbo maalumu ya kutembelea
  4. Gongo
  5. Kiti cha magurudumu
  6. Pikipiki maalumu kwa walemavu wa viungo
  7. Gari maalumu
  8. Nyingine  
(fafanua).....

- 0.15 Fikiria upatikanaji kwa ujumla, kuna ugumu kiasi gani au urahisi kiasi gani kupata huduma ya afya uliyokuwa unahitaji katika miezi 12 iliyo pita?
1. Ngumu sana
  2. Ngumu
  3. Wastani
  4. Rahisi
  5. Rahisi sana

- 0.16 Unalinganishaje upatikanaji wa taarifa juu ya upatikanaji wa huduma za afya kutoka katika vyanzo hivi? Majibu ya kuchagua:

1. Vibaya sana
  2. Vibaya
  3. Wastani
  4. Vizuri
  5. Vizuri sana
  6. Haitumiki
- a. Kazini
  - b. Jitihada za daktari
  - c. Hospitali, vituo vya afya na zahanati
  - d. Maduka ya madawa
  - e. Mtandao
  - f. Mitandao ya kijamii
  - g. Tv
  - h. Shirikisho la watu wenye ulemavu wa viungo
  - i. Marafiki na makundi lika
  - j. Mamlaka za afya
  - k. Makampuni ya bima


- 0.17 Unakubaliana na malezo: taarifa za upatikanaji wa huduma za afya ni .....

- Majibu ya kuchagua: 1. Ndiyo 2. Hapana 3. Sina uhakika
- a. Ni rahisi kupata
  - b. Ni rahisi kupatikana kwa watu wenye ulemavu wa viungo
  - c. Nirahisi kueleweka
  - d. Hazisaidii
  - e. Ni za wazi katika garama za matumizi (kwa wanaolipia kutoka mfukoni)


- 0.18 Unaelewa wowote wa huduma za afya kwa watu wenye ulemavu wa viungo?  
 1. Ndiyo            2. Hapana
- 0.19 Ni huduma gani za afya unazo zifahamu?  
 9. Vifaa vya kusaidia  
 10. Matibabu ya viungo  
 11. Ushauri kwa wenye ulemavu  
 12. Usatwi wa jamii  
 13. Taarifa za afya  
 14. Huduma za kuzuia  
 15. Afya ya uzazi  
 16. Nyingine  
 (fafanua).....
- 0.20 Unahitaji huduma mahususi ya uangalizi wa kiafya?  
 1. Ndiyo            2. Hapana
- 0.21 Ni huduma gani mahusi unayo ihitaji?  
 1. Tiba ya mwili  
 2. Dawa  
 3. Kiti cha magurudumu  
 4. Usafiri  
 5. Kisaidizi cha kutembea  
 6. Upasuaji  
 7. Matibabu ya nyumbani  
 8. Ushauri kwa wenye ulemavu  
 9. Ustawi wa jamii  
 10. Taarifa za afya  
 11. Nyingine (fafanua)  
 .....
- 0.22 Kuna daktari au mtaalamu yoyote maalumu wa afya ambaye huwa umezoea kwenda kupata matibabu ukiwa mgonjwa?  
 1. Ndiyo            2. Hapana
- 0.23 Kama Hapana, wanapatikana?  
 1. Ndiyo            2. Hapana
- 0.24 Kama Ndiyo, sababu ni ipi?  
 1. Gharama  
 2. Umbali  
 3. Kukosa ahadi  
 4. Nyingine (fafanua)  
 .....
- 0.25 Kuna kituo cha afya maalumu kinacho jishughulisha na watu wenye ulemavu wa viungo katika wilaya ya singida vijijini?  
 1. Ndiyo            2. Hapana
- 0.26 Kuna muuguzi/daktari maalumu anaye husika na watu wenye ulemavu wa viungo katika kituo cha afya ulicho pata matibabu?  
 1. Ndiyo            2. Hapana    3. Sijui
- 0.27 Kuna wakati ambao umeenda katika kituo cha afya ukahitaji huduma ya afya na kuhufanikiwa kuipata?  
 1. Ndiyo            2. Hapana
- 0.28 Nikwa sababu gani ulihitaji huduma na haukuipata?  
 1. Magojwa ya kuambukiza  
 2. Hali ya Mama na mtoto

3. Upungufu wa lishe
4. Ugojwa wa ghafra
5. Ajari
6. Upasuaji
7. Matatizo ya kukosa usingizi
8. Kazi/ hali inayohusiana na kazi/ ajari
9. Maumivu sugu katika viungo
10. Ugonjwa wa kisukari
11. Ugojwa wa moyo
12. Mdomo/ meno au kumeza
13. Upumuaji
14. Shinikizo la damu
15. Kupooza
16. Maumivu ya kawaida (tumbo. Misuli au mengineyo)
17. Huzuni au wasiwasi
18. Kansa
19. Nyingine (fafanua)

.....

0.29 Kwa sababu gani fafanua kwanini hukupata huduma ya afya?

1. Kutokumudu gharama za huduma ya afya
2. Kukosekana kwa usafiri
3. Kutokumudu gharama za usafiri
4. Kutibiwa vibaya kabla
5. Hukupata muda kazini au ulikuwa na ahadi nyingine
6. Watoa huduma za afya au madawa au vifaa tiba kuwa vichache
7. Ujuzi wa watoa huduma ulikuwa hauji toshelezi
8. Hukujua wapi pakwenda kupata matibabu
9. Ulijaribu lakini ulikataliwa huduma ya afya
10. Ulifikilia humwi
11. Nyingine (fafanua)

.....

0.30 Je ungependa mara ngapi kwenda kufanya vipimo vya afya hata kama siyo mgonjwa?

1. Kwa kila siku
2. Kwa kila wiki
3. Kwa kila mwezi
4. Hakuna kabisa

0.31 Je unapokuwa mgonjwa unapendelea kupata matibabu yako wapi?

1. Hospitali/ vituo vya afya/ zahanati za serikali
2. Hospitali/ vituo vya afya/ zahanati zinazo milikiwa na mashirika ya dini
3. Nyingine (fafanua)

.....

0.32 Je ni sababu gani zilizo kuvutia kupata huduma kwa mtoa huduma hapo juu?

1. Gharama nafuu za huduma
2. Huduma bora
3. Mfumo mzuri wa malipo
4. Ndiyo kituo sehemu pekee ya matibabu inayo patikana
5. Ukaribu na nyumbani
6. Nyingine (fafanua)

.....

0.33 Kwa maoni yako ni kwa kiwango gani uliridhishwa namna walivyo kuhudumia kwa mara ya mwisho ulivyo hudhulia?

1. Kuridhika sana
2. Kuridhika kwa wastani
3. Kuridhika kidogo
4. Kutoridhika wala kuridhika
5. Kutoridhika kidogo
6. Kutoridhika kwa kiasi
7. Haridhiki kabisa

0.34 Je unapendelea kuhudumia na mtoa huduma wa jinsia gani?

1. Yoyote
2. Jinsia yangu
3. Jinsia tofauti

0.35 Ni sababu gani zinazo pelekea kupenda kuhudumiwa na **yoyote, jinsia yako** au **jinsia tofauti**?

1. ....
2. ....

0.36 Kwa miezi 12 iliyo pita, umeshuhudia ucheleweshwaji wa huduma?

Majibu ya kuchagua 1 Ndiyo 2.Hapana 3 Haitumiki

- a. Madawa
- b. Matibabu
- c. Vifaa tiba
- d. Ahadi kwa wauguzi
- e. Ahadi kwa madaktari wa huduma ya kwanza
- f. Ahadi kwa wataalamu maalumu


0.37 Je huduma hizi zinapatikana karibu na wewe? Majibu ya kuchagua 1. Ndiyo 2.

Hapana

- a. Maduka ya madawa
- b. Madaktari bingwa
- c. Hospitali/ vituo vya afya/zahanati


0.38 Je kuna mazoea yoyote ya kiutamaduni katika jamii yako yanayo zuia watu wenye ulemavu wa viungo kupata matibabu katika vituo vya afya?

1.Ndiyo 2. Hapana

0.39 Taja mazoea yoyote ya kiutamaduni katika jamii yanayo zuia watu wenye ulemavu kupata huduma za afya?

1. Kutoheshimiwa
2. Kudharauliwa
3. Matarajio makubwa
4. Aibu
5. Kukosa ushirikiano wa kiutamaduni
6. Ubaguzi
7. Nyingine (fafanua)

0.40 Umekutana na hali yoyote ya kubaguliwa au kunyanyapaliwa wakati wa kutafuta huduma ya afya kutokana na ulemavu?

1. Ndiyo
2. Hapana

0.41 Ni aina gani ya ubaguzi uliyo kutana nayo? Zungushia zote ulizo kutanza nazo

1. Mtazamo wa watoa huduma ya afya
2. Kunyimwa haki yangu



3. Lugha isiyo kuwa na staha
  4. Kukosekana kwa vifaa tiba
  5. Kukataliwa matibabu
  6. Mengine (fafanua) .....
- 0.42 Je umeridhika na jinsi huduma za afya kwa watu wenye ulemavu wa viungo zinavyo tolewa katika wilaya yako?
1. Kuridhika sana
  2. Kuridhika kwa wastani
  3. Kuridhika kidogo
  4. Kutoridhika wala kuridhika
  5. Kutoridhika kidogo
  6. Kutoridhika kwa kiasi
  7. Haridhiki kabisa

**SEHEMU C: NAFUU YA HUDUMA ZA AFYA KWA WATU WENYE ULEMAVU WA VIUNGO**

0.43 Je unapo hitaji huduma za afya unamudu (fedha) kuzipata?

Majibu ya kuchagua:

- 1 Kila mara
- 2 Mara kwa mara
- 3 Maranyingi
- 4 Kwa bahati
- 5 Hapana
- 6 Haitumiki
  - a. Daktari wa huduma ya kwanza
  - b. Daktari maalumu
  - c. Mtoaji wa huduma ya afya maalumu
  - d. Hospitali
  - e. Dawa
  - f. Vifaa tiba
  - g. Huduma ya afya ya meno


0.44 Je unakabiliwa na ukata wa kifedha kutokana na kugharamia huduma za afya?

1. Hapana
2. Nadra
3. Mara chache
4. Mara kwa mara

0.45 Katika miezi 12 iliyopita umehairisha matibabu kwa kukosa fedha za kulipia?

1. Hapana
2. Mara moja
3. Mara mbili
4. Mara tatu na kuendelea

0.46 Usafiri gani za usafiri unazo tumia wakati unahitaji huduma za afya?

1. Usafiri wa umma
2. Usafiri binafsi
3. Nyingine (fafanua) .....

0.47 Je kuna viti maalumu vya kukaa watu wenye ulemavu wa viungo?

1. Ndiyo
2. Hapana

0.48 Muda unaotembea kufikia huduma ya afya

1. Chini ya dakika 15
  2. Dakika 16-30
  3. Dakika 31-60
  4. Zaidi ya dakika 60
  5. Nyingine (fafanua)
- .....

0.49 Gharama kufikia kituo cha huduma ya afya

1. < 1000/= Tsh
  2. 1500/= Tsh
  3. 2000/= Tsh
  4. 2500/= Tsh
  5. 3000/= Tsh
  6. Nyingine (fafanua)
- .....

0.50 Je unamudu garama za usafiri?

1. Ndiyo
2. Hapana

0.51 Je umewahi kuhitaji huduma ya afya lakini ukakosa kwa sababu ya changamoto ya usafiri?

1. Ndiyo
2. Hapana

0.52 Kama ndiyo?

1. Kila siku
2. Kwa wiki
3. hakuna kabisa

0.53 Je unamudu kulipia huduma za afya?

1. Ndiyo
2. Hapana

0.54 Je unaweza kumudu kulipia huduma za afya katika kituo cha afya cha binafsi?

1. Ndiyo
2. Hapana

0.55 Je msaada/kipato kinajitosheleza kugharamia mahitaji yako ya huduma ya afya?

1. Ndiyo
2. Hapana

0.56 Kama hapana, unakabiliana vipi na hali hiyo?

- 1 Msaada kutoka katika familia
  - 2 Marafiki na ufadhiri
  - 3 Msaada wa selikari
  - 4 Health insurance
  - 5 Nyingine (fafanua)
- .....

0.57 Unapoenda kwenye kituo chochote cha afya cha serikali, kawaida hupata huduma za afya bure?

1. Ndiyo
2. Hapana

0.58 Je wewe ni mnufaika wa mifuko ya afya ya hifadhi ya jamii?

1. Ndiyo
2. Hapana

0.59 Kama ndiyo, ni mfuko gani wa hifadhi ya jamii?

1. NHIF
2. SHIB
3. CHF
4. TIKA

5. Nyingine (fafanua) .....

0.60 Kama hapana, hujawahi kutamani kujiunga na mifuko ya hifadhi ya jamii?

1. Ndiyo
2. Hapana

0.61 Kama hapana, sababu ni nini?

1. Ukosefu wa fedha
  2. Gharama kubwa za kujiunga na mifuko ya hifadhi ya jamii
  3. Kukosekana kwa taarifa
  4. Nyingine (fafanua)
- .....

**SECTION D: ORODHA YA UCHUNGUZI WA MIUNDOMBINU KATIKA KITUO CHA AFYA**

0.62 Utambulisho wa Kituo

Jina \_\_\_\_\_ la \_\_\_\_\_ Kituo

Jina \_\_\_\_\_ la \_\_\_\_\_ Wilaya

Jina \_\_\_\_\_ la \_\_\_\_\_

Tarafa.....

Jina \_\_\_\_\_ la \_\_\_\_\_ Kata

0.63 Aina ya kituo

1. Hospitali ya wilaya
  2. Kituo cha afya
  3. Zahanati
  4. Nyingine \_\_\_\_\_ (fafanua)
- .....

0.64 Umiliki na Usimamizi

- 1 Selikari/ Umma
  - 2 Shirika la dini
  - 3 Shirika binafsi lisilo tengeneza faida
  - 4 Mashirika binafsi yanayotengeneza faida
  - 5 Nyingine (fafanua)
- .....

1. NDIYO                      2. HAPANA                      3. HAITUMIKI

NO.	AINA YA MIUNDOMBINU	1	2	3
0.65	<b>ISHARA</b>			
a	Je kunaishara kwa ajiri ya watu wenye ulemavu wa viungo?			
b	Je ishara zinaonekana vizuri kwa watu wote?			

c	Je ishara zina alama na vigezo vinavyo kubalika?			
d	Je uelekeo umeonyeshwa vizuri?			
e	Je ishara zina onekana vizuri hata kukiwa na giza?			
0.66	<b>ENEO LA KUIINGIA KWAWATU WENYE ULEMAVU WA VIOUNGO</b>			
a	Je kuna njia ya kuingilia kwa watu wenye ulemavu wa viungo?			
b	Je sakafu ya lango ni sawa na ngumu kuteleza?			
c	Je kuna mlango wa ziada uliyo tengwa kwa walemavu wa viungo?			
d	Je wagonjwa wenye ulemavu wa viungo wanaotumia baiskeli za magurudumu matatu au kitu chochote kinacho wasaidia walemavu wa viungo kutembea na wana tumia njia mmoja kuingia sawa na wagojwa wasio na ulemavu wa viungo?			
e	Je upana wa milango unaruhusu watu wenye ulemavu wa viungo na watumiaji wa baiskeri za magurudumu au kitu chochote kinacho wasaidia walemavu wa viungo kutembea kupita?			
0.67	<b>MAEGESHO</b>			
a	Je maegesho yanatumiwa na watu wote?			
b	Je kituo cha afya kina maegesho maalumu kwa watu wenye ulemavu?			
c	Je maegesho yana alama zinazo fahamika?			
d	Je sehemu ya maegesho iko karibu na lango la kuingilia?			
0.68	<b>MILANGO NA VITASA KATIKA VITUO VYA AFYA</b>			
a	Je majengo yana vitasa na milango rafiki kwa watu wenye ulemavuwa viungo?			
0.69	<b>UPANA WA MILANGO VITUO VYA AFYA</b>			
	Je milango ni mipana kwa ajili ya kuwasaidia watu wenye ulemavu wa viungo kupitakirahisi (900mm)?			
0.70	<b>NJIA ZA KUPANDIA</b>			
a	Je kuna njia za kupandia kwa ajili ya watu wenye ulemavu wa viungo wanaotumia baiskeli yamagurudumu matatu au kitu kingine chochote kinacho msaidia mlemavu wa miguu kutembea?			

b	Je kuna kingo pande zote mbili katika urefu wa 700mm na 900mm?			
0.71	<b>NJIA ZA KUPITA</b>			
a	Je kituo cha afya kina njia zinazo pitika kirahisi kwa watu wenye ulemavu wa viungo?			
b	Je njia hazina vikwazo vyovyote kwa watu wenye ulemavu?			
c	Je kuna njia za kutosha kwa watumiaji wa baiskeri ya magurudumu au kitu chochote cha kwasaidia walemavu wa viungo kutembea?			
0.72	<b>ELEVATORS</b>			
a	Je kuna jengo lolote linalo hitaji au kutumia lifti?			
b	Je lifti zipo?			
c	Je jengo lina lifti kubwa za kutosha kuweza kuwasaidia watumiaji wa baiskeri ya magurudumu au kitu chochote cha kwasaidia walemavu wa viungo kutembea?			
d	Je lifti zina kingo kuweza kuwasaidia watu wenye ulemavu wa viungo?			
e	Je vishikizo vinapatikana kwa watumiaji wa baiskeri ya magurudumu au kitu chochote cha kuwasaidia walemavu wa viungo kutembea?			
f	Je nafasi inatosha kwa watumiaji wa baiskeri ya magurudumu au kitu chochote cha kwasaidia walemavu wa viungo kutembea?			
0.73	<b>NGAZI</b>			
a	Je kuna ngazi?			
b	Je kuna sakafu maalumu 400mm kabla ya ngazi?			
c	Je kuna kingo kwenye ngazi?			
d	Je kingo zina urefu wa 900mm pande zote mbili?			
0.74	<b>VITI MAALUMU KATIKA VITUO VYA AFYA</b>			
a	Je mapokezi kuna kiti maalumu kwa watu wenye ulemavu wa viungo wakati wanasubilia huduma?			
b	Je kwenye chumba cha daktari kuna kiti maalumu kwa watu wenye ulemavu wa viungo wakati wanasubilia huduma?			
0.75	<b>VITI MWENDO</b>			

a	Je kunaviti vingi vya kuweza kutosha watu wenye ulemavu wa viungo?			
b	Je kinaweza kusogezeka/ kubadilika?			
c	Je hakizunguki baada ya kufungwa kwake?			
d	Je kinazunguka kushoto na kulia kumsaidia mlemavu wa viungo?			
e	Je kinafaa kwa shughuli za vipimo kwa watu wenye ulemavu wa viungo?			
f	Je kinasaidi kuweka mguu au kiugo chenye ulemavu vizuri?			
g	Je nirahisi kumsaidia mgonjwa wakati wa kumuamisha?			
0.76	<b>KITANDA/ MEZA YA UCHUNGUZI</b>			
a	Je meza ya uchunguzi ni rafiki kwa watu wenye ulemavu wa viungo?			
b	Je kinaweza/inaweza kusogezeka/ kubadilika?			
c	Je inafaa kwa shughuli za vipimo kwa watu wenye ulemavu wa viungo?			
d	Je meza iliyopo ina kingo?			
0.77	<b>MZANI MAALUMU WA KUPIMA UZITO KWA WALEMAVU</b>			
a	Je kuna mzani maalumu kwa watu wenye ulemavu wa viungo?			
b	Je ni wa baiskeri ya magurudumu au mzenia wa kitandani au mzani wowote wa watu wenye ulemavu?			
c	Je unaweza kusogezeka/ kubadilika			
d	Je hauzunguki baada ya kufungwa kwake?			
e	Je unazunguka kushoto na kulia kumsaidia mlemavu wa viungo?			
0.78	<b>CHOO NA HUDUMA YA MAJI</b>			
a	Je kuna choo maalumu kwa watu wenye ulemavu wa viungo?			
b	Je hatua ni za urefu wastani na upana wa kutosha kwa watu wenye ulemavu wa viungo?			
c	Je kuna barabara ya kusaidia watu wenye ulemavu wa viungo ambao hawawezi kutumia ngazi hasa wanaotumia baiskeri ya			

	magurudumu (wastani 1:10) au kitu chochote cha kuwasidia watu wenye ulemavu kutembea			
d	Je milango inafaa kwa walemavu wanaotumia baiskeri ya magurudumu au kitu chochote cha kuwasidia watu wenye ulemavu kutembea (80cm?)			
e	Eneo la choo ni kubwa kutosha walemavu wanaotumia baiskeri za magurudumu au kitu chochote kinacho msaidia mlemavu kutembea? (mzunguko 90m kipenyo)			
f	Je! Sakafu inateleza?			
g	Je kuna sehemu ya kukaa kwa watu wasiyo weza kuchuchumaa?			
h	Je kuna kingo katika pande zenye urefu wa kutosheleza kwa watu wenye ulemavu wa viungo?			
I	Je kweye vyoo vilivyopo kuna maji kwa watu wenye ulemavu wa viungo wanao tumia baiskeli ya magurudumu matatu au vitu vingine vinavyo wasaidia kutembea?			
I	Kituo cha afya kina maji yanayoweza kutumika kwa watumiaji wa baiskeri ya magurudumu matatu au kitu chochote kinachoweza kumsaidia mlemavu wa viungo kutembea?			

#### **SEHEMU E: MASWALI YA MAHOJIANO KWA WATOA HUDUMA YA AFYA**

- 0.79 Utoaji wa huduma ya afya katika halimashauri ya singida vijijini unazingatia watu wenye ulemavu wa viungo?
- 0.80 Je kuna kituo cha afya maalumu kinacho jihusisha na huduma ya afya kwa walemavu wa viungo kwenye wilaya yako?
- 0.81 Kuna daktari / muuguzi maalumu kwaajili ya walemavu wa viungo kwenye kituo cha afya unacho fanya kazi?
- 0.82 Je huduma za afya zinazo tolewa kwa watu wenye ulemavu wa viungo ni nafuu?
- 0.83 Je miundo mbinu ya afya katika vituo vya afya inajitosheleza kwa watu wenye ulemavu wa viungo?
- 0.84 Je ni changemoto gani unazozipata kama daktari au muuguzi unapo muhudumia mtu wenye ulemavu wa viungo?
- 0.85 Je watu wenye ulemavu wa viungo wanaufahamu kuhusu sera ya walemavu na haki ya afya bure?
- 0.86 Je kwenye jamii yako, kuna mila na desturi ambazo zinazuia watu wenye ulemavu wa viungo katika kupata huduma za afya katika kituo chako cha afya?

**SEHEMU F: MASWALI YA MAHOJIANO KWA VIONGOZI NA WADAU WA AFYA**

- 0.87 Utoaji wa huduma ya afya katika halimashauri ya singida vijijini unazingatia watu wenye ulemavu wa viungo?
- 0.88 Je kuna kituo cha afya maalumu kinacho jihusisha na huduma ya afya kwa walemavu wa viungo kwenye wilaya yako?
- 0.89 Je kuna daktari / muuguzi maalumu kwaajili ya walemavu wa viungo kwenye kituo cha afya unacho fanya kazi?
- 0.90 Je huduma za afya zinazo tolewa kwa watu wenye ulemavu wa viungo ni nafuu?
- 0.91 Je miundo mbinu ya afya katika kituo cha kutolea huduma ya afya inajitosheleza kwa watu wenye ulemavu wa viungo?
- 0.92 Je kwenye jamii yako, kuna mila na desturi ambazo zinazuia watu wenye ulemavu wa viungo katika kupata huduma za afya katika hospitali yako?
- 0.93. Je ni hatua gani zilizo kuchukuliwa na serikali ilikuboresha upatikanaji wa huduma ya afya kwa watu wenye ulemavu wa viungo?



## RESEARCH OUTPUTS

### Journal Paper

Ndyamukama, A. S., Dillip, A., & Chipwaza, B. (2022). Access to Supportive Health Services for People with Physical Disabilities: A Case of Health Facilities in Singida Rural District, Tanzania. *Health, 14*(3), 355-367.

### Poster Presentation

## Appendix 5: Poster Presentation



### Access to Supportive Health Services for People with Physical Disabilities: A Case of Health Facilities in Singida Rural District, Tanzania

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#### BACKGROUND

It is estimated that over one billion people (15%) of the world's population live with disabilities. Health facilities' poor and unfriendly infrastructure is the core challenge for people with physical disabilities in accessing healthcare.

#### OBJECTIVE OF THE STUDY

The study aimed to explore to what extent the existing infrastructure and design of health facilities in Singida rural district, Tanzania supports PWPDS to access healthcare.

#### CONCLUSION

The study revealed that the infrastructures in most healthcare facilities pose challenges to people with physical disabilities when they access healthcare services. These findings call for improving health facilities' infrastructure to accommodate people with physical disabilities, which should be prioritized.

#### METHODS

A cross-sectional health facility-based assessment of all thirty-two functioning health facilities in the district was done between June and December 2020 using an observational checklist and key informants' interviews consisting of measurement procedures of the architectural condition of health facilities. An observation checklist was designed based on the standard of health facilities in Tanzania, a national guideline for safe care standards for dispensaries, health centres and district hospitals in 2014 and a national guideline for water, sanitation and hygiene in healthcare facilities in 2017. Quantitative data were analyzed by SPSS-26 using descriptive statistics to obtain frequency tables, percentages and figures whereas qualitative data were analyzed by using NVivo-12 software.

#### RESULTS

The study revealed that there was no signage, entrance area, parking and toilets designated for people with physical disabilities in all health facilities. There was no special seat, examination table/bed or special weight scale for people with physical disabilities in all facilities. Also, the doors were not wide enough to support wheelchair users to maneuver in all health centres and dispensaries. In addition, door handles were not user-friendly for wheelchair users. Only the hospital and health centres had wheelchairs while 27 (96.4%) of all dispensaries had no wheelchairs. Furthermore, ramps and pathways were not available in all dispensaries. All health facilities had stairs but the challenge was most of the staircases had no floor located before the steps.

#### REFERENCES

Ndyamukama, A. S., Dillip, A., & Chipwaza, B. (2022). Access to Supportive Health Services for People with Physical Disabilities: A Case of Health Facilities in Singida Rural District, Tanzania. *Health, 14*(03), 355–367. <https://doi.org/10.4236/health.2022.143028>