

**EXPERIENCE OF FOOD INSECURITY AMONG ELDERLY:
NATURE, HEALTH IMPACT AND SOCIAL SUPPORT SYSTEM IN
MVOMERO DISTRICT- MOROGORO**

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By

Upendo Kilume

**A Dissertation Submitted in (partial) Fulfillment of the Requirements for the
Degree of Master of Public Health of**

**Muhimbili University of Health and Allied Sciences
October, 2017**

CERTIFICATION

The undersigned certifies that he has read and hereby recommends for acceptance by Muhimbili University of Health and Allied Sciences a dissertation entitled: ***“Experience of Food Insecurity among Elderly: Nature, Health Impact and Social support system in Mvomero District- Morogoro”*** in (partial) fulfillment of the requirements for the degree of Master of Public Health of Muhimbili University of Health and Allied Sciences.

Dr. Tumaini M. Nyamhanga

(Supervisor)

Date

DECLARATION AND COPYRIGHT

I, **Upendo Kilume**, declare that this **dissertation** is my own original work and that it has not been presented and will not be presented to any other University for a similar or any other degree award.

Signature.....

Date.....

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DEDICATION

This work is dedicated to my parents Mr. & Mrs. Shabani Kilume and my in-laws Mr. & Mrs. Barnaba Hanje. Thank you for your prayers. May Almighty God bless you

ABSTRACT

Background: Food insecurity among elderly is a growing concern. Studies on food insecurity in Tanzania have been quantitative in nature and have focused on specific population groups such as those of people living with HIV and women. However, there is very little, if any, qualitative research information in Tanzania on experiences of food insecurity among elderly with respect to its nature, health impact and social support system. It is this gap in knowledge that this study intended to fill.

Broad objective: To explore food insecurity experiences among elderly with respect to its nature, perceived health impact and the social support system.

Methodology: This study employed a qualitative study that used explorative study design. It took place at Mvomero district council. A total of 50 food insecure elderly people and three district officials dealing with elderly welfare were involved in this study. In-depth interviews were conducted to 25 elderly people and 3 district officials. Three focused group discussions were also conducted involving only elderly people with 8-9 participants in each FGD. Participants were employed in the study using non-probability purposive sampling method. Data were collected through in-depth interviews and focused group discussions; interviews were audio recorded and analyzed using thematic analysis method.

Results: The study found that elderly have limited access to food, eat less number of meals as well as insufficient amount of meals. It was revealed that circumstances associated with food insecurity were limited strength to engage themselves in farm activities or working as casual laborer to earn some money to buy food, limited strength to prepare food, burden of taking care of grandchildren and inadequate food support from children. Reported perceived health effects were wasting, being too old for age, limited strength to carry out activities and non-adherence to treatment. The study also found that the only social support to ensure availability of food to the elderly were TASAF and religious groups.

Conclusion: This study has demonstrated that the elderly people experience food insecurity with respect to both quantity and quality. Consequently, elderly are vulnerable to nutrition related ill-health as self-reported in this study: limited strength, wasting, non-adherence to treatment, and too old for age. Food insecurity and adverse outcomes have been attributed to very limited support that range from the family to the national levels. Therefore, it is high time that a strategy was developed to ensure that all elderly are food secure.

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LIST OF ABBREVIATIONS

DKI	District Key Informant
FAO UN	Food and Agriculture Organization of United Nations
FGD	Focused Group Discussion
HIV	Human Immunodeficiency Virus
IDI	In-depth Interview
NSGRP II	National Strategy for Growth and Reduction of Poverty II
SDG	Sustainable Development Goal
TASAF	Tanzania Social Action Fund
U.S	United States
USA	United States of America

DEFINITIONS OF TERMS

Elderly people are defined by the World Health Organization as people who have age of 65 years and above, but according to Tanzania elderly policy, an elderly person is the one with age of 60 years and above, and for the sake of this study the age of 60 years and above will be applied

Experiences as defined by online dictionary refer to the conscious events that make up an individual life i.e. something personally encountered, undergone, or lived through

Food security is defines as occurring “when all people, at all times, have physical and economic access to sufficient safe and nutritious food that meets their dietary needs and food preferences for an active and healthy life

Food insecurity is defined as the lack of access to enough quality food for an active and healthy life

Nature of food insecurity – perceived magnitude and associated circumstances of food insecurity

Perceived impact according to this study is defined as an effect on health as understood and reported by the elderly person himself or herself.

Social support system- available assistance provided to elderly to minimize severity of food insecurity

Perceived magnitude of food security implies elderly person’s estimate of the inadequacy of the portion(s) of food eaten and/or narration of periods when the elderly person doesn’t get food to eat at all

CHAPTER ONE: INTRODUCTION

1.1 Background to the problem

Food is an important basic human need for survival, growth and good health(1). Freedom from hunger is the most fundamental human right that can be attained if an individual is food secured. Despite this reality the number of people suffering from food insecurity globally is disproportionately big, In 2014/15 approximately 7.5% of the world population aged 15 years and more, nearly 406 million people experienced severe food insecurity. In sub Saharan Africa about 26% of this age group representing 153 million people, suffered from severe food insecurity. This rate is the highest prevalence of severe food insecurity in the world. Estimates for middle Africa (31 percent) and eastern Africa (28 percent) are relatively higher than the regional average(2) In Tanzania mainland 2% of households, both rural and urban usually have only one meal a day and six in ten households in Zanzibar have at least three meals a day. Nationally only 57% of households reported that they never had a problem satisfying their food needs (3).

Food insecurity is occurring when “the availability of nutritionally adequate and safe foods or the ability to acquire acceptable foods in socially acceptable ways is limited or uncertain”(2). Food insecurity is of concern because of the important implications for healthcare costs, its association with chronic conditions such as malnutrition and hypertension, poor glycemic control for those with diabetes, and functional impairments(4). It contributes negatively to the health status of elderly people by increasing the risk of developing chronic diseases or exacerbating existing conditions.

With the size of the aging population growing dramatically and rapidly, it is imperative that our society focuses its attention on supporting this generation, as it will soon become the majority population in the world. Worldwide the number of people aged 65 and above is projected to grow from an estimated 524 million in 2010 to nearly 1.5 billion in 2050, with most of the increase in developing countries(5). The sub- Saharan Africa has double the number of older adults than northern Europe and this number is expected to grow faster than anywhere else increasing from 46 million in 2015 to 157 million by 2050(5). In Tanzania mainland elderly people from 60 years and above comprised of 5.6% of total population(6). With this trend of demographic transition into the elderly population, a wide

range of laws, policies and actions is therefore required to help create the appropriate conditions to ensure that elderly people can enjoy the highest attainable standard of health(7).

Most Africans enter old age after a lifetime of poverty and deprivation, poor access to health care and a diet that is usually inadequate in quantity and quality. However, nutrition interventions in African countries are directed primarily towards infants and young children, as well as pregnant and lactating women(8). Food intake and food patterns of elderly people are influenced by financial status, physical and functional ability, as well as age-associated changes in physiological and psychological status. Due to ageing process, this group has a higher risk of developing chronic disease and physical disabilities which may directly impact their ability to access food and be impacted by food insecurity. Elderly people often suffer from malnutrition problem due to loss of appetite and inability to obtain their essential necessities such as sufficient food. Effort are being done worldwide to ensure food security for all people, Sustainable Development Goal (SDG) number 2 focus on a comprehensive approach to tackling food insecurity and malnutrition(9). Tanzania Food and Nutritional policy recommend strengthening and protection of good customs and traditions which emphasize care of the elderly and establish specific supportive system for taking care of elderly especially those lacking family support(10). National Strategy for Growth and Reduction of Poverty (NSGRP II) also known as-MKUKUTA II recognize the importance of food and nutrition security especially for children, women and vulnerable groups including elderly people.(11)

Apart from physical disability due to aging, factors associated with food insecurity among elderly people includes unemployment and low income, at their retired age elderly people have low or no income at all that pose challenge to afford food budget.(12)

This study aim to contribute on government and other stakeholder's effort to explore the perceived food insecurity experience among elderly people and hence give a basis for development of appropriate intervention to address this matter.

1.2 Problem Statement

In 2015/16 only 57% of households in Tanzania reported that they never had a problem satisfying their food needs. Moreover, 2% of households in Tanzania mainland, both rural and urban usually have only one meal a day and six in ten households in Zanzibar have at least three meals a day(3). Elderly people are among those who live in these households with food problems.

All population groups experience food insecurity but it has been observed that it is highly experienced in old population than younger population (13). Since the majority of elderly people live in poverty and uncertainty(14)(8), food insecurity can bring further physical, emotional and economic burdens to the elderly persons themselves, their formal or informal caregivers, and the health care system. Many of them experience economic exclusion, and are often denied employment and access to insurance or credit schemes, they also encounter social exclusion due to age discrimination and changing roles and practices within the family(8).As the population pyramid changes with more citizens living longer than before special measures are required to care for the health of the elderly including food security.

Studies have been done to determine the extent of food insecurity among elderly people and its associated factors(15)(16). Most of these studies were quantitative and were conducted in the developed countries.(15)(16). Similar quantitative studies on food insecurity in Tanzania have been focused on people living with HIV(13) and women (17). However, there is very little, if any, qualitative research information in Tanzania on experiences of food insecurity among elderly with respect to its nature, impact and mitigation measures. It is this gap in knowledge that this study intended to fill.

1.3 Rationale

A better understanding of food insecurity experience among elderly populations is essential for the policy makers and program planners to develop food programs targeting this vulnerable population. It will also attract the attention of community members to help elderly address the problem of food insecurity

1.4 Research Questions

1.4.1 Main question:

What is the experience of food insecurity among elderly with respect to its nature, perceived health impact and social support system?

1.4.2 Sub questions:

1. What is the nature of food insecurity experienced by the elderly?
2. What are the perceived effects of food insecurity on health of elderly?
3. What is the social support system for enabling availability of food to the elderly?

1.5 Objectives

1.5.1 Broad objective

To explore food insecurity experiences among elderly people with respect to its nature, perceived health impact and the social support system

1.5.2. Specific objectives

1. To explore the nature of food insecurity experienced by the elderly with a particular focus on perceived magnitude and associated circumstances.
2. To explore the elderly people's perceived effects of food insecurity on their health
3. To explore the social support system for enabling availability of food to the elderly

1.6 Theoretical Framework: Application of Social Ecological Model

This study was guided by the social ecological model(18)figure 1; the model categorizes levels of influence which are intrapersonal, interpersonal, organizational/institutional, community, and public policy. Food insecurity start at the individual level, characteristics of the individual such as marital status has vital role with food security , but it also depend on the level of interpersonal which refers to the personal network and social support system, this include children and other relative who can provide food support. The organizational/institutional level also influences food security status as there might be government or non-governmental institutions that provide food support. Thus, the roles of such institutions were explored – with a particular focus on adequacy of the support provided, if any. Moreover, at the public policy level which consists of local and national laws and policies, exploration was done to see if there are any policies and laws supporting provision of food support to the elderly. All these were explored through document reviews and interviews with district officials dealing with welfare of elderly people

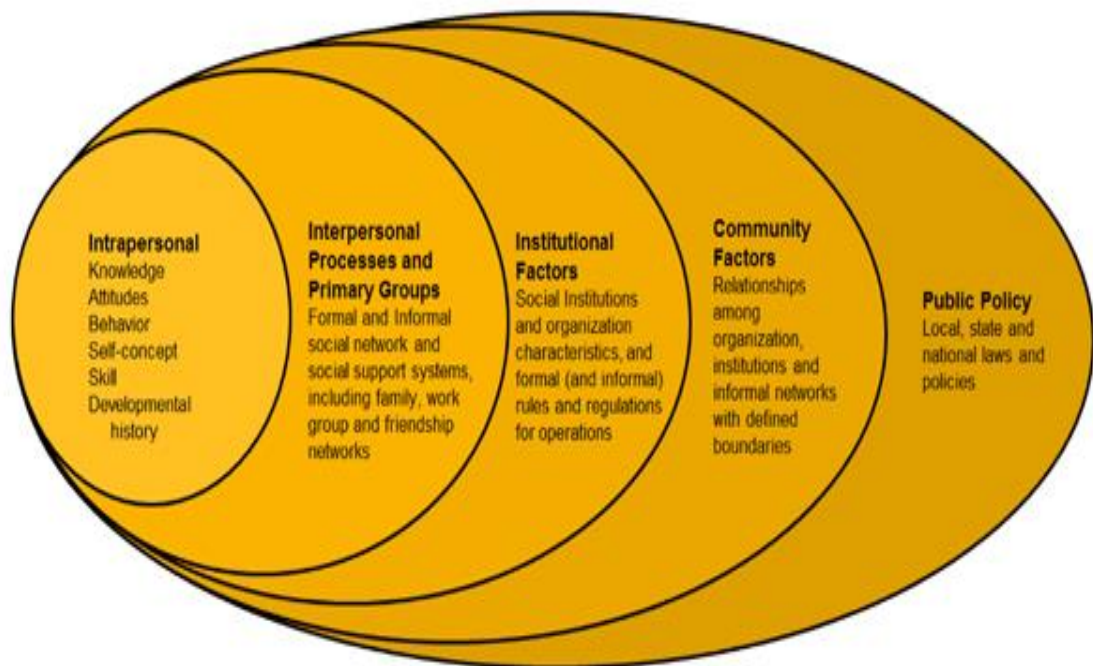


Figure 1: Social ecological model

CHAPTER TWO: LITERATURE REVIEW

2.0. Introduction

This chapter review literature on the experience of food insecurity among elderly with respect to its nature, perceived health impact and social support system. It is organized into four sections; section one is about overview of food insecurity, second section is on magnitude and associated circumstances of food insecurity, third section is on effects of food insecurity to elderly health and fourth section is about social support system for enabling availability of food to the elderly

2.1 Overview of Food Insecurity

The Food and Agriculture Organization defines food security as occurring “when all people, at all times, have physical and economic access to sufficient safe and nutritious food that meets their dietary needs and food preferences for an active and healthy life”(2). Conversely, food insecurity is defined as occurring when “the availability of nutritionally adequate and safe foods or the ability to acquire acceptable foods in socially acceptable ways is limited or uncertain” People may be in a situation of food insecurity and still be able to meet their dietary energy needs, for example, by consuming less expensive, low-quality, energy-dense foods, or by cutting back on other basic needs, with potentially negative consequences for their health and general well-being(19).

According to FAO UN 2016 food security is comprised of four core dimensions; *Food availability*, defined as the ability to have sufficient quantities of food on a consistent basis, *Food accessibility* defined as the capacity to have sufficient resources — physical and economic to obtain appropriate foods for a nutritious diet, *Utilization* of food through adequate diet, clean water, sanitation and health care to reach a state of nutritional well-being where all physiological needs are met and *Stability* in the availability of and access to food, regardless of sudden shocks (e.g. an economic or climatic crisis). In addition, food security is not a temporally stable condition as various events or shocks can alter food security status at any point in time(2).

Food insecurity can be experienced at a variety of levels, including at a global or national level, a community level, and at household or an individual level. While community food security involves sustainability, equity, and environmental health within the food system, individual or household food security involves aspects of financial access to sufficient nutritious food. At the level of households and individuals, measures of food insecurity are considered markers of material deprivation and is characterized by the worry that food will run out with no money to purchase more, eating poor quality or monotonous foods, reducing the size of meals or skipping meals, and in extreme cases, going without food for whole days at a time(2).

2.2. Magnitude of food insecurity and associated circumstances

Quantitative studies have reported high prevalence of food insecurity among elderly; a study done in Australia reported a prevalence of 13% of elderly people who are food insecure with older women being more food insecure (15%) than older men (9.4%).(15). Another study done in Georgia reported 30% of people aged 60 years and above to be food insecure(16).Severity of food insecurity increase with having some chronic disease, the above study also reported that the prevalence of food insecurity was higher in elderly people who reported to have a history of chronic disease such as hypertension, diabetes, myocardial infarction, stroke or cancer compared to those with no history of these conditions. (15).

A study done in urban slum Kenya revealed that, in household with food insecurity priority for food is given to children against adults(20), this means elderly people will also be deprived of food. This study also revealed that food variety and quality was reported as a major challenge and respondents often indicated relying on one type of food, with physiological changes in elderly people that lead to loss of appetite, the monotonous foods can place them in severe food insecure situation. The above study also reported that people ate only one meal a day(20).Eating only few meal a day in household with food insecurity was also observed in Tanzania, a study done in Bahi reported that people were eating only two meals a day ignoring the morning meal and others afford only one meal either lunch or dinner(21).Elderly people living in these household will fall into the same trend.

2.3. Effects of food insecurity to the elderly health

Food security is associated with many effects to elderly , not only health but also economically, a study done in Brazil revealed that food insecure elderly are more likely to have chronic diseases, poor nutritional status, and poor socioeconomic condition(22). Another study done in Australia showed that elderly people who report being food insecure they were also obese, had two or more health conditions or had a walking disability(15). Food insecurity can lead into obesity which in turn increase risk of chronic disease, a study done among elderly people in Georgia found that there is an association between food insecurity and obesity(16). Household with food insecurity eat low quality food in term of hygiene in preparation and the nutrients in the food(20), since elderly people are at risk of diseases, consuming unhygienic and non nutritious food can expose them into more illnesses. It has been observed that elderly people experiencing food insecurity are three times more likely to skip their medication dosage or stop taking all together(23). This increase negative health outcome that not only could mean greater illness or death of patient but also increase cost of medical care to society as whole(24). Food insecurity has been shown to be associated with depression, a study reported that food-insecure elders had significantly higher depression scores than food-secured(25).

Elderly people that are faced with food insecurity are more likely to see an increase in hospitalization and limitation to carry out activities of daily living (24).

2.4. Social support system for enabling availability of food to the elderly

Social support refers more specifically to assistance provided to individuals (including emotional or tangible), the frequency of contact with others, and the perceived adequacy of that support(26). An array of social support factors correlate with food insecurity in elderly people. The positive benefits conferred to those who are married, this means a married person will be in a position to obtain support from his/her partner, a study done in USA revealed that persons who are married are less likely to skip meals and better able to afford them(26). Older men who are not married, particularly those who are widowed, are vulnerable to experiencing food insecurity and poor health because they have not been socialized to be feeders and often do not know how to shop or cook for themselves.

Women, especially those who are widowed, are also vulnerable to food insecurity because they may not be able to afford an adequate diet(26).

Support for older adults is considered to be the first and foremost responsibility of the immediate family. Family members are the main source of physical, emotional, social, psychological, and financial support for elderly(27).Therefore lack of social support, having a limited social network, being socially isolated, particularly living alone or being divorced, separated, or widowed, especially for men, are risk factors for food insecurity. In China to provide support for their older parents is legal responsibility of adult children, because parents raised children, it is the children's responsibility then to provide care and support when their parents become elderly(27).

Food security is depending on family situation, elderly people who live alone and lack family support are at highest risk of being food insecure, but those who have family support or receiving any informal care will reduce this risk. A study done in Canada revealed that family and informal care giving remains the most prevalent source of care for the elderly in the community. With support from family, an elderly person will be able to receive food support, hence for those who have no children will be disadvantaged(28).

Community participation in alleviating food insecurity is one of the very important supports to food insecure people, a study done in Ireland revealed that food poverty interventions are predominantly characterized by downstream approaches that are heavily reliant on the community, voluntary sector and religious organization(29). Canada reported that home delivered meals and congregate dining services assist vulnerable elderly persons by providing opportunities for food and social support(28). A study done in Kenya also revealed that social support may strengthen food security through altruistic and transactional exchanges such as the sharing of meals, lending of money, or direct food assistance(30).Another study done in rural Tanzania reported that foods secure households were providing social support those who are food insecure, this helped to protect against seasonal food insecurity(31).

Apart from receiving support from family and community but also the financial status of the elderly person has influence in ensuring food security. Elderly people who are on fixed

incomes may have to reduce the allocation of money for food. One study has reported that of the total food expenditure, the elderly allocate less money to eating out than other lifecycle groups. This had been attributed to decreased mobility, reduced income, and fewer opportunities to purchase foods away from home(32). In contrary to the above study other studies showed that it is not financial constrain that result into food insecurity among elderly but also the fact that some of the elderly people are not able to shop by their own, without a family or community member to help them with this they end up being deprived of food(33). Having dependant like grandchildren increase the food insecurity burden to the elderly people, majority of them are unemployed and this limit their resources for purchasing food(32). Regardless of socio-economic status, social support is powerful in ensuring food security

The review of literature shows that the experience of food insecurity among elderly has received a very little attention from researchers and policy makers. Most of the few studies available are quantitative in nature and were conducted in developed countries which have a different socio-cultural context. There are very limited studies in the African settings in general and Tanzania in particular. Qualitative studies which would have raised older people's voices on food insecurity are particularly lacking. Therefore, this study intends to make a contribution toward that direction.

CHAPTER THREE: METHODOLOGY

3.1 Study Design

This was a qualitative study that used explorative study design, to explore the experience of food insecurity among elderly with respect to its nature, perceived health impact and social support system

3.2. Study Area

The participants in this study were drawn from Mvomero district council involving two villages, Wami Dakawa and Kipera. The district had a total population of 312,109 in which 1514,843 were males and 157,266 were females(6). It comprised of 73 villages with 7577 households of TASAF beneficiaries. The total number of beneficiaries was 29524 regardless of the age with 12626 males and 16898 females. Mvomero district council was chosen because it was among the 46 councils in Tanzania mainland that have been identified by the Tanzania ministry of agriculture as the area under stress in term of food security

3.3. Study Population

Study population was elderly people aged 60 years and above living in food insecure households (TASAF beneficiaries)and the district officials dealing with welfare of the elderly in Mvomero district council. Households of elderly people who were also beneficiaries of Tanzania Social Action Fund (TASAF) were targeted. TASAF is the Programme which focuses on the poor and vulnerable households, hence elderly people from these households were recruited in this study with the assumption that these were poor households and therefore food insecure.

3.4 Sample Size and Selection

3.4.1 Sample size

The sample size was based on the saturation principle that, data collection stopped when there was saturation (the point in data collection when new data no longer bring additional insights to the research questions) of the collected information. A total of 25 elderly were involved in an in-depth interview and the other 25 were involved in focused group

discussion. Three district officials dealing with elderly welfare were also involved in this study.

3.4.2 Sampling procedure

Two villages were selected based on the number of TASAF beneficiaries. A purposive sampling technique was used to recruit the participants. That is, focus group discussants and in-depth interviewee were purposely drawn from a specific population of interest to the study. The leaders of the selected villages and TASAF district coordinator were approached and asked to assist in recruiting the participants. They were provided with specifications of eligible respondents (elderly men and women living in food insecure households- TASAF beneficiaries).

3.5 Data Collection Methods

3.5.1 In-depth interview

A total of 25 interviews were conducted with elderly people and three interviews with district officials dealing with elderly people welfare in Mvomero district council. The use of IDIs enabled the researcher to gain an in-depth experience of food insecurity among elderly. Interviews were conducted in the Kiswahili language and transcripts were later translated into English for the purpose of quoting the participants. Each interview lasted between 30 and 45 min, prior to the interviews, the interviewer introduced herself to each participant, explained the purpose and importance of the study, and gave assurance that all of the information provided would be handled carefully and that confidentiality would be maintained throughout. Permission for note-taking and audio recording was requested and granted by the participants.

3.5.2 Focused group discussion

Three focused group discussions with elderly people were conducted. A total of 25 participants were involved with each focused group discussion involving 8-9 participants. Two facilitators were involved, one was a moderator and the other a note taker (recorder). FGD method provided an opportunity for participants to explain their food insecurity experience without personalization and therefore added up information that was not captured in the in-depth interviews.

3.6 Data Collection Tools

An interview and focused group discussion guides with open ended questions were used for collecting data. The English guide was translated to Kiswahili language in order to remove the language barrier and hence get more useful information from the participants. Digital audio recorder was used to record the voices during the interviews and discussions. Participants were requested to provide consent for audio recording prior to the interviews and discussions. Note books and pens were used to note down some clues such as body language and expression of emotions which were not captured in the digital audio recorder.

3.7. Pretesting of the data collection tool

To understand the suitability of the instrument a pre-test was done to elderly people aged 60 years and above. It involved the TASAF beneficiaries from Morogoro rural district council. Feedback obtained were used to make some improvement so as to make sure the tool brings the intended results

3.8 Data Analysis

A thematic analysis approach was used to analyze the study findings. The audio-recorded interviews were transcribed verbatim and notes were used to complement the transcription. The verbatim transcriptions were then translated from Kiswahili into English. The English translated data were analyzed through the examination and categorization of respondents' opinions. The analysis was carried out in three stages(34): first, the line-by-line coding of field notes and transcripts; second, the in-depth examination and categorization of the resultant codes into descriptive themes; and third, the interpretation and development of an analytical theme. The coding involved the development of concepts - that is, the data were parsed into discrete elements in order to expose underlying thoughts and meanings. The process generated 45 codes, which were further interpreted and categorized into 23 descriptive themes. These themes were further distilled into 13 analytical themes around which results are presented. Table 1 illustrates how the analytical themes were obtained.

3.9 Ethical Issues

Ethical clearance for conducting the research was sought from the Research Ethics Committee of the Muhimbili University of Health and Allied Sciences. Permission to carry out the study in the district was sought and obtained from District, Ward and Village Authorities. The purpose of the study was explained to all and each eligible individual and consent was sought before an interview was conducted. Participants were informed that their participation was purely voluntary and they had the right to refuse to participate. No names were required and data were treated with high level of confidentiality. Participants were requested to also maintain confidentiality by not revealing personal experiences that might feature in the discussion to other people who did not participate in it

3.10 Study Limitations and Mitigation

This study was relying on self reported data by the respondents and therefore it was subjected to participants' recall bias and reluctance to respond truthfully when asked about their food insecurity experiences. This was mitigated by interviewer carefully introduce the aim of the study to the respondents and assure them that there are no right or wrong answers. Also the use focused group discussion which provided an opportunity for participants to explain their food insecurity experience without personalization hence helped to minimize the social desirability bias

3.11 Trustworthiness

Trustworthiness of this study was secured through piloting the IDI and the FGD guides to improve the questions and the moderating skills. The data collection period was planned such that the researcher had enough time for reflection between field visits and therefore able to conduct preliminary analyses that guided the subsequent data collection. Moreover, a member check technique was applied during group discussion and in-depth interview whereby the moderator restated or summarized the information from the discussant(s) and interviewee to ensure what was heard was in fact correct. Besides, this study benefited from the data collection method triangulation whereby in-depth interview and focused group discussion were used. The authoris therefore confident that the findings are valid and grounded in the data.

Table No.1: An illustration of line-by-line coding and development of analytical themes

Text	Codes	Descriptive themes	Analytical themes
<p>Sometimes we don't get food to eat at all, you sleep without eating and during morning you have to wake up and do farm activities without eating, for sure it is very terrible situation, we don't have anywhere to obtain food and we have lost the energy to do farm activities, it is just that we are alive but we are suffering</p>	<p>No food to eat Sleep without eating Lack of energy to do farm activities</p>	<p>Lack of food result into sleeping without eating Lack of energy to do activities lead to lack of food Limited food support</p>	<p>Limited access to food</p>
<p>My health is deteriorating because of lack of food, if you get sufficient food to eat and you become satisfied then you will have a good health and you can carry up to 100 bricks from there to here, but if you don't have sufficient food only 4 bricks it will be difficult to bring them from there to here. Work is done through eating, farm activities without eating you cannot do.</p>	<p>Deteriorated health Lack of food Inability to carry out activities Insufficient food Inability to do farming</p>	<p>Lack of food cause deterioration of health Deteriorated health limit ability to carry activities Eating sufficient food lead to good health</p>	<p>Limited strength</p>

CHAPTER FOUR: RESULTS

4.0. Introduction

This chapter presents study findings. It is organized under four main sections, namely: socio-demographic characteristics of participants, nature of food insecurity experienced by the elderly, elderly people perceived effects of food insecurity on their health and social support system for enabling availability of food to the elderly.

4.1. Socio-Demographic Characteristics of Participants

A total of 50 elderly participated in in-depth interviews and focused group discussions, as shown in tables 2. More than half of participants were females. Majority of the participants were aged 70-79 years and most of them had never attended school. Additionally most of the respondents were widows with majority having either three or more children. A substantial number of participants were peasant and more than half had no any activity for earning income.

Table No.2: In-depth Interview and Focused Group Discussion Participants Characteristics.

Characteristics	In-depth Interview Participants: (N=25)	Focused Group Discussion Participants: (N=25)
Sex		
Male	9	8
Female	16	17
Total	25	25
Age (years)		
60-69	7	9
70-79	10	13
80-89	5	3
90-99	3	0
Total	25	25
Level of education		
None	20	13
Primary	5	12
Total	25	25
Marital status		
Married	5	1
Divorced	3	3
Widow	11	21
Separated	3	0
Living with partner	3	0
Total	25	25
Income activity		
None	12	14
Small business	0	1
Peasant	13	10
Total	25	25
Number of children		
0	6	5
1	6	5
2	3	3
3>	10	12
Total	25	25

4.2. The nature of food insecurity experienced by the elderly

The nature of food insecurity was operationally defined as perceived magnitude and associated circumstances. Accordingly, the analysis yielded themes that are presented below under the two focus areas in the definition:

4.2.1 Perceived magnitude of food insecurity:

4.2.1.1. Limited access to food

Participants reported that obtaining food to them was very difficult. Because of old age they no longer have energy to do extensive farm activities and often experience food shortage whereby sometimes they end up with nothing to eat at all as expressed by one of the in-depth interview participants

“Sometimes we don’t get food to eat at all, you sleep without eating and during morning you have to wake up and do farm activities with empty stomach, for sure it is a very terrible situation, we don’t have anywhere to obtain food and we have lost the energy to do farm activities, it is just that we are alive but we are suffering”.(Old man 75yearsold)

They also added that obtaining food is very difficult. They depend on sympathers who may happen to give them food, as reported by one of the participants

“I have a very difficult situation, I don’t have even a child, I just live by the grace of God eeh, if someone said grandmother take this food ‘I eat’ but if there is no anyone to give me food, I will stay the whole day and go to sleep without eating.” (Old woman 76 years old)

4.2.1.2. Less number of meals

Some participants complained that they do not consistently get the commonly required three meals per day; that is: breakfast, lunch, and supper. Most of the participants reported to eat inadequate number of meals as said by one of the participants

“I eat only one meal, where can you get two or three meal? May be if someone passed here and due to my charming behaviour one can decide to give me some money. In that case I can buy some sugar and doughnut (maandazi in kiswahili) to have some tea and then wait for

lunch and when I eat that lunch I will have to wait until the next day afternoon” (Old woman 80 years old)

This was also reported by another participant

“Me, I eat only once during evening at 4pm, once I eat at that time I have to wait until the next day the same time eeh, I don’t know about tea kha, obtaining food is very difficult” (Old woman 90 years old)

Another participant from focused group discussion added:

“The situation of obtaining food among elderly is worse, here the government is required to help us. Some of us we sleep without eating, some of us cannot afford two or three meals, we eat only once”. (Old man 76 years old)

4.2.1.3. Insufficient amount of a meal:

Apart from eating inadequate number of meals most of the participants reported to eat insufficient amount of food per meal. They said they eat just to get a little bit of a relief but they don’t get satisfactory amount. One of the participants in focused group discussion said:

“To get the amount of food to make you satisfied as it is normally supposed to be is very difficult, I can give the example of myself, per day or let say for a meal of a whole day, during afternoon I cook 1/2kg of flour with my grandchildren and during night I also cook 1/2kg, so for the whole day we eat only 1kg, this is not enough with the grandchildren I told you(4 grandchildren), but we just thank God if you eat even that small amount, we say it is somehow helpful because there is no any assistance.”(Old man 78 years old)

Another participant said

I eat food when I get support from someone. So do you think you can eat a satisfactory amount? No ! you cannot eat satisfactory amount, you have to budget. You have to think what you will eat later, so you just eat a small portion and top up with water” (Old woman 73 years old)

4.2.1.4. Compromised quality of food

The study participants expressed concerns on quality of food they eat. They asserted that they eat only one kind of food every day, no varieties. Majority claimed they often eat stiff porridge (Ugali) and boiled vegetable only as explained by one of the participants

“I don’t eat varieties of food because I don’t have money. I eat only stiff porridge and sleep, sometimes even that stiff porridge is not possible to get, and you know what, this is because of my old age, and you see that one (pointing at an old man) is my husband” (Old woman 86 years old)

Another participant similarly asserted that:

“Eating variety of food !, where is the money to buy that? Here is just stiff porridge of unrefined maize flour, if you want to change may be you take that unrefined maize flour and change into refined maize flour then now you can say I have different food though it is the same maize. If you want varieties of food like rice it needs money to buy.” (Old woman 70 years old)

In-depth analysis revealed that participants are not in position to get other food groups such as fruits and body building foods, as expressed by one of the participants:

“Because we don’t have any income we do not entertain eating fruits like water melon, an orange etc, what we are struggle to get is just stiff porridge but fruits, meats no way” (Old man 68 years old)

4.2.2. Circumstances associated with food insecurity: intrapersonal and interpersonal factors

4.2.2.1 Intrapersonal factors: Limited strength as a result of ageing

It was reported that food insecurity experienced by elderly is partly attributable to limited strength which is a consequence of the ageing process. Less strength causes them not to engage in cultivation or in other economically productive activities at all or do quite minimally. Ultimately they become poor and experience difficulty in accessing food with

respect to both quantity and quality. This was succinctly expressed by one of the participants:

“You drink only water and then you go to sleep, we don’t have the ability to find money to buy food. The strength to go and work as casual laborer we don’t have, other people (young ones) can work but for us we feel pain all over the body” (Old woman 69 years old)

Again, it was reported that limited strength renders elderly unable to prepare meals on their own or do so with difficulty. As a result, some said that they occasionally get food support but lack energy to go through the chores involved in preparing the meals such as collecting firewood, fetching water, and cooking itself. This barrier to food security was well described by one of the participants:

A child may send you sugar but he/she cannot come and help you prepare the food, I have lost the energy to do cooking activities, I just go to the kitchen to prepare food because there is no way and I feel hungry”(Old woman 68 years old)

Similar concern was reported by another participant

“Sometimes we get tired and go to sleep without eating, eeh we get tired of preparing food, even if you’re sick you have to prepare food, for example few days ago I was coughing, and it is just last day I manage to get out”(Old woman 90 years old).

4.2.2.2 Interpersonal factors:

i) Inadequate food support from children

Contrary to the general assumption that elderly are supported by their children, this study found out that children offer minimal support, if any. Most of the participants reported that much as children are willing to help their parents, they also have difficult economic situation which renders them incapable of rendering food support sufficiently. One of the participants said:

My children don’t help me in anything, they are also hard pressed economically. They cannot adequately feed their own children. I had my

house but now it is broken, I thank God saved me because it was almost falling on me.”(Old woman 60 years old)

Another participant expressed a similar concern

“The situation in village is very difficult unless you child is able to help you. For old people like us if your child is able to help, you get a very big relief, for my side my child has nothing to help me so I am suffering all alone” (Old woman 69 years old)

Other participants reported that they do get some support from children or grandchildren though insufficient and is provided inconsistently, as explained by one of the participants:

“As I told you I don’t have a child but I have a grandchild, sometimes if he has something to offer he assists me though it is not a reliable source because he has got children that he is also supporting”(Old man 80 years old)

Apart from economic difficulty, some participants charged that some children are simply selfish. They do not help their parents at all, they take care of their family only and forget about their parents. One participant from focused group discussion emotionally expressed his feelings:

“Children have no use to their parents, they don’t provide any assistance to their parents. To be concern that my parents need this, no way, what they care about is their family. Since you have already brought him/her into the world then everyone should take care of his/her own”(Old man 62 years old)

A similar concern was expressed by another participant

“Big percent of children they worry about their family only, if you keep on asking them for help they tell you that you are stubborn so you decide to keep quite. There is no any care and you can’t complain.”(Old woman 70 years old)

ii) Burdened by grandchildren:

Besides limited support from children, some participants complained that food insecurity they were experiencing can partly be attributed to the burden of looking after grandchildren. That, some young men or women who face difficult economic situation in urban areas do take their children to their old parents (children's grandparents). As a result, it was asserted, the elderly do the food meagre with the grandchildren. This was narrated by one of the participants who said:

My situation is very difficult, it is better if I was all alone but I have three grandchildren, with 87 years I have' I needed to be cared of but there is no one, I have to struggle by myself. So the little food I get I have to share with my grandchildren" (Old woman 87 years old)

Another participant from focused group discussion said

"Sometimes grandchildren depends on us, their father and mother have nothing so when you buy some flour and cook food they run to you and wants to eat. I have then to give them regardless of if we will be satisfied or not" (Old woman 73 years)

4.3.2. Elderly people perceived effects of food insecurity on their health

Analysis of data found out that elderly people reported to have poor health and limited strength to carry out some activities. They also report to have malnutrition and not adhering to treatment correctly due to lack of food. The details of these perceived effects of food insecurity are provided below:

4.3.2.1. Body wasting

Participants revealed that their health deteriorated because of the food problem they are experiencing, one participant said:

"Do you see me, now I am like a fire wood (ukuni in Kiswahili). I was not like this, I was a huge person but now I don't see myself fat, it has all disappeared and this is because of food problems we are facing with my sister" (Old woman 90 years old)

4.3.2.2. Too old for age

Participants complained of being too old for age due to lack of sufficient amount of food, they perceive their selves being not that much old but due to insufficient quality and quantity of food they look very old as explained by one participant from focused group discussion

“Here we are there is no such an old person, this one is not that much old, that one is not that much old, myself I am not that much old but we have become like this because of lack of food. It is just lack of food that all of us are facing.”(Old man 65 years old)

4.3.2.3. Limited strength

Participants were concerned that they experience general body weakness because of insufficient food. This poor health limits their strength to perform some income generation activities. This was clearly expressed by one of the participants

“My health is deteriorating because of lack of food, if you get sufficient food to eat and you become satisfied then you will have a good health and you can carry up to 100 bricks from there to here, but if you don’t have sufficient food only 4 bricks it will be difficult to bring them from there to here. Work is done through eating, farm activities without eating you cannot do.”(Old man 71 years old)

Another participant expressed a similar concern

“This person is not so much old, this one is not so much old, Iam also not so much old, if possible we can fight life by ourselves but we cannot do that because of lack of food and body pain. It is just because of that but in real sense we are not so much old to the extent of not being able to obtain our daily bread.”(Old man 65 years old)

4.3.2.4. Non adherence to treatment

Some elderly who participated in this study had illnesses that necessitated daily intake of medicines. They reported non adherence to treatment due to insufficient food, they fail to take medicine on time instead they have to wait until when they get something to eat as explained by one participant

“Sometimes I experience a very difficult situation and I fail to adhere to the treatment, you find that since I wake up until this hour (11am) I have not eaten anything and I am supposed to take my medicine early in the morning(6am) and at the time of sleeping, but I fail to take that medication during morning because I have not eaten anything , What I do I wait until my grandchildren came back from school, we prepare some porridge then I take my medicine, but this is very different from what I was supposed to do. During evening I prepare a small portion that we share with my grandchildren and I take my medicine again, so I violate because doctor wrote this and you do that, but this is not my fault because I cannot take the medicine without food”(Old woman 87 years old)

Another participant added on this

“Even if you get the medicine, you cannot take it. You work up during morning and you don’t have some tea to help you take the medicine what can you do? If you take that medicine without food will you survive? no way, so you have to quit the medicine. You know what my daughter it is very difficult to kill yourself, so if I don’t have food I don’t take the medicine I just stay with my problems” (Old woman 90 years old)

4.3.3. Social support system for enabling availability of food to the elderly.

The study investigated the extent to which various social groups enabled elderly to get rid of food insecurity. Two social groups that featured prominently in data included: Tanzania Social Action Fund (TASAF) and religious groups. Detailed description of the role played by these social institutions with respect to food support follows:

4.3.3.1. Inadequate social support from government

Study findings revealed that the only reliable assistance from government is through Tanzania Social Action Fund (TASAF). All participants admit to receive assistance from TASAF though they find it to be inadequate. One of the participants said

“The only help from government is just this program of TASAF but if you totally rely on that you will die, you know the problem is that we have no place to complain, it is true that we receive the assistance but not every month, it is after three months . So my daughter try to think 20,000/= for three month will you be able to budget for food all that time?”(Old woman 63 years old)

It was also been found that the assistance they obtain from TASAF it has to cover a lot of other activities apart from fulfilling food needs. One participant said

“I get 20,000/= from TASAF after three month, if you buy food the whole money is gone, for example my house was falling, so I have to take that money and fix it. It was very terrible, I was not able to sleep in this house” (Old woman 80 years old)

Another participant added:

“I get money from TASAF after three months, but when I get that money I have to buy shoes and other needs for a student who is now in form three as that is how we have been directed. For that case then nothing is left to buy food.”(Old woman 75 years old)

Analysis of data also found that the councils have no budget for supplying food to the elderly due to limited budget, one of the district official said:

“The council has no budget for supplying food to the elderly people, what we are doing is to work in collaboration with stakeholders to help these people, For example last year Mama Janet Magufuli (First lady-Republic of Tanzania) supplied food to elderly who lives in the elderly camp and through her visit other stakeholders pledge to give assistance, some of them they have already fulfilled their promise.”(DKI No.1)

Another district official added that

“We have a very limited budget to provide treatment, food and other needs, elderly need shoes, they have dilapidated houses, so there are a lot of problems.”(DKI No.2)

Another district official added that priority is now given to ensure elderly people access medical treatment when they fall sick, this was based on assumption that elderly are staying with their family and hence obtain food support

“About food we don’t give priority because we know that many elderly people stay with their family , so we focus on things that they cannot afford like treatment, and that is why there is free medical treatment to elderly people”(DKI No.3)

Study findings also found that the Central government provides support to few elderly people who lives in elderly camp, but for those who lives at home there was no any program arranged to help them as one of the district official reported

“In the district we have one disability centre with elderly people who are supported by the Central government, but those who live at home we hope they get food through the community that surround them such as their children, neighbours etc.”(DKI No.2)

It was also revealed that elderly policy does not speak directly on the issue of providing food to the elderly though it instructs the provision of support services.

4.3.3.2. Unreliable social support from religious groups

Few participants reported to get food assistance from religious groups. However they claim that the assistance is not reliable as it is the religious institution that decides what to provide, when and how much - as explained by one of the participant:

“I remember to receive assistance from religious group three years ago, we were called that there is food assistance. Those who were lack received rice but some of us instead of given food we end up with some dilapidated clothes” (Old woman 79 years old)

Similar explanation was given by a member of focused group discussion

“I received assistance from a religion group called Answar Sunni, they gave me 5kg of rice, 2kg of sugar and 2kg of beans, this was three years ago and I received only once. Apart from this, I have never received any other assistance even from Roma which is my religion.”(Old woman 80 years old)

CHAPTER FIVE: DISCUSSION

5.0. Introduction

This chapter presents discussion of key findings on experience of food insecurity among elderly with respect to its nature, perceived health impact and social support system. It consists of three sections. The first section is on the nature of food insecurity experienced by the elderly. The second section is about the elderly people perceived effects of food insecurity on their health and the third section discusses social support system for enabling availability of food to the elderly.

5.1. The nature of food insecurity experienced by the elderly

5.1.1. Perceived magnitude of food insecurity

This study has found that elderly people have limited access to food, eat less number of meals as well as insufficient amount of meals, this implies that elderly does not obtain sufficient quantity of food for an active and healthy life. These findings agree with findings obtained in some studies which revealed that food insecure elderly eat less food than usual or insufficient intake(35)(36)

The study found that due to limited budget or lack of money the elderly people compromised the quality of food by eating only the available food or cheap ones, they rely on only one kind of food (mainly carbohydrate), no varieties which includes fruits and proteins foods. Similar findings have been reported in some studies which reported that the frequent consumed food by the food insecure elderly were cheap food, mainly carbohydrates and vegetables(37)(38)(39)

5.1.2. Intrapersonal contributing circumstances: limited strength

Intrapersonal circumstances associated with food insecurity among elderly were found to be limited strength to engage themselves in farm activities or working as casual laborer to earn some money to buy food, hence end up with nothing to eat. Limited strength also hinder them from being able to prepare food even if the food is available in the house hence becomes a barrier to their food security. These findings suggest that food insecurity among elderly is real. They can best be explained by the fact that the aging process reduces body functional ability and strength - hence limiting ability to carry out activities for

enabling food availability and preparation of meals. These findings are in agreement with a study done in New York which reported that although money is a major cause of food insecurity, elders sometimes have enough money for food but are not able to access food because of transportation or functional limitations, or are not able to use food (i.e., not able to prepare or eat available food) because of functional impairments and health problems(35)(40), also another study done in United States showed that it is not financial constrain that result into food insecurity among elderly but also the fact that some of the elderly people are not able to shop by their own (33).With limited strength elderly becomes food insecure.

5.1.3 Interpersonal factors:

5.1.3.1 Inadequate food support from children

It is generally assumed that children provide support to their parents, surprisingly according to this study elderly were not receiving support from their children because they also had difficult situation and some didn't care about their parents and focus only on their families simply because of selfishness. In disagreement with the current study a study done in Canada reported that having a child was an advantage to the elderly people of not being food insecure(28).

5.1.3.2 Sharing inadequate food with the grandchildren

The study also revealed that besides being elderly and not able to support themselves with food needs, they also have a burden of taking care of grandchildren. This burden causes the elderly to have insufficient amount of food per meal as they are compelled to share the little they have with the grandchildren. The finding is a reflection of the difficult economic situation facing some of the young people who opt to delegate their parental responsibility to their elderly parents. This finding is in line with a study done in U.S which revealed that having dependants like the grandchildren increases the food insecurity burden to the elderly people, majority of them are unemployed and this limit their resources for purchasing food(32), also a study done in Kenya reported that, in household with food insecurity priority for food is given to children against adults(20).

5.2. Elderly people perceived effects of food insecurity on their health

The study findings found that elderly people reported to have poor health including body wasting and looking too old for age. They attributed those negative outcomes to not eating varieties of food and eating inadequate number of meals as socially accepted. These findings are supported by another study done in Brazil and Australia that reported that food insecure elderly are more likely to have chronic diseases, poor nutritional status, walking disabilities and poor socioeconomic condition(15)(22). The current study findings also revealed that participant believed that due to lack/ insufficient foods their health become poor to the extent of limiting the performance of daily activities including farm activities that can help them obtain food. Some studies reported similar findings that elderly people that are faced with food insecurity are more likely to see an increase in hospitalization and limitation to carry out activities of daily living(24)(41). Non adherence to treatment was also revealed by the participants in the current study, they reported that they sometimes have no food to eat that can help them take the medicine and therefore they quit, not only that but also they fail to take the medicine on time because they have to match with the time of eating their one or two meals they have per day. This finding goes in line with a study which reported that elderly people experiencing food insecurity are three times more likely to skip their medication dosage or stop taking all together(23). Non adherence to treatment implies poor prognosis to treatment which can increase burden of care to the elderly person, family and the government in general. So it is important that elderly people get adequate nutritious food to facilitate the recovery process.

5.3. Social support system for enabling availability of food to the elderly.

The findings from this study found that the only reliable source that helped availability of food to the elderly was Tanzania Social Action Fund (TASAF), though it was also revealed that the assistance was not adequate and was not wholly meant for food support. This implies that there were no any government programs for providing food to the food insecure elderly people. Furthermore the study found that the government through Central government was providing food assistance to the elderly people who were living in elderly camps. This shows that little attention was given by the government to those who were living in community (at their homes). This little attention can be best explained by the general assumption by the government and other stakeholders that elderly people who live

in communities are cared by their families and community members surrounding them, this study has proven the contrary. Family food support for the elderly is very limited, if any, particularly in low income countries which have been, and still are, experiencing economic difficulties

The study found out that Local government had limited budget for providing food support to the elderly and depend only on different stakeholders who can volunteer to provide support. This reflects the little effort offered by the local government to address food insecurity among elderly. It also implies fragmented food supports that rely on stakeholders who decide when and how much to support

The findings also revealed that there was little and unreliable social support from community groups including religious groups, these findings are in disagreement with the findings obtained in a study done in Ireland which revealed that food poverty interventions are predominantly characterized by downstream approaches that are heavily reliant on the community, voluntary sector and religious organization(29). This difference in finding might be contributed by little involvement of community groups in addressing food insecurity among elderly in the current study area.

Besides, the current study revealed that although policy for the elderly underscores provision of social services to the elderly, it does not state directly on the provision of food to the food insecure. This might give a loop hole to the policy implementers not to give it (food support) a deserved attention.

CHAPTER SIX: CONCLUSION AND RECOMMENDATIONS

6.1. Conclusion

This study has demonstrated that the elderly people experience food insecurity with respect to both quantity and quality. That is, they have limited access to food, eat less number of meals as well as insufficient amount of meals. Moreover, they are unable to get food varieties. Consequently, elderly are vulnerable to nutrition related ill-health as self-reported in this study: limited strength, wasting, non-adherence to treatment, and too old for age. Food insecurity and adverse outcomes have been attributed to very limited support that range from the family to the national levels. In essence, this study has disproved the general assumption by the government and other stakeholders that elderly people who live in the communities are cared by their families and community members surrounding them. Therefore, it is high time that a strategy was developed by the government and other stakeholders to ensure that all elderly are food secure.

6.2. Recommendations

Based on this study it is recommended that:

1. The policy makers and programme planners should conduct situational analysis and develop food programs targeting this vulnerable population of elderly.
2. The government should review elderly policy to make it speak directly on the issue of providing food support to the elderly.
3. There is a need for the government and other stakeholders to initiate community-based educational programs for sensitizing communities on the need to provide food support to the elderly people
4. There is a need for the government to initiate community-based food programmes through community involvement strategies. These initiatives may be coordinated by local governments.

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APPENDICES

Appendix A: Interview guide for an elderly person - English Version

Interview guide to explore experience of food insecurity among elderly: Its nature, perceived impact and mitigation measure in Mvomero District Council.

Identification number.....

Date.....

PART I: SOCIO-DEMOGRAPHIC INFORMATION OF AN ELDERLY

1. Sex
 - a. Male
 - b. Female
2. Age
3. Level of education
 - a. None
 - b. Primary
 - c. Secondary O level
 - d. Secondary A level
 - e. Diploma
 - f. Degree
 - g. Postgraduate
4. Marital status
 - a. Single
 - b. Married
 - c. Divorced
 - d. Widow
 - e. Separated
 - f. Living with partners
5. Income generating activity
 - a. Unemployed
 - b. Self employed
 - c. Government employed
 - d. Retired

- e. Business
 - f. Farmer
6. Do you have children (mention the number).....

PART II: NATURE OF FOOD INSECURITY AMONG ELDERLY

7. What can you say about accessibility/availability of food?

Probe

- a. Is there any time you worry that you will not get food?
Probe: Please explain the circumstances characterizing those periods
- b. Do you eat the kind of food you prefer?
- c. Is there any time that you eat the food you don't prefer?
Probe: Please explain the circumstances limiting your food preferences
- d. Is there any time that you eat a small portion of food than required?
Probe: Please explain the circumstances that make you eat small portion than required
- e. Is there any time that you don't get food to eat at all?
Probe: Please explain the circumstances that characterize time when you don't get food to eat at all
- f. Is there a time you go to sleep at night hungry?
Probe: Please explain the circumstances that characterize times when yo go to sleep at night hungry
- g. Is there any time that you went the whole day and night without eating?
Probe: Please explain the circumstances that characterize time when you go the whole day and night without eating
- h. What causes you to not having adequate food?

PART III: HEALTH EFFECT OF FOOD INSECURITY AMONG ELDERLY

8. How is inadequacy to food affecting your health?

Probe

- a. What can you say about your health condition in relation to your limited access to food?
- b. Do you have any disease problem

Probe:

- i. Please explain how your limited access to food affects your response to ill health you are experiencing
- ii. Adherence to medication
- c. How does inadequacy of food limit you from carrying out your daily activities

PARTIV: SOCIAL SUPPORT SYSTEM

9. How do the following social groups support you to access food and how adequate is the support

Probe

- a. Support from the spouse
 - i. Comment on reliability
 - ii. Comment on challenges
 - iii. Comment on sustainability
- b. Support from children, if any
 - i. Comment on reliability
 - ii. Comment on challenges
 - iii. Comment on sustainability
- c. Support from relative (give details of the nature of relationship)
 - i. Comment on reliability
 - ii. Comment on challenges
 - iii. Comment on sustainability
- d. Support from religious group
 - i. Comment on reliability
 - ii. Comment on challenges

- iii. Comment on sustainability
 - e. Support from Non-governmental organization(s)
 - i. Comment on reliability
 - ii. Comment on challenges
 - iii. Comment on sustainability
 - f. Support from any societal group
 - i. Comment on reliability
 - ii. Comment on challenges
 - iii. Comment on sustainability
10. What are your suggestion to improve food security to elderly

Appendix B: Interview guide for an elderly person - Swahili Version

Muongozo wa usaili wa kuchunguza hali ya upatikanaji wa chakula kwa wazee kwa kuangalia ukubwa wa taizo la upatikanaji na visababishivyake, madhara katika afya zao na mbinu zinazofanyika kuhakikisha upatikanaji wa chakulakwa wazee katika wilaya ya Mvomero Morogoro

Namba ya utambulisho.....Tarehe.....

SEHEMU YA KWANZA: TAARIFA BINAFSI ZA MZEE

1. Jinsia
 - a. Mwanaume
 - b. Mwanamke
2. Umri (mwaka).....
3. Kiwango cha elimu
 - a. Sina elimu
 - b. Elimu ya msingi
 - c. Kidato cha nne
 - d. Kidato cha sita
 - e. Astashahada
 - f. Shahada
 - g. Shahada ya uzamili
4. Hali ya ndoa
 - a. Sijaoa/Sijaolewa
 - b. Nimeoa/Nimeolewa
 - c. Tumeachana
 - d. Mgane/Mjane
 - e. Tumetengana
 - f. Tunaishi bila ndoa
5. Shughuli ya kuingiza kipato
 - a. Sijaajiliwa
 - b. Nimejijiri
 - c. Nimeajiriwa na serikali

- d. Nimestaafu
 - e. Mfanyabiashara
 - f. Mkulima
6. Je una watoto? (taja idadi).....

SEHEMU YA PILI:HALI HALISI YA TATIZO LA UPATIKANAJI CHAKULA KWA WAZEE

7. Unaliongeleaje suala la upatikanaji wa chakula?
- Dadisi/Jua undani
- a. Kuna wakati huwa unapata wasiwasi kuwa huwezi kupatachakula?
Dadisi: Tafadhali elezea mazingira yanayopelekea hali hiyo
 - b. Je unakula chakula unachokipenda?
 - c. Je kuna wakati huwa unakula chakula ambacho hukipendi?
Dadisi: Tafadhali elezea mazingira yanayosababisha usile chakula unachokipenda
 - d. Je kuna wakati wowote ambao huwa unakula kiwango kidogo cha chakula kuliko ulichohitaji?
Dadisi: Tafadhali elezea mazingira yanayosababisha ule chakula kidogo kuliko ulichohitaji.
 - e. Je kuta wakati ambao huwahupati kabisa chakula?
Dadisi: tafadhali elezea mazingira yanayosababisha usipate kabisa chakula
 - f. Je kutawakati ambao huwa unalala bila kula?
Dadisi: Tafadhali elezea mazingira yanayosababisha uende kulala bila kula
 - g. Je kuna wakati ambao siku nzima hadi unaendakulala unakuwa hujala kitu chochote
Dadisi:Tafadhali elezea mazingira yanayosababisha siku nzima kuanzia mchana hadi unaenda kulala haujala kitu
 - h. Ni kitu gani kinasababisha usipate chakula cha kutosha?

SEHEMUYA TATU: MADHARA YA UKOSEFU WA CHAKULA KWA
WAZEE

8. Ukosefu wa chakula unaathiri vipi afya yako

Dadisi/Jua undani

- a. Unaonaje hali ya afya yako hasa ukihusianisha na ukosefu wa chakula?
- b. Je una tatizo lolote la kiafya linalokusumbua?

Dadisi

Tafadhali elezea jinsi ukosefu wa chakula unavyoleta tatizo katika ugonjwa ulionao

Utumiaji wa dawa kama inavyotakiwa

- c. Ni kwa vipi upungufu wa chakula unapunguza uwezo wako wa kufanya shughuli za kila siku

SEHEMU YA NNE: MFUMO WA KUSAIDIA UPATIKANAJI WA CHAKULA

9. Ni kwa vipi makundi yafuatayo yanakusaidia kupata chakula na msaada huo unatosheleza kwa kiasi gani?

Dadisi/Jua undani

- a. Msaada kutoka kwa mwenza
 - i. Toa maoni kuhusu uhakika
 - ii. Toa maoni kuhusu changamoto
 - iii. Toa maoni kuhusu mwendelezo
- b. Msaada kutoka kwa watoto, kama wapo
 - i. Toa maoni kuhusu uhakika
 - ii. Toa maoni kuhusu changamoto
 - iii. Toa maoni kuhusu mwendelezo
- c. Msaada kutoka kwa ndugu (eleza kwa undani aina ya uhusiano)
 - i. Toa maoni kuhusu uhakika
 - ii. Toa maoni kuhusu changamoto
 - iii. Toa maoni kuhusu mwendelezo
- d. Msaada kutoka kwenye vikundi vya dini
 - i. Toa maoni kuhusu uhakika
 - ii. Toa maoni kuhusu changamoto

- iii. Toa maoni kuhusu mwendelezo
 - e. Msaada kutoka katika mashirika yasiyo ya kiserikali
 - i. Toa maoni kuhusu uhakika
 - ii. Toa maoni kuhusu changamoto
 - iii. Toa maoni kuhusu mwendelezo
 - f. Msaada kutoka katika vikundi vya kijamii
 - i. Toa maoni kuhusu uhakika
 - ii. Toa maoni kuhusu changamoto
 - iii. Toa maoni kuhusu mwendelezo
10. Kwa maoni yako unafikiri nini kifanyike ili kuboresha upatikanaji wa chakula kwa wazee

Appendix C: Focused group discussion guide for elderly - English Version

Interview guide to explore experience of food insecurity among elderly: perceived magnitude, impact and mitigation measure in Mvomero District Council

Number of interview guide.....

Date.....

PART I: SOCIO-DEMOGRAPHIC INFORMATION OF AN ELDERLY

1. Sex
 - a. Male
 - b. Female
2. Age
3. Level of education
 - a. None
 - b. Primary
 - c. Secondary O level
 - d. Secondary A level
 - e. Diploma
 - f. Degree
 - g. Postgraduate
4. Marital status
 - a. Single
 - b. Married
 - c. Divorced
 - d. Widow
 - e. Separated
 - f. Living with partners
5. Income generating activity
 - a. Unemployed
 - b. Self employed
 - c. Government employed
 - d. Retired

- e. Business
 - f. Farmer
6. Do you have children (mention the number).....

PART II: NATURE OF FOOD INSECURITY AMONG ELDERLY

7. What can you say about accessibility/availability of food for elderly in this community?

Probe

- a. Is there any time that an elderly person eats the kind of food he/she doesn't prefer?

Probe: Please explain the circumstances limiting elderly person food preferences

- b. Is there any time that an elderly person eats a small portion of food than required?

Probe: Please explain the circumstances that make elderly person eat a small portion than required

- c. Is there any time that elderly person doesn't get food to eat at all?

Probe: Please explain the circumstances that characterize time when elderly person doesn't get food to eat at all

Probe: How common is the problem of elderly person not getting the food to eat at all?

PART III: SOCIAL SUPPORT SYSTEM

8. How do the following social groups support elderly to access food

Probe

- a. Support from the spouse
 - i. Comment on reliability
 - ii. Comment on challenges
 - iii. Comment on sustainability
- b. Support from children, if any
 - i. Comment on reliability
 - ii. Comment on challenges

- iii. Comment on sustainability
 - c. Support from relative (give details of the nature of relationship)
 - i. Comment on reliability
 - ii. Comment on challenges
 - iii. Comment on sustainability
 - d. Support from religious group
 - i. Comment on reliability
 - ii. Comment on challenges
 - iii. Comment on sustainability
 - e. Support from Non-governmental organization(s)
 - i. Comment on reliability
 - ii. Comment on challenges
 - iii. Comment on sustainability
 - f. Support from any societal group
 - i. Comment on reliability
 - ii. Comment on challenges
 - iii. Comment on sustainability
9. What are your suggestion to improve food security to elderly

Appendix D: Focused group discussion guide for elderly - Swahili Version

Muongozo wa usaili wa kuchunguza hali ya upatikanaji wa chakula kwa wazee kwa kuangalia ukubwa wa taizo la upatikanaji na visababishi vyake, madhara katika afya zao na mbinu zinazofanyika kuhakikisha upatikanaji wa chakula katika wilaya ya Mvomero Morogoro

Namba ya utambulishowa dodoso.....Tarehe.....

SEHEMU YA KWANZA: TAARIFA BINAFSI ZA MZEE

1. Jinsia
 - a. Mwanaume
 - b. Mwanamke
2. Umri (mwaka).....
3. Kiwango cha elimu
 - a. Sina elimu
 - b. Elimu ya msingi
 - c. Kidato cha nne
 - d. Kidato cha sita
 - e. Astashahada
 - f. Shahada
 - g. Shahada ya uzamili
4. Hali ya ndoa
 - a. Sijaoa/Sijaolewa
 - b. Nimeoa/Nimeolewa
 - c. Tumeachana
 - d. Mgane/Mjane
 - e. Tumetengana
 - f. Tunaishi bila ndoa
5. Shughuli ya kuingiza kipato
 - a. Sijaajiliwa
 - b. Nimejiajiri
 - c. Nimeajiriwa na serikali

- d. Nimestaafu
- e. Mfanyabiashara
- f. Mkulima

6. Je una watoto? (taja idadi).....

**SEHEMU YA PILI: HALI HALISI YA TATIZO LA UPATIKANAJI CHAKULA
KWA WAZEE**

7. Mnaliongeleaje suala la upatikanaji wa chakula kwa wazee katika jamii yenu?

Dadisi/Jua undani

- a. Je kuna wakati ambao mzee anakula chakula ambacho hakipendi?

Dadisi: Tafadhali elezeeni mazingira ambayo husababisha mzee ale chakula asichokipenda

- b. Je kuna wakati wowote ambao mzee anakula kiwango kidogo cha chakula kuliko alichohitaji?

Dadisi: Tafadhali elezea mazingira yanayosababisha mzee ale chakula kidogo kuliko alichohitaji.

- c. Je kuta wakati ambao mzeehapati kabisa chakula?

Dadisi: Tafadhali elezea mazingira yanayosababisha mzee asipate kabisa chakula

Dadisi: Ni kwa kiasi gani hili tatizo la mzee kukosa kabisa chakula linajitokeza

SEHEMU YA TATU: MFUMO WA KUSAIDIA UPATIKANAJI WA CHAKULA

8. Ni kwa vipi makundi yafuatayo yanasaidiawazee kupata chakula?

Dadisi/Jua undani

- a. Msaada kutoka kwa mwenza
 - i. Toa maoni kuhusu uhakika
 - ii. Toa maoni kuhusu changamoto
 - iii. Toa maoni kuhusu mwendelezo
- b. Msaada kutoka kwa watoto, kama wapo
 - i. Toa maoni kuhusu uhakika
 - ii. Toa maoni kuhusu changamoto

- iii. Toa maoni kuhusu mwendelezo
 - c. Msaada kutoka kwa ndugu (eleza kwa undani aina ya uhusiano)
 - i. Toa maoni kuhusu uhakika
 - ii. Toa maoni kuhusu changamoto
 - iii. Toa maoni kuhusu mwendelezo
 - d. Msaada kutoka kwenye vikundi vya dini
 - i. Toa maoni kuhusu uhakika
 - ii. Toa maoni kuhusu changamoto
 - iii. Toa maoni kuhusu mwendelezo
 - e. Msaada kutoka katika mashirika yasiyo ya kiserikali
 - i. Toa maoni kuhusu uhakika
 - ii. Toa maoni kuhusu changamoto
 - iii. Toa maoni kuhusu mwendelezo
 - f. Msaada kutoka katika vikundi vya kijamii
 - i. Toa maoni kuhusu uhakika
 - ii. Toa maoni kuhusu changamoto
 - iii. Toa maoni kuhusu mwendelezo
9. Kwa maoni yenu mnafikiri nini kifanyike ili kuboresha upatikanaji wa chakula kwa wazee

Appendix E: A guide for interviewing district health officials - English version

1. From the perspective of local government – how is the situation of food insecurity among elderly?

Probe

- a. Is there any initiative/ programme from the government to support food accessibility among elderly?
 - What are the barriers?
 - What are the facilitators?
- b. Does the policy direct provision of food to elderly?
- c. Is there any guideline/law which direct food support to elderly?
- d. What are your suggestions to improve food security among elderly?

Appendix F: A guide for interviewing district health officials - Swahili version

1. Kwa kuzingatia hali halisi ya serikali za mitaa unaonaje hali ya chakula kwa wazee?

Probe

- a. Kuna mpango wowote au mradi kwa ajili ya kusaidia upatikanaji wa chakula kwa wazee?
 - Changamoto ni zipi?
 - Vitu gani vinasaidia upatikanaji wake?
- b. Je sera inaelekeza kuwapatia chakula wazee?
- c. Je kuna muongozo wowote au sheria inayoelekeza kuwapatia wazee msaada wa chakula?
- d. Je maoni yako ni yapi katika kuboresha upatikanaji wa chakula kwa wazee?

Appendix G: Informed Consent English Version**ID NO:****Introduction**

Hello! My name is Upendo Kilume, a student of Masters of Public Health at Muhimbili University of Health and Allied Sciences (MUHAS). On behalf of Muhimbili University of Health and Allied Sciences (MUHAS), I am conducting a research on Experience of Food Insecurity among Elderly: Its nature, Perceived Impact and Mitigation Measures in Mvomero District- Morogoro as part of my training.

Purpose of the study

This study is aim to explore experience of elderly people on food insecurity, based on its nature, perceived impact and mitigation measures. A better understanding of food insecurity among elderly is essential for the policy makers and programmers planners to develop food programs targeting this vulnerable population.

Participation

I would like you to participate in this study. You have been chosen to participate because I think you can provide valuable information related to food insecurity experience among elderly. If you choose to participate you will be interviewed for about 30-45 minutes. The questions that you will be asked will be related to experience on food insecurity based on its nature perceived impact and mitigation measures.

Benefits

If you agree to participate, it will be beneficial for bringing a good understanding of food insecurity among elderly. This can therefore help in providing useful information and evidence based recommendations to government officials and policy makers to develop plans and programs that can help elderly people with food insecurity problems.

Risks

I do not expect any harm to you as a result of participation in this study. Although the questions will be personal, but the information obtained from you and others will be used to generalize for the whole of Mvomero District Council.

Confidentiality

The information you will be provide will be treated with high confidentiality. Names will not be written on the interview guide or in any report/documents that might let someone identifies you. Your name will not also be linked with the research information in any way. The investigators will take care of the data and information collected.

Right to refuse or withdraw

Participation to this study is voluntary. You may decide to participate or not to. No measure will be taken upon your refusal to participate if you decided not to. You are free not to answer any question or any part of the discussion.

Whom to Contact

In case of any question or query concerning this study, please contact the principal investigator, Ms. Upendo Kilume (MPH) from MUHAS, P. O. BOX 65001, Dar es Salaam, mobile number 0713626826. If you have any question about your rights as a participant you may contact Dr. Joyce Masalu, Chairperson of the research and Publications Committee, MUHAS. P.O. Box 65001, Dar es Salaam-Tanzania, Tel +2552150302-6)

I have read the contents of this form and understand and my questions have been adequately answered. I agree to participate in this study.

Signature of participant..... Date.....

Signature of researcher Date.....

Appendix H: Informed Consent Swahili Version

Namba ya utambulisho.....

Utambulisho

Habari, naitwa Upendo Kilume, ni mwanafunzi wa shahada ya uzamili ya Afya ya Jamii katika chuo cha Afya na Sayansi Shirikishi Mhimbili. Ninafanya utafiti juu ya hali ya upatikanaji wa chakula kwa wazee, kuchunguza ukubwa wa tatizo la upatikanaji wa chakula na visababishi vyake, madhara katika afya zao na mbinu zinazoweza upatikanaji wake ikiwa ni sehemu ya mafunzo yangu

Madhumuni ya utafiti

Taarifa juu ya hali ya upatikanaji wa chakula kwa wazee kwa kuangalia ukubwa wa tatizo na visababishi vyake, madhara katika afya zao na mbinu zinazoweza upatikanaji wa chakula, zitasaidia kutoa taarifa ambazo zina ushahidi ambazo zitawawezesha wapangaji wa miradi na watunga sera kuanzisha miradi itakayowasaidia wazee wenye shida ya upatikanaji wa chakula

Ushiriki

Ningependa ushiriki katika utafiti huu kwa kuwa ninahisi unaweza kutoa taarifa zitakazoweza kufanikisha utafiti huu. Kama utakubali kushiriki utahojiwa wa dakika zisizozidi 30-45. Maswali utakayoulizwa yatahusiana kujua hali ya upatikanaji wa chakula kwa wazee ikiwa ni pamoja na kujua ukubwa wa tatizo na visababishi vyake, madhara katika afya zao na mbinu zinazotumika kusaidia upatikanaji wa chakula

Faida

Ushiriki wako katika utafiti huu ni wa thamani, taarifa utakazoitoe zitasaidia kuleta taarifa ambazo zina ushahidi ambazo zitawawezesha wapangaji wa miradi na watunga sera kuanzisha miradi itakayowasaidia wazee wenye shida ya upatikanaji wa chakula

Athari

Sitarajii mshiriki kupata madhara ya aina yeyote kwa kuamua kushiriki kwake. Ingawa baadhi ya maswali ni binafsi, lakini matokeo ya utafiti huu yatakuwa ya jumla kwa washiriki wote wa wilaya ya Mvomero

Usiri

Taarifa zote utakazozitoa zitahifadhiwa kwa usiri mkubwa, hakuna majina yatakayotumika katika dodoso la usaili walataarifa ya mwisho itakayoandikwa. Maoni yatachanganywa na ya washiriki wengine na kuandikiwa taarifa kwa pamoja.

Haki ya kukubali au kukataa kushiriki

Ushiriki katika utafiti huu ni wa hiari. Unaweza kukubali kushiriki au kukataa. Hapatakuwa na adhabu yeyote itakayochukuliwa dhidi yako kama utaamua kukataa kushiriki. Pia jisikie uhuru kuokujibu swali ambalo hutapenda kulijibu.

Mawasiliano

Kama uatahitaji ufafanuzi zaidi juu ya utafiti huu, usisite kuwasiliana na Mtafiti Mkuu bi. Upendo Kilume, mwanafunzi wa shahada ya Uzamili ya Afya ya Jamii katika chuo cha Afya na Sayansi Shirikishi, S. L. P 65001, Chuo kikuu cha Afya na Sayansi Shirikishi Muhimbili, Dar es Salaam au namba ya kiganjani 0713626826. Kama una swali juu ya stahili zako unaweza kuwasiliana na Dkt. Joyce Masalu, ambaye ni mwenyekiti wa kamati ya utafiti na uchapaji, S. L. P 65001, Chuo kikuu cha Afya na Sayansi Shirikishi Mhimbili, Dar es Salaam au simu namba +2552150302-6.

Miminimesoma/nimesikia na kuelewa madhumuni ya utafiti huu na maswali yangu yamejibiwa ipasavyo. Hivyo, nimeridhia kwa hiari yangu kushiriki.

Saini ya mshiriki..... Tarehe.....

Saini ya mtafiti Tarehe.....

Appendix I: Ethical Clearance

MUHIMBILI UNIVERSITY OF HEALTH AND ALLIED SCIENCES
OFFICE OF THE DIRECTOR OF POSTGRADUATE STUDIES

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Ref. No. MU/ PGS/SAEC/Vol.X/

7th August, 2017

Ms. Upendo Kilume
 Master of Public Health
MUHAS.

**RE: APPROVAL OF ETHICAL CLEARANCE FOR A STUDY TITLED:
 EXPERIENCE OF FOOD INSECURITY AMONG ELDERLY: PERCEIVED
 MAGNITUDE, IMPACT AND MITIGATION MEASURES IN MVOMERO
 DISTRICT-MOROGORO**

Reference is made to the above heading.

I am pleased to inform you that, the Chairman has, on behalf of the Senate, approved ethical clearance for the above-mentioned study. Hence you may proceed with the planned study.

The ethical clearance is valid for one year only, from 4th August, 2017 to 3rd August, 2018. In case you do not complete data analysis and dissertation report writing by 3rd August, 2018, you will have to apply for renewal of ethical clearance prior to the expiry date.

Prof. Andrea B. Pembe
DIRECTOR OF POSTGRADUATE STUDIES


cc: Director of Research and Publications
 cc: Dean, School of Public Health and Social Sciences

Appendix J: Permission from District

**JAMHURI YA MUUNGANO WA TANZANIA
HALMASHAURI YA WILAYA MVOMERO**

**SIMU NA. 023 - 261 3223
Fax Na. 023 -261 3007**

**Unapojibu Tafadhali taja
Kumb.Na. MVDC/N/10/ 02**



**OFISI YA MKURUGENZI MTENDAJI (W)
HALMASHAURI YA WILAYA YA
MVOMERO
S.L.P 663,
MOROGORO**

Tarehe: 10/08/2017

AFISA MTENDAJI KATA
KATA YA DAKAWA

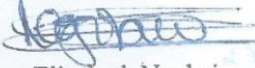
YAH: KUMTAMBULISHA NDUGU UPENDO KILUME

Tafadhali rejea kichwa cha habari hapo juu.


Ndugu Upendo Kilume ni mwanafunzi wa Shahada ya Uzamili katika chuo Kikuu cha Afya Muhimbili anayesomea Kozi ya Afya ya Jamii. Kwa sasa yuko katika hatua ya kufanya utafiti ambayo ni moja ya hitaji muhimu katika kukamilisha masomo yake. Hivyo kufuatia hitaji hilo, Mtafiti tajwa anatarajia kufanya utafiti wake juu ya **hali ya upatikanaji wa chakula kwa wazee** katika wilaya ya Halmashauri ya Mvomero katika vijiji viwili vya Wami Dakawa (kata ya Dakawa) na Kipera (kata ya Mlali). Mtafiti tajwa anategemea kukusanya taarifa kwa muda wa wiki mbili kuanzia tarehe 11-17/08/2017 katika vijiji tajwa hapo juu kwa kushirikiana na kundi la wazee na baadhi ya viongozi waliopo katika vijiji hivyo.

Hivyo kwa barua hii, Halmashauri ya Wilaya ya Mvomero inamtambulisha kwako ili uweze kumtambua na kumpa ushirikiano anaohitaji katika kufanikisha utafiti huo.

Nakutakia majukumu mema.


Elizabeth Ngobei

Kny; MKURUGENZI MTENDAJI (W)
HALMASHAURI YA WILAYA YA MVOMERO



Appendix K: Permission from District**JAMHURI YA MUUNGANO WA TANZANIA
HALMASHAURI YA WILAYA MVOMERO**

SIMU NA. 023 - 261 3223
Fax Na. 023 -261 3007

Unapojibu Tafadhali taja

Kumb.Na. MVDC/N/10/ 02



OFISI YA MKURUGENZI MTENDAJI (W)
HALMASHAURI YA WILAYA YA
MVOMERO
S.L.P 663,
MOROGORO

Tarehe: 10/08/2017

AFISA MTENDAJI KATA
KATA YA MLALI

YAH: KUMTAMBULISHA NDUGU UPENDO KILUME

Tafadhali rejea kichwa cha habari hapo juu.

Ndugu Upendo Kilume ni mwanafunzi wa Shahada ya Uzamili katika chuo Kikuu cha Afya Muhimbili anayesomea Kozi ya Afya ya Jamii. Kwa sasa yuko katika hatua ya kufanya utafiti ambayo ni moja ya hitaji muhimu katika kukamilisha masomo yake. Hivyo kufuatia hitaji hilo, Mtafiti tajwa anatarajia kufanya utafiti wake juu ya **Hali ya Upatikanaji wa Chakula kwa Wazee** katika wilaya ya Halmashauri ya Mvomero katika vijiji viwili vya Wami Dakawa (kata ya Dakawa) na Kipera (kata ya Mlali). Mtafiti tajwa anategemea kukusanya taarifa kwa muda wa wiki mbili kuanzia tarehe 11-17/08/2017 katika vijiji tajwa hapo juu kwa kushirikiana na kundi la wazee na baadhi ya viongozi waliopo katika vijiji hivyo.

Hivyo kwa barua hii, Halmashauri ya Wilaya ya Mvomero inamtambulisha kwako ili uweze kumtambua na kumpa ushirikiano anaohitaji katika kufanikisha utafiti huo.

Nakutakia majukumu mema.

Elizabeth Ngobei

Kny; MKURUGENZI MTENDAJI (W)
HALMASHAURI YA WILAYA YA MVOMERO

OFISI YA MKURUGENZI MTENDAJI (W)
HALMASHAURI YA WILAYA YA
MVOMERO
MOROGORO