

# **An Investigation into the Burden of Non-Communicable Diseases in Older Tanzanian: Research for Better Policy and Practice**

Contrasting urban Morogoro and rural Kibaha, Tanzania



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## Abbreviations

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AFCAP	African Community Access Program
AMO	Assistant Medical Officer
AMMP	Adult Morbidity and Mortality Project
CBCCT	Community Based Conditional Cash Transfer
CO	Clinical Officer
CHF/TIKA	Community Health Fund/Tiba kwa Kadi
CORD	Chronic Obstructive Respiratory Diseases
DMO	District Medical Officer
EA	Enumeration Area
ECT	EasyCare Tool
FGDs	Focused Group Discussions
HAI	HelpAge International
HC	Health Centre
HIV/AIDS	Human Immunodeficiency Virus/Acquired immune deficiency Syndrome
IHI	Ifakara Health Institute
IDI	In-depth Interviews
IGAs	Income Generating Activities
MKUKUTA	Mkakati wa. Kukuza Uchumi na Kupunguza Umaskini Tanzania ( <i>National Strategy for Growth and Reduction of Poverty</i> )
MoHSW	Ministry of Health and Social Welfare
MOREPEO	Morogoro Elderly People Organisation
MSD	Medical Store Department
NBS	National Bureau of Statistics
NCD	Non-Communicable Diseases
NGO	Non Governmental Organization
NHIF	National Health Insurance Fund
OP	Older People
PLHAS	People Living with HIV/AIDS
TAHECAP	Tanzania Healthcare and Career Awareness Program
TASAF	Tanzania Social Action Fund
Tshs	Tanzanian Shillings
WHO	World Health Organization
GSST	Good Samaritan Social Service Trust

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## *1. Executive Summary*

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Reports from studies conducted recently show an increasing trend of NCDs in developing countries and that this risk increases with age. Whereas much has been done to study communicable diseases in these regions, there is a dearth of information available on the burden of NCDs among the elderly population, who are the most at risk. This could significantly limit improvements of practice and care policies which target the elderly.

The IHI in collaboration with HAI conducted a mixed method study (fieldwork was underway between February and August 2012) to examine: the burden, i.e. prevalence, of non communicable diseases in older populations; to explore the context in which NCDs are experienced; and to adapt the EasyCare Tool, created to help guide the healthcare worker to make recommendations for further investigation or treatment, for use in Tanzania.

Survey data on prevalence of NCDs were collected (n=644) in Rural Kibaha and Urban Morogoro districts where HAI has been involved in conducting various studies and supporting local NGOs also working in the area. This report also describes the findings of community (n=15 focus groups with older people n=11 and focus groups with care takers) and practitioner views of NCDs. In particular, we explore shifts in perspectives and referral experiences of practitioners from pre (n=7) and post (n=11) awareness-training that focused on the healthcare needs of older people and introduced the EasyCare tool.

Analyses have focused on three key aspects of NCDs in older (over 60 years of age) Tanzania's: Knowledge; routs to care; and diagnosis and referrals. We have also updated the EasyCare tool for use in The Tanzanian context. The tool was not however implemented for use in the field, partly because we believe that the required changes are significant, we are seeking feedback on these and propose a follow-up study to fully validate the tool. Our research highlights on these topics are as follows:

## Knowledge

With respect to knowing about the risk of NCDs, being able to recognize / understand them, and knowing one's right to care as well as duty of treatment, this study concludes:

- 'Actual' knowledge of NCDs, being able to cite at least one example, was fairly uncommon among community older people over sixty years of age: in urban parts this was 27%, in rural 29%.
- Older people tended to recognise common and fairly less severe NCDs such as hypertension; while cancers (an average of 21% cited this as a known example across both districts) and central nervous system disorders (averaged in turn 12%) were the least known in the community survey. These were hardly mentioned qualitatively from both community and healthcare workers; community members perceived cancers as incurable.
- Lifestyle factors were noted as contributing to these diseases, but it was interesting that clinicians tended to minimize NCDs, sometimes blamed the patients bad habits/laziness, and older people themselves tended to couch them NCDs in old age itself.
- Community member seemed to know that care should be free, 'but' it was not so simple... All healthcare workers when filling the short questionnaire said that healthcare was known to be free for the over sixty year olds attending public facilities.

## Routs to care

Our analyses of routs to care for NCDs, accounting for where, who and what happens when older people get to a health facility revealed:

- In terms of healthcare seeking for NCDs Traditional healers were dismissed in favor of medical facilities (urban 96%, rural 93%). Healthcare workers also noted fast changing health care seeking habits from the community, in favor of medical services.
- A few instances of ageism and discrimination were recounted; however the majority of older people that we spoke with talked about being dismissed by rushed health workers; particularly in urban area, where a majority (64%) said they had to wait to be seen for at least one hour or more.

- Nevertheless, one of the most dominant themes across patient and practitioner accounts was the lack of available medicines, either in stock, or given freely (except the much mentioned free Panadol). Equipment's and stocks of medicines for NCDs were so low that most lower level facilities were not able to detect or treat diseases other than Hypertension and Chronic Obstructive Respiratory Diseases (CORD). Cancer detection or treatment was not available at the nearby hospitals.

## Diagnosis and referral

Finally, we took a closer look at who gets diagnosed, for what, and the factors that enable these outcomes:

- Payment was significantly more frequent in urban parts compared to rural. Explaining receiving as diagnosis in urban settings were some fairly large odds ratios, these were for: having a secondary (3.32, CI 1.15-9.58) education and, indeed payment (3.09, CI 1.32-7.25).
- We found some interesting accounts of accessing services only to be turned away at the last hurdle – by healthcare workers demanding additional payments. The qualitative accounts noted: 'the worse thing is that if you don't have money you will die' (Male older person, Morogoro).
- Post awareness training initiatives have been enthusiastically introduced by some to counteract inequities; these are detailed within our report and feature within the recommendations.

## EasyCare-TZ

- The Easy care tool was updated using a consensus approach whereby views on the usability of the tool were systematically solicited from ageing experts, clinicians and research scientists. These participants' views on omitting / adding domains to the tool and rewording of questions to make them more culturally relevant were integrated into the new proposed tool.
- This tool has been significantly shorted to be used in busy contexts, into a checklist only format (omitting the narrative sections). We also recommend removing two domains, these include a focus on financial affairs and safety, both of which were considered to be

seen as potentially irrelevant to health and intrusive in our context. We added one question on managing personal affairs to replace a question on finances so that the scoring system may remain comprehensive.

- Wording has been updated and the scoring adjusted to reflect the new proposed domains, replacing existing questions with appropriate proxy questions. We also have added a final section, to both the checklist and score sheet that asks explicitly about the specific outcome of the consultation.

## Recommendations

Our broader recommendations were based on the above evidence and include strategies, detailed within our report, that are to be implemented across four key categories:

- Early detection of / action to prevent or treat NCDs are paramount
- Free public care means *free*, no if nor buts
- Improving services for NCDs treatment and referrals
- Improving clinical practice and knowledge of NCDs and geriatric care
- Further validation of the proposed EasyCare-TZ tool



## 2. Background Information

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### 2.1 OVERVIEW OF OLDER PEOPLE AND NCDs IN TANZANIA

The global burden of non-communicable diseases (NCDs) continues to grow and tackling it constitutes a major challenge especially in Africa where the context involves a weak health system amidst an existing substantial communicable disease burden. The pace of NCDs accounts for 36 million deaths per year whereby more than 80% have been traced to developing countries<sup>1</sup>. It is predicted that by 2020, non-communicable diseases will account for seven out of ten deaths in the developing world as then the leading cause of mortality.<sup>2,3</sup>

The World Health Organization (WHO) country projections indicate that NCDs contributed to 27% of national mortalities in Tanzania (2010), and that more than half of them were attributed to people above sixty years of age.<sup>4</sup> Nevertheless, it can be contended that the true burden of NCDs in Tanzania cannot be fully described due to lack of evidence from population based studies. Only a few one off cross sectional studies, clinical studies, as well as evidence from other developing countries with similar settings have been used as indicators of trends and patterns in our context.

One study carried out in mainland Tanzania in 1994 to 2002 has estimated that 15-28% of adults deaths were as a result of NCDs or injuries.<sup>5</sup> These authors also found that in two out of the four districts, (Hai and Dar es Salaam), NCDs were the leading causes of death with most prevalent diseases being cardiovascular diseases, cancer, diabetes, central nervous system diseases, and chronic obstructive respiratory diseases. It has also been confirmed that older people in Tanzania tended to be the most affected group partly due to their vulnerability at older ages.<sup>6</sup> Most of these older patients were found to be admitted at a late stage of the disease and as a result showed further complications such as sexual dysfunction, renal failure, coronary artery diseases, and cerebral vascular accident. The same study concluded that many older people died at home due to a lack of awareness of symptoms and signs of hypertension and heart attack or diabetes.

The projected growth for adults with diabetes in Sub Saharan Africa is predicted to be from 12.1 million in 2010 to 23.9 million in 2030, and this is equivalent to a 98% growth.<sup>7</sup> As for cardiovascular problems, hypertension which previously was considered to be a disease of the wealthy with

sedentary and obese life in the urban was found to be prevalent in rural areas at a rate similar to high income countries.<sup>8-10</sup> Even with such alarming statistics, there is still limited information on NCDs in Africa to uncover the true burden and contributing factors in order to guide practice and policies

Although the national policy in Tanzania grants older people access to free health care in government health service facilities, the implementation of this policy change appears slow. The Views of the People Survey found that only 15 per cent of older people had received free treatment by health service providers.<sup>11</sup> Another study by HelpAge International in (2005) found that older people were often provided with inappropriate medicines or discriminated against by medical staff who refused to treat chronic illnesses. These findings call for further investigation to explore the experiences and impact of health services among older people that are mostly affected /more at risk of developing NCDs.

## **2.2 LIFE STYLE RISK FACTORS AND COMMUNITY BEHAVIOR CHANGE**

The ongoing global increase in ageing population as a result of lowered fertility and improved survival from infections when coupled with globalization have been instrumental in blooming of the NCD burden.<sup>12,13</sup> While metabolic changes in the aged is by itself a risk factor to development of NCDs, exposure to unfavourable lifestyle practices increases the age margins of possible vulnerable population groups. Unsuitable diet practices, physical inactivity, smoking and harmful use of alcohol are the most important modifiable lifestyle risk factors, for which the WHO Action Plan for 2008 – 2013 emphasises national routine prevalence monitoring and interventions to minimize them.<sup>14</sup>

Half out of the 5 million deaths attributed to smoking globally occur in developing countries, where smoking increases at a rate of 3.4% per year.<sup>15</sup> It is important to note that there has been a shift in the tobacco as well as alcohol markets from developed to developing countries targeting a recently identified market gap: women and teenagers.<sup>16</sup> Some have cautioned that what appears to be a market gap in the alcohol business interpreted by low per capita consumption may be underestimated since a majority consume non monitored traditional brews.<sup>16,17</sup> In addition alcohol consumption in developing countries is highly gendered with high proportion of males practicing hazardous drinking.<sup>18</sup> In fact, these same researchers, concluded that much of the mental health

burden associated with heavy alcohol consumption has been linked to males above fifty years of age.

On the other hand, other modifiable lifestyle risk factors, like being overweight, are also increasingly becoming common in Africa, showing potential for an obesity epidemic in the future.<sup>19</sup> Many studies have suggested that consumption of large volumes of highly refined and processed foods and increased sedentary lifestyles are driving these health transitions. Since NCDs are largely influenced by overlapping lifestyles and socioeconomic environments, risk factors and its determinants represent a complex interplay. Although different players from various sectors may by now have been identified, increased capacity in NCDs case detection, directing referrals at primary health care levels is still among key gaps that need addressing. Furthermore, the ability to capture risk behavior among vulnerable groups such as older and frailer people will help health personnel to focus on evidence based health education and other interventions.

Like elsewhere in developing countries, the leading NCD mortalities in Tanzania include cardiovascular diseases, diabetes, cancers (cervical and breast cancer) and central nervous system diseases.<sup>1,20</sup> A study on pattern of risk factors for cardiovascular diseases in Dar Es Salaam revealed high prevalence in this urban setting, while also noting that treatment rate of hypertension among risk factors was particularly low in those with low Social Economic Status.<sup>21,22</sup> Insight on how people perceive risks of NCDs has shown there is a lack of awareness on how lifestyle habits may increase the risk of developing NCDs.<sup>23</sup> Moreover, stress due to poverty may be a significant contribution to cardiovascular problems as well as mental impairments.<sup>24,25</sup>

Overall, older people are heavily affected by NCDs but these problems are aggravated by delays in NCD diagnosis.<sup>1</sup> Action to promote early identification and strategies to influence healthy behaviour and lifestyle changes needs thorough understanding of the risk factors involved and perceptions on NCDs themselves. Household survey, FGDs with communities as well as IDIs with health care service providers will be able to provide an insight into the context underlying the burden of NCDs.

### **2.3 EASYCARE**

An adapted version of the validated EasyCare Tool<sup>26,27</sup> is expected to facilitate case detection of NCDs among elderly in remote rural areas. The tool is designed to be simple to use even by cadres with less formal clinical training, and could be particularly useful to prompt referrals in dispensaries, and as a diagnostic aid in higher level health facilities (health centres, hospitals). The tool has seven sections: site, hearing and communication; looking after yourself; getting around; safety; accommodation and finance; staying healthy; mental health and wellbeing.

EasyCare was created to help guide the healthcare worker to make recommendations for further investigation or treatment. Nevertheless, in its present form it is most appropriate for European contexts and may require some modification to be relevant to Tanzanian services, and particularly may need consideration for urban and rural disparities in the daily lives of older people.



## 3. Objectives

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### 3.1 MAIN OBJECTIVE

The main study objective was to understand the backdrop of older people's lives, from both their own and their care takers perspectives, as well as from the point of view of healthcare practitioners. In particular, the estimated burden (i.e. prevalence) of NCDs in older people and pathways to healthcare seeking (knowledge, routs to care, diagnosis and referrals) for these diseases; and finally the adaptation of the EasyCare tool for use in these contexts. We contrasted urban Morogoro and rural Kibaha.

### 3.2 SPECIFIC OBJECTIVES

- 1) To establish the prevalence of NCDs and healthcare seeking (knowledge, routs to care, diagnosis and referrals) among older people using health facilities.
- 2) To explore perceptions of NCDs and factors affecting healthcare seeking for these among older people from the community perspective
- 3) To explore healthcare workers views of healthcare seeking for NCDs and clinical practice to support quality of care of older people, examining in tandem their knowledge of gerontological care and the everyday context in which this occurs
- 4) To explore healthcare workers day to day activities, perspectives and experiences of patient care for NCDs post-exposure to awareness training on health needs of older people
- 5) To update the EasyCare tool for use in local contexts using the above analyses and a multi-disciplinary panel of experts and consensus approach



## 4. Methodology

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### 4.1 STUDY DESIGN

We conducted a mixed methods study exploring community and health practitioners' views and experiences of NCDs in urban, Morogoro, and rural, Kibaha Tanzania. We also collected data serving to describe the level of (1) knowledge, (2) routes to care and (3) diagnosis and referrals of NCDs for older people, see Figure 1.

*Figure 1: defining healthcare seeking for NCDs - pathways to diagnosis and referrals*



Figure 1 summarizes a model of healthcare seeking. The three domains contained within are used to guide data collection and analyses. (1) Knowledge is examined from the point of view of what people think they know and regarding NCDs, and what can be gleaned when we probe and ask for examples and to elaborate their views of these diseases. (2) Routs to care examines *where* people prefer to go when faced with an NCD, *who* they are seen by and *what* happens when they get there? (3) Diagnosis is examined from the point of view of receiving a diagnosis of suspected NCD and we also examine referrals and access to this follow-up care.

The study had two arms, qualitative and quantitative. The qualitative data consists of focus group discussion (FGD) data gathered from the community of older people (n=11) and their carers (n=13) we also collected interview data from healthcare workers. The qualitative data from healthcare practitioners was collected in two phases. The first was pre-awareness training on health issues associated with ageing, and on the domains of care proposed by the EasyCare tool

in particular (n=7). The second follow-up interviews (n=11) asked practitioners about their thoughts and experiences of consulting with older people after their awareness training. Details of awareness training are given in section 4.2.3.

We also administered a short questionnaire to practitioners (n=11) at the participating facilities on infrastructure / day to day activities related to NCDs and caring for older people to complement healthcare workers qualitative data. However, the main quantitative arm collected survey data (n=644) on NCDs help-seeking knowledge, routes to care, diagnosis and referrals from community members over sixty.

The EasyCare tool is appraised during the training sessions, and subsequently by a panel of experts – we conducted a Delphi exercise in order to update it for use in the Tanzanian context. The Delphi approach is: ‘characterized as a method for structuring a group communication process so that the process is effective in allowing a group of individuals, as a whole, to deal with a complex problem’.<sup>28</sup>

## **4.2 DATA COLLECTION AND SAMPLE CHARACTERISTICS**

### **4.2.1 Community data**

Survey data (n=644), was collected in Kibaha rural and Morogoro urban for those over sixty years of age. Survey data from the community specifically focused on knowledge of NCDs, help-seeking, and diagnosis and referrals, see ANNEX I.

The sampling procedure was multi-stage starting with selection of the enumeration areas (EAs) of regions from the National Bureau of Statistics (NBS), from which households were selected to be visited. We selected 15 EN and in each 20 households were randomly selected. In each household, one eligible individual of 60+ was randomly selected; this process was repeated which has increased statistical power and reliability.

The research assistants administered an average of 5 questionnaires per person per day. To ensure data quality and security, frequent monitoring of the field activities were done by IHI Researcher Scientists with assistance from the selected field supervisors. Quantitative data were double entered by data entry clerks using access database. Sample characteristics were considered prior to analyses. See Table 1 for sample description.

Table 1: describing community samples in Kibaha and Morogoro

	Urban Morogoro n=411 N (%)	Rural Kibaha n=233 N (%)	Total (N=644) N (%)
<b>Gender</b>			
Males	159 (38.7)	112 (48.1)	271 (42.1)
Females	252 (61.3)	121 (51.9)	373 (57.9)
<b>Age</b>			
60-70	233 (56.7)	123 (52.8)	356 (55.3)
>70-80	120 (29.2)	70 (30.0)	190 (30.0)
80+	58(14.1)	40 (17.2)	98 (15.22)
<b>Education</b>			
Primary	205 (49.9)	94 (40.3)	299 (46.4)
Secondary	25 (6.1)	7 (3.0)	32 (5.0)
University/College	6 (1.5)	0 (0.0)	6 (0.9)
<b>Home care</b>			
Alone	24 (5.8)	9 (3.9)	33 (5.1)
Partner	105 (25.6)	74 (31.8)	179 (27.8)
Child	223 (54.3)	112 (48.1)	335 (52.0)
Relatives	34 (8.3)	19 (8.2)	53 (8.2)

The sample somewhat favored women (61.3%) in urban areas, otherwise gender was fairly balanced; age was pyramid shaped with the bulk being younger older people, the mid middle old, and the tip the older old. With regards higher education and lone living – both were very low. These descriptors appear to reflect what we might expect at national level (awaiting census results for comparisons).

FGDs, ANNEX II, were conducted with older people’ (n=11) and care takers’ (n=16) in Kibaha rural and Morogoro urban respectively, these were separated out by gender, (older people men=5, women=6; carers men=7 and women=6). Unfortunately we were able to conduct fewer interviews in Kibaha with older people, one for men and one for women, this was compensated for by conducting more interviews with care takers, a total of eight in this district compared to five in Morogoro see Table 2a; we also captured an even representation of older older people

(over 70 years old) and younger older people (between 60-70 years old). Two FGDs per day were conducted in these communities. See Table 2a summarizing qualitative community data collection.

Table 2a: describing FGD data collection in Kibaha and Morogoro

Villages	FGDs Older people		FGDs Carers	
	Men	Women	Men	Women
<b>Urban Morogoro</b>				
Chamwino	♂ x2	♀ x2		
Kigurunyembe		♀		
Kihonda			♂	
Kilimanjaro	♂	♀		
Kiwalani			♂	♀
Mbuyuni	♂			
Mji Mpya			♂	♀
Msufini		♀		
<b>Rural Kibaha</b>				
Gumba village			♂	♀
Kidai			♂	♀
Kwamfipa				♀
Maharakani			♂	
Mtambani	♂	♀		
Mwanabwito			♂	♀
Total	5	6	7	6
	(n=11)		(n=13)	

4.2.2 Healthcare workers’ data

Before the awareness training on the healthcare needs of older people took place, we interviewed health practitioners using in-depth interviews (n=7); these focused on caring for older people and NCD awareness, ANNEX III. They were conducted at the health facilities by field assistants. In between pre and post awareness-training, research assistants were given refresher training on interviewing to ensure the quality of data was sustained and an updated qualitative data collection tool was implemented.

The second round of interviews (n=11) focused on experiences of consulting with older people and attempted to explore how the training may have influenced this. Interviews took place largely with healthcare workers at dispensaries or health centre, see Table 2b; these were

balanced across both districts, although slightly more took place in Morogoro (n=10) than Kibaha (n=8). To preserve anonymity we do not disclose the cadre of the worker; however most were nurses followed by assistant medical / clinical officers.

The short questionnaire on day to day context of gerontological care was administered to practitioners at participating health facilities (n=11), ANNEX IV. This questionnaire considered infrastructure / day to day activities related to NCDs and caring for older people more generally, these data are used to supplement their qualitative feedback at follow-up, not as a statistical survey (for which we lacked power).

Table 2a: describing IDI data collection in Kibaha and Morogoro

	IDIs Pre-awareness Training	IDIs Post-awareness training
<b>Health Facilities</b>	<b>Urban Morogoro</b>	
Kilakala Disp	✓	✓
Kilimanjaro Hosp		✓
Magereza Disp	✓	
Mzinga Hospital	✓	✓ x2
Sabasaba HC	✓	✓ x2
	<b>Rural Kibaha</b>	
Bwawa Shule Disp	✓	
Magindu Disp		✓
Mbwawa Disp		✓
Mlandizi HC	✓	✓ x2
Mwanabwito HC	✓	
Mwendapole Disp		✓
Total	7	11

4.2.3 Awareness training on healthcare needs of older people

The awareness training on diagnoses and referrals for NCDs and caring for older people, including the EasyCare tool care domains was conducted in Morogoro, with healthcare workers from both Morogoro and Kibaha districts.

The aim of the training was to help equip providers with the necessary knowledge, skills, and attitudes so that they can improve care of the elderly, in particular for capturing and treating NCDs.



*Illustration 1: Awareness training in Morogoro*

Thirty two healthcare workers from the districts attended. It was conducted over two days (April 26<sup>th</sup> -27<sup>th</sup> 2012) a month after the first IDIs. Each district was represented by 16 healthcare workers from 5 health facilities within respective districts; Kibaha and Morogoro. The training is also a component on the piloting and validation of the EasyCare standard tool.

Awareness training yielded both qualitative and quantitative data, the latter was on participants awareness of issues associated with caring for older people, and subsequent changes in knowledge scores, see ANNEX V. Qualitative data relayed clinician concerns on EasyCare, and were used to inform objective 5 – updating the tool for clinical practice in Tanzania.

#### 4.2.4 Ethics

Informed, signed consent was sought for all quantitative and qualitative aspects of data collection, and the purpose of the research explained at that time. Research Assistants carried

with them copies of all communications and permissions obtained to proceed with the research. All data and records were anonymized from the outset with a unique identity number.

#### **4.3 DATA PROCESSING AND ANALYSIS**

Questionnaires were compiled with the help of the field research assistants and double entered to ensure data quality. We analyzed the quantitative data (knowledge, routes to care and diagnosis and referrals) descriptively and using logistic regression in STATA 11 statistical software. Analysis was stratified by, or adjusted for gender as well as urban and rural settings.

For the qualitative data, research assistants were provided with a recording equipment, notebooks and audio headphones to facilitate data processing activities. In addition during the interviews, notes were taken; all discussions were recorded by digital recorder. Thereafter, an audio interview was converted into a written transcript (transcription) and then translated from Swahili to English language.

Thematic analysis was carried for the qualitative data.<sup>29</sup> The data was coded for analyses according to sub-themes, and finally the main themes which these supported. Analysis was carried out with two senior social scientists who were familiarized with the data and who reached a consensus on the meaning of the texts. Care was taken to compare and contrast rural and urban data, and to consider male and female accounts.

Both sets of qualitative and quantitative data are synthesized to produce robust support for our recommendations



## 5. Sign-posting results

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The following reporting treats each objective in turn; we report these in six sections.

- The first, section 6.1, is driven by quantitative analysis of the burden of NCDs, particularly with regards to healthcare seeking in the community; outlining prevalence of NCDs that are the most/least known and those most/least likely to be diagnosed. We are also interested to see which factors influence diagnosis in urban vs. rural Tanzania.
- Next, in Section 6.2, we contrast these data against community perspectives on NCDs and healthcare seeking practices. This section summarizes both older peoples' and carers' experiences and the context within which NCDs are being monitored.
- The third Section 6.3, explores views of healthcare workers on clinical practices related to NCDs and gives insight into what these practitioners know about and how they view related geontological issues.
- The following Section 6.4, builds on this analysis exploring healthcare practitioner views of caring for the elderly and issues related to NCDs, the infrastructure in which diagnosis for these take place.
- Finally in Section 6.5, we relay concerns that practitioners had in using the EasyCare tool and report a Delphi exercise and related recommendations for an updated EasyCare-TZ tool.

All qualitative and quantitative results are synthesized to support recommendations, Section 7.



## 6. Results

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### 6.1 QUANTIFYING THE BURDEN OF NCDs FOR HEALTHCARE SEEKING IN THE COMMUNITY

We surveyed a randomly selected sample of older people over sixty years of age in urban Morogoro (n=411) and rural Kibaha (n=233) and examined the following objective:

*To establish the prevalence of NCDs and healthcare seeking (knowledge, routs to care, diagnosis and referrals) among older people using health facilities.*

To achieve this objective we report on **knowledge**, including claiming to recognize NCDs compared to citing at least one ‘known’ example, Tables 3a & b.

We then examine the **routs to care** for NCDs – these include: *where* people go, *who* they see, and *what* happens when they get there, Tables 4a & b. Next we examine prevalence of receiving a given **diagnoses** as well as **referrals**, Tables 5a & 5b ; and summarize the frequency with which the different types of NCDs are reported as ‘known’, Charts 1, contrasted to those that are actually diagnosed, Chart 2.

Finally we examine the factors that influence receiving a diagnosis for a suspected NCD in rural compared to urban Tanzania, Table 6. All analyses compare or control for gender differences.

Tables 3a & b: on Knowledge

a) Urban Morogoro	Total sample analysed <sup>†</sup> N= 402 N (%)	Women N= 246 N (%)	Men N= 156 N (%)	p-value gender
Self-reported 'knowing NCD'	211(52.5)	112(45.5)	99(63.4)	0.009
<u>Actual</u> NCD knowledge (citing at least 1 example)	104(25.8)	50(20.3)	54(34.6)	0.103

<sup>†</sup> 9 missing cases ; <sup>††</sup>statistically significant difference at 95% CI

b) Rural Kibaha	Total sample analysed <sup>†</sup> N=228 N (%)	Women N=120 N (%)	Men N=108 N (%)	p-value gender
Self-reported 'knowing NCD'	138(60.5)	56(46.7)	82(75.9)	< 0.001
<u>Actual</u> NCD knowledge (citing at least 1 example)	67(29.3)	32(26.7)	35(32.4)	0.610

<sup>†</sup>5 missing cases; <sup>††</sup>statistically significant difference at 95% CI

#### 6.1.1 Knowledge, Table 3a & b, key findings were as follows:

- In urban settings 25.8% of respondents were able to accurately describe an NCD, compared to only slightly more in the rural setting 29.3%.
- Overall, in both rural and urban settings a significantly greater proportion of men self-reported knowing what an NCD (63.4% in urban and 75.9% rural) was compared to women (45.5% urban; 46.7% rural).
- However, there were no significant differences between genders in actual knowledge (i.e. once they were encouraged to give an example) in in either urban or rural settings.

Tables 4a) on Routs to care Urban Morogoro

4b) and in Rural Kibaha

	Total sample analysed <sup>†</sup> N=411 N (%)	Women N=252 N (%)	Men N=159 N (%)	p-value gender	Total sample analysed <sup>†</sup> N=233 N (%)	Women N=121 N (%)	Men N=112 N (%)	p-value gender	
<b>Where do you go to seek help?</b>					<b>... Where?</b>				
<b>Would you prefer a medical facility over traditional healer</b>	393 <sup>1</sup> (95.6)	241 (95.6)	152 (95.6)	1.000	211 <sup>1</sup> (93.4)	113 (93.4)	98 (87.5)	0.141	
<b>Total attending a health facility (higher or lower)</b>	400 (97.3)	244 (96.8)	156 (98.1)	0.433	225 <sup>2</sup> (97.4)	119(98.3)	106 (94.6)	0.128	
<b>Attends dispensary / health centre</b>	238 <sup>2</sup> (59.5)	153 (60.7)	85 (53.5)	0.280	182 <sup>3</sup> (80.9)	96 (79.3)	86 (76.8)	0.683	
<b>Who treated you?</b>					<b>... Who?</b>				
<b>Attended by doctor rather than nurse or similar</b>	335 <sup>3</sup> (84.6)	203 (80.6)	132 (83.0)	0.580	181 <sup>4</sup> (83.8)	95(78.5)	86 (76.8)	0.783	
<b>Of total attending and facility: What happened when you got there?</b>					<b>...What?</b>				
	<b>N=400</b>	<b>N=244</b>	<b>N=156</b>	<b>P value</b>	<b>N=225</b>	<b>N=119</b>	<b>N=106</b>	<b>P value</b>	
<b>Waited more than 1 hour</b>	249 <sup>4</sup> (64.2)	153 (62.7)	96 (61.5)	0.849	104 <sup>5</sup> (46.9)	61(51.3)	43(40.6)	0.281	
<b>Did you pay?</b>	277 <sup>5</sup> (67.4)	162 (66.4)	115 (73.7)	0.193	108 <sup>6</sup> (49.3)	51 (42.9)	57 (53.8)	0.257	

<sup>†</sup> see individual counts for missing data: 5<sup>1</sup>; 12<sup>2</sup>; 15<sup>3</sup>; 19<sup>4</sup>; 16<sup>5</sup>  
<sup>††</sup>statistically significant difference at 95% CI

<sup>†</sup> see individual counts for missing data: 7<sup>1</sup> ; 2<sup>2</sup>; 9<sup>3</sup>; 17<sup>4</sup>; 10<sup>5</sup>; 13<sup>6</sup>

### 6.1.2. Routs to care, Table 4a & b, the findings were as follows:

- In both settings it was exceptionally common (94-96%) to prefer a medical facility over a traditional healer when seeking care for NCDs.
- In rural (80.9%) settings people were more often reporting going to lower level facilities than in urban (59.5%) areas.
- In both settings doctors were the most frequent practitioner to attend patients (80-85%); but in urban settings more people reported waiting more than an hour (64.2%), compared to rural (46.9%).
- In urban areas people were likely to pay for services 67.4% compared to 49.3% in rural settings, and this difference was found to be statistically significant (p<0.001).
- These analyses showed no gender differences.

Charts 5a & b: on Diagnosis and Referrals

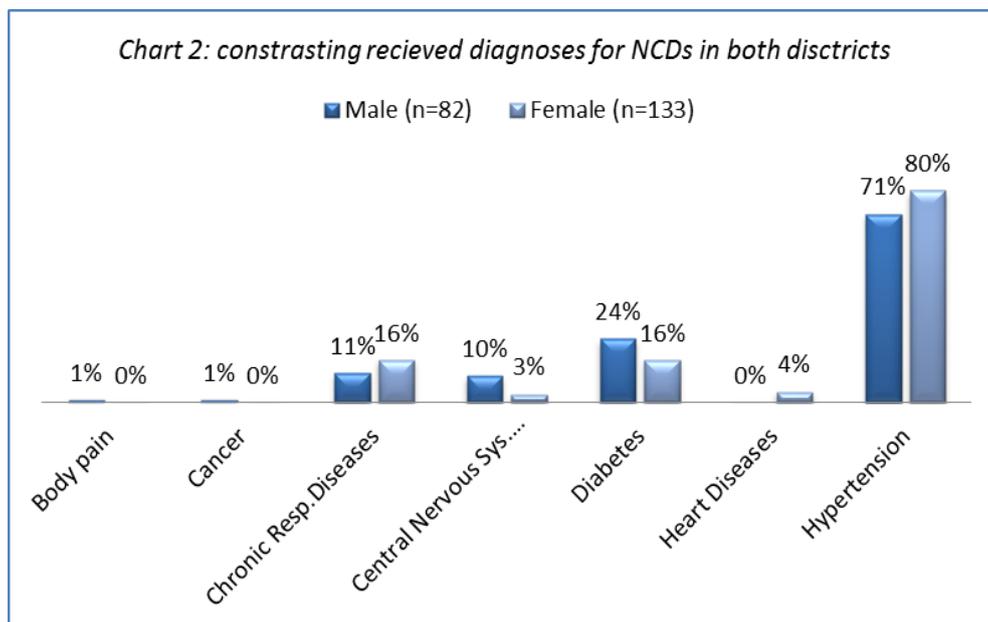
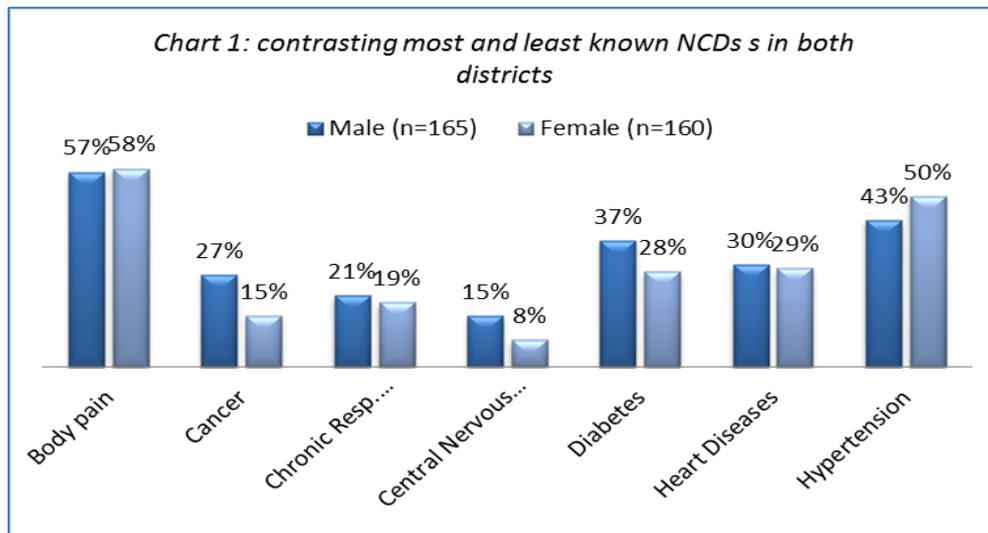
<i>a) Urban Morogoro</i>	<b>Total sample analysed<sup>†</sup></b> <b>N=411</b> <b>N (%)</b>	<b>Women</b> <b>N=252</b> <b>N (%)</b>	<b>Men</b> <b>N=159</b> <b>N (%)</b>	<b>p-value gender</b>
<b>Ever diagnosed with a suspected NCD?</b>	226 <sup>1</sup> (57.1)	144(57.1)	82(51.6)	0.424
<b>Ever referred to a higher level facility?</b>	40 <sup>2</sup> (17.6*)	24(9.5)	16(10.1)	0.950
<b>Succeed in attending</b>	35(87.5*)	21(8.3)	14(8.8)	0.958
<sup>†</sup> see individual counts for missing data: 7 <sup>1</sup> ; 7 <sup>2</sup> ; * % based on preceding count				

<i>b) Rural Kibaha</i>	<b>Total sample analysed<sup>†</sup></b> <b>N=233</b> <b>N (%)</b>	<b>Women</b> <b>N=121</b> <b>N (%)</b>	<b>Men</b> <b>N=112</b> <b>N (%)</b>	<b>p-value gender</b>
<b>Ever diagnosed with a suspected NCD?</b>	112 <sup>1</sup> (49.8)	70(57.9)	42(37.5)	0.036 <sup>††</sup>
<b>Ever referred to a higher level facility?</b>	35 <sup>2</sup> (31.2*)	18(14.9)	17(15.2)	0.397
<b>Succeed in attending</b>	34(97.1*)	18(14.9)	16(14.3)	0.960
<sup>†</sup> see individual counts for missing data: 8 <sup>1</sup> ; 6 <sup>2</sup> <sup>††</sup> statistically significant difference at 95% CI; * % based on preceding count				

### 6.1.3. Diagnosis and referrals, Tables 5a & b, we found:

- Diagnosis with a suspected NCD was more frequent in urban setting (57.1%), compared to rural (49.8%); in rural settings however women were significantly more frequently reporting receiving diagnosis over men (57.9% compared to 35.7% of men).
- Referrals were few in both settings, but the extent to which NCDs were accurately diagnosed remains unknown; we suspect that many more minor NCDs are often easily diagnosed (more detailed analyses to follow) and more serious ones lag behind.
- Access to attending referrals and compliance to following-up appeared good in both settings.



**6.1.3 ...Continued...** More detailed examination of ‘known’ NCDs (n=171 cited at least one; n=325 accurate citations including multiple responses) was **contrasted with type of received diagnosis** (n=215 responses given):

- Here, we do not compare districts as there were hardly no differences between them - or indeed as can be observed above - between men and women.
- Body pain and hypertension were the most familiar NCDs, closely followed by diabetes; the least known were Central Nervous System diseases, Chart 1.
- Interestingly, even though it was the most familiar NCD body pain was hardly ever diagnosed, while hypertension was the most commonly diagnosed, Chart 2. The disparity between familiarity with body pain, and its under representation during patient-practitioner consultation is further explored qualitatively.
- Another difference was that Chronic Resp. diseases were approximately 15% more frequently diagnosed in rural compared to urban settings (results not shown).

Table 6: on factors influencing Diagnosis

Diagnosis with suspected NCD	Urban Morogoro N=219		Rural Kibaha N=112	
	Odds Ratio	CI 95%	Odds Ratio	CI 95%
<b>Gender Male</b>	0.55	(0.26-1.18)	0.19	(0.04-0.88)
<b>Age</b>	1.04	(0.99-1.09)	0.98	(0.89-1.08)
<b>Education Secondary+</b>	3.32	(1.15-9.58)	3.84	(0.35-41.9)
<b>Actual NCD knowledge citing at least 1 example</b>	0.68	(0.32-1.47)	0.51	(0.14-1.79)
<b>Attended by doctor rather than nurse or similar</b>	1.19	(0.33-4.30)	1.40	(0.11-16.58)
<b>Waited more than 1 hour</b>	1.42	(0.64-3.13)	1.86	(0.49-7.04)
<b>Did you pay?</b>	3.09	(1.32-7.25)	1.42	(0.41-4.84)

**6.1.3 ...Continued on...** Finally, in Table 6, we see the **factors influencing diagnosis** are as follows:

- In urban settings there was a fairly large statistically significant influence from having secondary education (3.32, CI 1.15-9.58) and paying (3.09, CI 1.32-7.25) on receiving a diagnosis.
- Diagnosis was not dependant on gender in either setting; indeed we found no statistically significant relationships in rural Kibaha.



## 6.2 QUALIFYING COMMUNITY PERSPECTIVES ON NCDs AND HEALTH SEEKING PRACTICES

The next objective, this time our qualitative data brings to life older peoples voices, also serving to situate the above findings.

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*Exploring perceptions of NCDs and factors affecting healthcare seeking for these among older people from the community perspective*

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We found no real differences regarding perceptions of NCDs between rural and urban communities, older people and their care takers and indeed between men and women. However, the Morogoro focus groups tended to be more outspoken and critical of the health systems; women were sometimes described as likely to be sicker from NCDs than men. The following main themes emerged across focus groups, which we will explore (outlining supporting sub-themes) in turn:

- NCDs are broadly defined by simply ‘being old’
- Widespread valuing of medical rather than traditional healers for NCD treatment
- Implied continuum of respectful – disrespectful when healthcare seeking for NCDs
- The ‘*chai*’ and informal payment for health seeking related to NCDs
- Disappointment with implementation of free care to the elderly
- No medicine (‘just go and take your Panadol’)
- Views on lifestyle
- A health system at odds with community values

### 6.2.1 NCDs are broadly defined by simply ‘being old’

This theme was supported by various lay beliefs, that sometimes (a) *confused any serious illness in old age with an NCD*, regardless of whether communicable or not; however, confirming our earlier quantitative findings, the most spoken about NCD was (b) *joint related*

pain or other symptoms, seen (c) as arising from age / lifelong exposures to hazards. For instance:

(a) *I think illnesses such as [achy] legs and pneumonia are really disturbing older people this is a big challenge, perhaps h/she has an appointment to go to a health facility for medicine the legs have swollen' (Male care taker, Mbuyuni Morogoro).*

(b) *'We are disturbed much with bones and joints' pains. This is the problem which disturbs almost every elder person' (Male older person, Kihonda Morogoro).*

*'The problems we are facing are like legs pain, waist pain; I can only stand for five minutes and not longer than that; it is so painful I can't take a long walk. I also have chest pain; I can say in general that my whole body is not normal!' (Female older person, Gumba Kibaha).*

*'Most of them used to do heavy works and later in their older ages they have leg and waist pain female older people being more affected' (Male older person, Mbuyuni Morogoro).*

(c) *'You know the human body is like the car and other things. If there are no daily repairs, your body must change...we are seventy, eighty years old. If you were running earlier, now you must sit down. There is no repair which occurs in your body, so diseases affect us in that way. We don't have a daily medical services' [...] 'Now I see there is bladder problem. Most of older people now have this problem and as they say, I listen on the radio that there is a possibility for older people to get those diseases' (Male older person, Kihonda Morogoro).*

*'Leg, back pain, Blood Pressure and eye problems are common diseases among older people here. Different from previously [in my life] nowadays such diseases [NCDs] are many and when we stopped using traditional medicine we are currently affected by even more diseases' (Female older person, Gumba Kibaha).*

As illustrated above, the intermeshing of old age and sickness, sometimes linked this state with superstition. A minority of older people talked about (d) *old age itself as tainted, corresponding to disease:*

(c) *'They talk negatively about us; you know when you are getting older your body changes, that is why thoughts of saying 'this one is a witch' come. Why shouldn't he live in peace? ...but it's because of diseases that have weakened you and your age has gone. These are also issues of witchcraft, superstition' (Male older person, Kwamfipa Kibaha).*

Overall however, it appeared that community beliefs around traditional healing were shifting rapidly in favor of attending health facilities for NCDs.

### 6.2.2 Widespread valuing of medical rather than traditional healers for NCD treatment

This dominant theme was supported by a number of sub-themes. The first was a clear consensus that (a) *Traditional healers were largely for curing fever, not conditions such as diabetes; for many older people as well care takers* (b) *the exception was mental illness*. Many older people spoke about using traditional healers as follows:

- (a) *'...It depends with disease status if the fever has taken... you will leave there and go to a traditional healer' (Male older person, Kwamfipa Kibaha).*

*'I use traditional medicine, I grind mwarobaini, you see it here, they say it cures fever (Female older person, Kigurunyembe Morogoro).*

- (b) *'Some [NCDs] can be treated in hospitals while some can't. For example madness, it can happen if one is bewitched, someone can be attacked by a gin or evil spirits. This can't be treated in hospitals but can be treated by a traditional healer' (Female older person, Chamwino Morogoro).*

Nevertheless, supporting our quantitative findings on routes to care for NCDs, traditional healers seemed largely viewed as (c) *a first port of call*, which was worth a try but may not work; while any (d) *serious illness, which was viewed as likely to be an NCD, would require the health facility:*

- (c) *'...We first go to the traditional healers; we get the first aid there, if we see we have failed, they try to take us to the hospital dispensary or elsewhere. But at the first time, we go to our witch doctors' (Male older person, Kihonda Morogoro).*

- (d) *'That is why we die every day because of going to traditional healers. These people cannot treat blood pressure or cancer; he does not know about it, he only knows to give you medicine. So when you get used to traditional healers it's when your life perishes. And if you don't have someone to take you to the hospital, even if he takes you there without money, you will certainly get problems' (Male older person, Kihonda Morogoro).*

Once, the decision was made to seek help at a facility, the encounters people described appear to shift along a spectrum of quality of care.

### 6.2.3 Implied continuum of respectful – disrespectful care when healthcare seeking for NCDs

An implied continuum of care was obvious from peoples' experiences of healthcare seeking for NCDs. We found a shortage of satisfied accounts. Some accounts of (a) *helpful staff* were noted, but most recounted *a dismissive or rushed workers* who made the older person feel like a nuisance. At the far extreme of the continuum were a few accounts of outright *discrimination* (treating patients in old age differently to younger patients). For example:

- (a) *Health workers are attentive, they will listen and prescribe. The problem is inaccessibility of medicine...'* (Male older person, Chamwino Morogoro).
- (b) *'When you go there the health worker continues to write, without looking at you; after 5 mins they give you a piece of paper and tells you 'go and take your Panadol'* (Male older person, Kihonda Morogoro).
- (c) *'You will hear them say [disparaging comments]: 'these [old] people are already dead and you are bringing them here just to disturb us''* (Female carer taker, Kwamfipa Kibaha).

*'The same elder when he goes to the hospital with this identity card, the doctor will just ignore you, he just looks at you like 'faeces', completely no time to ask you respectfully, like someone who is younger: 'today we don't have medicine mama, just go and buy for yourself''* (Female older person, Gumba Kibaha).

### 6.2.4 The 'chai' and informal payment for health seeking related to NCDs

One dominant theme was around informal payment schemes, which flouted dignity of care and government instituted policy on free care for over 60's. It was not clear from our quantitative analyses if paying in private care facilities versus informal payment in public ones contributed to the increased odds of receiving a diagnosis; unfortunately the data was not available to control for this. However, from the qualitative data it was clear that 'chai' payments could buy a number of things including (a) *diagnosis*, even (b) *kindness*. These payments were either covert or requested as an (c) *additional 'top up' to annual registration fees*. Participants described these themes as follows:

- (a) *'You struggle to get there on piki piki, sleep on the bench waiting, and when you get there the doctor says 'where is money?', you say 'I don't have' and so you are thrown out'* (Female care takers, Mwanabwito Kibaha).
- (b) *'If you go there, and you find a health worker being kind, you should know that the caretaker gave them 'chai''* (Male older person, Kihonda, Morogoro).

- (c) *'At dispensary they tell you are supposed to pay 5,000 TSH annually, but when you go for treatment they tell you to pay 3,000 TSH for each visit' (Female older person, Gumba Kibaha).*

It was particularly concerning that *even* if issues of mobility are overridden, either ignorance of free care policies or deliberate profiteering may well seal the door to diagnosis.

### **6.2.5 Disappointment with implementation of free care to the elderly**

Most participants in the FGDs were aware that free care should be available to people over sixty years of age in public health facilities; this was likely to be particularly sought for most NCDs which demonstrated earlier where preferentially treated medically rather than traditionally. Yet, when free treatment was sought this was often (a) *qualified by the 'but...'* conjunction:

- (a) *'We are told that health services are free of charge but they don't care about it. If they were following up this issue, they would know if older people are getting health services at free costs' (Female older person, Chamwino Morogoro).*

*'...If there is someone with money there, they are attended first, as an older person you will remain there sleeping even if you went there morning you say: but I went there earlier' and you will still have to stay there until 6:00pm to see someone' (Female older person, Chamwino Morogoro).*

*'...You need to take your older relative to a hospital/dispensary you give money because some older people did not get vyeti vya uzee (exemption certificate), you are told your parent did not get the certificate so you need to give money. But we ourselves already pay the standard 5000 TSH contribution' (Male care takers, Mwanabwito Kibaha).*

*'...My father was once told that your child can afford to pay for your treatment so we don't involve you...My father goes to dispensary for service but he comes back with a debt, so I should pay it' (Male care taker, Mwanabwito Kibaha).*

In fact the list of 'but' qualifiers used to inhibit free care and institutionalise top ups are surprisingly long and fancifully creative. A 'no if nor buts' policy needs heavy promotion.

One case of cancer was noted among participants, afflicting the wife of one elder in Morogoro. This case stood out because her condition had been diagnosed but had gone (a) *untreated due to lack of funds*; this was sometimes blamed on the inability to afford travel to referral. The consensus from

several focus group participants was that a diagnosis of cancer, more likely than not in Tanzania was (b) *incurable*.

(a) *'My wife had cancer I spent a lot of money for treatment I asked support from church, they supported me ...eventually there was no more support I had to visit traditional healers for a help it didn't work, unfortunately she died' (Male older person, Msufini Morogoro).*

*'...As you see our health facility is small if you are sick they refer you Tumbi (District Hospital) a car is there but you should contribute for fuel, your poor family can't afford that' (Male older person, Gumba Kibaha).*

(b) *'Cancer is one of diseases like cervical cancer, some get leg cancer...a wound may happen and one goes to small health facility until h/she dies' (Female care taker, Mwanabwito Kibaha).*

### **6.2.6 No medicine ('just go and take your Panadol')**

One of the most dominant themes throughout our FGDs was (a) *the lack of appropriate, freely available medicines to treat NCDs and an overreliance on 'Panadol' as a catchall cure that was doled out seemingly to pacify rather than to treat.*

(a) *'Actually there are no medicines, but what is mostly available is Panadol' (Female older person, Chamwino Morogoro).*

*'We are given papers to show at the window but nothing is provided for free from laboratory, up to [apart from] Panadol. Otherwise you have to purchase for an older person' (Male care taker, Magereza Morogoro).*

*'Corruption is widely spread that's why there is no service. It doesn't mean there is no medicine at a big hospital, medicines are there but provided to people that are known there, someone comes h/she gets medicine, you remain there waiting for nothing. You can go to a hospital, you don't find a doctor even' (Female care taker, Magereza Kihonda Morogoro).*

*'I have not seen that there are enough medicines in the hospital for helping those [older] people. I don't know if there is a unit that should provide these, but that is why I have seen many older people die' (Male older person, Kihonda Morogoro).*

Such statements littered our transcripts, often qualifying good service from actual service. It appears that the implementation of free care for the over 60's is failing, and particularly is the appropriate distribution of medicines for NCDs. Steps need to be taken to redress this gap. Participants in Morogoro were particularly vocal on this issue.

### 6.2.7 Views on lifestyle

Our focus group participants spoke less of NCDs in terms of lifestyle and more in terms of the natural degeneration of the body, as outlined in section 6.2.1. However, a few participants noted the gateway of lifestyle to healthy ageing. Some respondents spoke simply of (a) *the burden of poverty*. Others blamed specifically (b) *unhealthy foods* and (c) *lack of exercise*, demonstrating a general awareness of behaviours that promote health, as the following illustrates:

(a) *'Actually, all the non-communicable diseases attack us because of the condition we live in [poverty]' (Male older person, Kihonda Morogoro).*

(b) *'Plus the issues of today is the food... whatever you eat, you may not know what the effects of it are, because other non-communicable diseases are caused by eating certain foods' (Male older person, Kihonda Morogoro).*

*'Maybe the cooking oil you use now days, in the past we only cooked our food by using groundnut oil, sesame, sun flower and cotton seed oil but now days we see dangerous cooking oils, I don't know what type of cooking oil, you know yourselves' (Female older person, Chamwino Morogoro).*

(c) *'When I say exercises it is not necessarily jogging or playing football, even going to cultivate in the farm, helps in reducing diseases like diabetes. But most of our older people have sold their farms, so you will find them at home usually; and if they get some work, to do, it is these small jobs that require less effort. This in itself contributes to the generation of diseases' (Female older person, Kwamfipa Kibaha).*

It was however interesting that continued productivity was reinforced as a form of healthy living; as this might equally add to vulnerability in old age, after in some cases a life time of labour, which has taxed the body beyond repair.

### 6.2.8 A health system at odds with community values

The most notable disparity between the Care Takers and Older people narratives and the day to day realities they described was the large gap that existed between: (a) *the cultural imperative of respecting older people from the community*, and (b) *a health system that at worst marginalized, and dismissed them, and at best underserved them* due to under resourcing. In the context of growing healthcare seeking particularly for NCDs it seems such cultural precepts elevating the

status of the elderly in *personal* relationships might be valuably leveraged in behavior change campaigns to promote implementation of existing free access policies.

- (a) *'Normally in our leadership structure older people are chairmen, members and they advise and in case of any misunderstanding older people are there are there to resolve' (Male older person, Msufini Morogoro).*
- (b) *'A provider can say this to an older person; your days are up you still want to trouble us here, give h/her that drip of water' (Female care taker, Magereza Kihonda Morogoro).*

*'They don't value us at the hospitals; they prescribe us medicine and tell us they are not available (Male older person, Kihonda Morogoro).*

*'There is no compassion' (Female carer taker, Kwamfipa, Kibaha).*

However, an overlapping sub-theme on *the burden of care* of older people that also featured within health systems analyses (described below) was noted in the community, and was generally linked with concerns over money. Indeed, overall, our discussions have noted that older people are facing many challenges from living with NCDs at older ages, but often cited were the economic ones. Income poverty is a common characteristic of Africa's older people especially in societies like Tanzania where governments do not provide universal social security in old age.<sup>30</sup>

Our FGD with older men in particular revealed a broad theme that the *older people feel that they are forgotten* while other groups in the community, such as HIV positive patients, are supported with access to free healthcare.



### 6.3 QUALIFYING HEALTHCARE WORKERS PERSPECTIVES ON NCDs AND CLINICAL PRACTICE

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*Exploring healthcare workers views of healthcare seeking for NCDs and clinical practice to support quality of care of older people, examining in tandem their knowledge of gerontological care and the everyday context in which this occurs*

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Analyses of in-depth interviews with healthcare workers revealed the following dominant themes:

- NCDs: a neglected disease category
- Awareness of NCDs and common complaints
- Tendency to minimize NCDs as natural process of degeneration or ‘blaming’
- Knowledge synthesis – before and after test (training data ANNEX V)
- Lay belief and healthcare seeking for NCDs are changing
- Waiting too long

#### 6.3.1 NCDs: a neglected disease category

From these interviews it was apparent that healthcare workers also recognized NCDs as a rather

(a) *neglected category of diseases:*

(a) *‘Let me speak the truth that there aren’t any such efforts because as we said these [NCDs] are the diseases which seems to be forgotten. Many campaigns continue on the AIDS, and for example for the case of diabetes when the medicines decrease the patients must buy for themselves; these diseases are not given priority in these health facilities’ (Healthcare Worker, Mzingo Hospital Morogoro).*

#### 6.3.2 Awareness of NCDs and common complaints

However, practitioners easily shared their views on what the commonest NCDs were, what they and what they believed these were likely to be caused by. (a) *Common diagnosis included:* heart diseases; stroke and hypertension; leg numbness or legs swelling/burning; bladder problems less

frequent mentions came of: diabetes; ulcers and asthma; mental illnesses, memory loss (dementia); anemia, dizziness and eyes' problems; hernia, and interestingly elephantiasis (considered by some as communicable).

- (a) *'...Specifically is hypertension is a big challenge, I don't know asthma and bronchitis; others legs or waist- let's say joints- due to age, one struggles to walk' (Nurse Midwife, Magereza Dispensary Morogoro).*

We were surprised to find relatively few mention of rheumatoid arthritis, or such body pain (also a sign and symptom of some cancers), nor of cancers or referrals investigating malignancy of tumors.

(b) *Except in one the higher level facility:*

- (b) *'And if there are cancer cases that is okay because here we are equipped for cancer tests and get results, here we have that section for it. Otherwise if a case is tough/ is above our capability we refer hospital' (Healthcare Worker, Mlandizi Health Centre Kibaha).*

These oversights, particularly of body pain, reflects findings from the quantitative arm of the study – which suggests this particular complaint may be treated as endemic to older ages, rather than as a limiting pathology, or is narrowed to hip and knee problems.

Moreover, practitioners noted (c) environmental (e.g. poverty; access to poor nutrition etc), (d) behavioural (e.g. over eating, under exercising etc.) and (e) social pathways to acquiring NCDs.

- (c) *'Perhaps is chemicals, the oil we are using, weather nowadays isn't good as previously the older generation was not using fertilizers... our bodies are affected so anyone with lower immunity becomes the first one to acquire' (Nurse Midwife, Magereza Dispensary Morogoro).*

*'Poor status can be to blame; you find a person in a grass house can get skin, chest diseases' (AMO, Bwawa Shule Kibaha).*

- (d) *'At older age, it is easy to get diseases such as pressure because as you know when one becomes older and perhaps h/she is overweight and doesn't get physical exercises. All these makes them continue to get such diseases' (Nurse Assistant, Sabasaba Dispensary Morogoro).*

- (e) *'Some older people are isolated, you find them living alone; obviously this person will get hypertension. Or another elder has a big burden taking care of many grandchildren. You are astonished this person walks, you find BP is 260 or 240/15; h/she tells you that they have fast heart beats' (Healthcare Worker, Mbwawa Dispensary Kibaha).*

### 6.4.3 Tendency to minimize NCDs as natural process of degeneration or ‘blaming’

Lifestyle explanations for NCDs sometimes overlapped with (a) minimizing these as issues endemic to old age, or outright (b) ‘blaming’ the patient. One healthcare worker echoed out earlier findings from the community that a reduced work ethic could catalyze NCDs:

(a) *‘...as a person get older is as a low body immunity become. Youths have an ability to fight disease, but when a person get old body decline slowly as the result he/she can’t fight diseases. I think this is a major reason for NCDs’ (Healthcare Worker, Kilakala Dispensary Morogoro).*

*‘First of all is the age, as the age passes such diseases happen’ (AMO, Bwawa Shule Kibaha).*

(b) *‘Probably, according my experience, it is lifestyle; this is because people living along coastal areas are always idle, they don’t like to work compared to other regions. You find that, people in other regions engage themselves in agricultural activities; this prevents them from being attacked by these small diseases.’ (AMO, Mwendapole Kibaha).*

### 6.3.4 Knowledge synthesis – before and after test (training data ANNEX V)

Overall during the interviews it was apparent that the healthcare workers we spoke with knew of the presence of many NCDs in over 60 year olds, attributing these to lifestyle, laziness or to ageing itself. Some beliefs around chemicals in the environments did not appear based on known research, but anecdotes and urban legends.

Nevertheless, it was clear that the practitioners we spoke with had ample experiences of dealing with the more common and easily detectible NCDs. However, as we have seen, rarely did healthcare workers address cancers; or diseases of the central nervous system and rheumatoid arthritis. Overall, it was also clear that a lack of education on gerontology itself, rather than exposure to treating some common NCDs in older people, was at play for many of these healthcare professionals.

On the gerontology knowledge test (pre-training) on issues relating to the needs of older people the 32 participants who completed the test, see ANNEX VI for anonymized score sheet, scored an average of 57%. The highest score was 80% and the lowest 40%. One third scored above 70%; another tier scored between 65% and 55%; the rest 50% or lower. This suggests

that although practitioners have had some exposure to issues of ageing, fewer than we might have expected were fluent on the broader accepted topics of today.

Post-training the clinicians test scores increased by an average 9%, suggesting that with training some improvement might be achieved. Also, that perhaps our healthcare practitioners did not always – understandably – agree with the ‘right’ stipulated answers, and engaging discussion around these topics might be more appropriate than the didactic teaching approach favored in this instance. These results are also qualified by the test being administered in English, while a Swahili translation might have boosted scores.

### **6.3.5 Lay beliefs and Health seeking for NCDs are changing**

Accounts for healthcare workers paralleled findings in the community, which showed a preference toward seeking medical rather than traditional care. Indeed, in the facilities this was noted (a) *as a fairly recent shift in care seeking for NCDs:*

- (a) *‘There are some patients who had blood pressure and they were using herbs as a cure; but now they come here and we are educating them still when they come’ (AMO, Bwawa Dispensary Kibaha).*

*‘The rate of seeking care in health facilities has increased; they no longer visit traditional healers, if they do it are just few of them’ (CO Mlandizi Health Centre Kibaha).*

*‘For example stroke, most of them used to say it was caused by witchcraft they used to visit traditional healers for treatment. Now healthcare seeking rate has increased. Most of them do appreciate the care we provide are they are satisfied with medical advices that we give them. Not all are coming for treatment though, some do come for medical consultations only’ (CO Incharge, Mlandizi Health Centre Kibaha).*

*‘Most of the older people are now coming here. Now the awareness is bigger it is different from where we first came from, most of them at first they did not understand, they thought maybe they had been bewitched, but one can’t just collapse without good reason’ (Nurse Midwife, Mzingu Military Hospital Morogoro)*

### 6.3.6 Waiting too long

However, it appears that healthcare practitioners experienced the tail end of traditional healers sometimes being the first port of call for NCDs – as also described by the community – meaning that (a) *by the time these patients arrived at the facility they were likely to be in a severe state:*

- (a) *'They come when they get sick. But they come when they have already passed to traditional healers. We have seen that, either I am afraid because - take a person with a problem of a bladder - he comes to you when the problem is severe and a day has a gone, he comes for help. ... at the last stages. Even with the problem of blood pressure, he comes when it is at the stage of stroke' (Healthcare Worker, Mlandizi Health Centre Kibaha).*

There was also a suggestion that some people (b) *simply did not address* some of the commoner, more chronic NCDs at all, until the damage was too far gone, being unaware of their conditions:

- (b) *'Diseases like diabetes, even some people get strokes, these affect natives here; but it just happen suddenly one is at the farm they just collapse' (Nurse Midwife, Mzinga Hospital Morogoro).*

*'A large percent don't understand, we believe they need to be more aware of these NCDs, then they would go to hospital on time as soon as they feel some difficult; many older people go to hospital when their condition is worse which makes their case complicated. If they come are sick, the aim to educate them is too late. We may find out they have (low/high blood pressure) or are diabetic; in consequence they ended up having a stroke. They are surprised when you ask them: 'have you ever know that you have pressure?' They say 'no', they only just find out as they got here' (Healthcare Worker, Mlandizi Kibaha).*



## 6.4 A CLOSER LOOK AT CLINICAL PRACTICE FOR NCDs: AFTER AWARENESS TRAINING ON THE NEEDS OF THE ELDERLY

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*Exploring healthcare workers day to day activities, perspectives and experiences of patient care for NCDs post-exposure to awareness training on health needs of older people.*

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After awareness training on the healthcare needs of older people we went back to the field to see what we could glean about the practical applications of what had been covered in the training three months prior. We also found practitioners were much more willing to share the challenges that they were facing at follow-up. The themes covered herein therefore include:

- Actions taken for improving care of older people
- Today's treatment context (short questionnaire on environment) and challenges that remain

### 6.4.1 Actions taken for improving the care older people

After the training on the health care needs of older people several steps were described as taken to ensure the needs of older people were acknowledged and that they were represented by the facilities they attended. Many of these accounts came from the more rural Kibaha. For instance: (a) *Meeting were held to inform co-workers of special needs of older people' and thereafter specific people assigned to take care of their needs;* (b) *over sixty year olds were also given priority to see doctors;* or (c) *successfully implemented specific days and times for seeing older people:*

- (a) *[Since meeting] We have tried to assign at least one health worker to take care of the older people; previously we were doing this randomly' (Health Worker, Magindu Dispensary Kibaha).*
- (b) *'Here in our area we establish clinic for older people there is a special door for serving older people only we don't want to see older people sitting in a queue. We want to see older people are attended by designated*

*doctors who were trained to serve them in a proper way' (Healthcare Worker, Mlandizi Health Centre Kibaha).*

- (c) *'After the training I made a plan that I should see them [over 60's] twice a week Wednesday and Friday from 1:00 to 5:00pm. So I get at least the time to talk them because if they come in the morning I find myself very busy... and of course on those special days up to 30 older people turn up!' (Healthcare Worker, Mbwawa Dispensary Kibaha).*

In Morogoro, there were in particular some attempts made to (d) *address the shortage of medicines, and to ensure these were properly administered.* In these urban parts healthcare workers also noted that many of their older people seemed unaware that they did not have to pay, and were henceforth (e) *assured their care was free:*

- (d) *'Even when we have stock outs we leave some at least for first aid for older people [...] at 70 years weighing 40kgs, if you give too high dose it could make them tired...' (Health Worker, Mzinga Hospital Morogoro).*
- (e) *'Some older people are not aware, because some of them they are not educated yet, they still have those mindsets that they must have some money in order to get service. We assure older people who are qualified for free of charge service that they will be given service unless we don't have the needed service' (Healthcare Worker Mzinga Hospital Morogoro).*

Since the training, practitioners from both research areas described noting the needs of older people altogether differently. For instance, to improve adherence by (f) asking care takers, or other family members to be invited to the consultation:

- (f) *'Sometimes it is hard to give an instruction about dosage for older people, you have to repeat this many times [the dose]. Now I advise it is better for them to be accompanied by their grandsons/ daughters or any other relative who can have a good understanding of follow-up care' (Healthcare Worker, Kilakala Dispensary Morogoro).*

#### **6.4.2 Today's treatment context (short questionnaire on environment) and challenges that remain**

The presence of older people was felt in the 11 health facilities which we visited; there were no real urban rural divides here, except the differences between lower and higher level services. In Morogoro we approached 2 hospitals, while there were none in Kibaha (which had three health centres compared to 1 in Morogoro; the rest of the facilities were dispensaries). In the Morogoro hospitals, the healthcare workers described seeing an average of 18 over sixties a day, and sometimes up to 30. In the lower level facilities this ranged from 1 to ten patients.

At the hospital level, only one NCD specialist was identified, whereas at the lower levels of service just over half respondents said they had at least one expert on their staff. Yet unsurprisingly perhaps, many healthcare workers still spoke of infrastructure limitations: (a) lack of equipment and resting rooms, (b) *poor transport links for referral of acute NCDs that require treatment faster than they are able to move patients:*

- (a) *'Infrastructure is still a problem, e.g. our laboratory is not complete. A common disease here is blood pressure; and diabetes... if you have equipment and a laboratory you can check these' (Healthcare Worker, Mbwawa Dispensary Kibaha).*
- (b) *'Let's say someone has got a stroke or heart failure, we get stuck in referral because transport is a challenge. Remember Mlandizi is a health center, sometimes the patient will be referred to Tumbi, which is too far to treat emergencies.' (Healthcare Worker, Mlandizi Health Centre Kibaha).*

In these interviews in particular (contrasted to earlier interviews), many healthcare practitioners – in echo of patient and care takers earlier complaints - bemoaned the (c) the *lack of medicine to treat common NCDs in older people:*

- (c) *'Here the problem is medicine, we test all the diseases, but when we prescribe them medicine so that they may buy to the pharmacy others say, 'There is no need to come here for medical treatment because we just get tested and there is no medicine.' So, the main problem is medicine, and I met with the health committee to explain them about this matter. They said we have to meet and list all the problems. The next day we did that here, we met and listed what are those medicines are so that they should consider this as a problem and bring us those required medicines. For example, these include medicine for Diabetes and Blood Pressure (Healthcare Worker, Mwendapole Dispensary Kibaha).*

*'Sometimes you may have no medicines in stock so you order medicines from MSD for older people but are not arrived on time and this is not that there is no money. There is problem in MSD, for example: since we got medicines from last quarter we were not receive any medicine till today. It so often when we request medicines for older people we don't get enough' (Healthcare Worker Mlandizi Health Centre Kibaha).*

From the questionnaire data we could glean that about a third of dispensaries and health centers said they had referred older people for NCD treatment that month. Most of these lower level facilities (n=9) reported not having equipment or medicine for the more severe NCDs: Cancer, n=1 out of the 9 facilities had equipment, while n=2 had medicine; Chronic Obstructive Respiratory Disorders (CORD), n=3 had equipment but most did indeed have medicine, n=8; diseases of the central nervous system, only one had equipment while n=3 had medicine; heart disease, again only one had both equipment and medicine; for diabetes, n=3 had equipment and 2 had medicine.

On the other hand, hypertension equipment was present in n=7 while n=5 of lower level facilities had the required medicines. At the time of the interview, none of the Hospitals had cancer treatment or medicine; neither had equipment to test heart disease either, but both had the necessary medicines for these conditions. All other NCDs could be detected and treated at hospital level. There was no mention of the rheumatoid diseases and treatments, which did not appear to be considered a diagnostic category.

These challenges are compounded by (d) *suspicion from patients*, affecting care providers morale. It appears that the lack of medicines were at times perceived as due to corruption or referrals as unwillingness to help. In actual fact, the health workers we spoke to said many medicines never reached them. Transparency in the system of recording available meds also appeared to be lacking.

(d) *When clients find there are no medicines they blame the clinicians [maybe that they are selling them elsewhere]... but it is little budget. [for medicine] I think they do not understand a lot of things (Healthcare Worker, facility Anon).*

*'Sometimes when we are required to refer a patient to another facility you need to sometimes to educate him/her about it, some patient they think is like you are just pushing them away and that it is you that you don't want to give them the service' (Healthcare Worker, Mzinga Hospital Morogoro).*

Healthcare workers echoed the communities' speaking of (e) *NGO's help in the areas* that waxed and waned unpredictably or were too indirect to really benefit the community, while government action was slow in coming, for example:

(e) *'KIKODET has supported some funds for treatment but again it is not very helpful because the money does not come to us directly; we only get 20%, 80% goes to the Council (Healthcare Worker , Mbwawa Dispensary Kibaha).*

*'At the ward level there was MOROPEO, an organization that dealt with improving older people health and HIV positive people they said they cannot afford because donors who were sponsoring them have shifted to Mtwara' (Female Care taker, Magereza Morogoro).*

There were repeated urges to invest greater funding into the health care of older people from government sources and many recommendations of ways were suggested to manage those resources to address NCDS in this population group, again both from the community as well as the health sector. These will be explored in relation to our suggested recommendations which draw on the research presented thus far.

However, one finding that emerged from the awareness training on the health needs of older people with Healthcare workers was with respect to the EasyCare tool, and is addressed first, in the following section. During training, although some attempt was made to describe the tool for use in the Tanzanian context, it became clear that a far greater adaptation of the tool would be required to make it useful in practice. This was therefore undertaken as described below.



## 6.5 A DELPHI EXERCISE UPDATING EASYCARE FOR THE TANZANIAN CONTEXT

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*Updating the EasyCare tool for use in local contexts using the above analyses and a multi-disciplinary panel of experts and consensus approach*

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To Update the EasyCare tool for the Tanzanian context we conducted a Delphi exercise with the assistance of HelpAge during dissemination of preliminary Burden to NCDs research results. We administered the EasyCare Delphi, ANNEX VII (A), to four groups composed of ageing experts and at least one clinician. Delphi feedback was also solicited from research scientist within IHI from, including: one social epidemiologist; one sociologist; one nutritionist and one clinical researcher. The 8 responses to our Delphi questionnaire were pooled and resulted in the updates described below; these include:

- Omitting EasyCare sections to shorten the tool
- Adding sections to use EasyCare to record specific treatment/referral outcomes
- Rewording of question to make them culturally appropriate
- Finalised EasyCare-TZ version 1 for testing

### 6.5.1 Omitting / reducing EasyCare sections to shorten the tool

Most participants, including many during the training session, commented that the tool would be too long to use in busy hospitals. Sections that were suggested for omission were as follows: the pre-assessment narrative *about yourself* form, containing a biography etc; the *safety* section which was not considered to reflect health status and may be difficult to extract, likewise for the *accommodation* and *finance* sections, which are notoriously difficult to illicit responses on in Tanzanian surveys.

The proposed cuts shortened the instrument as follows:

From EasyCare	To EasyCare-TZ
<ul style="list-style-type: none"> <li>■ About you (narrative)</li> </ul>	<ul style="list-style-type: none"> <li>■ About you (checklist)</li> </ul>
<ul style="list-style-type: none"> <li>■ site, hearing and communication</li> </ul>	<ul style="list-style-type: none"> <li>■ site, hearing and communication</li> </ul>
<ul style="list-style-type: none"> <li>■ Looking after yourself</li> </ul>	<ul style="list-style-type: none"> <li>■ Looking after yourself</li> </ul>
<ul style="list-style-type: none"> <li>■ Getting around</li> </ul>	<ul style="list-style-type: none"> <li>■ Getting around</li> </ul>
<ul style="list-style-type: none"> <li>■ Safety</li> </ul>	<ul style="list-style-type: none"> <li>■</li> </ul>
<ul style="list-style-type: none"> <li>■ Accommodation and finance</li> </ul>	<ul style="list-style-type: none"> <li>■</li> </ul>
<ul style="list-style-type: none"> <li>■ Staying healthy</li> </ul>	<ul style="list-style-type: none"> <li>■ Staying healthy and keeping on top of personal affairs</li> </ul>
<ul style="list-style-type: none"> <li>■ Mental health and wellbeing</li> </ul>	<ul style="list-style-type: none"> <li>■ Mental health and wellbeing</li> </ul>

**6.5.2 Adding sections to use EasyCare to record specific treatment/referral outcomes**

It was also noted that the EasyCare might have an altogether more practical, explicit outcome, which should be recorded. Therefore the following section was added:

**PART II: HEALTH REVIEW**

*After completing your health review a summary will be recorded by your reviewer listing:*

<i>(A) In order of their importance to you:</i>	SUMMARY OF YOUR HEALTH NEEDS & PROBLEMS
<i>(B) Your scores on:</i>	INDEPENDENCE RISK OF BREAKDOWN IN CARE RISK OF FALLS
<i>(C) Outcome of review:</i>	TREATMENT PLAN LOCALLY HOSPITAL REFERRAL

And the end of the questionnaire we inserted a PART III, below. We also added section following to the score sheet on specific outcomes on the health review.

## PART III SUMMARY OF HEALTH NEEDS AND PROBLEMS

Please consult with your patient and list in needs and problems in order of importance to them:

1)	6)
2)	7)
3)	8)
4)	9)
5)	10)

### OUTCOME OF EASYCare-TZ health review

HOSPITAL REFERRAL Yes  No

If YES please say where and what for:

TREATMENT PLAN LOCALLY Yes  No

If YES please say where and what for:

### 6.5.3 Rewording of question to make them culturally appropriate

Our participants suggested the following useful rewordings in sections 1, 2, 3 and 4, which we accepted in the new EasyCare-TZ tool.

- Section 1: Seeing, hearing and communicating

It was commented by most participants that questions on telephone use, Q 1.4 were not relevant to older people in rural parts, nor to some in the most disadvantaged urban areas, and that it would not capture what the authors had originally intended.

Q1.4 and Q 1.3 were simplified as follows:

1.3 Do you have difficulty in ~~making yourself understood because of problems~~ with your ~~speech (talking to others)?~~  
~~—speech?~~

No difficulty  Difficulty with some people  Considerable difficulty with everybody

1.4 ~~Day to day, would you say you can~~ ~~Can you communicate what you want to~~  
~~others use the telephone?;~~

~~Easily~~ Without help, including looking up numbers and dialling -  \_\_\_\_\_ With some effort or help  With great difficulty?

~~Or are you unable to use the telephone?~~

#### ■ Section 2: Looking after yourself

The following Q 2.5 and Q 2.6 were seen to be inappropriately phrased to capture male experiences;

Q 2.13 not to reflect Tanzanian culture. These were updated as follows:

2.5 Can you do ~~any your~~ handiwork or housework?

Without help (clean floors etc.)

With some help (can do light housework, but need help with heavy work)

Or are you unable to do any housework?

2.6 Can you ~~cut your own toenails~~ ~~prepare your own meals?~~

Without help (~~you can reach~~ ~~plan and cook full meals~~ yourself)

With some help (~~can prepare some things but unable to cook full meals yourself~~ you can reach some but prefer to ask someone else)

Or are you unable ~~to reach yourself~~ ~~to prepare meals?~~

2.13 Can you use the toilet / pit latrine (or commode)?

Without help (can reach toilet / pit latrine or commode, undress sufficiently, clean self and leave)

With some help (can do some things, including ~~cleansing~~ wiping self afterwards)

Or are you unable to use the toilet / pit latrine (or commode)?

#### ■ Section 3: Getting around

The participants were quick to point out that stairs were not common in village houses, so we expanded Q 3.4 and added our own examples to Q 3.8.

3.4 Can you manage stairs, or climb up steep hills?

Without help (including carrying ~~a walking stick~~ ~~any walking aid~~)  With some help

Or are you unable to manage stairs?

3.8 Do you have any difficulty in getting to public services? (e.g., ~~doctor, dispensary or health centre~~ pharmacy, dentist etc) ~~use own examples~~

No difficulty  With some help  Unable to get to public services

- Section 4: Staying healthy

The section on health was expanded to include one question on cognitive capacity; this is so we can still score *independence* without asking too directly about finances. We also included some examples of what we consider likely exercise at older ages.

#### 4) Staying healthy and on top of personal affairs

4.1 Do you take regular exercise (vigorous walking, cycling etc)?

Yes  No

4.7 Are you able to manage your personal affairs (money or assets, household paperwork etc)

~~4.7 Have you check with your doctor that you are up to date with your vaccinations?~~  
Able to manage  Unable to manage

Comments on staying healthy/on top of personal affairs:

#### 6.5.4 Finalised EasyCare-TZ Version 1 for testing

Incorporating all these updates a new EasyCare-TZ tool was drafted, ANNEX B, and the scoring systems retained bur with swapping to the more appropriate questions, ANNEX C. It is hoped that these will still capture what the EasyCare authors had initially intended. The tool remains to be translated into Swahili for use in the field.



## 7. Evidence for Recommendations

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### 7.1 SUMMARY OF EVIDENCE : COMPLEMENTING FINDINGS ACROSS METHODS

#### 7.1.1 Knowledge

With respect to knowing about the risk of NCDs, being able to recognize / understand them, and knowing one's right to care as well as duty of treatment, this study concludes:

- 'Actual' knowledge of NCDs, being able to cite at least one example, was fairly uncommon among community older people over sixty years of age: in urban parts this was 27%, in rural 29%. While knowledge of gerontology was tested at an average of 57% in the group of healthcare workers that attended the awareness training on the needs of older people.
- Older people recognised common and fairly less severe NCDs, on average across both districts: hypertension (47%) or heart diseases (30%), diabetes (33%) but in particular were most likely to note body pain (58%), associating this with age and pointing out that this affected particularly women. There was little talk about the more severe NCDs either from the healthcare practitioners or from the community.
- Cancers (21%) and central nervous system disorders (12%) were somewhat known in the community survey, but hardly mentioned qualitatively from both community and healthcare workers; except to say that while the capacity might be there to detect cancers at higher level facilities from the health care workers perspective, in the community these were perceived as incurable.
- Lifestyle factors were noted as contributing to these diseases, but it was interesting that clinicians tended to minimize NCDs, blame the patients bad habits/laziness, and older people themselves to couch them as old age itself. This frame of reference seems to inform a possible under-diagnosis of NCDs other than hypertension; also to mean that delays were present in community members presenting until symptoms were severe.

- Community member seemed to know that care should be free, ‘but’ it was not so simple...All healthcare workers when filling the short questionnaire said that healthcare was known to be free for the over sixties attending public facilities. Yet, healthcare worker, particularly in Morogoro district noted that some of their older people did not know about free care and post-awareness training were assuring their patients of this.

### 7.1.2 Routs to care

Our analyses of routs to care for NCDs, accounting for where, who and what happens when older people get to the facilities, revealed:

- In terms of healthcare seeking for NCDs Traditional healers were dismissed in favor of medical facilities (urban 96%, rural 93%). Traditional healers were seen by the community as useful for curing fevers, a cheaper backup, or as a first port of call to see if medical help was really necessary. This also contributed to delays in presenting at the facility, a theme which came both from patients as well as practitioners.
- Although patients and care takers were in some instances hopeful of changes and most highly valued the medical access particularly for NCDs, a few recounted stark instances of ageism and discrimination. Particularly in urban area, a majority (64% compared to 47% in rural settings,  $p < 0.001$ ) said they had to wait to be seen for at least one hour or more.
- On consultation however, most older people said they were attended by a doctor (average 82% across districts; although anecdotal evidence suggests that many times male attendants are considered MDs even when they are not qualified). However, women in rural settings were seeking treatment significantly more than men (58% of women compared 38% of men in this setting,  $p = 0.036$ ).
- Nevertheless, one of the most dominant themes across patient and practitioner accounts was the lack of available medicines, either in stock, or given freely (except the much mentioned free Panadol). Equipment’s and stocks of medicines for NCDs were so

low that most lower level facilities were not able to detect or treat diseases other than Hypertension and CORD. Cancer detection or treatment was not available at the nearby hospitals. One health centre claimed to have the necessary equipment.

- We noted a stark contrast between community data showing how valued and respected older people were and the health system which was commonly described as ‘not valuing them’. This bodes well for initiatives to change organizational attitudes and culture, indeed can be used to inform dignity of care campaigns.

### 7.1.3 Diagnosis and referral

Finally, we took a closer look at who gets diagnosed, for what, the factors that enable these outcomes:

- As we have seen payment was significantly more frequent in urban parts compared to rural. Explaining higher diagnosis in urban settings were some fairly large odds ratios, these were for: having a secondary (3.32, CI 1.15-9.58) education and, indeed payment (3.09, CI 1.32-7.25).
- We found some interesting accounts of accessing services only to be turned away at the last hurdle – by healthcare workers demanding to be paid; there were also concerns that transport costs would not be met, even if a referral for free care was received. It is also possible that people chose to pay for private facilities.
- Nevertheless, the qualitative accounts showed that while free services were known about: ‘the worse thing is that if you don’t have money you will die’ (Male older person, Morogoro).
- The most diagnosed NCD was hypertension (averaging 75% of diagnosed NCDs across both districts), which was also the disease that equipment was most available for; there was a gap between people’s own accounts of joint pain and seemingly rheumatoid arthritis and lack of reported diagnosis of these.

- Post awareness training initiatives have been enthusiastically introduced by some to counteract inequities; however referrals were fairly low (averaging 26%) and many patients were quick to say they could not afford the transport costs. This said, most of those who were referred (88% in urban compared to 97% in rural settings) did succeed in attending their appointments.

## 7.2 EVIDENCE BASED RECOMMENDATIONS

### 7.2.1 Early detection of/ action to prevent or treat NCDs are paramount

- ▶ To avoid the reported delays in presenting and treatment on NCDs we recommend integrating examining for these into current diagnostic initiatives, for instance HIV/AIDS testing platforms (**Dept of NCDs MoH**).
- ▶ Awareness campaigns for older people could focus on early presenting with symptoms, before these are aggravated by delays; these might emphasize seeking preventable treatment as well. Care takers and older people should be informed of healthy eating practices. Myths about NCDs being synonymous with old age should be discredited (**MoH and other stakeholders**).
- ▶ Community members have suggested that healthy food campaigns also include healthy food distribution for older people (**MoH and other stakeholders**).
- ▶ Transport for referral services should be considered, in particular improving ambulance services for emergency care of NCDs, since most lower level facilities do not have the necessary equipment or medicines to deal with these (**MoH and other stakeholders; sponsors**).

### 7.2.2 Free public care to over sixties, means free, no ifs nor buts

- ▶ Poster campaigns to feature in health facilities waiting rooms promoting free care for over sixties with memorable slogan - also featuring healthy older ages (**Health Facility Management**).
- ▶ Transparency to be introduced for reporting medicine stock for NCDs; if any official payments are to be made for non-publicly funded treatments these should also be stated upfront (**Health Facility Management**).
- ▶ NCDs medication particularly for older people to be given a priority; intervention in early stages will prevent more serious burdens on hospital care in future. Health facilities should include NCDs drugs in the essential drug kits for older people to be accessed freely (**MoH/MSD**).

### 7.2.3 Improving services for NCDs treatment and referrals

- ▶ To help counteract the rushed and over-worked setting of health facilities, which many older people found dismissive, elder volunteers might be recruited to help attend in facilities, as has successfully been implemented with groups such as PLHAs (**Health Facility Management**).
- ▶ Organizational change to be emphasized, following examples already addressed by the actions taken following awareness training on the needs of older people. These include: facility and community meetings on NCD awareness and allocating specific members of staff to geriatric care, and specific times, even wards for geriatric care (**Health Facility Management**).
- ▶ To institute accountability at the facility level by employing social workers who can oversee dignity of care, particularly for older people (**District Council**).

#### 7.2.4 Improving clinical practice and knowledge of NCDs and geriatric care

- ▶ Geriatric trainings and a focus on NCDs to be included both in health training curriculums. On job trainings on NCDs and older people to happen progressively; with a focus on detecting and treating pain for rheumatoid conditions, so far found to be neglected in our population group (**Medical Schools and Health Facility Managements**).

#### 7.2.5 Further validation of the proposed EasyCare-TZ tool

- ▶ Also informing clinical practice and knowledge of NCDs, both social and health disciplines at health facilities level to be able to take forward using a translated EasyCare-TZ tool, as re-specified herein, with particular focus on using it to improve treatment plans and referrals, costing analysis should also be captured (**IHI and HAI**).

## ***8. Strengths and limitations of the research study***

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The current research is strengthened by the different methods used to complement each other. The quantitative and qualitative findings generally supported each other and help to create the context for and to explain some of the quantitative results.

The analyses were also stratified by setting and gender. Although with respect to men and women few differences were found, this is an interesting negative finding that can help drive policy. The differences between urban and rural settings can help to prioritise resources, for instance to introduce poster campaigns reminding people of free care to older people particularly in urban settings.

The qualitative follow-up of practitioners after the awareness study on the needs of older people also strengthened this study, giving insights into what solutions might be introduced at intervention and may complement, and be controlled for, within a formal validation of the new proposed EasyCare-TZ tool.

This exploratory study has laid the foundation for a robust validation of a Tanzania adapted EasyCare tool. We seek feedback on the changes so far proposed and hope to secure further funding which will allow us use what we have found to date to inform this process. We look forward to sharing any future related findings.

## **8. Conclusion**

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According to the Ministry of Health and Social Welfare in Tanzania, addressing risk factors against cardiovascular diseases, diabetes and cancers effectively has the potential to reduce incidence by 80%, 90% and 33% respectively<sup>20</sup>. Since changing lifestyle habits is a time incurring process that needs continued attention and strong will of the individual, the best approach will be to address healthy living principles from early age.

Part of the National Strategy for NCDs in Tanzania is the intention to develop and implement school education modules on healthy living, but as this report demonstrates we also need to understand the everyday context of NCD referrals, and diagnosis, which the current report elaborates. These data can be usefully applied to better management of the burden of NCDs in older Tanzanians.

Overall, we conclude that better funding and implementation of existing strategies would pay big dividends in the outcomes related to NCD burdens in older people; particularly we call for greater dignity of care, equity and transparency.

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**ANNEX I  
COMMUNITY SURVEY**

**NON-COMMUNICABLE DISEASES**

**SURVEY**

**CLIENT INSTRUMENT**

**SECTION A: IDENTIFICATION**

DISTRICT: 1. Morogoro Municipal 2. Kibaha District Council

VILLAGE/STREET: \_\_\_\_\_

ID NUMBER: 

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CHECKED BY: \_\_\_\_\_

SIGNATURE \_\_\_\_\_ DATE \_\_\_\_\_

START TIME : \_\_\_\_\_ (24 HOURS FORMAT)

**SECTION B: DEMOGRAPHICS**

<b>1.1</b> Gender	1. Male 2. Female					
<b>1.2</b> Age ( <i>Record year of Birth</i> )  <i>(If forgotten probe by asking the age of his/her first born)</i>	<table border="1" style="display: inline-table; border-collapse: collapse;"><tr><td style="width: 20px; height: 20px;"></td><td style="width: 20px; height: 20px;"></td><td style="width: 20px; height: 20px;"></td><td style="width: 20px; height: 20px;"></td><td style="width: 20px; height: 20px;"></td></tr></table>					
<b>1.4</b> What is the highest (grade/form/year) you completed at that level of education	[Open field]					
<b>1.5</b> Are you doing any economic activity	1. Yes [If NO Skip to Q 1.7] 2. No					

	88. DK 99. NR/RF
<p><b>1.6</b> If YES, what is the main economic activity you are currently doing</p> <p>[DO NOT READ]</p>	<p>1. Teaching</p> <p>2. Farming</p> <p>3. Health worker</p> <p>3. Small Business</p> <p>4. Nursing</p> <p>5. Other (Mention) _____</p> <p>88. DK</p> <p>99. NR/RF</p>

**SECTION C: ROUTS TO CARE AND HEALTHCARE SERVICES**

<p><b>2.1</b> Ever got sick?</p> <p>[IF NO SKIP TO Q3.1]</p>	<p>1. Yes</p> <p>2. No</p> <p>88. DK</p> <p>99. NR/RF</p>
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<p><b>2.2</b> When you got sick who is normally taking care of you</p>	<p>1. Your spouse</p> <p>2. Your son</p> <p>3. Your daughter</p> <p>4. Your relatives</p> <p>5. Yourself</p> <p>6. Other (Mention)</p> <p>_____</p> <p>88. DK</p>
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	99. NR/RF
<p><b>2.3</b> What kind of decision you normally make when you got sick</p> <p>[DO NOT READ]</p>	<p>1. Use traditional medicine</p> <p>2. Go to traditional healer</p> <p>3. Go to health facility</p> <p>88. DK</p> <p>99.NR/RF</p>
<p><b>2.4</b> Ever go to any health facility seeking for healthcare service</p>	<p>1. Yes [If NO Skip to Q2.10]</p> <p>2. No</p> <p>88. DK</p> <p>99. NR/RF</p>
<p><b>2.5</b> In which health facility did you go for healthcare service</p>	<p>1. Districtal hospital</p> <p>2. District hospital</p> <p>3. Dispensary</p> <p>4. Health center</p> <p>88. DK</p> <p>99. NR/RF</p>
<p><b>2.6</b> Were you attended when you go to this health facility</p>	<p>1. Yes</p> <p>2. No</p> <p>88. DK</p> <p>99. NR/RF</p>
<p><b>2.7</b> Who attended you when you were in health facility</p>	<p>1. Doctor</p>

	<p>2. Nurse</p> <p>3. Other (Mention) -----</p> <p>88. DK</p> <p>99. NR/RF</p>
<p><b>2.8</b> Did you make any payment</p>	<p>1. Yes</p> <p>2. No</p> <p>88. DK</p> <p>99. NR/RF</p>
<p><b>2.9</b> How long did you wait before you get attended</p> <p>[From the time s/he arrive at health facility]</p>	<p>1. Below one hour</p> <p>2. One hour</p> <p>3. Two hours</p> <p>4. Three hours</p> <p>5. More than three hours</p> <p>88. DK</p> <p>99. NR/RF</p>
<p><b>2.10</b> If NO why didn't you go to the healthcare facility</p> <p>[DO NOT READ; LISTEN]</p>	<p>1. No money to pay</p> <p>2. No one to accompany to the health facility</p> <p>3. Health facility is very far from where I am living</p> <p>4. Not satisfied with the healthcare services</p> <p>5. Fail to reach to the healthcare facility</p> <p>6. There was no reason to go to the healthcare facility</p> <p>7. Visited by health worker at home</p> <p>8. Not applicable</p> <p>9. Other (Mention) _____</p>

**SECTION D: KNOWLEDGE ON NON COMMUNICABLE DISEASES (NCDs)**

<p><b>3.1</b> Do you know what are Non-Communicable Diseases</p>	<p>1. Yes 2. No 88. I don't know 99. NR/RF</p>
<p><b>3.2</b> If YES, can you mention them? [DO NOT READ/SELECT ALL THAT APPLY]</p>	<p>1. Cancer 2. Diabetes 3. Hypertension 4. CNS diseases eg. Epilepsy, Schizophrenia 5. Chronic diseases of respiratory system eg. Asthma 6. Heart diseases 7. Body pain eg. Legs/backbone</p>

**SECTION E: DIAGNOSIS AND REFERRALS**

<p><b>3.3</b> Ever diagnosed with any of the Non-Communicable Diseases [Mention some of the NCDs that s/he may get to know like diabetic, cancer, low blood pressure high blood pressure, heart diseases, chronic respiratory disease]</p>	<p>1. Yes 2. No 88. DK 99. NR/RF</p>
<p><b>3.4</b> If YES what are these Non-Communicable Diseases diagnosed [DO NOT READ/SELECT ALL THAT APPLY]</p>	<p>1. Cancer 2. Diabetes 3. Hypertension 4. CNS diseases eg. Epilepsy, Schizophrenia 5. Chronic diseases of respiratory system eg. Asthma</p>

	<p>6. Heart diseases</p> <p>7. Body pain eg. Legs/backbone</p> <p>88. DK</p> <p>99. NR/RF</p>
<p><b>3.5</b> Ever referred to the higher level health facility when diagnosed with NCDs</p>	<p>1. Yes</p> <p>2. No</p> <p>88. DK</p> <p>99. NR/RF</p>
<p><b>3.6</b> If <b>YES</b>, did you succeed to go to the referred hospital facility?</p>	<p>1. Yes</p> <p>2. No</p> <p>88. DK</p> <p>99. NR/RF</p>
<p><b>3.7</b> When in referral hospital did you get treatment</p>	<p>1. Yes</p> <p>2. No</p> <p>88. DK</p> <p>99. NR/RF</p>
<p><b>3.8</b> If <b>NO</b>, what do you think was the main reason for you not succeed to go to referral hospital</p>	<p>1. Didn't have money for transport</p> <p>2. There were no body to take you there</p> <p>3. You failed to get there</p> <p>4. There is no reason to go to the referral hospital</p> <p>5. Other reasons (Mention)</p> <p>_____</p> <p>88. DK</p> <p>99. NR/RF</p>

**3.9.** What are your comments regarding healthcare services to older people?

[Open field]

## **ANNEX II**

### **FOCUS GROUP DISCUSSIONS GUIDE: OLDER PEOPLE**

*Instruction: Should involve older people of sixty years and above should be of the same gender.*

#### **SECTION A: OLDER PEOPLE OPINION ON COMMUNITY PERCEPTIONS ON THE ELDERLY AND OLDER PEOPLE**

1. What do you think community perceives you?

PROBE: Do they consider you as important? Do they involve you in important roles such as leadership, counseling? How?

2. As older people do you think you are valued within a household, community? If YES or NO why you think are the reasons for that.

3. Which are the main challenges that have been facing older people in this community  
PROBE: for economically and health challenges.

4. Do you think you receive adequate support from household members/ relatives who take care of you? If YES, probe for the type of support that is often offered. If NOT probe why?

#### **SECTION B: OLDER PEOPLE AND HEALTHCARE NEEDS**

8. Do you know that you deserve to access free treatment? PROBE: Do you access free medical care accordingly? If NOT why do you think are the reasons that make you miss the right.

9. When an older person gets chronic illnesses including NCDs; how does a household or relatives assist h/her get treatment?

10. When you go to a health facility for medical care, do you feel free to express yourself on your illness and pain? If NOT why?

11. Which have been the challenges/ barriers that would hinder an older person access healthcare PROBE: Diagnosis and treatment for NCDs.

### **SECTION C: HEALTH SEEKING BEHAVIOURS**

12. What do you/family do when an older person gets sick? PROBE for NCDs illnesses and treatment options: biomedical, self medication, visit traditional healers or use of herbs

13. Often what is opted first? PROBE: for hierarchy of options and the reasons for the choices

### **SECTION D: COMMUNITY INVOLVEMENT IN IMPROVING HEALTHCARE**

12. Have there been any efforts or initiatives at the village/community level that aim at improving the wellbeing of the elderly? PROBE: Any program that supports the elderly particularly the poorest and the needy?

### **SECTION E: RECOMMENDATIONS**

14. What do you suggest to be done to enable you access treatment once you need? PROBE particularly for reduction NCDs and its treatment.

## **FOCUS GROUP DISCUSSION GUIDE: CARE TAKERS**

*Instructions: This should involve community members who live and take care of older people. This should be people the same gender; should be 18 years or above and below sixty years.*

### **SECTION A: COMMUNITY PERCEPTIONS ON ELDERLY AND THE OLDER PEOPLE**

1. How do you think people in this community perceive the older people?

PROBE: Do you think they think they are important people? Do they involve them in important roles such as leadership, advice? How

2. Do you think older people are a group that has special needs? Why do you think so?

3. Which have been the challenges of attending and taking care of older people particularly at a household level? PROBE: Economic, health and psychological challenges.

4. Who are the main care takers who take care of older people at a household level? PROBE: Among the male and female older people who live on their own and who live with families/relatives/children)

### **SECTION B: COMMUNITY PERCEPTION ON NCDs**

5. What are NCDs? What causes such diseases? PROBE: Even lay explanation for disease causes.

6. In this community which types of NCDs have been affecting the older people? PROBE: Why do you think so?

### **SECTION C: OLDER PEOPLE AND HEALTHCARE**

7. Do you know that older people deserve free healthcare? What about the older themselves, do they know that they deserve to access free healthcare? If not, why do you think so?

8. In most cases when older person get such diseases how do relatives assist h/her access treatment? If they do assist, where do they take h/her first?

9. In this community, are there older people who are members of health funds such as NHIF or CHF? Are they many or few? If they are few what do you think are the reasons?

10. Is there a different in accessing treatment between an older person who is a member of such funds and the one who is not?

11. Which have been the challenges that would prohibit an older person to be examined and access treatment for NCDs?

### **SECTION D: COMMUNITY INVOLVEMENT IN IMPROVING OLDER PEOPLE HEALTH**

12. Is there any organization that has been working or involved in improving older people health in this village? District?

13. Do you think community has any role in assisting to improving older people health? PROBE: Reducing prevalence of NCDs

### **SECTION E: RECOMMENDATIONS**

14. What do you think could be done to improve healthcare for chronic illnesses including NCDs for older people? (PROBE: At household level? At district level? At this facility? )

15. What do you think could be done to make elderly access medical care for NCDs? (PROBE: At this facility? At national level )

## **ANNEX III**

### **IN DEPTH INTERVIEW GUIDE WITH HEALTHCARE WORKERS**

District: \_\_\_\_\_

Date: \_\_\_\_/\_\_\_\_/\_\_\_\_

Time start: \_\_ \_\_:\_\_ \_\_ Time Finish: \_\_ \_\_ :\_\_ \_\_

Name of Interviewer: \_\_\_\_\_

Name of Recorder: \_\_\_\_\_

#### **SECTION A: BASIC INFORMATION**

*First I will ask a few general questions about you, your background and your employment. QUESTIONNAIRE GRID TO BE COMPLETED*

#### **SECTION B: AWARENESS AND EXPERIENCE OF NCDs**

1. Do you think people in this community have been affected by NCDs?

PROBE: Has there been a difference in prevalence for different age groups, economic class? Which group is more vulnerable to acquire such diseases? Why?

2. In your opinion what has been a source or causes for high prevalence of such diseases?

PROBE: In Tanzania, in that community?

3. Do you think the community (particularly people who are coming to this health facility have adequate understanding on these diseases? Can you explain?

4. Has there been any health initiatives or programs that aim in awareness creation to such diseases? PROBE: Particularly for older people (At health facility, village, district level)

#### **SECTION C: EXPERIENCE OF MANAGING NCDs FOR OLDER PEOPLE**

5. Do older people in this community come for diagnosis when they suspect to be sick?

PROBE: Do they come earlier or when the situation becomes worse? Do they come on their own or escorted? Who often bring older people at a health facility?

6. Do you think this health facility has a capacity of providing healthcare for NCDs patients who are coming for healthcare management?

PROBE: Does a health facility have infrastructure, equipments, supplies and adequate human resource?

7. How do you deal with cases of NCDs among older people? (PROBE: Do you think you are skilled enough to deal with NCDs among the elderly? Do you refer them for higher level health management? How does that happen?

8. What have been challenges in healthcare provision for NCDs? PROBE: Specifically for older adults who suffer from NCDs.

**SECTION D: AWARENESS ON ACCESSING AND TREATMENT RIGHTS**

11. Do you think older people are aware on their healthcare rights? Can you explain a bit?

PROBE: Do you think they know that they deserve to get free treatment. Do they access treatment accordingly? If NO why do you think so?

12. Among the older people you once attended, are there any who are in health funds such as NHIF or CHF? They are many or few? Why?

**SECTION E: RELATED CURRENT AND PREVIOUS PROGRAMS IN THE DISTRICT**

13. What kinds of efforts have been used in the past to improve the quality of healthcare in the district? What have been the results of these programs? (PROBE: for government and Non Government programs, names of organizations)

**F: RECOMMENDATIONS**

15. What do you think could be done to improve healthcare for chronic illnesses including NCDs? (PROBE: At household level? At district level? At this facility? )

16. What do you think could be done to make elderly access medical care for NCDs? (PROBE: At this facility? At national level )

**ANNEX IV**  
**HEALTH PRACTITIONER QUESTIONNAIRE**

*NON-COMMUNICABLE DISEASES*  
**SURVEY**

PROVIDER INSTRUMENT

District	1. Morogoro Municipal 2. Kibaha District Council	
Type of Health Facility	1. Hospital 2. Dispensary 3. Health Center	
Name of the Health Facility	_____ [Open field]	
<b>IDENTIFICATION:</b>		
Name	_____ [name of healthcare provider]	
Gender	1. Male 2. Female	
Age (In years)		
ID Number (interviewer initials+District number+Interviewee number)		
Title	1. Doctor 2. Nurse 3. Nutritionist 96. Other (mention) _____ 88. DK	
Start time	[24 Hours]	
Respondent agreed to participate in the study	1 Yes → Continue with question 2 2 No → Finish the interview 88. I don't know 99. NR/RF	

**A: HEALTH SEEKING BEHAVIOUR**

88. I would like to ask some questions on your experience in providing healthcare services to older persons sixty years and above DK NR/RF					
For how long have you worked in this health facility?	<ol style="list-style-type: none"> <li>1. Less than a year</li> <li>2. 1-2 years</li> <li>3. 3 - 4years</li> <li>4. More than 5 years</li> </ol> 99.				
If older people get sick, what is the very first decision they make	<ol style="list-style-type: none"> <li>1. Use traditional medicine</li> <li>2. Go to traditional healer</li> <li>3. Go to health facility</li> </ol> 88. DK 99. NR/RF				
Ever attended an elder person with sixty years and above	<ol style="list-style-type: none"> <li>1. Yes</li> <li>2. No</li> </ol> [If NO Skip to Q4] 88. DK 99. NR/RF				
If YES, On average, can you tell the number of older people you are attending in a day  [Ask for the registry and record the number of older people registered past one week]	Average in a day				
	<table border="1" style="width: 100%;"> <tr> <td style="width: 50%;">Women</td> <td style="width: 50%;">Men</td> </tr> <tr> <td style="height: 20px;"></td> <td style="height: 20px;"></td> </tr> </table>	Women	Men		
	Women	Men			
88. DK 99. NR/RF					
Within last month how many older people did you attend in your facility? [See the registry]	Average in a day				
	<table border="1" style="width: 100%;"> <tr> <td style="width: 50%;">Women</td> <td style="width: 50%;">Men</td> </tr> <tr> <td style="height: 20px;"></td> <td style="height: 20px;"></td> </tr> </table>	Women	Men		
	Women	Men			
88. I don't know <input type="checkbox"/> 99. NR/RF <input type="checkbox"/>					
Among the older people attended, were they diagnosed with any of the Non-communicable diseases  [SELECT ALL THAT APPLY]	<ol style="list-style-type: none"> <li>1. Cancer</li> <li>2. Diabetes</li> </ol>				

		<p>3.Hypertension</p> <p>4. CNS diseases eg. Epilepsy, Schizophrenia</p> <p>5. Chronic diseases of respiratory system eg. Arthma</p> <p>88. I don't know</p> <p>99. NR/RF</p>
	<p>In your experience what do you think are the main reasons that older people are not coming to the health facilities for healthcare services</p>	<p>1. No money to pay</p> <p>2. No one to accompany to the health facility</p> <p>3. Health facility is very far from where I am living</p> <p>4. Not satisfied with the healthcare services</p> <p>5.Fail to reach to the healthcare facility</p> <p>6. There was no reason to go to the healthcare facility</p> <p>7. Visited by health worker at home</p> <p>8. Not applicable</p> <p>9.Other (Mention)_____</p> <p>88. I don't know</p> <p>99. NR/RF</p>

**B: NON-COMMUNICABLE DISEASES (NCDs)**  
**(Diabetes, hypertension, hypertension, cancer, Central Nervous System, Chronic respiratory diseases)**

	<p>Are you aware that healthcare services to adults sixty years and above are provided for free</p>	<p>1. Yes</p> <p>2. No</p> <p>88. I don't know</p> <p>99. NR/RF</p>
--	---	---

Number of health workers specialized in Non-Communicable Diseases in the health facility	Number	
	Women	Men
	88. I don't know 99. NR/RF	
Number of health workers specialized in Non-Communicable Diseases and are aware of free healthcare services to older people sixty years and above	Number	
	Women	Men
	88. I don't know 99. NR/RF	

### C: AVAILABILITY OF EQUIPMENTS AND SUPPLIES FOR NCDs

[Now I would like to ask on the availability of Equipments and Supplies used in treatment of NCDs, in each of the following disease you will answer yes/ no/Don't know]:

	Disease:	1. Yes	2. No	88. Don't know	99.NR/RF
Availability of equipments and supplies for the diagnosis of the following NCDs:	Cancer				
	Diabetes				
	Hypertension				
	Central Nervous System Diseases (eg. Epilepsy, schizophrenia)				
	Chronic respiratory diseases (eg. Arthma)				
	Heart diseases				
	Disease:	1. Yes	2. No	88. Don't know	99.NR/RF
Availability of Medicine to treat the following NCDs:	Cancer				
	Diabetes				
	Hypertension				

	Central Nervous System Diseases (eg. Epilepsy, schizophrenia)				
	Chronic respiratory diseases (eg. Arthma)				
	Heart diseases				
	Among older people attended within last month, did anyone ever diagnosed with any kind of NCDs	1. Yes 2. No 88. I don't know 99. NR/RF			
	If YES, can you tell the number of older people ever diagnosed with NCDs	Number			
		Women	Men		
		88. I don't know 99. NR/RF			
	Within one last month, did any one of the older people diagnosed with NCDs ever get referral to the higher level facility for treatment	1. Yes 2. No 88. I don't know 99. NR/RF			
	If YES, can you tell the number of older people diagnosed with NCDs and referred to the higher level facility for treatment	Number			
		Women	Men		
		88. I don't know 99. NR/RF			
	End Time	[24 Hours]			
Thank you for your cooperation. We have finished our interview					

## ANNEX V

<b>AWARENESS TRAINING ON THE NEEDS OF OLDER PEOPLE - 2012</b>	
<b>COAST AND MOROGORO DISTRICT</b>	
<b>A PRE TEST AND POST KNOWLEDGE TEST</b>	
<b>IDENTIFICATION NUMBER:</b>	
1.	When was Tanzanian aging policy formulated
	a) 2002
	b) 2003
	c) 2009
2.	One of the following issues is not included in the Tanzania Ageing policy
	a) Universal Social pension to all older people
	b) Access to loan Credit for older people
	c) Equity healthcare services to all older people
	d) Free healthcare to all older people
	e) None of the above
3.	In Tanzania, 'older people' means any person with
	a) Age of 65 year above
	b) Age between 60-80 years
	c) With age of 60 and above
4.	2007 MKUKUTA report indicated that $\frac{2}{3}$ older people interviewed during the study fall sick
	a) At least once within three months prior to the study
	b) Once within in six months prior to the study
	c) Once in every year prior to the study
5.	One of the following bellow is not considered during person –centered approach in Easy care assessment
	a) Helping individual assessed to make informed choices
	b) Giving enough information that relate to the matter involved
	c) Instructing the client to do what assessor feels it best fit them
	d) The practitioners must listen to the views and wishes of persons they are assessing
6.	One of the following is not a practical points to assist effective communication in Easy Care assessment standard
	a) Choosing a place that clients may feel comfortable
	b) Allowing pauses and silences during the assessment
	c) Requesting permission to record what Practitioner is gaining during the assessment
	d) Moderate a person to speak at required speed due to time allocated for the assessment

7.	Client centered discussions means
	a) Someone discuss about his/her Client.
	b) Dr try to discuss the problem of his/ her client
	c) Client given opportunity to be main speaker during discussion
	d) Group discuss the clients' problems
8.	Below is one of proactive statements
	a) I understand the situation you are facing, we will work together and don't hesitate to express and renew change.
	b) You should not bother your problems because only symptomatic treatment can assist you.
<b><u>True or False?</u></b>	
9.	Older people fall sick frequently than young adult population
10.	In 2010 Tanzania government developed the law that governing Tanzania ageing Policy
11.	There is no one Geriatric specialist in Tanzania to date
12.	Many health workers are not trained in providing healthcare services to the older people.
13.	An older people can make assessment of his/her own using Easy care without help of health or social care professional.
14.	The holistic assessment must be completed in the same day when older people visiting healthcare provider.
15.	The definition of older people must not differ from country to country.
16.	During the assessment you will ask about the following except
	a) Personal information
	b) Biography
	c) Reason for assessment
	d) Medical history
	e) About your family
17.	The following are domains of EASY Care except.:
	a) Seeing, hearing and communicating
	b) The client Looking after his/ herself
	c) Getting around
	d) Client's security
	e) Your accommodation and finance
	f) Staying healthy

g) Mental health and well-being
h) Other information
18. During the assessment one of the following is not included in the past medical history .
a) Date of previous admission.
b) Reason for admission.
c) Duration for admission.
d) Type of medicine/ care given.
e) Where did you get the disease.
19. In the context of multidisciplinary assessment, consent can be described as the
a) Agreement of the person being assessed to have information on their health and social care need recorded, stored and shared
b) Agreement of the Dr and client that s/he have to take medicine
20. One of the priciple is not among good assessment practice
a) Focus on individuals priorities proportionate involving carers.
b) Ask if s/he can afford to pay the medical bill.
c) Agreed action, personal care plans and regular review
d) Strategic problem exploration and sustainable management
e) Evidence based building on good practice and Strategic planning

## ANNEX VI

ID	TITLE	Pre-test	Post-test	difference
1	HAI	80%	80%	0%
2	CO	75%	75%	0%
3	MOREPEO	75%	80%	5%
4	EN	70%	65%	-5%
5	NM	70%	85%	15%
6	CO	70%	80%	10%
7	CO	70%	80%	10%
8	AMO	70%	90%	20%
9	PCO	70%	80%	10%
10	MOREPEO	70%	70%	0%
11	CO	65%	70%	5%
12	EN	65%	65%	0%
13	MM	60%	60%	0%
14	AMO	60%	70%	10%
15	N A	60%	40%	-20%
16	CO	60%	70%	10%
17	RM	55%	55%	0%
18	CO	55%	75%	20%
19	CO	55%	80%	25%
20	CO	55%	55%	0%
21	CO	50%	75%	25%
22	AMO	50%	50%	0%
23	LAB ASS	50%	45%	-5%
25	CO	45%	50%	5%
26	AMO	45%	70%	25%
27	LAB TECH	45%	65%	20%
28	CO	45%	65%	20%
29	ARN	45%	60%	15%
30	EN	45%	65%	20%
31	EN	45%	70%	25%
32	MO	40%	40%	0%
TOTALS		59%	67%	9%

## ANNEX VII

### A) A DELPHI EXERCISE



## Delphi method for EasyCare tool

### 1. Please respond to the following on the EasyCare Sections 'yes' or 'no' and give your reasons why

The tool *Sections* consist of 1) Biography and reason for assessment; 2) Medical history; 3) Seeing, hearing and communicating; 4) Looking after yourself; 5) Getting around; 6) Your safety; 7) Your accommodation and finance; 8) Staying healthy; 9) Your mental health and wellbeing ;10)Additional information / carers' comment.

	Yes	No
a) Do you think any <i>Sections</i> from the tool that should be omitted?	<input type="checkbox"/>	<input type="checkbox"/>
b) Do you think any should be added?	<input type="checkbox"/>	<input type="checkbox"/>
c) Kindly tell us why? below		

Please write overleaf if necessary

### 2. Please respond to the following on the EasyCare Questions 'yes' or 'no' and give your reasons why

	Yes	No
a) Do you think that there are any important <u>Questions</u> for assessment of health of the elderly that have been left out?	<input type="checkbox"/>	<input type="checkbox"/>

b) Kindly tell us why and which? below

Please write overleaf if necessary

--

Yes No

c) Please check the wording of existing questions; are there any you would update?

--	--

d) Please annotate which questions you would reword and make changes in your copy; please list question number and page in the box

--

**3. Please tell us what you think of the EasyCare Scoring system answering 'yes' or 'no' and giving your reasons why**

Yes No

a) The scoring system was mainly user friendly (easy to follow)?

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b) Kindly tell us, how you would score differently, if at all, below?

**4. Overall, please tell us if you thought the tool would be Practical for use in a:**

Tick only one	Yes	Somewhat	No
a) Dispensary or health center setting?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b) Please explain why in the box			
	Yes	Somewhat	No
c) Hospital?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d) Please explain why in the box			

**5. Please add any further thoughts below, and continue on another sheet of paper if need be**

**PLEASE SEE APPENDED DOCUMENTS FOR CONTINUED ANNEX VII**

**B) EASYCARE-TZ UPDATED TOOL**

**C) EASYCARE-TZ SCORE SHEET**