

Inclusion of Persons with Disabilities in the Health Financing System in Tanzania

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List of Abbreviations

AIDS	Acquired Immune Deficiency Syndrome
CRPD	Committee on the Rights of Persons with Disabilities
CHF	Community Health Fund
CCBRT	Comprehensive Community Based Rehabilitation in Tanzania
DMO	District Medical Officer
DPO	Disability Peoples Organisations
DSP	District Strategic Plans
DSW	District Social Welfare Officer
EPI	Expanded Programme on Immunization
EGPAF	Elizabeth Glaser Paediatric AIDS Foundation
FBO	Faith Based Organization
FGDs	Focus Group Discussions
GoT	Government of Tanzania
GIZ	Deutsche Gesellschaft für Internationale Zusammenarbeit
HH	Households
HIV	Human Immunodeficiency Virus
IHI	Ifakara Health Institute
ICAP	International Center for AIDS Care and Treatment Programs
ICF	International Classification of Functioning, Disability and Health
ITN	Insecticide Treated Nets
LSS	Life Saving Skills
M&E	Monitoring and Evaluation
MDGs	Millennium Development Goals
MKUKUTA	Mpango wa Kukuza Uchumi na Kupunguza Umasikini Tanzania
MoHSW	Ministry of Health and Social Welfare
MTEF	Medium Term Expenditure Framework
NGO	Non-Governmental Organization
NHA	National Health Accounts
OOP	Out of pocket payment
OPD	Out Patient Department
PPP	Private Public Partnership
PWD	People with Disability
PND	People with no Disability
RA	Research Assistant
RHMTs	Regional Health Management Teams
SDC	Swiss Development Cooperation
TACAIDS	Tanzania Commission for AIDS
TAS	Tanzania Albino Society
TGPSH	Tanzanian German Programme to Support Health
TDS	Tanzania Deaf Society
TLB	Tanzania League of the Blind
TIKA	Tiba kwa Kadi (Insurance Scheme in Tanzania)
UNICEF	United Nations Children's Fund
USA	United States of America
WHO	World Health Organization
WRD	World Report on Disability

Glossary

Community Health Fund (CHF)	A payment scheme that was introduced to Tanzania as part of the Ministry of Health and Social Welfare's (MoHSW) endeavor to make health care affordable and available to the rural population and the informal sector.
Direct Cost	Expenses that required paying financial resources, e.g. out-of-pocket payments.
Indirect Cost	Value of lost productivity. Opportunity costs such as loss of production, time and income; e.g. accompanying a person who seeks health care services.
National Health Insurance Fund (NHIF)	A payment scheme which is mandatory for formal sector employees and voluntary for all informal sector workers. The scheme offers preventative and curative medical care benefits.
Routine Health Care Services	Refers to people who seek care for health problems that are not related to disability (e.g. seeking care for malaria, diarrhea or other communicable and non-communicable diseases).
Specialized Health Care services	Refers to seeking care with an intention to enable people with disabilities to reach and maintain optimal physical, sensory, intellectual, psychological and/or social function (Rehabilitation and habilitation). Rehabilitation encompasses a wide range of activities including rehabilitative medical care, physical, psychological, speech, and occupational therapy and support services.
User fees	Officially sanctioned direct payments by the patient for health care services at the point of use.
Waiving	Like many other African countries, Tanzania has been implementing user fee policy in its health sector since the early 1990s. Accompanying user fee, mechanisms were designed that exempted the poor and vulnerable groups of the society from paying user charges.

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Executive Summary

Introduction

This report assesses the potential barriers and obstacles that people with disabilities might face when accessing health care services. It is the overall objective of this study to provide evidence on obstacles and financial barriers that people with disabilities might face when accessing health care services in Tanzania. The study presents data of a household surveys with a total amount of 1,480 participants as well as evidence from in-depth interviews and Focus Group Discussions (FGDs) which have been conducted in two selected regions in Tanzania: Tanga and Lindi. The report summarizes these findings and provides evidence on the financing gap in terms of both direct and indirect costs. In order to overcome the many barriers that this report identifies, recommendations on how the gap can be addressed.

Background

The relationship between disability and ill-health is complex and need not necessarily result in negative health outcomes for persons with disabilities. This section provides some information on how to define disability. The World Report on Disability (WRD), which was jointly published by the World Bank and the World Health Organization (WHO), notes that disability is associated with a diverse range of primary health conditions of which may result in poor health and high health care needs. Furthermore, the reciprocal relationship ill-health, poverty and vulnerability is emphasized in this chapter.

Methodology

The cross-sectional study at hand employs both quantitative and qualitative research methods. As for the quantitative household survey, 1,480 participants, who were divided into treatment group (households with people with disabilities) and control group (households without people with disabilities), were interviewed in two regions: Tanga and Lindi. The differentiation in these two groups allows to statistically compare whether people with disabilities experience significantly higher barriers to access health care services compared to people without disabilities (instead of just having occurred by chance). Both areas were selected in order to obtain a broader picture in both, rural and urban areas. Furthermore, ethnographic approaches such as in-depth interviews and Focus Group Discussions (FGDs) were used in triangulation, incorporating the advantages of each research approach.

Findings

The findings of the report suggest that persons with disabilities experience worse socio-economic outcomes and are more prone to poverty than persons without disabilities. Since people with disabilities have lower educational achievements, participate less in the economy and have higher rates of poverty than people without disabilities, they also have a higher risk of poorer health outcomes.

Furthermore, the findings of this report show that people with disabilities seldom access health care facilities for either routine or specialised health care services. Only 21 % of the respondents went for routine care within the past three months. The majority of those who went to seek medical assistance went to public health facilities at primary level. Health care seekers reported being overall satisfied with the services and the waiting time. Also, the respondents reported that health service providers tried to establish a trustworthy environment where they treated them in privacy. Those people with disabilities who accessed health services mainly paid the services out of their pocket or through their insurance scheme. Only few people paid the services with other means of informal payment.

Additionally, the findings of the report with regards to costs are presented. Costs for medical care can be broken down into three broader categories: (1) Direct Medical Care Costs, (2) Direct Non-Medical Care Costs, (3) Indirect Costs. Overall, 97.4% of the respondents reported to have incurred direct medical costs in both districts. There were more respondents who incurred medical costs for specialised health care in Nachingwea 63.1% as compared to Tanga municipality 47.3%. In terms of indirect costs, 67% of respondents reported that they had to pay for transportation and almost 40 % indicated their consumable costs. In terms of indirect costs, participants reported that they encounter losses of productivity due to the necessity to access health care services (10 days on average per three months, mean average income lost in Nachingwea and Tanga were Tshs.45,580 (29US\$) and Tshs.20,178 (13US\$) respectively).

Notably, people with disabilities seem to have lower costs for outpatient services than others. This might be due to the fact that many people with disabilities are exempted at dispensary and health center level, though there were complains about the intransparency and malfunctioning of the exemption/waiver-policy in general. In addition, costs for inpatient services (provided at health center and hospital level) for people living with disabilities are almost double the average costs of the control group. (Tshs.77,438 vs Tshs. 41,938).

In terms of access to social health protection, few people reported actually using health insurance schemes. Only 12.8 % of the respondents reported to have access to social security related to specialized health care services. Many participants reported that there is not enough information for people with disabilities on insurance schemes and that waiving policies for exempting poor and vulnerable people are inconclusive.

More, lack of money seems to be the decisive factor of why people with disabilities are not able to access health care services (72 % reported missing routine health care services and 62 % for specialised health services due to constraint financial resources). Social and communal network are considered particularly important in supporting people with disabilities in accessing health care services.

Last but not least, people with disabilities reported a number of unmet needs, including the lack of various services like rehabilitation, counselling services and vocational trainings to improve their productivity.

Discussion

The discussion part of the study contextualises the findings. It reiterates the reciprocal link of poverty and disability and tries to find answers of why people with disabilities hardly access health care services. It further outlines the importance of making health care services available

to all, in order to ensure the well-being of people with disabilities. In order to promote the utilization of health care services for people with disability, it further suggests to consider the health care user's own perceptions [1].

Conclusion and Recommendations

Despite efforts made by the Ministry of Health to deliver health care services to the people, most of health care services are still inaccessible to the majority of people with disability. Hence, this study provides a number of recommends with regards to Policy and Legislation, Financing and Affordability, Accessibility and Community.

1 Introduction

Estimations of the World Health Organization (WHO) suggest that about 650 million people experience some form of disability worldwide, most of them (about 80%) living in developing countries. A disproportionate number of people with disabilities lives below the poverty line, making them belong to the most vulnerable and marginalized. In Tanzania, according to the 2008 Disability Survey, an estimated 8% of the population is affected by some form of disability. Many of those people who live with a disability do not have the same opportunities as non-disabled people, especially when it comes to accessing health services and social protection. According to the Tanzanian Disability Survey, an estimated 20% of people with disabilities encounters some barriers when accessing health services.

1.1 Aim and Scope of the Report

The report at hand investigates the potential barriers and obstacles that people with disabilities might face when accessing health care services in Tanzania. In order to gather some preliminary data on how people with disability are included into the health financing system in Tanzania, household surveys with a total amount of 1,480 participants as well as in-depth interviews and Focus Group Discussions (FGDs) have been conducted in two selected regions in Tanzania: Tanga and Lindi.

The overall objective of this study is to provide evidence on the specific nature and consequences of the financial barriers that people with disabilities might face when accessing health care services in Tanzania.

The report's main set of research question reads as follows:

- (1) To what extent are people with disabilities using health services? What kind of health services are people with disabilities using, what for, what do they cost and how are they paying for these?
- (2) What are the unmet needs of people with disabilities both in terms of primary, secondary and specialised services and what would it cost to address these?

In order to answer these questions, the report at hand particularly tried:

1. To determine the number of people with disabilities and to assess socio-economic status
2. To evaluate the utilisation of health services (public, private, faith-based organisations; primary, secondary and specialised)
3. To determine direct cost/expenditure on medical services (including consumables and assistive devices)
4. To determine indirect cost/expenditure (transportation, loss of earnings, food, expenditures for personal assistants/translators etc.)
5. To assess financial consequences (debt, sale of assets etc.) / the burden of illness and average spending per illness: where does the catastrophic spending take place.
6. To assess perception of barriers (financial barriers v. other barriers).
7. To assess experience with formal social health protection schemes, health insurance, exemptions etc. (Community Health Funds (CHF), NHIF, NSSF, private insurance; user-fees and exemptions at health facilities).

8. To assess experience with informal social protection arrangements like (extended) family and religious institutions.
9. To assess health status of persons with disabilities (general; impairment-related; secondary and co-morbid conditions)
10. To assess availability of services (public, private, FBO; primary, secondary and specialised; local and national), both the real and perceived availability
11. To assess Utilisation gap (primary, secondary and specialist services; comparison with general population)

In order to assess whether people with disabilities encounter specific barriers when accessing health care services and to evaluate whether disability is the determining factor that pushes households and individuals into poverty, the study at hand statistically analyses the significant differences between people with disabilities (so-called treatment group) and people without disabilities (so-called control group).

1.2 Organization of the Report

The report is organized as follows: Subsequent to this short introduction, Section 2 provides some background information on Disability, Ill-health and the access to health. Subsequently, Section 3 outlines the methodology and the study design. Section 4 provides summary statistics of the household survey which are triangulated to the information obtained in the in-depth interviews and the FGDs. Section 5 provides a concise discussion of the findings and links the results to the overall situation of people with disabilities in Tanzania. Section 6 provides a short conclusion and outlines policy recommendations.

2 Background

This section provides some brief background information on disability, its various attempts on definition as well as some considerations on the reciprocal relationship of poverty and disability. Furthermore, this section sketches how people with disability access health care services in Tanzania.

2.1 Approaches to Disability

The United Nations Convention 61/106 on the Rights of Persons with Disabilities defines people with disabilities as *“those who have long-term physical, mental, intellectual or sensory impairments which in interaction with various barriers may hinder their full and effective participation in the society on an equal basis with others”* (Art. 1). According to this UN definition, people with disabilities might face barriers to full participation in society. The Convention further implies that disability results from the interaction between a person's impairment and environmental obstacles such as physical barriers and prevailing attitudes that prevent their full participation in society.

The UN's definition is also in line with WHO's Classification of Functioning, Disability and Health (ICF) [3]) which provides an internationally agreed framework for describing and organising information on disability. The ICF considers disability an outcome of the interaction between a person's health condition and the context in which the person lives. According to the ICF, disability refers to difficulties that people encounter through impairments, activity limitations, or

participation restrictions. Hence, disability is used as an umbrella term, referring to the negative aspects of the interaction between an individual (with a health condition) and that individual's contextual factors (environmental and personal factors).

The 2004 Tanzanian National Policy on Disability centres its definition also on people with disabilities' constraints in opportunities. According to this Policy, disability is considered a *“loss or limitation of opportunities to take part in the normal life of the community on an equal level with others due to physical, mental or social factors”*. Furthermore, the policy defines a person with disability as an individual whose prospects of obtaining and retaining an employment are greatly reduced due to physical, mental or social factors.

All definitions above indirectly refer to the difference between *impairment*, which implies anatomical malfunctions of the body, and *disability*, which describes the interaction between the person with a health condition and personal and environmental factors.

2.2 Ill-health and Access to Health Care

The relationship between disability and ill-health is complex and need not necessarily result in negative health outcomes for persons with disabilities. As the WHO's World Report on Disability (WRD) notes [4], “disability is associated with a diverse range of primary health conditions: some may result in poor health and high health care needs; others do not keep persons with disabilities from achieving good health”. Similar complexity is evident in the prevalence and severity of secondary conditions, co-morbidity and age-related conditions, as well as issues such as increased health risk behaviours, exposure to violence, unintentional injury and premature death.

People with disabilities are particularly vulnerable and often face a number of difficulties in accessing medical care. The World Disability Report [4] found that especially in low-income countries, people with disabilities do receive less medical care than people with disabilities in high-income countries. Apart from limited access to general medical care, persons with disabilities often face high barriers in accessing related services such as health promotion and disease prevention, sexual and reproductive health services, dental care or mental health services. Other studies also refer to these barriers, naming direct costs for health care services, distance to the health facilities, lack of services and the missing transportation as the main obstacles for people with disabilities, when accessing health care services [5].

Securing against the harmful effects of ill-health is a crucial dimension of a comprehensive approach to social protection and a critical factor in sustainable poverty reduction. Ill-health is a major cause and consequence of poverty: On the one hand, poverty exacerbates the realization of the underlying determinants that are essential to the achievement of good health. By the same token, good health is an essential basis for productive and secure livelihoods which again promote the health status of individuals and households [2]. On the other hand, extraordinary health expenditures can undermine livelihoods and diminish the assets of near-poor households, as well as pushing already poor households further into poverty.

Social health protection and wider health financing strategies aim at improving access to quality health services, especially for poor and vulnerable groups. Thus, these strategies aim at protecting the population from catastrophic health expenditures. Ultimately, these systems try to obtain universal coverage in which the whole population enjoys equity in access to health services alongside equity in the financing of those services. Social health protection

mechanisms often involve demand-side health financing instruments such as for example vouchers or insurance-based approaches (including community-based health insurance). Further, they may also include supply-side financing of health services through general taxation or donor funding. All in all, irrespective of the respective approach, the main objective of such mechanisms is the reduction of out-of-pocket payments, thus targeting financial barriers for people accessing health care services. If carefully applied, these mechanisms will eventually contribute to better access and quality of health services.

While improving availability to affordable, acceptable and quality health care services pertains to everyone, the evidence presented in the World Report on Disability suggests that people with disabilities have more health care needs. Hence, in order to improve access to affordable health services for people with disabilities, specific health financing strategies are essential [4].

2.3 Health Financing, Social Protection and Persons with Disabilities in Tanzania

Overall health spending in Tanzania is a mix of public, private and donor contributions (26%, 34% and 40% respectively in 2009/10). Between 2005/6 and 2009/10 household expenditure increased from 25% of total health expenditure to 32% [8]. As the National Health Accounts (NHA) acknowledge, out-of-pocket payments are a “serious equity concern as they limit access to care for the poorest group”. Furthermore, “this increase in household out-of-pocket payment (OOP) expenditures may be a barrier to households accessing health services when needed and may further impoverish households since they may have to sell valuable assets to offset medical bills. Hence, there is a sincere need to accelerate pre-payment initiatives to reduce payment at the point of service [9].

However, accurate, detailed and up-to-date figures on overall household expenditure are virtually non-available in Tanzania. The most recent national figures dating from the Household Budget Survey of 2007, providing detailed analysis of this data – especially at a district level – are highly inconsistent [10].

Due to the lack of data on health financing and disability in the international context, it is unsurprising that there are no reports that address this issue specifically. However, some recent studies have identified access to health services as an issue of particular concern for people with disabilities in Tanzania, in particular GIZ’s situation analysis of health services for people with disabilities in Lindi Region, Tanzania as well as TACAIDS’ study on HIV and disability [11]. The former study in particular identified financial barriers as an issue of particular concern for people with disabilities living in Lindi Region. Furthermore, the report identified the continuing ambiguity revolving around exemptions from user-fees for persons with disabilities an issue to be tackled by policy-makers.

3 Methodology

In order to obtain a broad picture on the financial barriers of people with disabilities in accessing health care services a mixed-method approach has been pursued. The following chapter explains the methodological approach of this study.

3.1 Study Design

The study at hand employs a mixed-method design. Both quantitative (household surveys) and qualitative research methods (in-depth interviews and Focus Group Discussions) were conducted in two of Tanzania's regions: Tanga and Lindi region. In order to account for systematic differences between rural and urban areas, one rural and one urban area was randomly selected within the two regions: Nachingwea district (rural) and Tanga municipality (urban).

Determining whether disability has a significant effect on experiencing (financial) barriers when accessing health care services, the study divided the interviewees in two groups for the quantitative survey: Households with people with disabilities (treatment group) and households without people with disabilities (control group). The differentiation in these two groups allows to statistically compare whether people with disabilities experience significantly higher barriers to access health care services compared to people without disabilities (instead of just having occurred by chance).

In order to strengthen the validity and reliability of the household survey's findings and tying meaningful interpretations to the results, in-depth interviews and Focus Group Discussions (FGDs) are used in triangulation, incorporating the advantages of each research approach. All in all, four FGDs and seven in-depth interviews were conducted in both Nachingwea and Tanga municipality. Both quantitative and qualitative interviews were designed to gather information on beliefs and practices related to the following topics: disability; health service utilization; barriers of utilization of health services; unmet needs; opportunities and obstacles.

3.2 Sample Size and Sampling Approach

As a starting point for the calculation of its sample size, this research relates to the Tanzanian Disability Survey which reported that 20% of people with disabilities having problems in accessing health care services [12]. According to the calculation presented in Formula 1 (overall margin of error of ± 3 percent at a confidence level of 95 percent¹) the calculated sample size is 673. In order to account for non-response, sample size was increased by 10% to 740 participants for both treatment and control group. Hence, a total number of 1,480 participants for the quantitative household survey was calculated.

$$n = z_{1-\alpha/2}^2 \sum_{h=1}^L \frac{N_h^2 P_h (1 - P_h)}{w_h} / [N^2 d^2 + z_{1-\alpha/2}^2 \sum_{h=1}^L N_h P_h (1 - P_h)]$$

Figure 1: Formula for Sample Size Calculation

¹ 95 % confidence level implies that if the survey was conducted 100 times, 95 times out of 100 the survey would have yield to the same results. The confidence interval specifies the level of accuracy of the estimate.

Summary statistics for sample size calculation and formula are indicated below:

Details	Tanga Municipality	Nachingwea Rural
Population – 2002	243,580	162,081
Population - 2012-projection	325,614	234,205
Number of Households – 2012	52,290	48,605
Estimated persons with disability (Pop 7.8%)	25,398	18,268
% of people with disabilities reported accessing health care problem	20%	20%
Estimated sample size of individuals with disability - (By Formula)	429	311
Estimated sample size of individuals without disability (Controls)	429	311
Estimated streets/villages of people with disability purposively visited	43	32

Table 1: Summary Statistics of Sample Size

Due to time and financial constraints, all households with people with disability in the selected districts were purposefully selected. In each street and village respectively, 10 households where people with disability lived were visited. A comparison or ‘control’ group of households without people with disability within the surveyed areas was also interviewed in the household survey. The identification of households with people with disability was a significant challenge in this survey. In order to detect respondents, local disabled people’s organisations (DPOs), who were able to provide contact details of people with disabilities, village leaders and communities were contacted in order to help identifying potential interviewees.

3.3 Study Proceedings

In consultation with GIZ country office and the GIZ disability consultant, Ifakara Health Institute (IHI) prepared the first draft tools for the survey. The research team involved in the study consists of two field supervisors, one data entrant and twelve interviewers (six for each district) who were trained in research methods at National Institute for Medical Research (NIMR) compound for five days in February 2013. Subsequent to the training of the interviewers, pre-testing of the instruments, which have been translated into Kiswahili, took place in Mkuranga district. Two health facilities, one dispensary and one health centre were selected for piloting the research tools. Community-based tools (Focus Group Discussion and In-depth interview) were pre-tested in three wards: Mkuranga, Tambani and Mbezi.

The pre-test aimed at evaluating the relevancy of the questions asked, the wording and terminology (whether they were understood by the community), and the validity of the research tools. Furthermore, the pre-test was carried out to examine the duration of each interview. Having successfully completed the pre-test, research tools were revised accordingly. As a consequence, questionnaires were changed significantly in order to insure better understanding and to allow for a better flow of the interview.

The actual survey data collection took place for three weeks in March - April 2013, where all selected households and health facilities in Tanga City Council and Nachingwea District Council

were visited. Furthermore, as for the qualitative approach, in-depth interviews and FGDs were conducted. In order to ensure good quality of all data, several measures were put in place: Proper training of the field team, daily review of completed forms and constant communication between the field team and the senior researchers.

3.4 Data Proceedings

Ensuring the quality of the quantitative data, data collection forms were reviewed already in the field in order to resolve any discrepancies or problems on spot. Data obtained in the household surveys was also already entered during the fieldwork phase using EpiData software. Data was initially reviewed to check out-of-range responses, missing values, or inconsistent skip patterns. Quantitative data was then transferred for analysis with STATA 12.0 software (StataCorp L, Texas 77845, USA).

The descriptive statistics were mainly applied to provide an overview on demographic and socio-economic status of respondents. The proportions estimates were compared using chi-square tests to determine the relationship between the various variables. In addition, two-sample proportion tests with a two-sided p-value of 0.05 were applied to compare significant differences between the two areas.

When analysing the utilisation of health care services, this study predominantly relates its analysis to whether respondents sought health care services within the last three months (for routine health care services) and within the last twelve months (for specialized health care services). As for the estimation of direct and indirect cost of medical services, the mean of all costs was calculated, which was then compared between the two study groups to evaluate whether there are significant differences between people with and without disabilities.

For the qualitative data, in-depth interviews were tape-recorded and transcribed in the local language (Kiswahili) and further translated into English. Focus Group Discussions were protocolled and recorded. Having compared the protocol of the FGD with the recordings, transcripts were compiled and processed for analysis. The qualitative data was grouped in respective sub-subjects based on the interview guides, and then analysis was executed by broader themes reflecting the study objectives outlined in Section 1.1 [13].

3.5 Ethical Clearance

IHI's Code of Ethics which governs all its operations guided the ethical considerations for the study. The survey team ensured that all fieldwork adhered to internationally accepted ethical standards. These ethical standards include a clear policy for processes and behavior when engaging with children and/or vulnerable people. In particular, interviewers were advised to respect the rights of consent, privacy, and confidentiality. Also, the survey team respected the right of the study participants to choose not to participate. Furthermore, the research team adhered to a dress code that was culturally acceptable. Additionally, tools and data collection systems were designed to ensure anonymity. Approval of the study was sought at all levels (central and local government, local leadership, household, and individual respondent levels) prior to embarking on the fieldwork. Meetings of community leaders and district officials from each of the proposed districts were convened in order to explain the nature and importance of

the study to stakeholders as well as make appointments with prospective respondents. Ethical approval was also sought from the Ethical Committee of Ifakara Health Institute.

4 Findings

The following sections present the findings of the household survey conducted with 1,489 participants in Tanga municipality and Nachingwea. Furthermore, results of the in-depth interview and the FGD are presented to contextualize the information. The following sections present factors affecting trends in disability (demographic, socio-economic, environment), costs of disability, barriers for people with disabilities as well as their needs and unmet needs.

4.1 Demographic and Socio-economic Characteristics

This section provides the summary statistics on demographic and socio-economic characteristics of the households that have been interviewed. Most of the results are summarized in Table 2 below.

To begin with, respondents or care takers were asked to specify the type of disability they or members of their family have. The following figures provide the summary of both, rural (Nachingwea) and urban (Tanga) households that have a member with a disability. All in all, respondents reported that disabled household members had physical impairments (45.5% (346/760)), psychiatric disorders (14.5% (110/760)) or vision impairments (9.1% (69/760)). Other categories included skin impairment (2.4% (10/760)), deafness (9.7% (74/760)), muteness (2.6% (20/760)) and other impairment (2.6% (20/760)). About 13.6% (103/760) of the respondents reported that disabled household members had multiple impairments.

In terms of demographics, the results show that households with household heads of 65 years or older have a significantly higher number of people with disabilities living with them compared to younger household heads. In terms of socio-economic status, Table 2 shows that there is a significant difference between people with disabilities and people without disabilities. As opposed to their unimpaired fellows, disabled respondents in both rural and urban areas are more likely to be widowed, to obtain no education, and to be unemployed. In the Nachingwea, people with disabilities are also significantly more likely to be among the poorest segment of society. In Tanga region on the other hand, it is the other way round: Households without people with disabilities seem to be more likely to be among the poorest of society compared to households with people with disabilities.

The economic hardships of households with people with disabilities (treatment group) in both districts are also mirrored in their usage of sources for roofing and energy. The majority of respondents with disabilities in both Tanga (73% (315/429)) and Nachingwea (95% (316/331)) reported to live in their own households. 65% (279/429) of the visited households in Tanga and 32% (107/331) in Nachingwea had corrugated iron or tiles roofs. 35% (150/429) of households in Tanga and only 5% (17/331) in Nachingwea were connected to electricity. In relation to source of energy, 55% (234/429) of Tanga's households and 92% (304/331) in Nachingwea used firewood as the main sources.

Table 2 shows that people with disabilities have lower educational achievements, participate to a lesser extent in the economy and have higher rates of poverty compared to people without disabilities. Furthermore, the difficulties (especially with regards to poverty) are exacerbated in

rural communities. As a result to the socio-economic disadvantages that people with disabilities face, they are also more likely to have poorer health outcomes.

	Districts					
	Tanga			Nachingwea		
	Disability N = 429	Control N = 429	P-value	Disability N = 331	Control N = 300	P-value
Demographic Information						
Sex						
Male, n (%)	274 (63.9)	295 (68.8)	0.129	231 (69.8)	231 (77)	0.041
Age, n (%)						
15-24	10 (2.3)	17 (4.0)	0.171	4 (1.2)	24 (8)	<0.001
25-34	47 (11.0)	96 (22.4)	<0.001	30 (9.1)	66 (22)	<0.001
35-44	78 (18.2)	97 (22.6)	0.107	53 (16.0)	82 (27.3)	0.001
45-54	108 (25.2)	89 (20.8)	0.123	54 (16.3)	56 (18.7)	0.437
55-64	86 (20.1)	72 (16.8)	0.218	70 (21.2)	31 (10.3)	0.001
65+	92 (21.5)	58 (13.5)	0.002	110 (33.2)	41 (13.7)	<0.001
Missing	8 (1.9)	0 (0)	NA	10 (3.0)	0 (0)	NA
Marital Status, n (%)						
Never married	42 (9.8)	50 (11.7)	0.377	14 (4.2)	12 (4)	0.885
Married	227 (52.9)	249 (58.0)	0.131	124 (37.5)	138 (46)	0.029
Divorced	30 (7.0)	39 (9.1)	0.259	9 (2.7)	8 (2.7)	0.968
Separated	27 (6.3)	21 (4.9)	0.373	25 (7.6)	21 (7)	0.789
Widowed	94 (21.9)	55 (12.8)	0.001	62 (18.7)	17 (5.7)	<0.001
Living together	8 (1.9)	13 (3.0)	0.269	97 (29.3)	104 (34.7)	0.149
Not Applicable	1 (0.2)	2 (0.5)	NA	0 (0)	0 (0)	NA
Education, n (%)						
No Education	89 (20.8)	45 (10.5)	<0.001	124 (37.5)	51 (17)	<0.001
Primary Education	285 (66.4)	326 (76.0)	0.002	191 (57.7)	226 (75.3)	<0.001
Secondary and above	55 (12.8)	58 (13.5)	0.762	7 (2.1)	18 (6)	0.013
Missing	0 (0)	0 (0)	NA	9 (2.7)	5 (1.7)	0.371
Occupation, n (%)						
Agriculture/Livestock	104 (24.2)	131 (30.5)	0.039	275 (83.1)	281 (93.7)	<0.001
Employed	54 (12.6)	72 (16.8)	0.082	5 (1.5)	9 (3)	0.205
Self Employed	157 (36.6)	174 (40.6)	0.233	7 (2.1)	9 (3)	0.48
Not Employed	114 (26.6)	52 (12.1)	<0.001	44 (13.3)	1 (0.3)	<0.001
Social Economic Status, n (%)						
Poorest	58(13.5)	148(34.5)	<0.001	119(36.0)	15(5.0)	<0.001
Very poor	53(12.4)	93(21.7)	<0.001	75(22.7)	38(12.7)	0.001
Poor	104(24.2)	81(18.9)	0.056	66(19.9)	71(23.7)	0.257
Less poor	133(31.0)	79(18.4)	<0.001	35(10.6)	77(25.7)	<0.001
Least poor	81(18.9)	28(6.5)	<0.001	36(10.9)	99(33.0)	<0.001

Table 2: Socio-economic and Demographic Characteristics of Respondents

“It is obvious that most of people with disability have less education. This is caused by parents who do not see the importance of education to their children with disability. For this case, their economic status would be low. Hence, most important challenge is poverty. (In-depth interview, Tanga municipality official).

4.2 Utilisation of Health Care Services

The following sections provide a short overview of how people with disabilities (total number of disabled interviewees: 760) access health care services for both, routine health care services (not related to their disability) and specialised health care services (related to their disability). Finally, respondents who attended medical services are asked about their perceptions with regards to quality of the health care services.

4.2.1 Routine Health Care Services

Interviewees living with people with disabilities were asked if they ever sought care in the last three months for services not related to their disability. 21 % of the respondents (162/760) sought medical care within three months and 50.7% (385/760) reported to have sought medical care in a period exceeding three months. Likewise, 28.0% (213/760) of the respondents with disability reported to have never sought health care services. The results show that there is a significant difference between rural and urban areas: People in urban areas are more likely to have sought medical care within the last three months than people in urban areas (p value < 0.001). In comparison, the control group (people without disabilities) reported to use health services twice as often compared to their unimpaired fellows.

Respondents with disabilities who reported that they have sought medical assistance within the last three months were also asked to indicate the place where they went for medical care. As displayed in Table 3, the majority of the respondents in both Nachingwea and Tanga (overall 72.8% (118/162)) went to seek medical care services in public health facilities. About 8.6% (14/162) of the respondents went to private health facilities and 8.0% (13/162) sought care in NGO/mission. The findings could not provide for any statistical differences with regard to the place of health care provision (Table 3).

	Overall N=162	Districts		P-Value
		Nachingwea N=39	Tanga N=123	
	n (%)	n (%)	n (%)	
Public health facility	118 (72.8)	31 (79.4)	87 (70.7)	0.284
Private health facility	14 (8.6)	2 (5.1)	12 (9.7)	0.370
NGO/Mission	13 (8.0)	4 (1.2)	13 (10.5)	0.556
Drug shop	16 (9.8)	1 (10)	15 (12.1)	0.079
Others	4 (2.4)	2 (5.1)	2 (1.6)	0.219

Table 3: Place of Health Care Seeking

Those who sought medical health care within the previous three months predominantly went for medical care to secondary health facilities 54.3% (88/162) while 39.5% (64/162) went to primary health facilities. 12.3% (20/162) sought medical care services at other sources.

As Figure 2 below shows, respondents predominantly went to seek medical assistance related to malaria (72% (117/162)). Other types of health issues include: headache 8.6% (14/162), diarrhoea 2.5% (4/162), TB 0.6% (1/162), reproductive health services 1.6% (2/162) and influenza 3.1% (5/162).

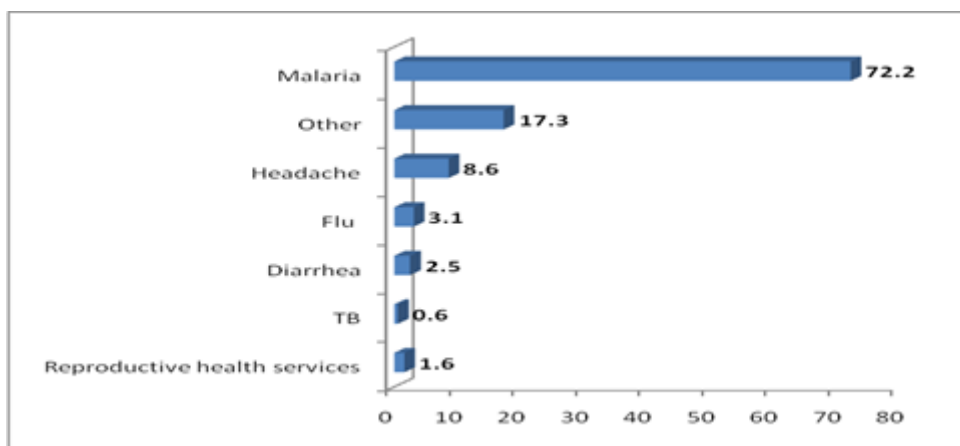


Figure 2: Types of Health Care Services Sought for Reasons other than Disability

4.2.2 Specialized Health Care Services

Furthermore, households were asked whether they access specialised health care services related to their disability. Overall, only 35.5% (270/760) of the respondents reported to have sought specialised health care services related to their disability. Of those who sought specialised care, 28.9% (78/270) stated to have sought the services within 12 months period. 70.7% (191/270) reported to have sought specialised health services in a period exceeding 12 months. There was a statistical difference between urban and rural areas: In Tanga, more people went for specialised health care services compared to Nachingwea. An explanation for this difference could be the better physical access to services in Tanga due to the urban environment.

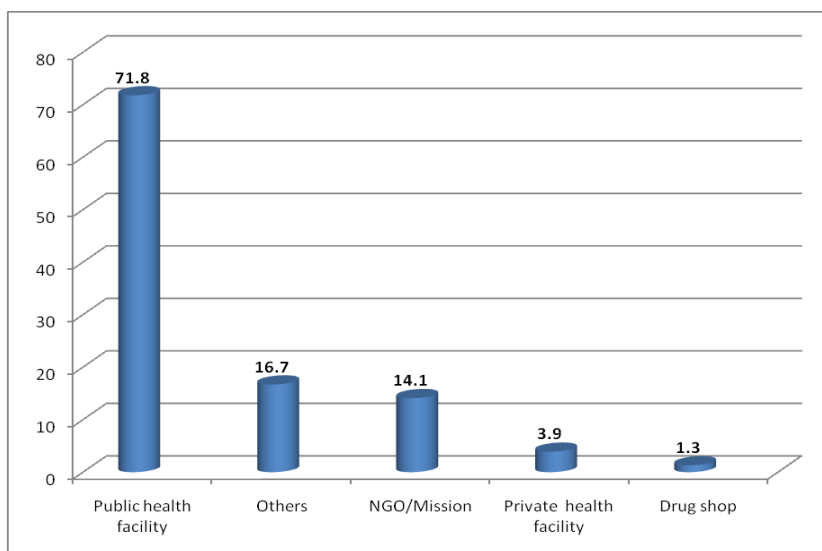


Figure 3: Types of Health Facilities Visited for Specialised Health Care

"When I got problem in my eyes, I went firstly to the hospital. I then went to seek traditional care help as it was late to detect my "eye-pressure problem" in the hospital" (participant, FGD session, Tanga).

The overall majority of people who went to seek special assistance related to their disability, went to public health facilities (72 % (56/78)). 14.1% (11/78) of those respondents who sought special assistance went to NGO/mission owned health facilities and only 0.3% (3/78) sought care in private health facilities. Some respondents also indicated that they went to seek specialised medical assistance at “others” which might indicate to traditional healers as the following quote suggests.

Furthermore, respondents who went to specialised health facilities, 12.8% (10/78) sought care at primary health facilities while 78.2% (61/78) went to secondary health facilities. There was no significance differences between the surveyed districts with regard to the levels of health care services sought.

14.1% of the respondents (11/78) reported that they went to seek psychiatrist services. 11.5 % (9/78) reported that they needed physiotherapy services while 7.7% (6/78) sought orthopaedic services. Only 6.4% (5/78) sought eye health care services.

The qualitative data confirms the quantitative findings with regards to the place where the respondents went to seek health care services. The participants in FGD sessions mentioned that they first sought care at public health facilities. Only few participants mentioned that they went to seek care from traditional healers.

"I was suffering from measles but due to the lack of education, my parents decided to take me to traditional healers. I used the drugs but by the time they sent me to Muhimbili hospital, it was too late" (participant, FGD session, Tanga).

"A big proportion of us (people with disability) seek care from health facilities when they get a problem. However, we must also seek care from traditional healers" (Participant FGD session in Tanga municipality).

4.2.3 Perception of Health Services

The availability of good quality of health care services is an important factor in health care utilisation. Respondents were asked whether they were satisfied with the waiting time when seeking routine health care services. The majority of the respondents in both districts (65% (105/162)) who sought medical care in the previous three months were satisfied with the waiting time on seeking medical care services. There was no statistical difference with regard to the level of satisfaction on waiting time in the surveyed districts as shown in Table 4.

	Overall N=162	Districts		P-Value
		Nachingwea N=39	Tanga N=123	
	n (%)	n (%)	n (%)	
Strongly satisfied	19 (11.7)	9 (23.1)	10 (8.1)	0.011
Satisfied	105 (64.8)	24 (61.5)	81 (65.9)	0.623
Slightly satisfied	15 (9.3)	4 (10.3)	11 (8.9)	0.805
Neutral	5 (2.5)	0	4 (3.3)	---
Was not satisfied	16 (9.9)	2 (5.1)	14 (11.4)	0.254
Was totally not satisfied	3 (1.9)	0	3 (2.4)	---

Table 4: Satisfaction with Waiting Time – Routine Health Care Service

Good quality health services also involve that people are treated in privacy and that a trustworthy environment is established. 88.3% (143/162) of the respondents stated that health care providers ensured their privacy during consultations. Furthermore, 95.1% (154/162) of the respondents stated that health care providers listened to their concerns with a positive attitude. Likewise, 86.4% (140/162) of the respondents reported that they were given treatment or advice to help improve their health and 89.5% (144/162) of the respondents reported that they were intending to use the facility next time. There was no statistical difference between Tanga municipality and Nachingwea district.

	Overall N=162	Districts		P-Value
		Nachingwea N=39	Tanga N=123	
	n (%)	n (%)	n (%)	
Provider ensured privacy	143 (88.3)	31 (79.5)	112 (91.1)	0.050
Listened concerned with positive attitude	154 (95.1)	37 (94.9)	117 (95.1)	0.949
Treatment or advice to improve client's health	140 (86.4)	31 (79.5)	109 (88.6)	0.147
Clients intend to use facility next time	145 (89.5)	38 (97.4)	107 (87.0)	0.064

Table 5: Perceptions on Quality of Health Care

Respondents were further asked what kind of expectations they have when they accessing specialised health care services. As displayed in Figure 4, the majority of respondents 41% (32/78) expects health facilities to provide specialists for their health issues. Furthermore, 19.2% (15/78) of the respondents also expected to find information on disability available. Finally, availability of equipment 10.3% (8/78) and accessible infrastructures 10.3% (8/78) is important to people who sought health care within the past twelve months.

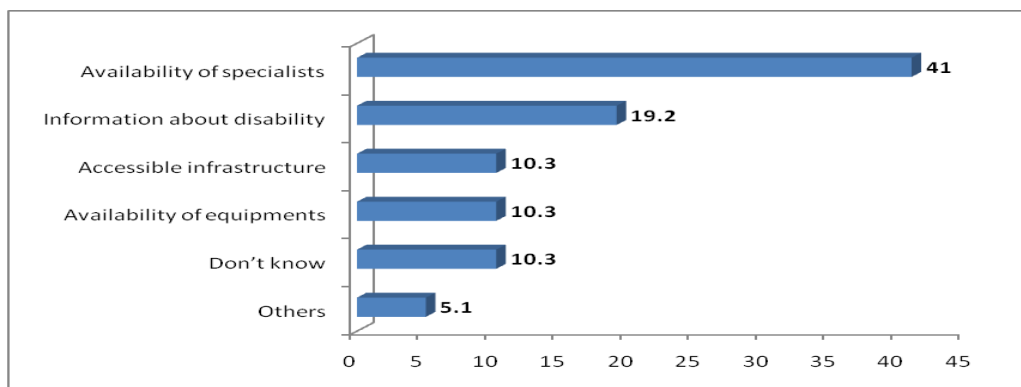


Figure 4: Availability of Services at the Visited Health Facilities

4.3 Mode of Payment for Health Care Services

The respondents were also asked about the mode of payment of their health care services they sought. They reported to either pay in formal (cash or by insurance) and in kind (paying goods or work for the benefit of the health facility). For *routine services* in the past three months, 75.9% (123/162) of respondents in both districts reported to have used formal mode of payment in acquiring health care services while only 4% (6/162) used informal payment. There were no statistical differences between Tanga municipality and Nachingwea districts (Table 8).

	Overall N=162	Districts		P-Value
		Nachingwea N=39	Tanga N=123	
	n (%)	n (%)	n (%)	
Cash or by insurance	123 (75.9)	24 (61.5)	99 (80.5)	0.015
In kind	6 (3.7)	2 (5.1)	4 (3.4)	0.589
Others	33 (20.4)	13 (33.3)	20 (16.3)	0.021

Table 6: Reported Mode of Payment

For *specialised health care*, the majority of the respondents (68% (53/78)) in both districts reported to have used formal mode of payment in acquiring specialised health care services while only 17.8% (13/78) used informal payment. There was a significance difference between the surveyed districts in terms of mode of payment (p-value= <0.001). Nachingwea respondents reported to have used more formal payments 73.7 (14/19) as compared to Tanga respondents 66.1(39/59).

4.4 Costs for Medical Care

As outlined in the World Disability report, people with disabilities may have extra costs resulting from their disability, such as costs associated with special medical care, payments for their assistive devices, or need for personal that supports and assists them. Costs for medical care can be broken down into three broader categories: (1) Direct Medical Care Costs, (2) Direct Non-Medical Care Costs, (3) Indirect Costs.

In order to evaluate whether people with disabilities require more resources to achieve the same health outcome as people without disabilities, the following sections provide an overview

on the direct and indirect costs that people with disabilities encounter when accessing health care services.

4.4.1 Direct Medical Care Costs

Direct costs of illness are expenditures for medical goods and services. Direct medical cost include fees for registration, consultation, laboratory, counselling, drugs and bedding. Direct costs can be further classified as direct medical and direct non-medical costs, depending on whether or not the resources have been expended directly in production of a treatment. The following sections provide an overview on the several direct (medical and non-medical) costs for both, routine and specialized services.

Direct Medical Care Costs for Routine Services

Table 7 presents various direct medical cost incurred by people with disabilities for routine services compared to their unimpaired fellows. As the table shows, the mean average of direct costs for a patient with disability was Tshs.77, 438 (49 USD\$) for inpatients and Tshs.8,754 (6 US\$) for outpatient. The overall amount of spending slightly differs between people with disabilities (Tshs.14,870 (9US\$)) and people without disabilities (Tshs.17,384 (11US\$)). Specifically for outpatient and inpatient costs, the average for people with disabilities in Nachingwea was Tshs.6,632 (4US\$), and Tshs.31,500 (20US\$) while in Tanga municipality the average was Tshs.9,394 (6US\$) and Tshs.92,750 (59US\$) respectively.

	Districts											
	Nachingwea				Tanga				Overall			
	Disability		Control		Disability		Control		Disability		Control	
	N=25	Mean	N=62	Mean	N=85	Mean	N=173	Mean	N=110	Mean	N=235	Mean
Inpatient	2	31500	9	48278	6	92750	15	38133	8	77438	24	41938
Outpatient	19	6632	35	13057	63	9394	142	13444	82	8754	177	13367
Other sources of care (traditional healers and pharmacy)			2	24500	27	6807	39	5780	27	6807	41	6693
Total	20	9450	42	21226	70	16419	152	16322	90	14870	194	17384

(Annual average exchange rate -1US\$ = 1584.18 Tshs. (March 2012-March 2013))

Table 7: Direct medical cost for sickness within the past 3 months

Direct Medical Cost for Specialised Care

Overall, 97.4% (76/78) of the respondents reported to have incurred direct medical costs when seeking specialised care. There were more respondents who incurred medical costs for specialised health care in Nachingwea 63.1% (12/19) as compared to Tanga municipality 47.3% (27/57).

Inpatient	Districts						Overall		
	Nachingwea			Tanga					
Disability type	N=12	Mean	Sd	N=27	Mean	Sd	N=39	Mean	sd
Physical	1	6000	-	-	-	-	1	6000	-
Vision	1	2000	-	-	-	-	1	2000	-
Overall Inpatient	4	27750	16132	2	7000	-	6	20833	16461
Specialized services - OPD (Registration, drugs, physiotherapy, occupational therapy, wheel chair and psychiatric personnel)									
Physical	5	98600	113316	14	79529	117685	19	84547	113712
Vision	3	16833	19636	4	94750	157144	7	61357	119206
Deaf/blind	-	-	-	2	7750	3182	2	7750	3182
Specialized (OPD)	7	72000	103073	19	78995	120209	26	77112	113860
Physical	6	95667	108318	16	70463	112325	22	77337	109259
Vision	4	23875	21340	4	94750	157144	8	59313	110515
psychiatry	1	30000	-	1	7000	-	2	18500	16264
Deaf/blind disability				2	7750	3182	2	7750	3182
Overall Specialized Inpatient	+ 9	68333	95205	21	72138	116078	30	70997	108610

(Annual Exchange rate -1US\$ = 1584.18 (March 2012-March 2013))

Table 8: Cost in Specialized Healthcare

The overall mean average for both specialized inpatient and outpatient health care services was Tshs.70997 (45US\$) in both districts. The average mean was higher (by Tshs.3, 805 (2US\$)) in Tanga Tshs.72,138 (46US\$) as compared to Nachingwea Tshs.68,333 (43US\$).

The overall mean average for specialized outpatient care was Tshs.77, 112 (49US\$) while the inpatients average mean was Tshs.20,833 (13US\$) in both districts. The outpatient mean average for PWD in Tanga 78,995 (49.5US\$) while in Nachingwea the mean average was Tshs.72,000 (45US\$). On the other hand the mean average for inpatients in Tanga was Tshs.7,000 (4US\$) while in Nachingwea it was Tshs.72,000 (45US\$).

12 % (9/76) of the respondents incurred direct medical costs outside health facilities. It included traditional medication, faith healer and self-medication or pharmacy. The overall average mean cost paid was Tshs. 20,642 (13US\$). Comparison between districts shows that, average mean of 9,000Tshs (6US\$) and Tshs.26463 (17US\$) were paid in Nachingwea and Tanga respectively.

4.4.2 Direct Non-Medical Costs

Direct non-medical costs include expenditures as the result of an illness which are not involved in the direct purchasing of medical services. These may include expenditures such as travel, lodging, personal assistant / translator, soap, water or other consumables.

Non-Medical Costs for Routine Health Care

Table 9 displays the costs that are inextricably connected to the direct costs of health care services: transportation or consumable. Furthermore, in order to assess how far health care seekers have to travel in order to access health care, the travel time in minutes is shown.

	Districts										
	Nachingwea				Tanga				Overall		
	Disability		Control		Disability		Control		Nachingwea & Tanga		
	N=39	Mean	N=22	Mean	N=116	Mean	N=51	Mean	N=155	Mean	N=73
Consumables	2	9000	13	3400	11	1614	58	4309	13	2365	71
Transport cost	4	6000	23	5191	34	3523.5	69	3990	38	3784	92
Travel time(mins)	39	63	90	71	110	32.6	218	42.3	149	41	308

(Annual average exchange rate -1US\$ = 1584.18(March 2012-March 2013))

Table 9: Non-medical Costs for Routine Health Care (within 3 months)

Non-medical Costs for Specialized Care

Most people interviewed used public and private vehicles, motorcycles or bicycles as a means of transport to the health facilities. On average, people with disabilities paid Tshs.3,784 (2US\$) for transportation to health facilities. In comparison, the control group's payments for transportation was slightly higher with Tshs.4,291 (3US\$). People living in Nachingwea reported to have higher transportation costs (Tshs.6,000 (4US\$)) than people living in Tanga municipality (Tshs.3, 524 (2US\$)). In terms of consumables, people with disabilities paid more with mean average of Tshs.4,142 (3US\$) compared to control Tshs.2,365 (1US\$). The mean difference was Tshs.1,777 (1US\$).

The results show that 67% (51/76) of the respondents reported to have been incurred transport costs. Overall mean average for transport cost was Tshs.40,047 (25US\$). The mean average for Nachingwea and Tanga was Tshs.12,167 (8US\$), and Tshs.45,750 respectively. Transport cost was higher in Tanga than Nachingwea by difference of Tshs.33,583 (21US\$).

With regard to consumables; 39.5% (30/76) of the respondents reported having incurred costs on consumables. The mean average payment of the respondents who paid for consumables was Tshs.53,339 (34US\$). In Tanga the mean average was Tshs.60,350 (38US\$) and in Nachingwea Tshs.14,775 (9US\$). The mean difference between the districts was Tshs.45,575 (29US\$).

4.4.3 Indirect Costs

Indirect costs usually involve the opportunity costs of the patient's (or any other person's) time when seeking health care services. Hence, indirect costs involve productivity losses that are forgone as a result of an adverse health outcome. Also indirect costs emerge for example when people are unable to go to work.

Loss of Working Days

The study's findings show that on average, people with disabilities were unable to generate income for a mean of 10 days because they were seeking routine healthcare (within the past 3 months) (Table 10). There was a quite large difference between Tanga (15 income-lost days) and Nachingwea (8 income-lost days). Also, people who accompanied people to health care services reported to have lost some income because they had to skip work to assist people with disabilities with accessing health care services (on average 3 days). People without disabilities' loss in income was higher than those of people with disabilities.

	Districts (Disability & Control)											
	Nachingwea				Tanga				Overall			
	Disability		Control		Disability		Control		Disability		Control	
Patient	N=31	Mean	N=54	Mean	N=65	Mean	N=134	Mean	N=96	Mean	N=188	Mean
Days lost	21	15	42	15	45	8	83	12	66	10	125	13
Income lost	21	45580	40	58926	31	20178	79	34612	52	30436	119	42785
P/Accompanying	N=21	Mean	N=49	Mean	N=69	Mean	N=78	Mean	N=87	Mean	N=127	Mean
Days unable to generate income	18	4	45	7	49	3	57	3	67	3	102	5
Income lost	18	12875	45	24873	43	7163	57	8253	61	8848	102	15586

(Annual average exchange rate -1US\$ = 1584.18 (March 2012-March 2013))

Table 10: Productivity Loss for Patient and Person Accompanying (Routine healthcare)

In terms of specialized care, people with disabilities on average lost about 15 days when seeking specialized healthcare within the past twelve months. The mean average days lost in Nachingwea and Tanga were 30 and 44 respectively. With regards to the accompanying persons, they had to skip six workdays on average, in order to accompany people with disabilities to health care facilities.

Specialised healthcare	Districts								
	Nachingwea			Tanga			Overall		
Patient	N=14	Mean	Sd	N=55	Mean	Sd	N=68	Mean	sd
Days lost	12	30	48	24	44	10	36	15	30
Income lost	10	3173	1119	20	15004	52305	30	11060	45026
P/Accompanying	N=9	Mean	Sd	N=32	Mean	Sd	N=41	Mean	sd
Days unable to generate income	9	5	7	25	6	8	34	6	8
Income lost	9	13762	18917	24	17720	24630	33	16640	22992

(Annual Exchange rate -1US\$ = 1584.18 (March 2012-March 2013))

Table 11: Productivity Loss for Patient and Person Accompanying (Specialised healthcare)

Opportunity Costs in Terms of Income

People with disabilities' opportunity costs in terms of income is Tshs.30,436 (19.2US\$) when they went to seek routine healthcare within the past 3 months. The mean average income lost in Nachingwea and Tanga is Tshs.45,580 (29US\$) and Tshs.20,178 (13US\$) respectively. With regard to accompanying persons, the mean average income lost for both districts is Tshs.8,848 (5.58US\$). For specialised health care seeking in the past twelve months in both districts, the average income lost was Tshs.11,060 (7US\$). The mean average lost for Nachingwea was Tshs.3,173 (2US\$) while in Tanga it was Tshs.15,004 (9US\$).

4.5 Formal and Informal Social Health Protection

Access to social security or insurance scheme for people with disability was another point of interest for this study. Respondents who went for routine health care services within the last three month were asked whether they had access to social security and / or health insurance schemes. Figure 5 shows the distribution of health insurance schemes of respondents. The figure shows that Tanzania's insurance schemes CHF and NHIF have an equal share in subscribers.

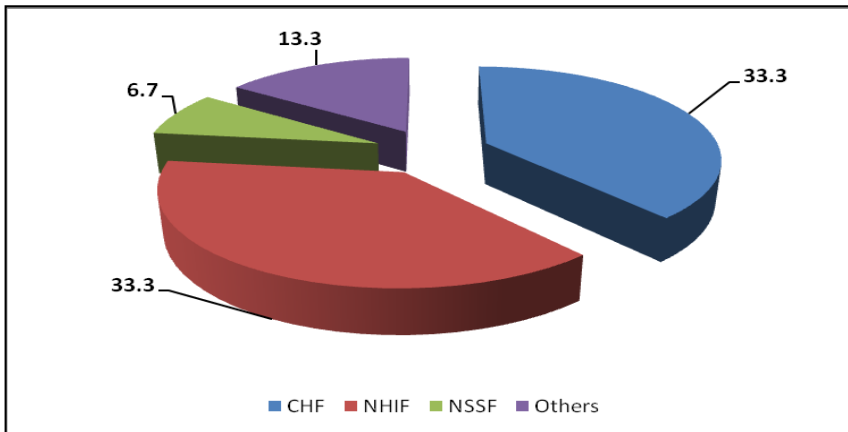


Figure 5: Types of social security and/or health insurance schemes

Overall the proportion of respondents with access to social security and/ or health insurance schemes was only 9% (15/162) for routine health care services, specifically, Nachingwea 21% (8/39) and Tanga 6% (7/123). There was a significant difference between accesses to social security and/ or health insurance schemes in Tanga municipality and Nachingwea district. For respondents who sought specialised health service in the previous twelve months, only 12.8% (10/78) had access to social security, specifically 26% (5/19) were in Nachingwea and 9% (5/59) in Tanga.

During the qualitative interviews and the FGDs, respondents were asked about the utilization of health insurance schemes and the perceived benefit for people with disabilities. The results obtained during the interviews confirm the household survey's findings. The majority of the participants in FGDs and in-depth interviews reported that they have heard about insurance schemes. Nevertheless, only few respondents reported to have made use of health insurances.

With regard to the awareness of health insurance for people with disability in accessing health care services in health facilities, only few participants reported that they were aware of the different insurance schemes. This knowledge gap with regard to the use of health insurance is mirrored by the following quotation:

"I have heard about health insurance but I don't know how they work" (Participant, FGD session in Tanga municipality).

One of the major issues discussed in the FGDs was the fact that even though health care seekers are subscribed to an insurance scheme, they still have to pay for medical supplies themselves since they are not available at the health facilities. Hence, people reported that incentives to subscribe to insurance schemes are quite low. Since drugstores, where patients are advised to buy drugs from are mostly located in urban areas, health care seekers have to travel to buy the drugs. Hence, the travel costs (direct non-medical costs) add to the actual medical supplies (direct medical costs) get the prescribed drugs.

"I have a health insurance but whenever I go to the hospital I am told to buy the supplies from my pocket" (Participant, FGD session in Nachingwea district).

Furthermore, the study investigated whether people with disabilities are aware of and have ever benefitted from the system of waiving / exemption. Like many other African countries, Tanzania has been implementing user fee policy in its health sector since the early 1990s. In order to account for the poor and vulnerable groups, pro-poor mechanisms of exemption were designed to discharged vulnerable groups from paying user fees. The findings of this study show that only 16% (119/760) of people with disability were aware of these exemption schemes. Those aware of the waiving system and who would qualify for exemption, only 44.5% (53/119) reported to have actually benefitted from exemption. Most of the benefitted reported that the procedures for system of waiving/exempting were very easy 51% (27/53); fair 26% (14/53); a bit complicated 9% (5/53), complicated 6% (3/53) and no comments 4% (2/53).

The results from the quantitative findings were confirmed by the qualitative data. Participants from different FGD and in-depth interviews were also asked about the existence of the system for exempting health care seekers who are unable to pay for the services. Participants complained that there is not enough information on exemption mechanisms. Also, health care seekers moan that health facilities not always accept exemption letters and still ask for user fees.

“I have an exemption letter which I got from the district commission but whenever I go to the mission hospital they don’t accept and instruct me to go to the government dispensary” (Participant, FGD session in Nachingwea district).

Again, there is a bias towards rural areas. While discussants in Tanga municipality have heard of exemption processes and could name reasons for exemptions such as poverty. In Nachingwea, however, only few people were aware of the exemption mechanisms. The following statements mirror the situation quite well:

“We don’t know about the system but we have just heard that people with disability are exempted from medical care payments. The procedure is to get letter from the Councilor or village executive officer, whenever you want to seek care from the health facility; you present it to the health care providers” (Participant FGD sessions in Nachingwea district).

“People with disability are not exempted because even if they have letter from the village executive officer they will still be asked by doctors to buy drug from drug shops.” (Participant FGD session in Tanga municipality)

4.6 Barriers for People with Disabilities

This section investigates what kind of barriers people with disabilities encounter when accessing health services. First of all, in terms of availability of information, respondents reported that information is accessible by various means. The proportion of people not receiving information was significantly higher in Nachingwea 72.8% (241/760) as compared to Tanga municipality 46.4% (199/760). In this study, it was also noted that people with disability receiving information through local network like DPOs were significantly higher in Tanga as compared to Nachingwea district. Furthermore, respondents were asked if the information received was adequate or accessible to their needs. 18% (139/760) of the respondents reported that

information was adequate to their needs. The adequacy of information for PWD needs was significant higher in Tanga as compared to Nachingwea district (p-value= <0.001).

Reason	Overall N=760	District		P-Value
		Nachingwea N=331	Tanga N=429	
	n (%)	n (%)	n (%)	
Radio	84(11.0)	31(9.4)	53(12.4)	0.193
Newspapers	14(1.8)	1(0.3)	13(3.0)	0.006
TV	9(1.2)	1(0.3)	8(1.9)	0.048
Local network (DPOs)	43(5.7)	2(0.6)	41(9.6)	<0.001
Community gatherings	33(4.3)	13(3.9)	20(4.7)	0.622
Family members	63(8.3)	19(5.7)	44(10.3)	0.025
Health care facility	78(10.3)	24(7.3)	54(12.6)	0.016
Other	3(0.7)	0(0.0)	3(0.7)	0.127

Table 12: Source of Information for People with Disabilities

Furthermore, the study also documented whether adequate transport was available for people with disabilities. Overall, the results show that transportation seems to be available for people with disabilities. 45 % (338/760) of the respondents mentioned that transportation has never been a problem. 17% of the (130/760) always experienced a problem and 13% (98/760) often experienced a problem. Only 8% (57/760) of the respondents reported to have said that they sometimes experience a problem and 4% (33/760) seldom experienced transportation problem.

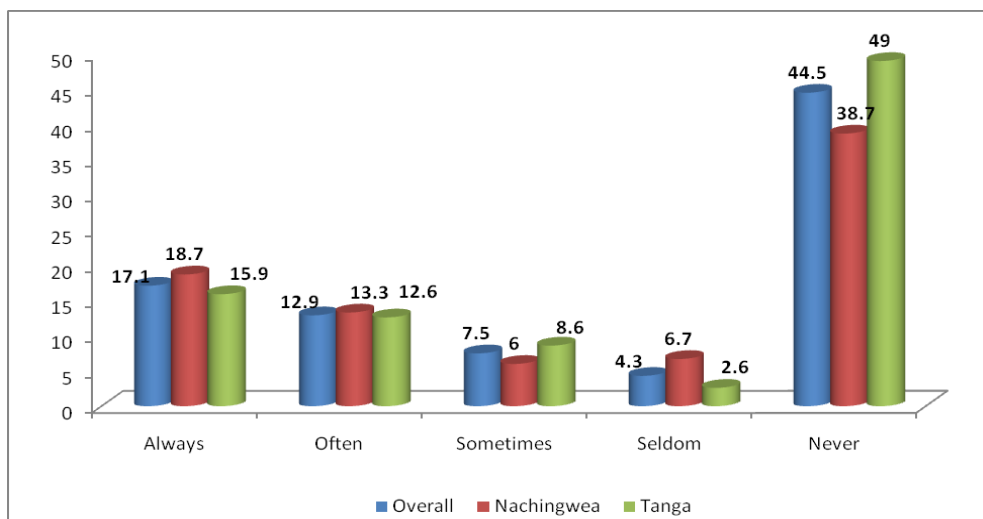


Figure 6: Extent of transport problem when seeking health care

To supplement the quantitative results, district officials were asked about the challenges that people with disabilities face. The most common challenges were poverty, discrimination, lack of confidence, poor infrastructure, inaccessibility of important medical services and lack of money.

“Distance from home to the health facilities is among the challenges not only to the people with disability but all people. However, due to their conditions, people with disability are highly affected to access health services as compared to other people. Another challenge is economic situation whereby majority of people with disability flock to the urban areas for the sake of seeking assistance. This is a sign that economic situation of people with disability is not good. This may act as a barrier to access of health care services (In-depth Nachingwea district health secretary).

Furthermore, respondents were asked if they had ever missed routine health care service because they could not afford it. 72.2% (117/162) of the respondents reported to have ever missed health care service because of lack of money. With regards to specialised health services, 62% (48/78) of the respondents reported to have missed money to pay for the specialised health service. There were no significance difference between Tanga and Nachingwea. However respondents from Nachingwea reported higher incidences 84% (16/19) of ever missed the money to pay for specialised health care services as compared to Tanga municipality 54.2% (32/59) (p-value=0.019). Social and communal network were considered particularly important in supporting people with disabilities in accessing health care services.

4.7 Coping Strategies

Participants were asked about their opinion on how to deal with the above mentioned issues. Mainly, interviewees were asked on how to improve access to health care services. Furthermore, participants should make suggestions as to how to overcome certain financial barriers that people with disabilities encounter when seeking medical assistance.

First of all, it was highly recommended to augment the availability of assistive devices for people with disabilities at health facilities, as for example wheelchairs or tricycles. Also, in terms of accessibility, participants emphasised the importance of improving the infrastructure. Furthermore, respondents suggested establishing income generating schemes that would enhance people with disabilities' socio-economic status. Additionally, discussants felt that there is not enough awareness on people with disabilities' health issues. Hence, participants suggested to campaign for higher public awareness. Also, people with disabilities seem to be side-lined in decision making at all levels. Hence, discussant suggested to better involve people with disabilities in decision-making or in planning meetings. Finally, discussants again emphasised to actually implement exemption rules for people with disabilities who cannot afford out-of-pocket payments.

"...firstly, there is a need to improve infrastructure. People with disability should be given special attention in getting the medical services regardless of whether he is working or not..." (Participant from FGD session in Tanga municipality).

"We request the government to make follow-ups on the implementation of exemption for health services to the people with disability" (Participant from FDG session in Nachingwea).

"Eeh! For me I see that money is important because money is life. If we would be enabled to get money, health care need would be easy to get" (Participant, FGD session in Nachingwea district).

In order to meet various social needs including health care, people with disability used different mechanisms. In terms of paying for health care some had to sell assets or borrow money (average of Tsh.13700 (9.26US\$)). Further, people with disabilities reported that it was difficult to find assistance. 78 % (242/310) of people with disabilities reported that the availability of someone's help was a big issue. Some people indicated that they received help from relatives, others mentioned social networks and other organisations.

"I am disabled; sometimes I cannot perform all types of work. I therefore depend on my relatives for support"

"we have decided to establish various Disability People's Organisations (DPOs) in order to have one voice to solve our issues" (Participant from FGD session in Tanga Municipality).

"I am thankful for the little what is available p1: "I am disabled and with a child. I cannot just sit and wait for money to pay for medical expenses for my child. I have to work hard (farming & weave) to get money to pay for medical expenses and food" (Participant from FGD session in Tanga Municipality).

At district level, officials indicated that district plans were designed according to the national guidelines and were caring for the needs of people with disability. The districts have social welfare department which deal with all vulnerable groups including people with disability.

Furthermore, officials said that education is given high priority as there are special fund allocated to people with disability. Likewise, the community is educated on the various issues related to the right of the people with disability. It was reported that in the current budget (2012/13), Nachingwea district allocated money for food to the children with disability. There was also a plan to treat people with disability through health insurance. This was planned to be implemented in 2013/14 through Community Health Fund (CHF). In the current plan, the district also allocated fund to buy white cane for people with eye impairments.

"I think when you talk about district plan; you are talking about the budget. Meeting with different stakeholders is among the issue articulated in the budget guidelines. People with disability are among the stakeholders in the district plan". (Tanga municipality official).

"When we plan there is a section on community issues. This includes all forgotten groups in the society". (Nachingwea district health secretary).

The district official also mentioned availability of district registers for people with disability specifically in Tanga. Nachingwea district health secretary could not establish the presence of the district register for people with disability.

“Eee, although we haven’t done any census, we have a register that recorded information of people with disability. This information has been obtained through DPOs (Tanga municipality official).

Various stakeholders have been mentioned to support districts and municipality officials to address challenges facing people with disability to complement internal generated funds. It was also mentioned that partners such as CCBRT, EGPAF, MKAPA FOUNDATION, ICAP and IMMA WRLD HEALTH and others were involved in issues that were beyond the district capacity.

“Although our budget is not enough but we try to allocate some fund for people with disability. In the past few days, we allocated fund for food and CHF for people with disability (In-depth interview Tanga municipality official).

“I think we don’t have capacity to solve these challenges. Almost all challenges need external assistance. For example, the issue of equipment is very complicated. Equipment like wheel-chairs, clutches, eye glass, and other supplies would need extra fund from outside the district. We are working with other stakeholders to solve challenges on education and training, as we don’t have enough resources especially on human resources and money for training (In-depth interview Tanga municipality official).

“The health sector policy pointed out that nobody should be deprived of health care services due to lack of money. Payment will just come after the service/treatment. I have never get any complains that a person with disability has been deprived health care services just because of his/her situation or socio-economic status. We have a window of exemption which serves PWD”(In-depth interview, Nachingwea district health secretary).

4.8 Unmet Needs for People with Disabilities

All respondents were asked about the awareness of specialised services for their health condition and if they needed or received the services. Different ranges of services were considered such as medical rehabilitation, assistive devices, education, vocational training, counselling, welfare and health services.

On medical rehabilitation (such as; physiotherapy, occupational therapy, speech and hearing therapy), only 26% (197/760) of people with disability were aware of medical rehabilitation services. Among those who were aware of the services, 72% (141/197) of people with disability needed medical rehabilitation services. Then, 61% (120/197) of those who needed the services received medical rehabilitation services.

With regard to assistive devices/supportive services, only 31% (238/760) of respondents with disability were aware of assistive devices/supportive services. Among those who were aware of

the services, 74% (175/238) of the respondents with disability were in need of assistive devices/supportive services. However, only 43% (103/238) of those who needed the services received assistive devices/supportive services.

On the issue related to educational services (i.e. remedial therapist, special school, early childhood stimulation, regular schooling etc.), only 37% (282/760) of the respondents with disability were aware of educational services. Among those who were aware of the educational services, 67% (189/282) were in need of the service but only 55% (156/282) who were in need of the service received it.

25 % (187/760) of the respondents with disability were aware of vocational training services. Among those who were aware of the services, 73% (137/187) of respondents with disability were in need of the vocational training services. However, only 31% (57/187) of those who needed the services received vocational training services.

The study also asked the respondents about the awareness of counselling services. It was noted that only 21% (157/760) of people with disability were aware of counselling services. Among those who were aware of the services, 85% (134/157) of people with disabilities needed counselling services. However, only 47% (73/157) of those who needed the services received counselling services.

With regard to social welfare services, 19% (143/760) of people with disability were aware of the service. Among those who were aware, 83% (118/143) of people with disability were in need of the welfare services. The findings revealed that 36% (52/143) of the respondents received welfare services.

Likewise, only 51% (389/760) of the respondents with disabilities were aware of health services. Among those who were aware of the services, 96% (375/389) of people with disabilities were in need of the health services. The finding shows that, 84% (326/389) of those who needed the services received health services.

Regarding availability of services for people with disabilities, respondents were asked about health care services that were needed but could not be received. The finding shows that 70.3% (593/760) of the respondents in both Nachingwea and Tanga needed health care services but were unable to receive them. There were no significant differences on the needs between the two districts.

With regard to the qualitative part on the issues related to unmet needs, participants in FGDs and in-depth interviews were asked about health care services that persons with disability needed but could not get and how they get information to improve the situation and whether the information was adequate or accessible for their needs.

The most common reported services that people with disabilities were unable to receive are lenses, physiotherapy, special shoes, drugs and assistive devices for people with eye impairment.

"Yes, there are services that we need, for example (we) people with disability needs assistance devices such as white can which can guide me anywhere. Otherwise, I cannot go anywhere. I cannot go anywhere unless I have someone to guide me" (Participant from FGD, Tanga Municipality).

"Firstly, there is a need to improve infrastructure. People with disability should be given special attention in getting the medical services regardless of whether he is working or not"(Participant from FGD. Nachinwea district).

5 Discussion

All in all, the study's findings show that in general people with disabilities face many barriers in accessing health services. This section briefly summarizes the main barriers that people with disabilities encounter. Generally, the study's findings suggest that there is a severe bias towards rural areas where people with disabilities face these barriers more often than people living in urban areas.

First of all, as Table 2 in Section 4.1 suggested, disability seems to be the decisive factor of why people are socio-economically disadvantaged. Generally, people with disabilities face poorer living-conditions than the general population. The results of this study suggest that people with disabilities are twice-fold poorer than their unimpaired fellows (statistically confirmed for Nachingwea). As a consequence, one might suggest that households with disabled members are more likely to experience material hardship including food insecurity, poor housing, lack of access to safe water and sanitation. Furthermore, people with disabilities face social barriers since they experience lower rates of employment and are therefore often unable to generate enough income to support themselves when seeking medical advice. Hence, these lower rates in labour market participation could eventually be a contributing factor of why disability may lead to poverty. Additionally, people with disabilities are generally less educated compared to their unimpaired fellows. In terms of socio-economic factors, the results of the study confirm the frequently proposed reciprocal link between poverty and disability, showing that people with disabilities are more vulnerable and more exposed to economic hardship [15], [16]. Breaking up this reciprocal link between poverty and disability is crucial in order to contribute to better health outcomes of people with disabilities.

In terms of access to health care services, the study showed that few disabled people seek medical care (both routine and specialised).² Almost 1/3 of the disabled respondents reported to never have sought routine medical care (not related to their disability). In terms of specialised health care, only 10 % of the disabled interviewees reported that they went for special health services. The significant difference between urban and rural areas points to the fact that health care facilities in urban areas might be easier accessible for health care seekers. The very low number of people with disabilities accessing health care services can be interpreted in many different ways: First of all, health seeking behaviour – especially for people with disabilities – is not merely dependent on someone's individual choice; it depends largely upon the dynamics of communities that influence over the well-being of the people [26]. Since people with disabilities

² Hence, the findings of this report tie in with other sources [23], [24].

often need to be accompanied by family members when seeking health care, opportunity costs are higher than for people who can seek medical assistance by themselves [21]. Secondly, direct medical and non-medical costs such as out-of-pocket payments or costs for transportation respectively might hinder people with disabilities to seek medical care. Last but not least, since only a limited number of people knows about exemption mechanisms, many people with disabilities might be reluctant to seek medical advice as they fear high costs.

Furthermore, people with disabilities often encounter higher costs when they actually do seek medical assistance. For example, in order to achieve the same outcomes as non-disabled people, people with disabilities often require more resources to accommodate their special needs. Hence, higher costs increase the likelihood that people with disabilities and their households are poorer than non-disabled people with similar incomes [4]. This phenomenon has been called “conversion handicap” by Amartya Sen. Although it was shown that the inpatients and outpatients medical costs were higher in the control group as compared to people with disabilities, it is important not to draw early conclusions: Since people with disabilities hardly seek medical assistance (neither routine nor specialised), due to the many barriers mentioned above it is difficult to determine and interpret the costs for these people.

Access to social protection mechanisms has also shown to be an issue. The coverage was low as it is also the case for the general population [27]. People with disabilities for example reported that they still have to pay for their drugs in often hard-reachable drugstores themselves even though they were subscribed to one of the insurance schemes or they were officially exempted. While most people with disabilities make out-of-pocket payments when they sought routine care and specialized care, others sold assets to afford health care services. Given that the productivity capacity of people with disabilities is limited and already most are categorised to be within the lowest social economic status, care seeking is likely to lead them to high expenditures which might push them further into poverty. Strengthening social protection nets and special targeting for people with disabilities is important to overcome the cycle of poverty [28]. However, ensuring equity in this endeavour remains a serious challenge – especially in the context of a large informal sector in developing countries. Given that people with disabilities have special needs, potential social protection mechanisms should be tested and likely to be accommodated.

Also, this study showed that the waiver system, while potentially effective in principle, is ineffective in its implementation. Clear-cut criteria by which the poor and vulnerable are to be exempted are absent. Hence policy implementers at different levels implemented the policy according to their own interpretation. Additionally, since many people were not aware about the functioning of the exemption mechanisms, poor people hardly demanded their right of being exempted. One might suspect that the fear of loss of revenue at health facilities as well as ineffective enforcement mechanisms provided little incentives for local government leaders and health workers to communicate the policy to beneficiaries [37].

People with disabilities have many unmet needs. They had less access to information and services. Most commonly, people reported that it was very hard to access lenses, physiotherapy, special shoes, drugs and assistive devices for people with eye impairment. Although the study documented good awareness of the important services specifically rehabilitation for the people with disabilities, very few people actually accessed them. As documented in this study and elsewhere [29], rehabilitation services and assistive devices can mainly be obtained at secondary service delivery level (hospitals), which are not easily accessed

by most people with disabilities. Special initiatives need to be in place to enable people with disabilities to benefit from these services to improve their lives.

Making services available for the people with disabilities is crucial to support their wellbeing. Solutions to promote the utilization of health care services for people with disability should focus on health care user's perception [1]. This study is consistent with the study by Grut et al. (2012) that access to health care services for people with disabilities in resource poor communities is influenced by multiple factors [17]. In order to overcome these multiple factors, people with disabilities themselves recommended making services more available to the people with disability. They suggested to increase availability of assistive devices, increase the establishment of income generating schemes, create awareness for health problems facing people with disability. Furthermore, people with disabilities also recommended including them into decision-making in order to ensure that their health issues are considered at all levels. Furthermore, it was suggested to engage people with disability in health service provision in order to overcome the lack of knowledge in staff with regards to their special needs. Hence, there is a strong need to understand the demand side to change user behaviour and that is the only way to expect improved health outcomes of people with disability [30], [31].

Given that affordability and financing were identified as the most significant 'barriers' that people with disabilities encounter, addressing these barriers will be critical in ensuring progress towards the right to health as enshrined in Article 25 of the CRPD in which people with disabilities should enjoy: "the same range, quality and standard of free or affordable health care and programmes as provided to other persons".

There were some limitations that might have implications in interpreting some of the findings. According to the type of methodology used and timeline in the field, only two communities were visited. Hence issues that link to coverage might be lower as the access to health facilities may be better than normal. Time and resource constraints prevented larger sample size which could have more rigorous results especially on issues related to people with disability. Comparison households may not be good "controls" due to other confounding factors. Another limitation of this study is that the illnesses and disabilities were self-reported. However, most of illness conditions (e.g. Malaria, flu, headache, TB, and diarrhea), could only be diagnosed at a health facility. This fact could result into underestimation or overestimation among the poor because of their relatively low uptake and use of health services and therefore greater likelihood of suffering from undiagnosed illness [32],[33],[34]. In addition, the recall periods for routine and specialized healthcare health care seeking were past 3 months and 12 months respectively. Although standard recall period for treatment seeking has been suggested to be 7 to 14 days [35], [36], in this recall periods were extended to capture more episodes as it has been reported elsewhere that people with disability are rarely seeking health care services [23].

6 Conclusion and Recommendations

The report at hand provides some insights into the situation of people with disabilities in Tanzania with regards to accessing health care services. Since people with disabilities may require a range of services – from relatively minor and inexpensive interventions to complex and costly ones, it is important to bear in mind, that people with disabilities have also ordinary health care needs similar to those of the rest of the population and the same rights of access to

health care services [25]. However, as this report has shown, in Tanzania, health service delivery to people with disabilities is still inaccessible to the majority of people with disabilities.

As outlined above, there is no universal definition on disability. Disability varies according to a complex mix of factors, including age, sex, stage of life, exposure to environmental risks, socioeconomic status, culture and available resources [4]. Nevertheless, in order to overcome certain barriers that the study at hand identified, the following recommendations are posed:

Policy and Legislation

- *Comply with the CRPD:* Tanzania has signed the CRPD. However, as shown in this report, there are still a number of areas, where provisions of the CRPD are not fully implemented in the country.
- *Involve People:* People with disabilities know best what their needs are. In order to properly account for these needs, involve them in decision-making at all levels. Furthermore, people with disabilities or DPO's should be consulted when implementing policies and services.
- *Provide Clear Implementation Guidelines for Exemption Mechanisms:* In order to ensure equal treatment for all and to avoid confusion, it is necessary that guidelines for exemption mechanisms are harmonized.

Financing and Affordability

- *Ensure Equity:* Ensure that there is no systematic difference between people with and people without disabilities.
- *Consider options for reducing or removing out-of-pocket payments:* In order to make health services available and affordable for all people with disabilities, consider removing out-of-pocket payments, i.e. augment the administration improve the actual functioning of waiving mechanisms.
- *Social Protection Schemes:* Target people with disabilities with social protection schemes including insurance and exemption to enable them to access routine services and extend to rehabilitation services.
- *Provide Clear Information:* Since this report showed that there is still a lack of understanding in terms of insurance schemes, more information needs to be provided so that people with disability can actually access these information.
- *Consider Non-Medical Costs:* Provide support to meet the costs associated with accessing health care, such as transport or bedding or consumables in order to lower barriers for people with disabilities to access health care services.

Accessibility

- *Remove Infrastructural Barriers:* Improve the infrastructure at the point of service delivery. Improve buildings and make them accessible for people with disabilities.

- *Support primary health care workers with specialists:* Since people with disabilities expect to find a specialist at health facilities and since the majority of people with disabilities only accesses *primary* health facilities, it is important to bring specialists to primary health facilities on a regular basis.
- *Promote community-based rehabilitation:* Particularly in rural areas or in other less-resourced settings, community-based rehabilitation is crucial to facilitate access for disabled people to existing services.

Community

- *Strengthen DPOs:* Involve with DPOs and try to strengthen their work. They reach out to people, especially to the rural areas. DPOs could also be involved in awareness rising at the household and community level.
- *Train community workers:* Community workers are important people who have a stake in preventing the worsening of existing health conditions. Community workers can play a role in screening and preventive health care services.
- *Raising Awareness:* Raise awareness for the needs of people with disabilities in communities.
- *Empower People with Disabilities and their Families:* In order to maximise their health, people with disabilities and their families need to be empowered to claim their rights.

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