

# **ROLE OF SOCIAL CASH TRANSFER IN NUTRITION IN SALIMA DISTRICT OF MALAWI**

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## DECLARATION

I, **Kondwani Richman Promie Mpeniuwawa** hereby declare that this dissertation is my original work and has not been presented for a degree in any other University.

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## **DEDICATION**

This work is in memory of one and only lovely sister late Fonike Mdaphaochete Richman... you were more than a sister.

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## **ACRONYMS AND ABBREVIATIONS**

ADB	African Development Bank
ADMARC	Agricultural Development and Marketing Corporation
AIDS	Acquired Immune Deficiency Syndrome
ARI	Acute Respiratory Infections
CHAM	Christian Health Association of Malawi
DA	District Assembly
DC	District Commissioner
DFID	Department for International Development
ENA	Essential Nutrition Action
FAO	Food and Agricultural Organisation
GOM	Government of Malawi
HDDS	Household Dietary Diversity Score
HIV	Human Immuno-deficiency Virus
MAM	Moderate Acute Malnutrition
MDG	Millennium Development Goals
MDHS	Malawi Demographic and Health Survey
MGDS	Malawi Growth and Development Strategy
MoH	Ministry of Health
MUAC	Mid-Upper Arm Circumference
NAC	National AIDS Commission
NGO	Non Governmental Organisation
NNPSP	National Nutrition Policy and Strategic Plan
NSO	National Statistical Office
PRSP	Poverty Reduction Strategy Paper

SAM	Severe Acute Malnutrition
SCT	Social Cash Transfer
SPSS	Statistical Package for Social Sciences
SSEP	Salima Social Economic Profile
UNDP	United Nations Development Programme
UNICEF	United Nations Children Fund
UNRSID	United Nations Research Institution for Social Development
WFA	Weight for Age
WFH	Weight for Height
WFP	World Food Programme
WHO	World Health Organization

## OPERATIONAL DEFINITIONS

<b>Demography:</b>	Characteristics of the community including population size, growth, density, distribution, and vital statistics.
<b>Nutrition knowledge:</b>	Awareness or familiarity of nutrition information and skills gained through nutrition education and counselling on “good nutrition” and dietary management of medical conditions offered by health workers.
<b>Nutritional status:</b>	A measurement of the extent to which an individual’s physiological needs for nutrients are being met.
<b>Socio-Economic factors:</b>	Income level and education level.
<b>Minimum asset values:</b>	The least value of assets the household had during the study period.

## **ABSTRACT**

Social cash transfers are attracting growing interest from national governments and multilateral donors, as key tools in achieving the Millennium Development Goals due to their role in improving human development, as well as in reducing hunger and tackling extreme poverty and vulnerabilities. The Malawi Government included social protection in the Malawi Growth and Development Strategy which is the road map in achieving the Millennium Development Goals. The Malawi social protection programme targets labour constrained and poor households, which lack social security for everyday social and economic needs. Many poor households have inadequate access to food resulting in the problem of malnutrition due to poor intake of nutrients in terms of quality and quantity. The Malawi Government has implemented Social Cash Transfer Programme since 2006, but to date the impact of the initiative on nutrition remains unknown.

A comparative cross sectional study was carried out in August 2011 in Salima District of Malawi on a randomly selected sample size of 264 households to determine the role played by social cash transfer on nutrition. Using a semi-structured questionnaire, data were collected on demographic status, socio – economic status, a 24hr household dietary diversity score and anthropometric measurement for the under-five children found in the households. Results were analysed using descriptive and inferential statistics to determine the differences between the households benefiting from the social cash transfer programme and those that were eligible but were not yet in the programme with  $p \leq 0.05$  being considered as the statistically significant level of difference.

Results showed that there was difference in terms of percentage allocation of household resources for food, agriculture and education ( $p = .000$ ,  $p = .007$  and  $p = .003$  respectively) with households in the programme allocating more to education than to food and agriculture. Households that were in the Social Cash Transfer Programme had a higher dietary diversity score than those that were not in the programme but were eligible to be in the programme ( $p = .000$ ).

Nutrition indicators for the under five children in terms of wasting (7.2 percent for programme and 3.2 percent for non programme), underweight (12.5 percent for programme and 13.7 percent for non programme) and stunting (50 percent for programme and 44.4 percent for non programme) were high and showed no significant differences ( $p = .490$ ,  $p = .862$  and  $p = .670$  respectively) between programme and non programme households. Social Cash Transfer Programme therefore played no role in improving nutrition status of under-five children despite high dietary diversity score in programme households. It is therefore recommended that the social protection interventions should be integrated with nutrition education in order to curb malnutrition as adequate nutrition is a prerequisite for national development.

# **CHAPTER 1: INTRODUCTION**

## **1.1 Background**

Malawi is one of the developing countries which relies on agriculture as the main source of foreign exchange. About 90 percent of the rural population, which comprises 85 percent of the total population, depends on agriculture. According to the Human Development Index 2010 Malawi is rated at 153 out of 169 countries in terms of development (UNDP, 2010). Nutrition disorders affect a substantial proportion of the Malawian population. However, an improvement in food security has been recorded in the past five years because of the agricultural inputs subsidy programme albeit those nutrition indicators have improved in the recent past. The 2010 Malawi Demographic Health Survey (MDHS, 2010) indicated stunting and wasting rates of 47 percent and 4 percent respectively compared to 53 percent and 4.7 percent respectively in 2001. The problem of malnutrition has also been aggravated by HIV. Currently 12 percent of the population is HIV positive and about 250,000 people are on anti retroviral treatment (GoM, 2010b). This compromises the body immunity thereby affecting the nutrition status of an individual resulting in failure to contribute to the economic activities at household and the national levels.

The Government of Malawi developed several strategies to curb poverty for the poorest of the poor in order for the country to meet the Millennium Development Goals (MDGs). One of the strategies is the social protection programme which refers to the public actions carried out by the state or private institutions that enable people to deal with their vulnerabilities (DFID, 2006). The social protection programmes being implemented by the Malawi Government include the Fertiliser Subsidy Programme, the Food For Work Programme and the Social Cash Transfer Programme. The social cash transfer programme targets the labour constrained households who cannot be included in the first two programmes.



Social cash transfers are attracting growing interest from the national governments and multilateral donors, as key tools in achieving the Millennium Development Goals due to their role in improving human development, as well as in reducing hunger and tackling extreme poverty and vulnerabilities (Omiti and Nyanamba, 2007). In addition to tackling income poverty, social cash transfers also provide effective support for a broader developmental objective for a country. The Malawi Government included social protection in the Malawi Growth and Development Strategy (MGDS) which is the road map in achieving the Millennium Development Goals (MGDs). This is done by allocating resources for social protection in the national budget.

Understanding how the social cash transfers reduce social risks and vulnerabilities is fundamental to identifying the gaps that need to be addressed with reformed or new instruments (Sherpherd et al., 2005). It is against this background that this study was undertaken to establish the role of social cash transfer on nutrition situation in Salima District of Malawi.

## **1.2 Problem Statement**

Poor and labour constrained households lack social security for everyday social and economic needs. The care and support through the family and community social networks that was taken for granted in the past is greatly eroded because of the changes in the society that are associated with urbanisation and development in general (Schubert, 2005). In addition to this, in some communities these households have also the responsibility of taking care of children as young adults succumb to HIV and AIDS.

Most of the poor households are affected by the problem of malnutrition. Inadequate access of food results in poor intake of nutrients in terms of quality and quantity. Current interventions have been formulated to achieve self sufficiency in terms of food access and availability. Only the individuals who are able to meet their food requirement will be able to contribute positively to the development of the nation. The majority of the poor people in the developing countries inherit their poverty status therefore resulting into lifetime poverty. This particular population group also experience poor access to health services (Timmer, *et al*, 1983). Adequate nutrition, adequate health services and ability to function independently are essential components of a good quality of life. While the social cash transfer programme in Malawi has been implemented to contribute towards these components, its contribution towards nutrition has not been evaluated in Salima District since the programme was introduced after being piloted in Mchinji District in 2006.

### **1.3 Justification of the Study**

Malawi is among the poorest countries in Africa. This can be seen clearly in terms of the national nutritional status. The poorest of the poor in Malawi face many challenges among them is the vulnerability to HIV and AIDS, and food security marginalization. Like any other African country, the government of Malawi is heavily investing in the poor through different interventions; among them is Social Cash Transfer (SCT). This intervention is relatively new in the context of Malawi and has the potential to alleviate poverty and eradicate hunger among the poorest of the poor. The SCT is implemented to contribute to national and international effort to reduce hunger and improve the household livelihood. However, little knowledge exists regarding the nutrition implication of such interventions. Being heavy investment towards achievement of the Millennium Development Goals, it is imperative that information on whatever the programme is impacting on the goals is elucidated. The

information generated by this study will contribute to better policy and intervention formulation that will make significant impact among the poorest of the poor in Malawi.

#### **1.4 Aim**

The study aimed at contributing towards improving the nutrition status of the poorest of the poor in Malawi

#### **1.5 Purpose of the Study**

The purpose of the study was to inform policy makers and implementers in nutrition, health, social services and planning sectors on the contribution of the intervention on nutrition. The results supplement the existing knowledge and can contribute to the designing, testing and adoption of interventions that will promote the nutritional status and overall wellbeing of poor Malawians.

#### **1.6 Objectives**

##### **1.6.1 Main objective**

The objective of the study was to assess the role played by social cash transfer on nutrition in Salima District, Malawi.

##### **1.6.2 Specific objectives**

The specific objectives of the study were to;

1. Describe the social demographic and socio-economic characteristics of households on and those qualifying but not on social cash transfers.
2. Determine the various social protection mechanisms available to poor households in Salima District,
3. Determine household utilization of the cash provided in the social cash transfer programme

4. Determine nutritional status of the under five children in households on and those qualifying but not on social cash transfer,
5. Determine Household Dietary Diversity Score (HDDS) of the study groups,
6. Establish the relationship between Social Cash Transfer, HDDS and nutrition status of the under five children in the study population,

## **1.7 Research Questions**

The following were the research questions in the study;

1. Is there a difference in the social demographic and socio-economic characteristics of social cash transfer beneficiaries and qualifying non-beneficiaries in Salima District.
2. What social protection mechanisms are available to the poor households in Salima,
3. Is the nutritional status of under five children in beneficiary households similar to that in qualifying non-beneficiary households in Salima District,
4. Is there a difference in the Household Dietary Diversity Score (HDDS) between beneficiary and qualifying non-beneficiary households?,
5. Is the presence of social cash transfer mechanism significantly associated with nutrition status of children under five years old?,
6. In what ways does the cash transfer mechanism contribute to the nutrition situation in the households?

## **1.8 Hypothesis**

Households with social cash transfer have a better nutritional status than those without social cash transfer.

## **CHAPTER 2: LITERATURE REVIEW**

### **2.1 Definition of Poverty**

According to Encyclopaedia Britannica (online), poverty is a deprivation of essential assets and opportunities to which every human is entitled. Every person has a right to have access to basic education and primary health services. Poor households have the right to sustain themselves by their labour and be reasonably rewarded, as well as having some protection from external shocks. Beyond income and basic services, individuals and societies are also poor and tend to remain so if they are not empowered to participate in making the decisions that shape their lives. Poverty is, thus, better measured in terms of basic education, health care, nutrition, water and sanitation, as well as income, employment, and wages. Such measures must also serve as a proxy for other important intangibles such as feelings of powerlessness and lack of freedom to participate. Poor people are also referred to as vulnerable people (ADB, 2004).

Vulnerability can be defined as the susceptibility of an individual, household, or community to external shocks and fluctuations. This can be in terms of risk factors which include; environmental risk (droughts, floods, and pests); market risk (price fluctuations, wage variability, and unemployment); political risk (changes in subsidies or prices, income transfers, and civil strife); social risk (reduction in community support and entitlements); and health risk (exposure to diseases that prevent work). Most vulnerable people live below the poverty line. Poverty lines are generally defined as the per-capita monetary requirements an individual needs to afford the purchase of a basic bundle of goods and services. The value of this basic basket of goods and services can be determined in many ways. Poverty lines start with a nutritional basket considered minimal for the healthy survival of a typical family, either externally set or derived from household surveys (Alwang, 2001). A number of

different methods are used to define poverty lines. The method of setting the poverty line can greatly influence the structure of poverty. Identifying the poor as those with income (or expenditures) below a given poverty line brings clarity and focus to policy making and poverty analysis. Having a poverty line allows policy makers to assess poverty conditions, to allocate resources for poverty reduction, and to monitor progress against a clear benchmark.

A specification of the different “needs” of different family members, can be determined by fixing the nutritional requirements of different types of people or examining household consumption behaviour (FAO, 2004). In developing countries, it is common to find equivalence scales in use that are based on the different nutritional requirements of persons of different ages and gender.

## **2.2 Social Protection**

Social protection includes all public actions carried out by the state or private institution that enables people to deal with risk and their vulnerability to crises and changes in circumstances, and help tackle extreme and chronic poverty (DFID, 2005). This can include the set of all initiatives both formal and non formal, that provide social assistance to extremely poor individuals and households; social services to groups who need special care or would otherwise be denied access to basic services; social insurance to protect people against the risks and consequences of livelihood shocks and social equity to protect people against social risks such as discrimination or abuse (Devereux and Subates – Wheeler, 2004).

Traditionally, social protection has been used in European and other parts of the developed world to maintain a certain living standard, and address transient poverty. One of the first examples of state-provided social protection can be tracked to the Roman Emperor Caesar

Trajan, who expanded the program for free grain to include more poor citizens of the empire. In addition, he instituted public funds to support poor children (UNRISD, 2010). Organized welfare started in the late 19th and early 20th centuries and it was during this period that in both Germany and Great Britain, welfare systems were established to target the working classes. The United States followed several years later, during the Great Depression, with emergency relief for those struck the hardest. However, modern social protection has grown to envelop a much broader range of issues and purposes; it is now being used as a policy approach in developing nations, to address issues of persistent poverty and target structural causes. Moreover, it is designed to lift recipients out of poverty, rather than providing passive protection against contingencies (UNRISD, 2010).

Few countries in Africa offer social and welfare assistance programs. South Africa, Namibia and Mauritius, provide an old age pension system that is non contributory (Charlton and Rose, 2001). Social security in South Africa consists of social grants that provide support for older people, individuals with disabilities and children under the age of 14 years. Social grants are financed through general tax revenues collected on a national basis and the grants are directly deposited into a beneficiary's bank account. Grant recipient households spend a greater portion of their income on food and education and less on alcohol, tobacco and gambling than similar households not receiving grants. Analysis of household survey data shows that grants reduce South Africa's poverty gap by 47 percent (Samson *et al.*, 2006). Kenya, Zambia and Malawi are some of the countries that have Social Protection Programme in form of Social Cash Transfer. The impacts of these schemes on nutrition, however, have not been documented.

Proponents of cash transfers argue that cash is a critical component of Social Protection in fighting poverty and responding to families that have been overwhelmed by disease, conflict, or other shocks (Miller, *et al.*, 2008). Consequently, governments around the globe are increasingly using cash grants as an instrument of Social Protection for the poor.

### **2.3 Social Protection and Nutrition**

Several factors influence nutrition apart from food security. Other factors include public health and the social care environment for women and children. According to UNICEF (1998) concept framework on causes of malnutrition there are three levels of causes of malnutrition namely: immediate, underlying and basic. Adequate nutrition and health status for a child are immediate determinants for the child's survival, growth, participation and development. The underlying causes of malnutrition include household food security, care for women and children and adequate health services and healthy environment. Adequate education, formal and non formal institutions, political and ideological super structure, socio-economic structure and importantly the potential resources are the basic causes of malnutrition.

Low dietary intake which is one of the immediate causes of nutrition is linked with household food insecurity in the underlying causes. Food security which includes availability, accessibility, proper utilisation, appropriate use and sufficient purchasing power affects dietary intake of an individual. Food insecurity is experienced differently at household and individual adult and child levels. Food preparation and intra household food distribution can also affect dietary intake in addition to food sufficiency, adequacy, acceptability, certainty and sustainability.

Women are a critical link, biologically and socially, in the well-being of households and communities, and they are often more vulnerable than men to malnutrition. Although women,



being smaller, need less dietary energy, they require the same amount or more of many nutrients, so they must eat a higher proportion of nutrient-rich foods. Pregnant and lactating women require more kilocalories than normal women. Therefore, malnutrition puts women at greater risk of complications and death during pregnancy and childbirth. Malnutrition also threatens their babies. More than half of the annual 12 million deaths of children under-five years of age are related to malnutrition, often due to the mother's poor nutrition during pregnancy. Evidence shows that infant mortality rates for children of very young mothers are higher – sometimes twice as high – than for children born to older mothers (FAO, 2002).

Because children form part of the most vulnerable segments of the population, their health status is usually a good indicator of the health of a community. In particular, they are usually the first victims of micronutrient deficiencies. It is estimated that 127 million preschool children may be affected by Vitamin A deficiency of which most of them are concentrated in South Asia and sub-Saharan Africa (UNICEF, 2007). Micronutrients deficiency increases susceptibility to disease, retards growth and development, and is associated with increased death rates from measles, diarrhoea and respiratory diseases.

## **2.4 Nutrition Situation in Malawi**

Malnutrition is a silent crisis in Malawi that has become endemic over the years. The MDHS 2010, revealed that almost half (47 percent) of the under five children in Malawi are chronically malnourished as a result of prolonged exposure to poor dietary nutrient intake, 13 percent are under weight due to the combined effect of long-term and current exposure to poor nutrition and 4 percent of the children have acute wasting. In Salima District, the same MDHS (2010) indicates stunting to be at 40 percent, underweight at 13 percent and wasting at 3 percent.

Micronutrient malnutrition is also a serious public health problem in Malawi. Deficiencies of vitamin A, iron, and iodine contribute to widespread problems of reduced immunity, intellectual development and work capacity, as well as to increased morbidity and mortality, especially among women and children (NNSP, 2007). A 2009 Micronutrient Survey found that almost 40 percent of under five children, 30 percent of school aged and 3 percent of women of childbearing age had Vitamin A deficiency. About 52 percent of preschool children, 46 percent of non-pregnant women, and 23 percent of school children were found to have anaemia by haemoglobin (Hb), and approximately 48 percent of preschool children had Iron Deficiency Anaemia (GoM 2010a). Such high levels of malnutrition have serious consequences which, though abstract, are overwhelming. Most of the malnutrition in children occurs in the first two years of life due to inadequate dietary intake and diseases. Poor feeding and other caring practices and low access to quality health care services and sanitary amenities are the underlying factors to malnutrition among women, children and other vulnerable groups in the country. The negative impact of maternal and early childhood malnutrition on the child's physical and mental growth and development could be irreversible. The long term adverse effect on human capital development and on the country's economic growth, development and prosperity are massive.

Adequate nutrition for any individual is essential to provide energy for living, working, playing, thinking and other activities. Many people in Malawi are poor subsistence farmers growing a variety of crops such as tobacco, maize, groundnuts, legumes, cassava, sweet potatoes, fruit and vegetables for consumption and sale (SSEP, 2006). There is one rainy season, and little irrigation during the dry season. Some winter cropping in wetlands and along rivers is done. Erratic rainfall can greatly affect the harvest and cause widespread household food insecurity and loss of income. This leads to malnutrition, especially among

the more vulnerable sections of the population, namely women of reproductive age, children and the chronically sick. The monotonous, mainly carbohydrate diet consumed in rural areas results in inadequate intake of the variety of nutrients necessary for good health.

Social protection systems enable people to make provisions that will help them cope with future crises like illness, death or the loss of a harvest. They also provide support for extremely poor people, who do not have sufficient self-help potential to maintain a decent standard of living. Basic social protection to safeguard crisis-ridden households from destitution is a subsidiary, but necessary element of social protection. It is also an investment in human capital. Enabling these target groups to buy food and have access to health and education is not only a human right; it is the basis for future opportunities and productive engagement. The Social Cash Transfer Scheme (SCTS) in Malawi is positioned to be a major poverty reduction tool in the Government of Malawi's National Social Protection Policy, which is an effort to respond to widespread poverty, vulnerability and the inability of households to deal with livelihood shocks. National Social Protection Policy calls for programs and policies that confront poverty and vulnerability, directly provide transfers to the destitute, and strengthen human capital in order to break the poverty cycle (Schubert and Mayke Huijbregts, 2006)

## **2.5 Gap in Knowledge**

The Malawi Government has put several strategies to reduce poverty level thereby reducing malnutrition levels. The farm inputs subsidy programme, work for assets and social cash transfer are some of the social protection programmes implemented. These programmes have contributed in one way or another in the household food security especially for the rural population. The role to which individual programmes such as social cash transfer has

contributed to household nutrition has not been evaluated. This study will look into the extent to which social cash transfer has contributed to nutritional status of those benefiting from the programme.

## CHAPTER 3: METHODOLOGY

### 3.1 Study Setting

#### 3.1.1 Study site

Salima is one of the nine districts in the central region of Malawi. It shares boundaries with Nkhonkhotakota to the north, Dowa and Ntchisi to the north-west, Lilongwe to the west, Dedza and Mangochi to the south, and Lake Malawi to the East. The district lies within longitudes 34°26' East and latitude 13°47' South (SSEP, 2006).

#### 3.1.2 Administrative structure

The District Assembly (DA) is the main body that represents the system of local governance in the district. The District Assembly is composed of 25 wards and the developmental issues for each ward are channelled to the Assembly by the Ward Councillor. There are five constituencies represented by five Members

of Parliament who are ex-officio members of the District Assembly. Salima District Assembly has ten Traditional Authorities namely Maganga, Kalonga, Pemba, Ndindi, Khombedza, Kuluunda, Kambwiri, Kambalame, Mwanza and Msosa (SSEP, 2006).

#### 3.1.3 Topography and natural conditions

There are some variations in the nature of landform and altitude for the district. It usually ranges from the rift valley floor, especially along the Lake Malawi to hilly places as

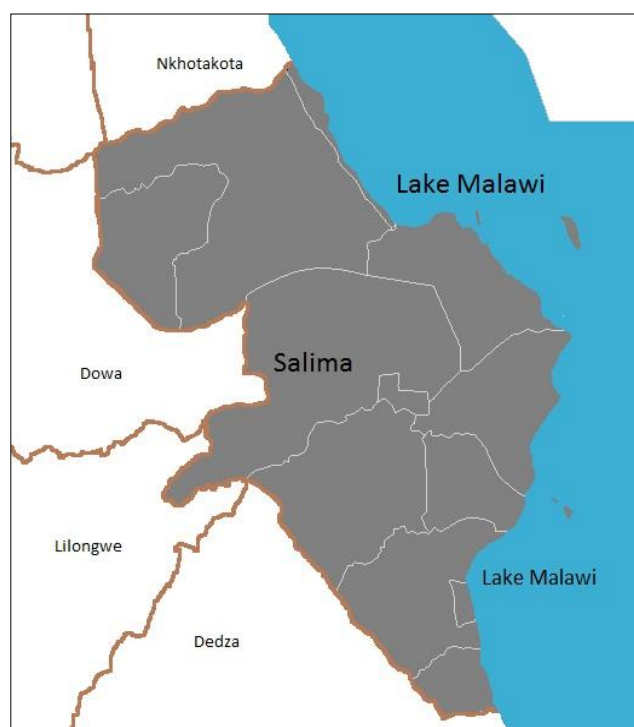


Figure 1: Map of Salima District

witnessed in Traditional Authority Mwanza (North West of Salima). The rift valley floor has an altitude which ranges from 200 to 500m above sea level whereas the upland area has an altitude range of 500 to 1000m above the sea level (SSEP, 2006).

Salima District experiences warm tropical climate with mean annual temperature of about 22<sup>0</sup>C. The highest temperatures are experienced in October which at times might reach as high as 33<sup>0</sup>C. The lowest temperatures are experienced between June and July. Like the rest of Malawi, Salima experiences three short seasons namely; hot wet season (November-April), hot dry season (August - October) and cool dry season that is from May to July (SSEP 2006).

#### **3.1.4 Demography**

The 2008 Population and Housing Census indicated that Salima District has a population of 337,928 with a population density of 154 over an area of 2, 196 square kilometres with 2.6% of the population living in the urban setting of the district. The sex ratio which is number of males per 100 females is 95.5. The report also indicate annual growth rate of 3.2% and inter census population increase of 36.1% between 1998 and 2008 (NSO, 2008).

#### **3.1.5 Economic activities**

The main source of livelihood, for the majority population in the district is subsistence agriculture practiced on about 107,400 hectares of customary farm land. This translates into a per capita farm family/land size ratio of 1:1.1 ha. Maize is the major food crop grown in the district followed by sweet potatoes, cassava, and rice (SSEP, 2006). The district has vast potential for economic growth and expansion through agriculture and tourism. It has also

conducive environment in the form of vast unutilized land amounts, climate and vegetation for large scale livestock rearing and allied industrial processing projects (SSEP, 2006).

Salima also boasts of being one of Malawi's tourist havens. Its entire eastern boundary which is almost 100 kilometres is Lake Malawi which has numerous exquisite beaches and colourful sand. Hotels, tourist resorts, cottages and lodges provide tourist services to an increasingly growing number of foreign and domestic visitors.

Fishing is one of the activities carried out in the district especially at Senga Bay (Maganga), Ndindi, Kambalame, Mwanza and Kuluunda, Msosa and Pemba which are along Lake Malawi. Few individuals who live at the District Headquarters are employed in either formal sector or informal sector.

### **3.1.6 Health**

The district has one district hospital, twelve health centres, four dispensaries, and fifty nine outreach services. These facilities offer a range of preventive, curative, rehabilitative to management support services. Players in this sector include Government's Ministry of Health, Malawi Defence Force, Agriculture Development and Marketing Cooperation (ADMARC), Christian Health Association of Malawi (CHAM), and the private sector. Geographically, all Traditional Authority areas except Pemba and Msosa have health facilities of up to dispensary designation. This translates into only 60 percent of the district population having easy access to basic health services. Major cases of mortality and morbidity for the district include malaria, upper respiratory infections, anaemia, and opportunistic infections as a result of HIV and AIDS (SSEP, 2006).

### **3.1.7 Education**

In central region about 42.9 percent of the population from rural areas are illiterate while in the urban areas 3.9 percent are illiterate (NSO, 2008). In Salima District there are 117 primary schools, 2 conventional, 13 community and 2 private secondary schools providing basic and secondary level educational services in the district's seven Educational Zones. Access to education is however still impeded by general structural and systemic restrictions such as excessive walking distances

## **3.2 Study Population**

The population included the social cash transfer programme beneficiary and non beneficiary households in the four Traditional Authorities of Khombedza, Kambwiri, Mwanza and Kalonga. By the time of the study 1,887 households from these Traditional Authorities were benefiting from the social cash transfer programme in Salima.

## **3.3 Study Design**

The study was comparative cross-sectional with descriptive and analytical approach. It compared the social cash transfer beneficiary households with the non beneficiary households. Both qualitative and quantitative data were collected, anthropometric measurements for the children aged between 6 months to 59 months were taken and the 24 hour household dietary diversity was recorded.

## **3.4 Sampling**

### **3.4.1 Sample size determination**

The minimum sample size was determined using the Fischer formula (Fischer *et al*, 1991) as follows;



$$n = \frac{Z^2 pq}{d^2}$$

where  $n$  = the desired sample size  
 $Z$  = the standard normal deviate chosen at 1.96 corresponding to 95% confidence interval.

$p$  = the proportion in the target population estimated to have characteristics being measured in this case proportion of wasting which is 3.3% (MDHS, 2010) for under five children in Salima.

$$q = 1 - p$$

$d$  = the level of statistical significance set at (0.05).

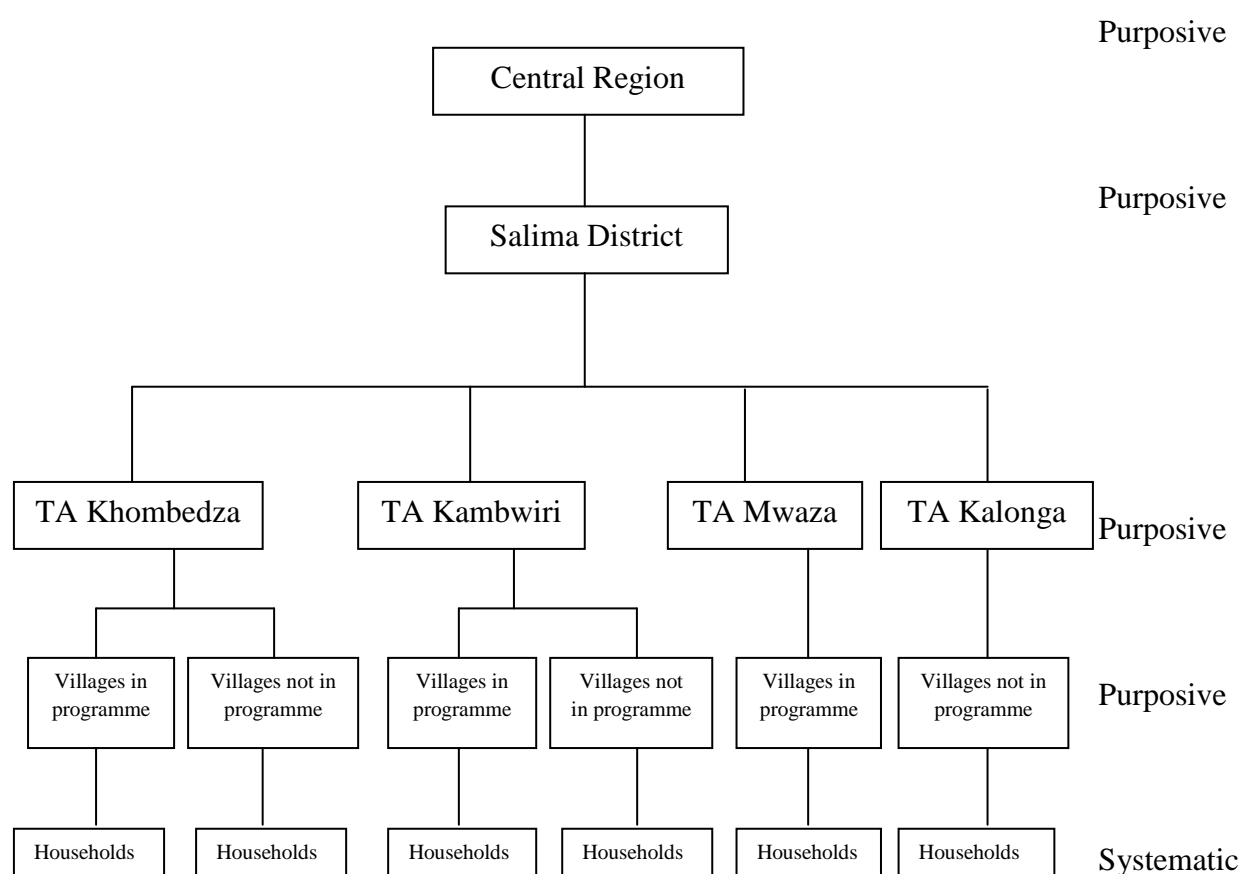
$$\begin{aligned} \text{The number of under five children} &= \frac{1.96^2 \times 0.03 \times 0.97}{0.05^2} \\ &= 49. \end{aligned}$$

According to MDHS (2010) almost 20 percent of the households have a child aged under five years. A minimum of 245 households was required to have the 49 children aged under five years.

### 3.4.2 Sampling procedure

The sample was obtained through multistage sampling. In the first stage the district of Salima was selected purposively on the basis that it was conveniently located in the central region. In the second stage all the Traditional Authorities (Kambwiri, Khombedza and Mwaza) participating in the programme were included and Traditional Authority Kalonga which was not in the programme was included because of having the same livelihoods with Traditional Authority Mwanza. In Traditional Authority Mwaza the programme was implemented in all the villages but this did not apply to the other two Traditional Authorities.

Households participating in the social cash transfer programme were systematically sampled by dividing total number of benefitting households in each Traditional Authority by 49 (desired sample size for each Traditional Authority) to yield the interval number. A separate list for the households which were eligible for the programme but were not participating and also had similar livelihoods was made for Traditional Authorities Kambwiri, Khombedza and Kalonga. The total number in each TA was divided by 49 (desired sample size) to yield the interval number. The sampling schema is as shown in Figure 2.



**Figure 2: Sampling Schema**

### 3.4.3 Sampling for focus group discussion and key informant interviews

Adults aged between 18 and 65 were conveniently sampled with assistance from the chairperson for the village development committee to participate in the focus group discussions. Two focus group discussions were made per Traditional Authority, one village

within the programme area and the other from the non programme area. A total of 8 focus group discussions were conducted during the study period.

Key informant interviews were conducted with one Village Headman, one Community Development Assistant, one Maternal and Child Health coordinator, one District Social Welfare Officer, one District Development Planning and Development Officer and one Senior Officer from the Office of President and Cabinet – Department of Nutrition, HIV and AIDS.

#### **3.4.4 Inclusion and exclusion criteria**

Households benefitting from social cash transfer were all eligible to participate in the study. All non beneficiaries qualifying to be enrolled in the programme were also eligible for the study. These included ultra-poor households (i.e., those living on less than \$0.10 per day) whose members were unable to work due to disability, age, illness or a high dependency ratio.

#### **3.5 Research Instruments/Tools**

A pre-tested interviewer administered questionnaire (Appendix 1) and a focus group discussion guide (Appendix 2) were used to collect data during the study. Tools for taking of anthropometric measurements included weighing scales, height boards and mid upper arm circumference measuring tapes.

#### **3.6 Techniques of Data Collection**

A semi structured questionnaire (Appendix 1) was used to collect and record data on household socio-demographic characteristics; water and sanitation situation; and household dietary diversity. Qualitative data was collected using the focus group discussion and also through discussions with District Social Welfare Officer and also a Coordinator for Social Cash Transfer at Salima District Assembly.

Data was collected from August to September, 2011. The local language (Chichewa) was used during the questionnaire administration and focus group discussions. The responses were recorded in English.

### **3.6.1 Socio – demographic and economic characteristics**

This was captured by administering a pre-tested semi-structured questionnaire (Appendix 1). Data on socio-demographic characteristics included age, sex, marital status, educational level, religion, main occupation of the household members, source of income for the household, household assets, family income distribution and social protection programme the household benefited from. Respondents were also asked to explain how the household income was utilised.

### **3.6.2 Anthropometric measurements**

Anthropometric measurements were taken twice and the average was recorded in the semi structured questionnaire (Gibson, 2005). The measurements that were collected included weight, height and mid upper arm circumference. The child's age was recorded after verification from the health passport for the child. Oedema was also checked and reported to the supervisor for confirmation and referral to the health facility.

### **3.6.3 Household dietary diversity score**

Household dietary diversity score was obtained using the revised FAO 24 – hr recall questionnaire in Appendix 1 Section E (Swindale and Paula, 2006). The interviewer recorded all the foods consumed by the household in the previous 24 hours. The households were asked to name all the foods that were eaten in the household by the members of the

households for the previous 24 hours. The foods eaten were classified into 12 food groups that were used to calculate the Household Dietary Diversity Score.

#### **3.6.4 Water and sanitation**

Information on availability of safe drinking water was collected by asking the respondents where they obtain their drinking water and whether they treated it before drinking. Availability of sanitary facility (toilet) was also assessed through observation and where not found by asking the respondent.

#### **3.6.5 Focus group discussion**

Three focus group discussions consisting of eight elders was conducted using the focus group guide (Appendix 2). These elders were sampled from the villages participating in the study. Qualitative data on the impact of social cash transfer on nutrition was collected using this method. This was complemented with key informant interviews with the village headmen, the officials from district assemblies, Department of Nutrition, HIV and AIDS, and Ministry of Gender and Children Affairs.

### **3.7 Ethical Consideration**

Authority to conduct the research was obtained from Department of Nutrition, HIV and AIDS – Office of President and Cabinet, Malawi. Verbal informed consent was sought from the respondents before the interviews (Appendix 3). Salima District Commissioner was also informed of the study objective and was requested to inform the concerned parties (Appendix 4).

### **3.8 Recruitment and Training of Field Enumerators**

The data was collected with aid of twelve Health Surveillance Assistants who were recruited from the study area and who spoke fluent English and other two local languages (Yao and Chewa). The enumerators' selection was done through interviews. The enumerators had to demonstrate skills of being able to take anthropometric measurements and having good communication skills.

A two day training session for the enumerators was done based on the module prepared by the researcher (Appendix 5). During the training the enumerators were equipped with technical capabilities for taking anthropometric measurements and data collection techniques.

### **3.9 Data quality Control**

Data collection tools were pretested to ensure their relevance and make sure they were well understood and correctly filled by enumerators.

Supportive supervision was done on a daily basis as the data was being collected. Calibration of scales was done regularly to ensure accuracy. This was done by weighing particular object of known weight. Adjustments were made to ensure the scale reading was correct. Furthermore discussions with the enumerators were done on daily basis to identify encountered problems and their solutions.

### **3.10 Data Management and Analysis**

Data entry templates were used to enter data using SPSS software. Data cleaning was done using both the SPSS and Excel softwares and all outliers addressed accordingly.

Data analysis involved the first level descriptive statistics (mean, median and standard deviation for continuous data); proportions and frequency distribution. Second level analysis aimed at establishing significant differences between variables hence included Chi-square, paired t – test, and correlation. The analysis described the demographic characteristics, socio economic status, household income and utilisation, household dietary diversity, and health and sanitation characteristics. Analysis for the nutritional status of children was done using the new growth standards (WHO, 2006). Cross tabulation was used to analyse the relationship between the two groups that is households in the social cash transfer programme and households which were not in programme. The hypothesis would be rejected if households in the social cash transfer programme have the same nutrition status as those without social cash transfer but eligible to be in the programme.

## CHAPTER 4: RESULTS

### 4.1 Demographic Characteristics of the Respondent Households

The survey covered a total of 264 households of which 130 were programme beneficiaries and 134 were non beneficiaries. Table 1 shows selected demographic characteristics of the study groups.

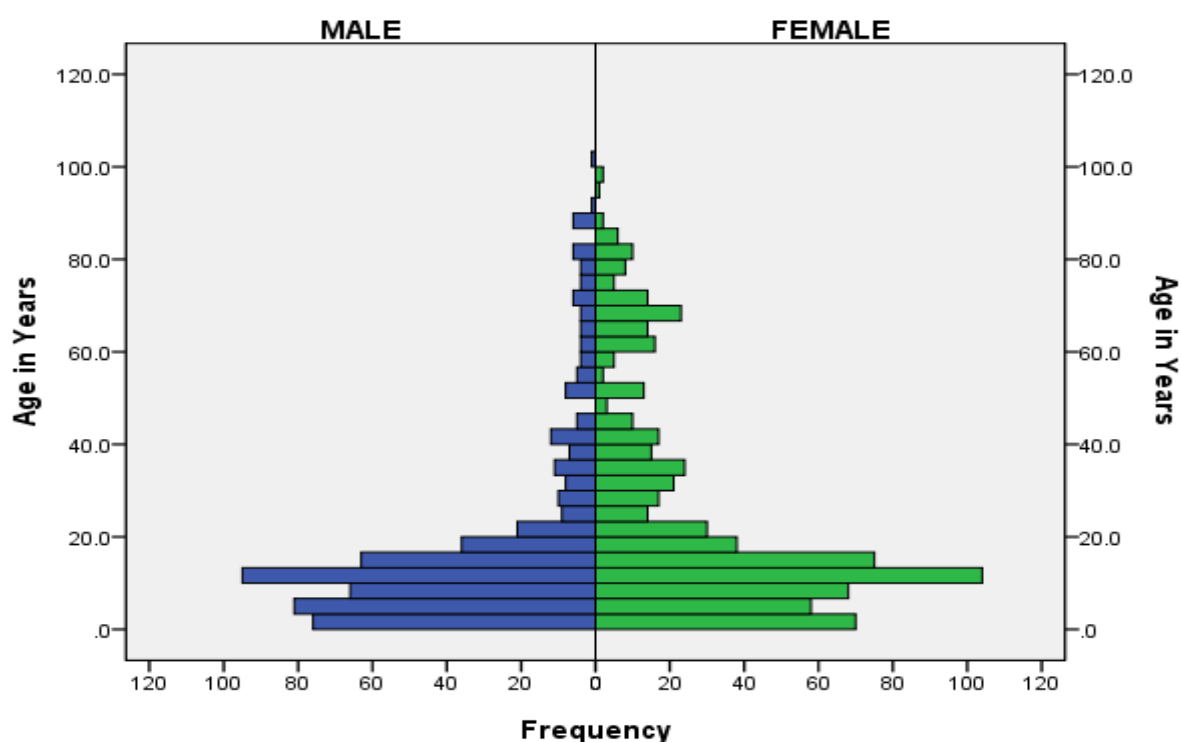
**Table 1: Selected demographic characteristics of the respondent households**

CHARACTERISTICS	BENEFICIARIES	NON BENEFICIARIES	TOTAL
<b>Sex (%) N = 1,242</b>	<b>(n = 602)</b>	<b>(n = 640)</b>	
Male	41.5	48.1	44.9
Female	58.5	51.9	55.1
<b>Age (%) N = 1,242</b>	<b>(n = 602)</b>	<b>(n = 640)</b>	
0 - 5 years	12.0	24.4	18.4
6 -10 years	21.9	18.6	20.2
11 - 15 years	23.8	15.9	19.7
16 - 20 years	10.8	8.4	9.6
21 - 35 years	6.0	15.9	11.1
36 - 50 years	6.6	7.3	7.0
51 – 65 years	6.6	3.9	5.2
Over 65 years	12.3	5.5	8.8
<b>Household heads (%) N = 264</b>	<b>(n = 130)</b>	<b>(n = 134)</b>	
Male	32.3	51.5	42.0
Female	67.7	48.5	58.0
<b>Marital status ≥ 18 years (%) N = 463</b>	<b>(n = 221)</b>	<b>(n = 242)</b>	
Married	34.8	57.0	42.8
Separated	7.2	6.6	9.5
Widowed	24.4	13.6	30.3
Single	29.0	16.9	9.5
Divorced	4.5	5.8	8.0
<b>Religion (%) N = 1,242</b>	<b>(n = 602)</b>	<b>(n = 640)</b>	
Christians	79.9	96.2	88.3
Muslims	17.9	0.0	8.7
Traditionalists	2.2	3.8	3.0
<b>Average household size</b>	<b>4.6</b>	<b>4.8</b>	<b>4.7</b>
<b>Dependency ratio</b>	<b>1 : 2.38</b>	<b>1 : 1.84.</b>	<b>1 : 2.08</b>

The ages of the household members ranged from less than one month to 100 years with most of the people falling within the age range of 10 to 14 years (21.2 percent). Children aged below five years were 228 (18.4 percent) with 120 males and 108 females. The male to



female ratio was 1:1.2. Figure 3 below population distribution among the age groups by sex using a population pyramid.

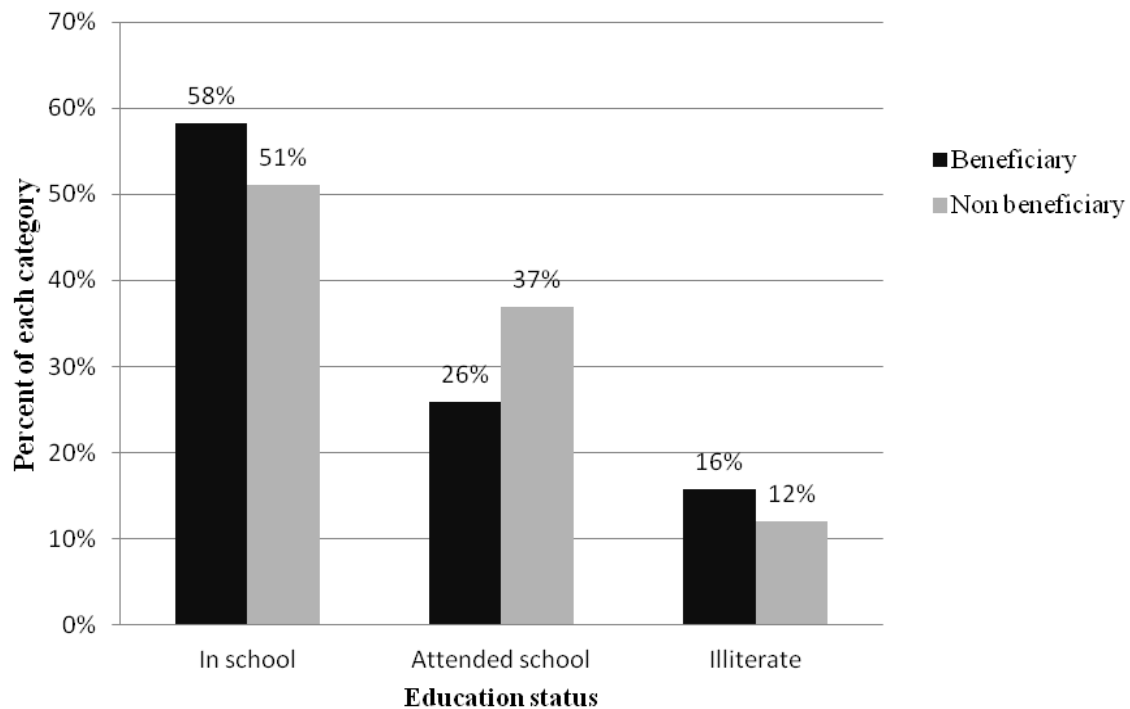


**Figure 3: Distribution of the study population by age**

## 4.2 Socio economic Characteristics

### 4.2.1 Level of education of the respondent households

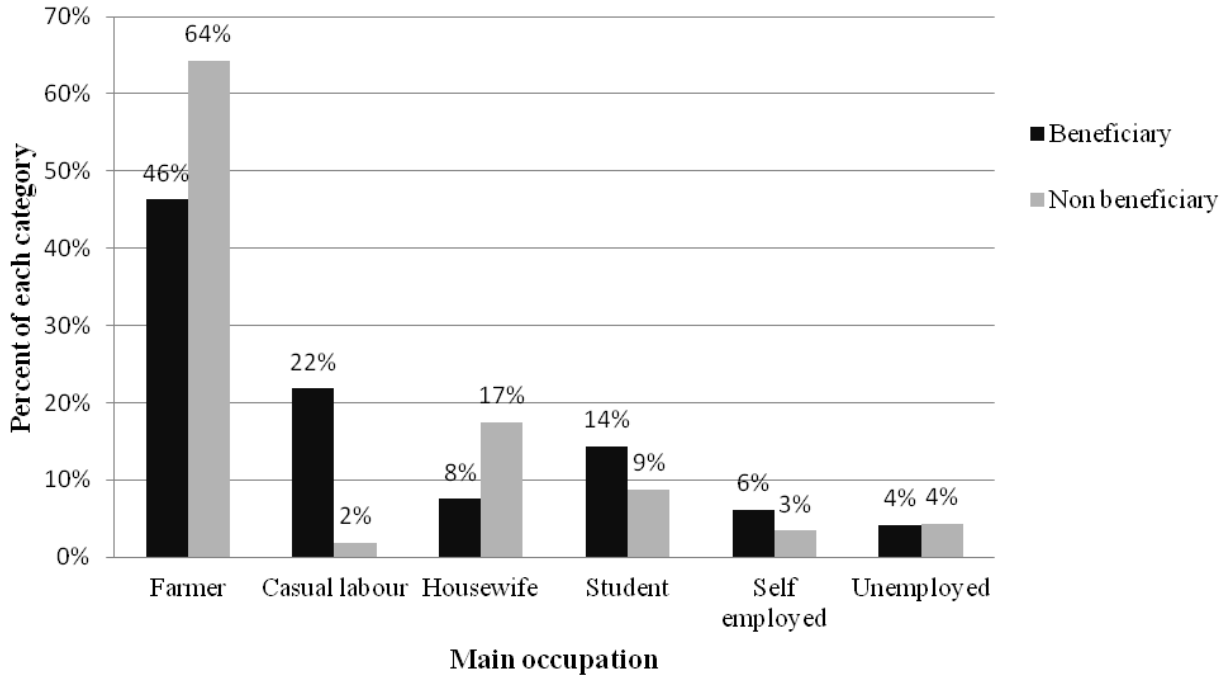
The study assessed the education levels for those aged 18 years and above. Illiterate levels for those aged 18 years and above was 27.9 percent (129) with 58.9 percent of these benefiting from the social cash transfer programme. Figure 4 shows the education status of the household members aged 18 years and above by study group. There was a significant difference ( $p = 0.001$ ) in education status between those in the social cash transfer programme and those not in the programme. A significantly higher proportion of the non beneficiaries than the beneficiaries had attended school. School enrolment for those household members aged between 6 and 17 years was 91.5 percent (551), 4.7 percent had dropped from school while 3.8% had not attended school.



**Figure 4: Education status for those aged 18 years and above by study groups**

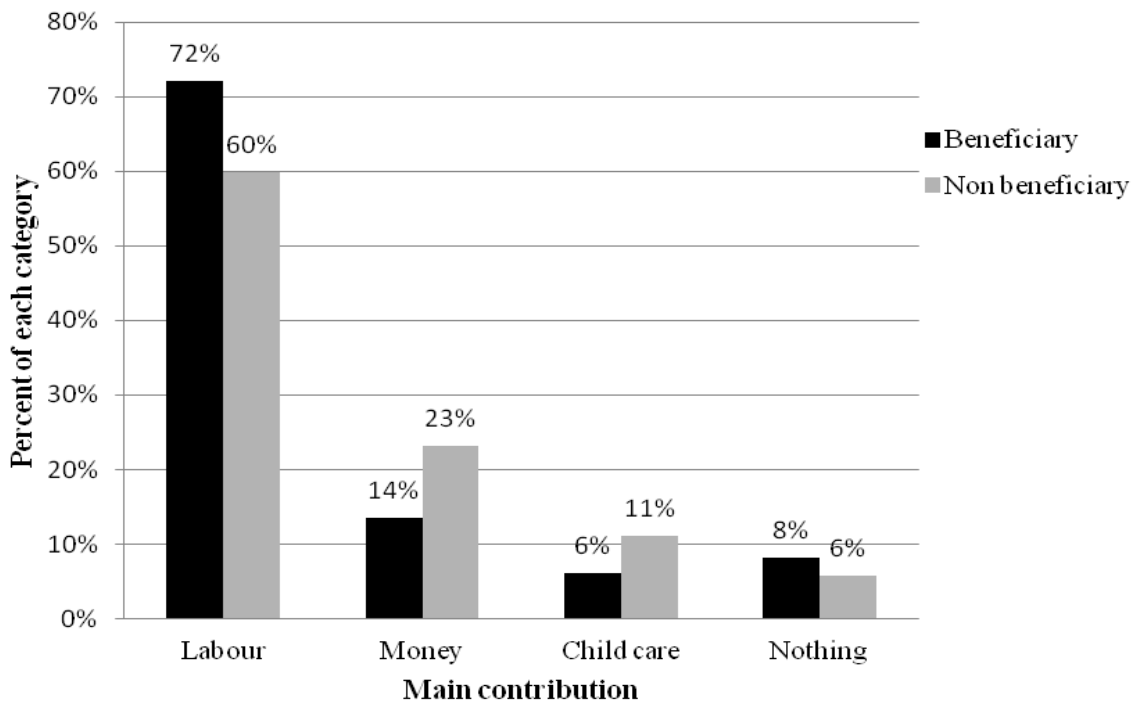
#### **4.2.2 Occupation and contribution to household**

The respondent households were involved in a variety of occupation including farming, self-employment, casual labour and housewives. Some were students and others were unemployed. Figure 5 shows the distribution of the study population aged between 18 and 65 years by occupation status and the study groups. Of those aged between 18 and 65 years, 56.8 percent out of 354 were farmers of which the majority (66.2 percent) of them were not benefiting from the programme. 88.9% of the casual labourers (36) benefit from the social cash transfer programme. More respondents involved in casual labour were from the households that were in the social cash transfer programme.



**Figure 5: Occupation status of the respondent households aged between 18 and 65 years**

Figure 6 shows the distribution of the study household members aged between 18 and 65 years by the type of contribution to the household. In both groups, the highest proportion of the members contributed labour followed by money.



**Figure 6: Distribution of household members aged 18 to 65 years by type of contribution to the household and study group**

Some members contributed child care while others contributed nothing. There were significant differences between the study groups in the types of contribution household members provided ( $p = .027$ ). A significantly higher proportion of household members contributed labour among the beneficiaries than the non beneficiaries, and money and child care among non beneficiaries than the beneficiaries.

### 4.2.3 Household assets

Table 2 shows the distribution of households by the minimum asset values. Assets possessed by the households under study included radio, television, bicycle, motorcycle, oxcart, cattle, small stock (goats, pigs or sheep), poultry, mobile phone, and canoe. Possession of each was converted to monetary value and calculated a total minimum value of assets. The minimum value of assets for most households (82.2 percent) was less than K10,000 (US40) with the proportion among households in the social cash transfer programme and those not in the programme being having 90.8% and 73.9% respectively.

**Table 2: Distribution of household respondents by minimum assets value by study group**

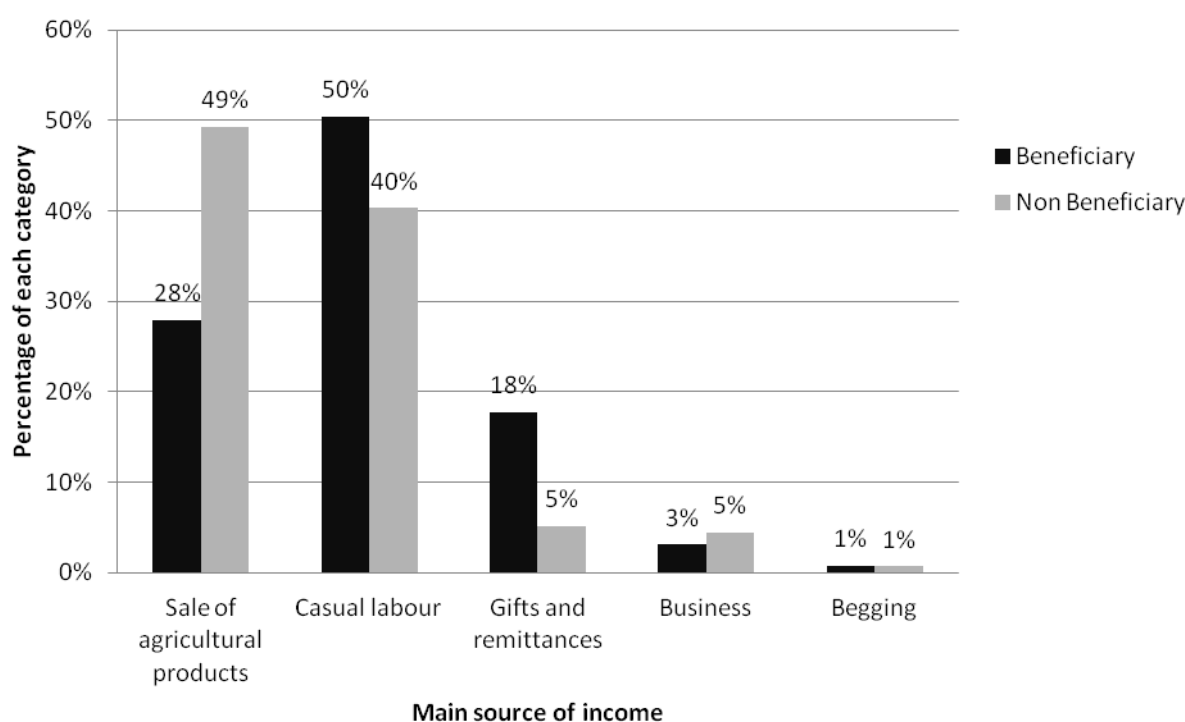
Minimum asset value	Percent of the households		Total (264)
	Beneficiary (n = 130)	Non Beneficiary (n = 134)	
Less than 10000	90.8	73.9	82.2
10001 – 20000	3.8	17.9	11.0
20001 – 30000	3.1	6.7	4.9
30001 and above	2.3	1.4	2
<b>Total</b>	<b>100</b>	<b>100</b>	<b>100</b>

Focus group discussions confirmed the high levels of poverty in the area which was justified by inaccessibility to food and other household amenities such as clothing, beddings and

shelter. Low levels of household income made the households unable to access farm inputs unless they were considered to be in the input subsidy programme.

#### 4.2.4 Household main source of income

The survey looked at the main source of income for the studied population. Figure 7 below shows the distribution of study households according to their main source of income and study group. Most of the households (45.2 percent) indicated casual labour followed by selling of agricultural products (38.8 percent) as their main source of income. Most households (54.6 percent of 119 households) that depended on casual labour as main source of income belong to the group benefiting from the social cash transfer programme.



**Figure 7: Distribution of the respondent households by main sources of income**

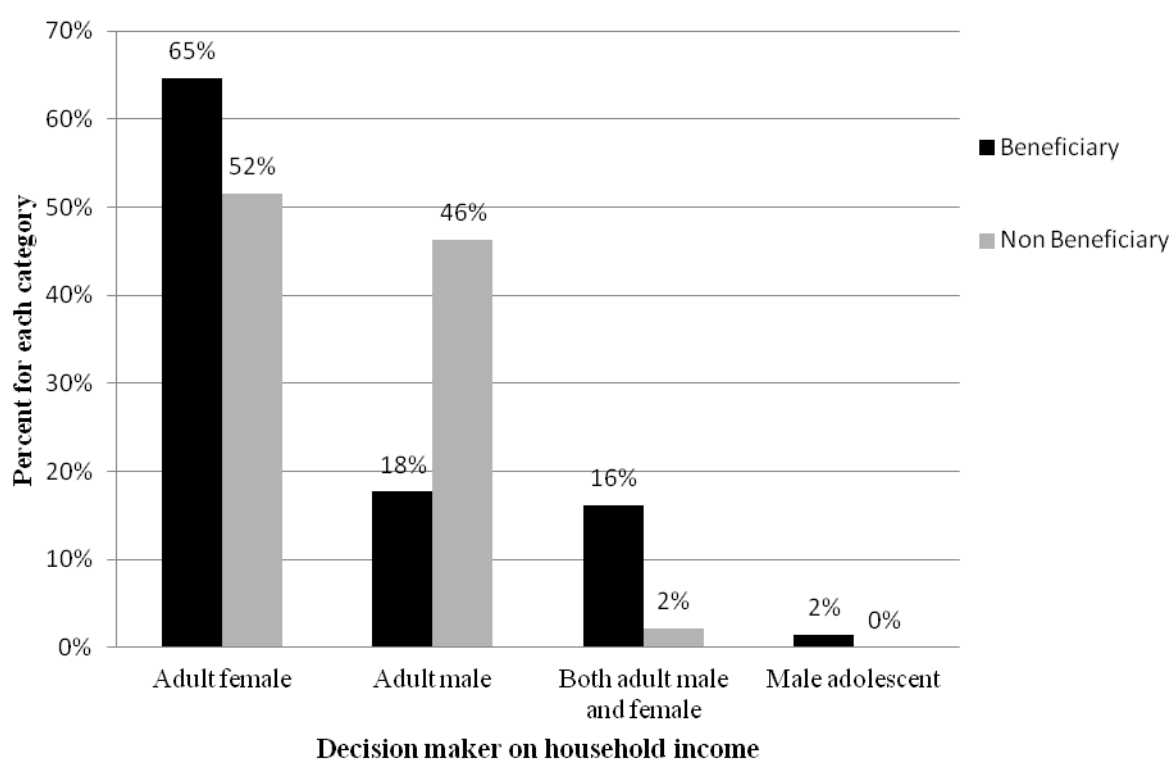
#### 4.2.5 Types of social protection

The respondent households were in different social protection programmes especially the fertiliser subsidy programme to which most belong. The study purposively chose almost half of the households (49 percent) from social cash transfer to be compared with those that are not in social cash transfer. 2.7 percent and 1.5 percent of the non beneficiary households benefited from cash for work programme or relief food programme respectively. The vast

majority (99.2%) of the households indicated that the social protection programmes they benefitted from were administered by the government. The focus group discussions confirmed that the study area had mainly two social protection programmes namely the farm input subsidy programme and the social cash transfer programme. Only 0.8% indicated that their programmes were administered by Non Governmental Organisations.

#### 4.2.6 Decision makers on household income

About 51.9 percent of the respondent households were female headed, and the heads made decisions on income use. Figure 8 shows the distribution of households by persons responsible for making decisions on income by study group.



**Figure 8: Decision makers on household income**

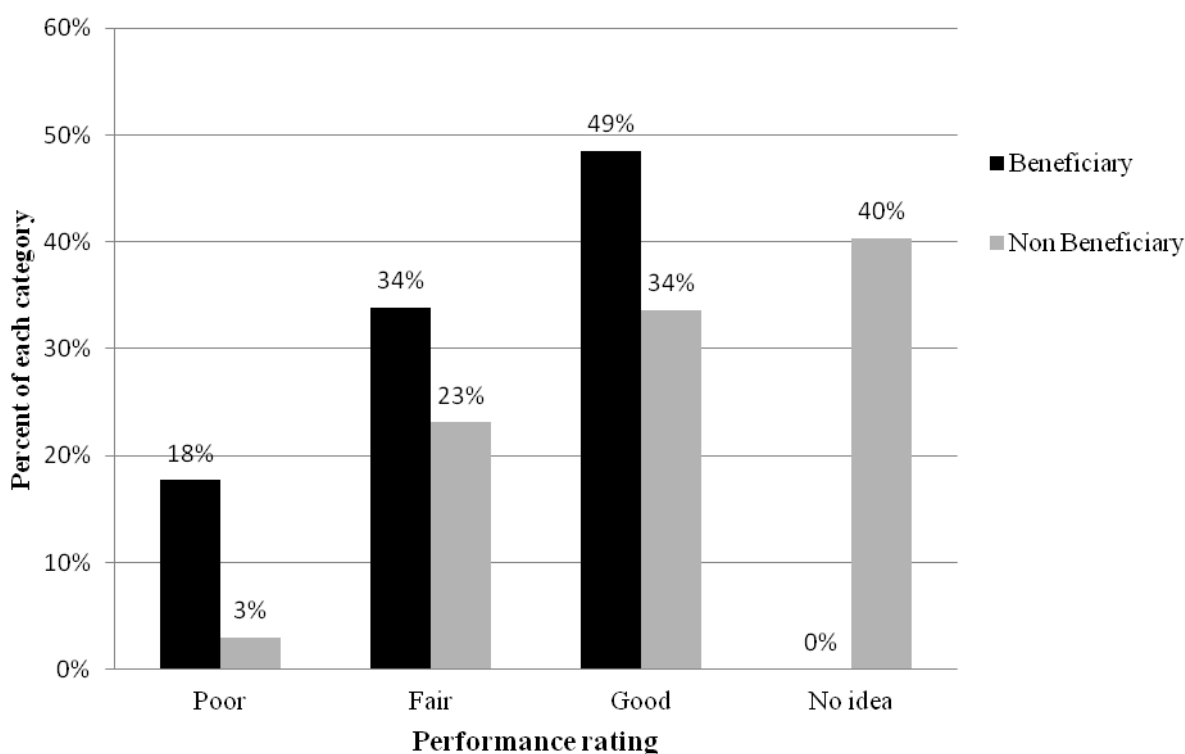
The focus group discussion also revealed that the eldest energetic household member was responsible for making decisions on the household income in the community. The household head whether male or female was the one to make decisions on the use of the income for the household.

## 4.3 The Social Cash Transfer Programme

### 4.3.1 Rating of social cash transfer programme

Figure 9 shows the rating of the social cash transfer programme by study groups. Households were asked to rate how the social transfer programme was fairing whether poor, fair, good, very good, and no idea. Majority of the interviewed individuals (40.9 percent) rated it as good with 49.6 percent of beneficiaries rating good and 7.3 percent of them rating it poor. About 20.5 percent of the households did not have any idea of the social cash transfer programme and all of them were the non beneficiaries.

Focus group discussions revealed that some individuals were not conversant with the selection criteria of the households which benefited from the programme although some of them thought that being elderly, disabled, widowed or orphan could be some of the criteria. Those who were aware of the programme there was a feeling that the social cash transfer had contributed to food security of the poor households as they were able to access food stuffs thereby improving the nutrition status of the beneficiaries.



**Figure 9: Rating performance of social cash transfer programme by the study groups**

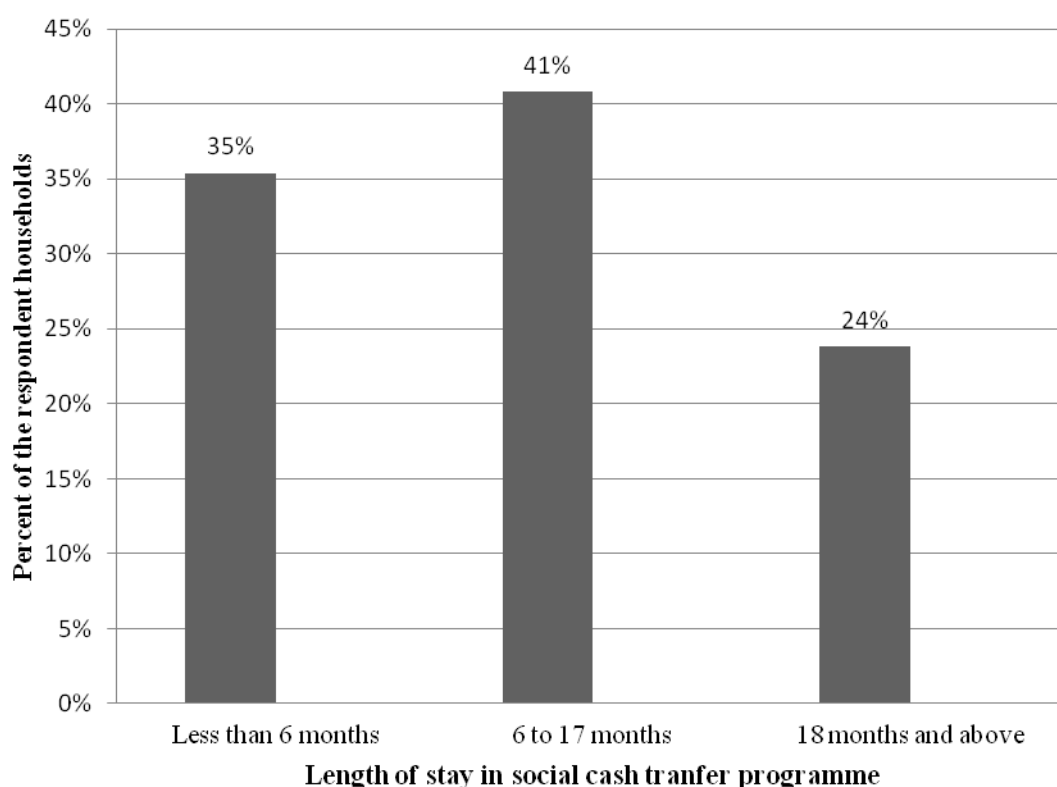
## 4.4 Household income and its utilisation

### 4.4.1 Average amount received by beneficiaries of the programme.

The beneficiaries in the study population received different amount of money ranging from MK600 (US\$3.59) to MK6000 (US\$35.92) per month. Majority of the beneficiaries 56.9 percent received less than MK2000, 42.3 percent received between MK2001 and MK4000 while 0.8 percent received between MK4001 and MK6000 per month.

### 4.4.2 Length of stay for households in the social cash transfer programme

For the interviewed households 41 percent of 130 households had been in the programme for 6 to 17 months followed by those that had been for less than 6 months (35 percent). Figure 10 shows the distribution of study beneficiary households by the length of period they had been in the programme.



**Figure 10: Distribution of study beneficiary households by length of period they had been in the programme**



#### 4.4.3 Allocation of household income

Table 3 shows how respondent household income was allocated among the beneficiaries of the social protection programme and those not benefiting from the programme. The focus group discussion indicated that household income allocation was determined by the prevailing critical problem for the household. As most of them had no investment, ‘the hand to mouth’ was the order of the day. Comparison was also made on how beneficiaries and non beneficiaries allocate of income to food, education, health, agriculture and social activities.

There was significant difference between the study groups in how they allocated their income. Households in the social cash transfer programme allocated significantly less income to food ( $p = 0.000$ ) and agriculture ( $p = 0.007$ ) but significantly more income to education ( $p = 0.003$ ) than the non beneficiary households. There were no significant difference in the proportion of income allocated to health and social activities between the two study groups.

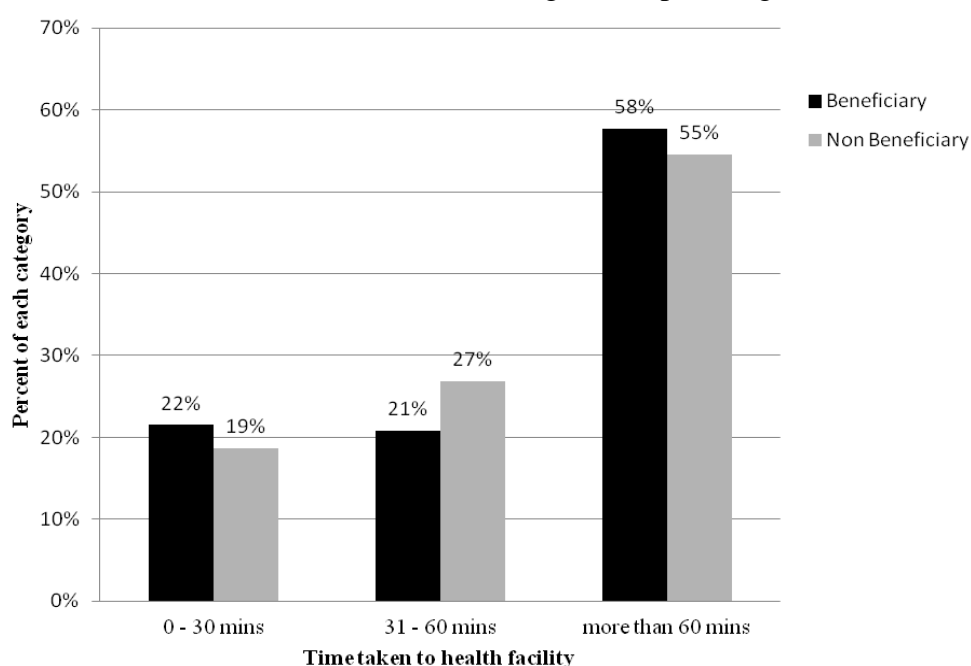
**Table 3: Proportion of respondent household income allocation by study groups**

Variable of allocation	Beneficiary (percentage) N = 130	Non Beneficiary (percentage) N = 134	t - value	p - values
Food	33.6 ± 16.1	48.3 ± 24.6	-5.598	.000
Education	23.1 ± 14.0	16.1 ± 13.0	3.044	.003
Health	14.6 ± 9.0	15.4 ± 11.0	-0.542	.588
Agriculture	19.1 ± 10.3	23.1 ± 11.1	-2.733	.007
Social activities	11.27 ± 5.0	13.0 ± 10.1	-1.495	.137

## 4.5 Health and water facilities

### 4.5.1 Accessibility to health services

Figure 11 shows the time range spent to access health services. The households were asked if they access health services, time taken to have the services and also how they access the health facilities. About 99.2 percent of the households indicated that they accessed health facilities while 0.8 percent did not access health facilities. The average time spent to go to the health facility was 97 minutes (SD = 61.6). Most of the studied households (79.9 percent) accessed the facilities by walking, 17.8 percent by riding a bicycle while 2.3 percent used public transport (minibuses or pick-ups).



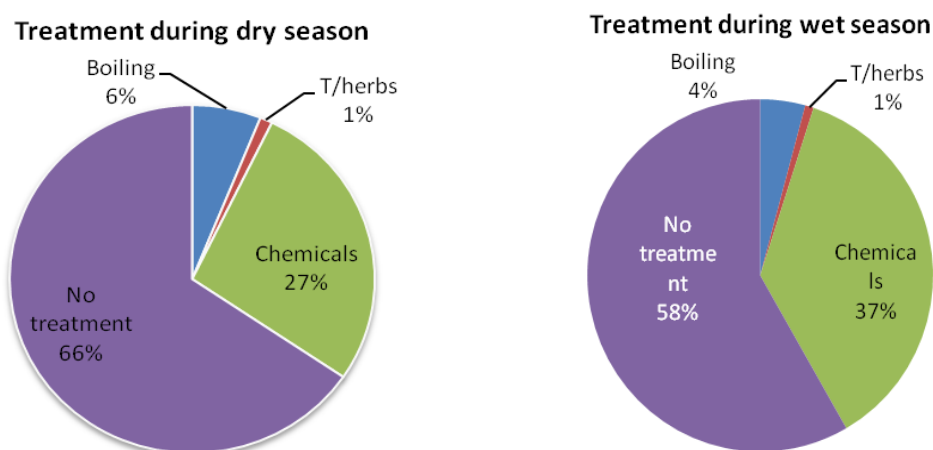
**Figure 11: Distribution of households by time spent to access health services and study group**

### 4.5.2 Water sources

The households were asked to indicate where their water sources during the dry wet seasons and also to indicate whether they treated their water. Table 4 shows the water sources while Figure 12 shows methods of water treatment used by the studied population.

**Table 4: Sources of water during dry and wet seasons**

Water source	Wet season		Dry season	
	Beneficiaries n = 130 (%)	Non beneficiaries n = 134 (%)	Beneficiaries n = 130 (%)	Non beneficiaries n = 134 (%)
<b>Borehole</b>	90.0	82.1	89.2	82.1
<b>River</b>	2.3	11.2	2.3	9.7
<b>Unprotected well</b>	2.3	6.0	2.3	6.7
<b>Protected well</b>	4.6	0.7	4.6	0.0
<b>Tap</b>	0.8	0.0	1.5	1.5



**Figure 12: Distribution of water treatment method for the respondent households during dry and wet season**

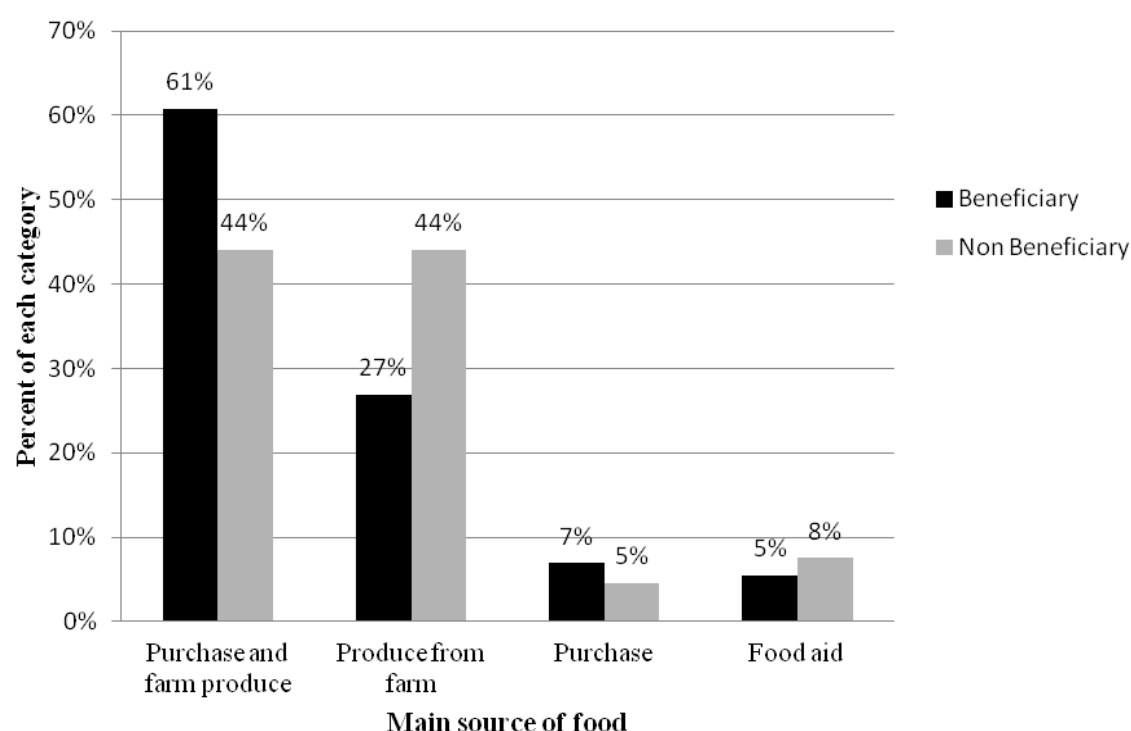
The studied population indicated that 82.2 percent of them used traditional pit latrines, 0.8 percent use flush toilet and 0.4 percent use ventilated pit latrines while 16.7 percent indicated that they had no sanitary facilities.

## 4.6 Household Food Situation

The study assessed household food situation and household dietary diversity for the studied population.

### 4.6.1 Main source of food

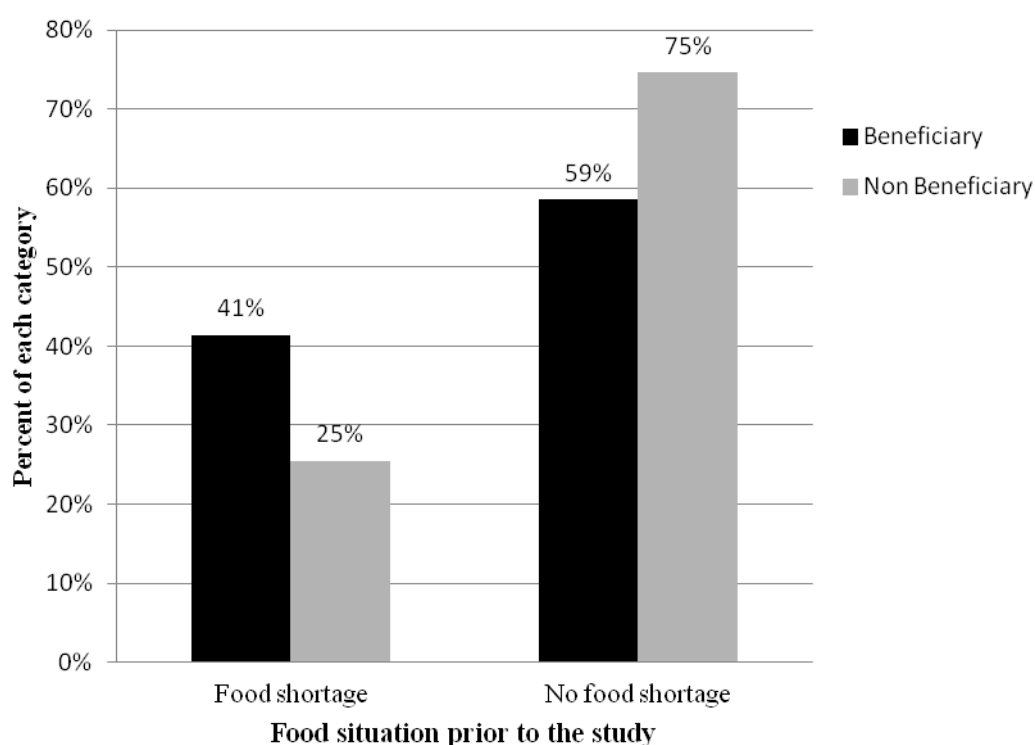
Most households (52.3 percent of 264 households) sourced their main food through purchase and farm produce. Figure 13 shows the distribution of beneficiary and non beneficiary households by main food. More households benefiting from the social cash transfer programme were observed to obtain their food mainly through both purchases and farm production than those that were not in the programme. Farm produce as the main food source was observed more among social cash transfer programme non beneficiaries than programme beneficiaries. There was significant difference between groups in the sources of food between the beneficiaries of the social cash transfer and the non beneficiaries ( $p = .018$ ). More households (30 percent) in the programme were sourcing their main food through purchases and own production than those not in programme (22 percent) but there were less beneficiary households (13 percent) sourcing from farm than the non beneficiaries (22%).



**Figure 13: Distribution of respondent households by main source of household food and study groups**

#### 4.6.2 Food shortage within the month before the study

The respondents were asked to indicate whether they experienced any food shortage within the month before the study. Figure 14 shows the distribution of study households by whether they experienced food shortage over the month prior to the study and the study group. Significantly more households (20 percent) benefitting from the programme experienced food shortage than households which were not in the programme (13 percent) ( $p = .005$  and OR = 2.090 CI 1.239, 3.524)



**Figure 14:** Distribution of study households by whether they experienced food shortages the month before the study and study group.

#### 4.6.3 Dietary diversity score

A twenty four hour recall for food consumed by the household was administered during the study and classified according to twelve food groups. Table 5 shows percentage distribution of study households by food groups consumed and study group. All the households in the study consumed food from the cereal group in the previous 24 hours. Significant differences were observed between the study groups in the proportion of households consuming all the food groups the previous 24 hours except cereals, vegetables, fruits and miscellaneous

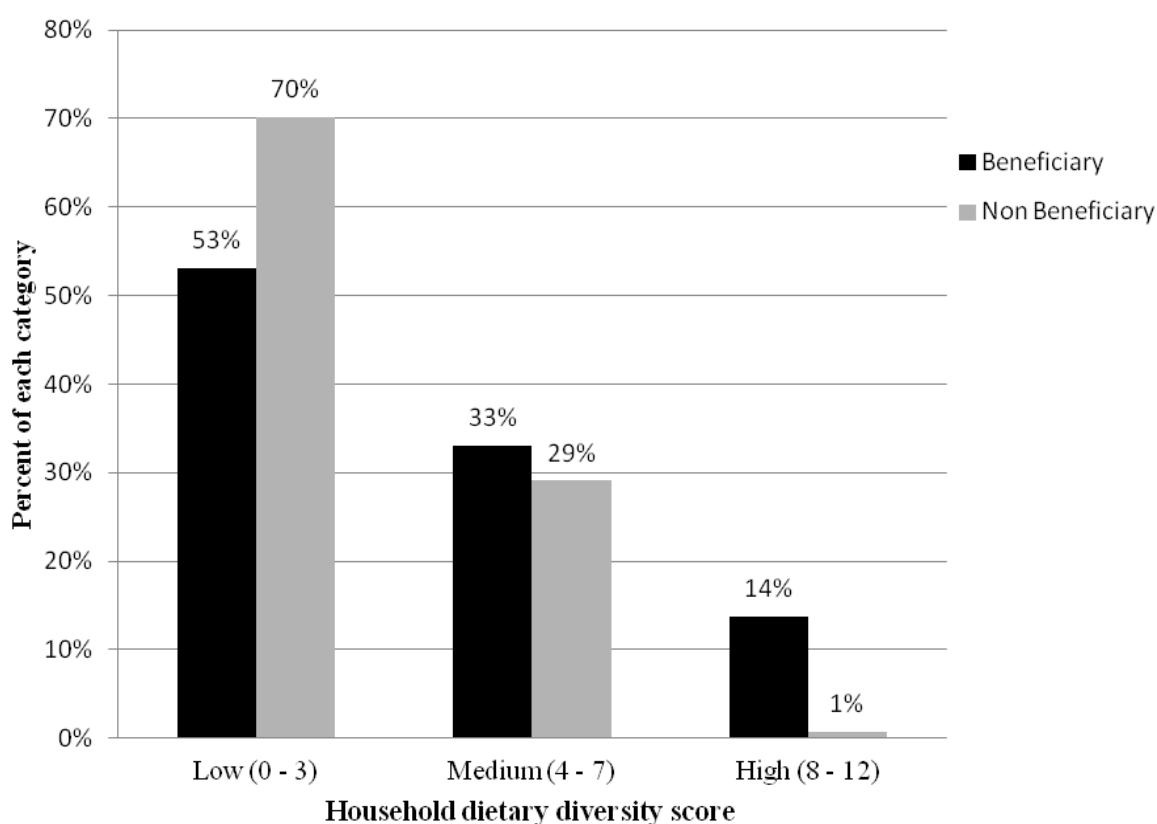
(species, beverages, sweets). Significantly more households among the beneficiaries consumed the rest of the food groups except for fats and oils.

**Table 5: Percentage distribution of study households by food groups consumed and study group.**

<b>Food group</b>	<b>Beneficiaries n =130 (percentage)</b>	<b>Non beneficiaries n = 134 (percentage)</b>	<b>p- value</b>
Cereals	100	100	Eaten by all
Milk and milk products	3.1	4.5	.551
Sugar and honey	34.6	11.9	.000
Oils and fats	8.5	18.7	.016
Meat, poultry, offal	17.7	3.7	.000
Pulses and legumes	58.5	23.1	.000
Roots and tubers	28.5	9.0	.000
Vegetables	86.2	87.3	.781
Fruits	42.3	32.8	.112
Eggs	7.7	0.7	.005
Fish and sea foods	26.9	13.4	.006
Miscellaneous	5.4	1.5	.081

The mean number of food groups consumed was 3.62 (SD 1.991). Majority of the households consumed 2 food groups (31.1 percent) followed by those that consumed three groups (29.2 percent). There was significant difference between the mean dietary diversity score for the households in social cash transfer programme and those that are not in the programme ( $p = 0.000$  and  $t = 4.778$ ). In general 61.7 percent of the households had low dietary score (1 – 3 food groups), 31.1 percent of households had medium dietary score (4 – 7 food groups) while

only 7.2 percent of the households had high score (greater than 8 groups). Figure 15 shows the categorised dietary diversity score for the studied households.



**Figure 15: Distribution of study households by dietary diversity score and study groups**

Significant difference was also observed between groups in terms of the proportion of households with less than and equal to three food groups compared to those with four and more food groups (chi square  $p = 0.012$ , OR = 0.525 CI 0.318, 0.868).

#### **4.7 Nutrition Status of Children Under Five Years of Age**

The study assessed the nutrition status of 180 under-five children of which 31.1% were from households that were in social cash transfer programme. Anthropometric measurements that were taken during the study were height, weight and mid upper circumference. Table 6 shows the distribution of the study under five children by their nutrition status and study group.

**Table 6: Distribution of study children by nutritional status and study groups**

<b>Nutrition status</b>	<b>Beneficiaries (%) (n = 56)</b>	<b>Non beneficiaries (%) (n = 124)</b>	<b>p - value</b>
<b>Wasting</b>			.498
GAM (Z- Score < -2)	7.2	3.2	
Normal (Z- Score $\geq$ -2)	92.9	96.8	
<b>Underweight</b>			.862
Global underweight (Z – scores <-2)	12.5	13.7	
Normal (Z- Score $\geq$ -2)	87.5	86.3	
<b>Stunting</b>			.670
Global stunting (Z – scores <-2)	50.0	44.4	
Normal (Z- Score $\geq$ -2)	50.0	55.6	

**4.7.1 Wasting in children under five years of age**

The study found out that 1.1 percent of the children were severely wasted while 3.3 were moderately wasted. The study also revealed that there was no significant difference in wasting among the under-five children between those in programme and not in the programme ( $p = 0.498$ ). The majority (85.6 percent) of the under-five children from both study groups had middle upper arm circumference higher than 135 millimetres. Middle upper arm circumference of less than 125 millimetres was observed in 7.1 percent of the under-five children from the households in the social cash transfer programme while 1.6 percent was observed in the children from the households not benefiting from the programme. There was also no significant difference in the middle upper circumference measurement between the two groups ( $p = 0.140$ ).

**4.7.2 Underweight in children under five years of age**

The study revealed that of 180 under-five children, 2.8 percent were severely underweight while 10.6 percent were moderately underweight. When compared between those in the social cash transfer programme to those who were not in the programme it was found that there was no significant difference ( $p = 0.862$ ) between the two groups.



### 4.7.3 Stunting status of the under five children

Severe stunting was almost the same as the moderate stunting in the under five children under study with 22.8 percent and 23.3 percent of the children being severely and moderately stunted respectively. There was no significant difference ( $p = 0.670$ ) between those in the social cash transfer programme and those not in the programme.

### 4.7.4 Household dietary diversity score and global nutrition indicators

Table 7 shows distribution of respondent households by household dietary diversity score and global nutrition indicators. There was no association between household dietary diversity score and nutrition status of children under five years of age (Wasting, underweight and stunting  $p$  – values were 0.807, 0.374 and 0.667 respectively). There was also no significant correlation between household dietary diversity score and  $Z$  – score for wasting, underweight and stunting with  $p$  – values of 0.425, 0.741 and 0.753 respectively.

**Table 7: Global nutrition indicators in percentage with household dietary diversity score**

Household dietary diversity score	Wasting		Underweight		Stunting	
	Wasted ( $Z < -2$ )	Not wasted ( $Z > -2$ )	Underweight ( $Z < -2$ )	Not underweight ( $Z > -2$ )	Stunted ( $Z < -2$ )	Not stunted ( $Z > -2$ )
<b>0 - 3 groups</b>	4.8	95.2	15.2	84.8	44.8	55.2
<b>4 - 12 groups</b>	4.0	96.0	10.7	89.3	48.0	52.0

## **CHAPTER 5    DISCUSSION**

### **5.1    Demographic Characteristics**

The size and the composition of the households were established to describe the type of households that were studied. The mean household size of 4.7 found in this study is similar to that of Central Region of Malawi and also comparable to the national household size (4.6) according to the National Census figures of 2008 (NSO, 2008). The household sizes of the programme (4.6) and non programme study groups indicated that the groups are comparative on this basis. Pakomera, et al (2009) stated that the larger the household the higher the chances for the household to face some difficulties in meeting their food requirements as most households in Malawi rely on their own food production. Large households most of the time imply that resources have to be thinly distributed. The larger the household size, the less available the resources per individual. In large households, food requirements are higher

The female to male ratio (81.6) found in this study is lower than the Salima District sex ratio of 95.5 (NSO, 2008). This may be attributed to the fact that most of households in the study consist of labour constrained members who are usually elderly individuals and life expectancy at birth is higher in females than in males (56.9 and 55.5 years for females and males respectively) (UNdata, 2010).

The dependency ratio is the proportion of young people aged less than 16 years and older people aged over 64 years who depend on people of working age of 16 to 64 years. A high dependency ratio is a concern in many countries that are facing an aging population, since it becomes difficult for social protection systems to provide for the dependent population. The dependency ratio of 108.9 in the studied population is higher than the national level of 95.4 (World Bank, 2011). This confirms the labour constraints in the study population which is one of the targeting criteria for the social cash transfer programme and that both groups equally qualify to be in the programme. The 2008 Population Census reported higher percentage of under-five children (22 percent) than the current study findings (18.4 percent). This agrees with the World Health Organisation observation that there is low survival rate for children under five years living in poor households (WHO, 2012). Furthermore the older population (greater than 65 years) is almost double (9.3 percent) of the national percentage of

4% (NSO, 2008). This is in line with one of the targeting criteria of the programme (GOM, 2007).

The proportion of female headed household of 58 percent is almost the same as that found in Mchinji District (65 percent) where the programme was first piloted (Miller et al. 2008). The 42.8 percent marriage percentage for the study group is also lower than 59.2 percent found in the 2008 Population and Housing Census findings for Salima District (NSO, 2008). This confirms that the study population is vulnerable as almost half belong to single parent households. The dominance of Christianity (88.3 percent of the population) for the study population agrees with Population and Housing Census of 2008 of which indicated that most of Malawians were Christians and only 9 percent of them were Muslims (NSO, 2010).

Literacy is the ability to read or write in any language. Level of literacy improves the socio economic status of households which in turn improves the nutrition status of the household members. High levels of illiteracy can result into lower levels of socioeconomic status where by contributing to poor nutrition status of the household members (Girma and Genebo, 2002). The literacy level of 73% is almost the same as that reported by UNICEF nationally in 2010 of 74% (UNICEF, 2010). One of the objectives of the social cash programme is to increase and retain school enrolment. Higher percentage of children aged between 6 and 17 years being in school and belonging to households in the programme shows that the programme is attaining its objective of retaining children in school which is similar to Mchinji District evaluation study findings (Miller et al. 2008).

The larger proportion (57%) of farming occupation found in the study agrees with Malawi's situation for the rural community (UNDP, 2010). Farming was found to be the main occupation for the area and others include casual labour, self employment, student, housewife and some being unemployed. The study also found out that there was significant difference in occupation distribution among the study groups. More casual labourers were from the households that benefit from the programme which indicates the vulnerability of the group. The study further found out that the self-employed and unemployed categories had almost the same percentage which also indicates the similarities of the study groups. The contribution to the household income for the study groups is in forms of labour, money, child care and also nothing at all. The beneficiaries of the programme are observed to contribute more in forms of income than non beneficiaries who contributed more in monetary form. The study also

indicates that 6 percent of the population contributed literally nothing to the household income because of being too old hence included in the social cash transfer programme and there was equal percentages from both beneficiaries and non beneficiaries of the programme.

Possession of assets worth less than MK10,000 (US\$40) by most of the households (82.2 percent) of the study population indicates that the households are within the poorest of the poor category. The study also indicates no major difference in distribution of the assets possession between the households in the programme and households not in the programme. Household income for the study population is through casual labour and selling of agricultural products. This gives the reason why the population is fit for the social protection. No major difference is observed between the study groups in terms of sourcing income through casual labour. The households mainly benefit from farm input subsidy programme and also social cash transfer programmes as main social protection interventions in the district administered by the Malawi Government. Social cash transfer looks at alleviating the poor of the poorest from poverty.

Decision making on household income for the studied population was mostly done by the household head. As most of the households (58%) are headed by females, decision making on income in these households is made by female household head. The study also indicates that the households in the programme discuss how income should be allocated because the most of the community members know the exact amount the household gets from the programme.

## **5.2 Social Protection Mechanisms**

Discussions with key members of the community indicate that the social cash transfer programme helps the poorest of the poor to recover from their poverty. The community also recommends small loans as another intervention to alleviate the poverty of the poor of the poorest. These small loans may help the beneficiaries to have small scale businesses which may uplift the economic status of their households. The higher rating for the programme by most respondents (89 percent) indicates that the programme is assisting the poor households

in the district. The programme is not known to some of the community members as they indicate that they have no idea of the programme.

The discussions through some focus groups show that some of the community members are not conversant with the selection criteria of the households which are in the programme although some of them think that being elderly, disabled, widowed or orphaned are some of the criterions. Those who are aware of the programme feel that social cash transfer contributes to food security of the poor households as they are able to access food stuffs thereby improve the nutrition status of the beneficiaries.

### **5.3 Use of the Household Income**

Households allocate income for food, agriculture inputs, health, education and social activities differently depending on whether the households are in the programme or not. Significant differences are in the areas of food, education and agricultural inputs allocation. Households in social cash transfer allocate a higher proportion of income to education and less to food and agricultural inputs. Investing more in education is felt to be the only way to move out of poverty as education is thought to improve the socioeconomic status of an individual. This is also an indicator of achieving the objective of the programme which is to improve school enrolment.

Less allocation of household income to food among the households in the programme indicates some improvements in household income. According to Engel's law, the proportion of a family's budget devoted to food declines as the family's income increases (Timmer, et al. 1983). These households are also allocating less on agricultural inputs which also indicates some improvements on income. Expenditure of income on social activities and health is almost the same between the two groups which means they belong to same level of socio-economic status.

## **5.4 Health and Sanitation**

The study shows high accessibility of health services by the households. Usually average time taken to access the services does not vary as both groups are within the same catchment area and the distance is mainly covered on foot.

The study further reveals that accessibility of water by the households was not different between the study groups. The social status for the population is typical for the rural area whereby water is accessed through bore holes as reported in the Malawi Demographic Health Survey of 2010. Water treatment is mostly done using chemicals (chlorine) and the majority of the households do not treat their water as also indicated in Malawi Demographic Health Survey of 2010. This situation creates a greater risk to frequent illness from diarrhoea which also contributes to high levels of chronic malnutrition and also mortality.

## **5.5 Dietary Situation**

The majority of the studied population are engaged in farming and casual labour. The situation enables the households to have their main source of food through both farm produce and purchase. Availability of extra income by the beneficiaries makes more of them to depend on both food purchase and farm production than those not in the programme. The category that depends only on farm production for food source belongs mostly among non programme beneficiaries. Significant differences are observed between the two groups in terms of food shortage experience because of the over reliance on food purchases by the study group benefitting from the programme. Production is usually low as most of these households are labour constrained thereby not being able to meet the household food production requirement.

Consumption of a diversified diet by the households is a challenge. Most households consume cereal products which is usual in form of thick porridge (*nsima*) with the vegetables in season and an average of 3.6 groups of food is observed which is within the low dietary intake category as per classification of food groups by FAO (Swindale and Paula, 2006). Consumption of protein source of food is also a challenge despite the study area being close

to the lake which supplies fish. Differences are observed in dietary score for those in the social cash transfer programme and those not in the programme. Households in the programme have a higher dietary diversity score (8 and above food groups) which also included protein and animal food sources. This is because these households have extra source of income which they can also spend on other food types. The findings agree with the study that was also done in Mchinji District during the impact evaluation (Miller et al. 2008).

## **5.6 Nutrition Status of Under-Five Children**

Nutritional status is the result of complex interactions between food consumption and the overall status of health and care practices. Numerous socioeconomic and cultural factors influence decisions on patterns of feeding and nutritional status. Anthropometric data on height and weight collected permitted the measurement and evaluation of the nutritional status of the under five children in the study area. The evaluation allowed identification of subgroups of the child population that were at increased risk of faltered growth, disease, impaired mental development, and death.

Indices such as weight-for-height, height-for-age, and weight-for-age provide different information about growth and body composition, which is used to assess nutritional status. The weight-for-height index measures body mass in relation to body height or length and describes current nutritional status. Children whose Z-scores are below minus two standard deviations (-2 SD) are considered thin, or wasted, and are acutely malnourished. Wasting represents the failure to receive adequate nutrition in the period immediately preceding the study. It may result from inadequate food intake or a recent episode of illness causing loss of weight and the onset of malnutrition. Children whose weight-for-height is below minus three standard deviations (-3 SD) are considered severely wasted. Weight-for-age is a composite index of height-for-age and weight-for-height. It takes into account both acute and chronic malnutrition. Children whose weight-for-age is below minus two standard deviations (-2 SD) from the median of the reference population are classified as underweight. Children whose weight-for-age is below minus three standard deviations (-3 SD) from the median of the reference population are considered severely underweight. The height-for-age index is an indicator of linear growth retardation and cumulative growth deficits. Children whose height-for-age Z-score is below minus two standard deviations (-2 SD) are considered short for their age, or stunted, and are chronically malnourished. Children who are below minus three

standard deviations ( $-3$  SD) are considered severely stunted (Mei and Grummer-Strawn, 2007). Stunting reflects failure to receive adequate nutrition over a long period and is also affected by recurrent and chronic illness. Height-for age, therefore, represents the long-term effects of malnutrition in a population and is not sensitive to recent, short-term changes in dietary intake.

The study shows no significant differences in nutritional status of underfive children between those in the social cash transfer programme and those not in programme in terms of wasting, underweight and stunting. This scenario might be because households in the social cash transfer programme allocate a small percentage of their income to food and more to education which is considered as a long term investment. The findings confirm what was also observed in the pilot district of Mchinji (Miller et al. 2008).

Children in households with low dietary intake are more at risk of being wasted and underweight than those in the households with higher dietary diversity score. Reduced dietary intake has been shown to predict stunting as shown in a study done in Bangladesh (Rah *et al*, 2010). The study findings show no association between household dietary diversity score and nutrition status of children under five years of age (wasting, underweight and stunting) and no significant correlation between household dietary diversity score and Z – score for wasting, underweight and stunting.

## **5.7 Relationship between the Social Cash Transfer Programme and Nutrition**

The study showed higher dietary diversity among households in the social cash transfer programme. Dietary diversity is associated with overall quality and nutrient adequacy of the diet. The higher dietary diversity score among households in the programme does not translate into adequate nutrition status among underfive children. This might be a result of either a problem of intra household food distribution or poor food preparation and choices which may require further investigation.



## **CHAPTER 6: CONCLUSIONS AND RECOMMENDATIONS**

### **6.1 Conclusion**

The study has found that social cash transfer programme played no role in improving the nutritional status of under-five children in the beneficiary households when compared to households not benefiting from social cash transfer. Despite high dietary diversity score in programme households, it does not translate into significant differences in nutritional status of under-five children between households in social cash transfer programme and those not in programme.

Households in social cash transfer programme allocates higher proportion of their income to long term developmental issues such as education and less on food. There is very little difference in terms of income allocation for social activities and health between those in the programme and those not in the programme although both have the least allocation.

The programme does not change the socio-economic characteristics of the households. Socio-economic characteristics of programme households are similar to those of non programme households.

The hypothesis that households with social cash transfer have better nutrition status than households without the social cash transfer is rejected.

### **6.2 Recommendation**

Integration of nutrition education during the planning and implementation of social protection programmes is very important as nutrition is important for human development, which creates a viable capital for national development.

Promotion of dietary diversity in household diets should be encouraged by institutions working in nutrition programmes. The diversity should start from the production to the utilisation during the preparation of the household meals.

Further cross sectional studies which can include following up the households for a longer period of time with adequate baseline information and individual dietary analysis might be helpful to conclusively determine the role of nutrition in social cash transfer programme..

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# APPENDICES

## APPENDIX 1: QUESTIONNAIRE

Questionnaire No: \_\_\_\_\_

### Identification

T/Authority..... Village.....Household No.....

Name of Interviewer..... Date of interview...../...../2011

Respondent's name..... Sex: Male ☐ Female ☐

Household Profile: Monogamous ☐ Polygamous ☐

### Section A: DEMOGRAPHIC CHARACTERISTICS

#### Q1. Household<sup>1</sup> Characteristics

S/No	Name	Relationship to HH head -codes-	Sex M=1 F=2	Age (years)	Marital status -codes-	Religion -codes-	Education -codes-	Occupation -codes-	Contribution to HH
1									
2									
3									
4									
5									
6									
7									
8									
9									
10									

RHHH	Marital Status	Religion	Education	Occupation	Contribution to HH
1=Household head 2=spouse or wife 3=son 4=daughter 5=grandson 6=grand daughter 7=relative 8=parent 9= others (specify)	1=married 2=separated 3=widowed 4=single 5=divorced 6=not applicable	1=Christian 2=Muslim 3=Traditionist 4=others (specify)	1=college/university 2=completed secondary 3=completed primary 4=dropped from primary 5=dropped from secondary 6=in primary 7=in secondary 8=literate e.g. adult education 9=illiterate 10=preschool 11=others (specify)	1=salaried employee <sup>2</sup> 2=farmer 3=self employment/business 4=casual labourer 5=student 6=housewife 7 = unemployed <sup>3</sup> 8 =others (specify) 9= n/a <sup>4</sup>	1= nothing 2= money 3=labour 4=childcare 5=Less than 15yrs 6= savings 7= pension

#### Q2. What is the household's main source of income (Livelihood)?

1. Animal and animal product sales
2. Casual labour
3. Salaried or waged
4. Begging
5. Gifts
6. Trade
7. Crop sales
8. Remittances
9. Other (specify)

.....

<sup>1</sup> All the people you share the same pot with everyday

<sup>2</sup> For both adults and for children above 10 years who are employed

<sup>3</sup> Anyone above 18 years and not in college or employed

<sup>4</sup> For preschoolers elderly and aged 5 to 17.9 years neither in school nor employed

**Q3. What social protection programme do you benefit from?** \_\_\_\_\_

- |                                 |                  |                         |
|---------------------------------|------------------|-------------------------|
| 1. Relief food                  | 2. Cash for work | 3. Social cash transfer |
| 4. Farm input subsidy programme | 5. Food for work | 6. Other (specify)      |

.....

*If not in social cash transfer programme go to Question 6.*

**Q4. How long have you been in social cash transfer programme?**

- 
- |                        |                        |                        |
|------------------------|------------------------|------------------------|
| 1. Less than 2 months  | 2. Less than 6 months  | 3. Less than 12 months |
| 4. Less than 18 months | 6. Less than 24 months | 6. More than 24 months |

**Q5. How much do you receive per month?** \_\_\_\_\_

**Q6. What percentage of the household income is allocated for the following?**

- |                               |       |                                    |       |
|-------------------------------|-------|------------------------------------|-------|
| 1. Purchase of food           | _____ | 2. Educated related expenditure    | _____ |
| 3. Health related expenditure | _____ | 4. Purchase of agricultural inputs | _____ |
| 5. Social activities.         | _____ |                                    |       |
| Total percentage              | _____ |                                    |       |

*(Use piling method)*

**Q7. Who makes the decision on the use of the household income?** \_\_\_\_\_

- |                        |                                     |               |
|------------------------|-------------------------------------|---------------|
| 1. Male household head | 2. Female household head            | 3. Adult male |
| 4. Adult female        | 5. Both adult male and adult female |               |
| 6. Adolescent female   | 7. Adolescent female                |               |

**Q8. Could you indicate whether your household has any of these?"**

No.	Household assets	1 =Yes 0 = No	No.	Household assets	1 =Yes 0 = No
a.	Radio		g.	Goats or sheep or pigs	
b.	Television		h.	Poultry	
c.	Bicycle		f.	Mobile phone	
d.	Motor cycle		g.	Canoe/boat	
e.	Ox – cart		h.	Car	
f.	Cattle				

**Q9. How do you rate the social cash transfer program in your community?**

- 
- |               |              |         |           |
|---------------|--------------|---------|-----------|
| 1. Very poor. | 2. Poor      | 3. Fair | 4. Better |
| 5. Good       | 6. Very good |         |           |

**Q10. Which institution administers the social protection programme?**

- 
- |                           |                         |
|---------------------------|-------------------------|
| 1. Malawi Government      | 2. NGO (name) _____     |
| 3. Religious organisation | 4. Private (name) _____ |
| 5. Other (specify) _____  |                         |



## SECTION B: CHILD INFORMATION

### Q11 – Q22 FEEDING AND IMMUNISATION STATUS OF CHILDREN AGED 6 - 59 MONTHS IN THE HOUSEHOLD

#### Question 11 – 16 To be filled in for children aged 0 – 23 months

FIRST NAME	Q11 Age in months	Q12 Are you breastfeeding the child? <sup>5</sup> (if No, skip to Q6) 1=Yes 2=No	Q13 If breast feeding, how many times/day? 1=<3 times 2=3-6 3=On demand	Q14 If not breastfeeding, how old was the child when you stopped breastfeeding? 1=Less than 6 months 2=6-11 months 3=12 – 18 months 4=18 months or more 5= Never breastfed	Q15 At what age was child given water/ foods other than breast milk? 1=0-3 months 2=4-5 months 3=6 months or more.	Q16 How many times do you feed the child in a day? 1= Once 2= Twice 3= 3-4 times 4= 5 or more times	Q17 Has the child been provided with Vitamin A provided in the last 6 months ?(show sample) 1=Yes 2=No	Q18 BCG at birth 1=Yes 2=No	Q19 DPT 1=Yes 2=No			Q20 OPV 1=Yes 2=No				Q21 Measles 1=Yes 2=No	Q22a Fully immunized 1=Yes 2=No	Q22b Source of information 1 = Card 2 = Recall
									DPT1	DPT 2	DPT 3	OPV0	OPV1	OPV 2	OPV 3			

<sup>5</sup> Child having received breast milk either directly from the mothers or wet nurse breast within the last 12 hours

**Q23- Q31 Anthropometry for children aged 6 -59 months or (65 -109.9 cm) in the household**

S/No	Q23 Child Birth order	Q24 Child's Name	Q25 Sex 1 = M 2 = F	Q26 Date of birth ( <i>Verify from Clinic card</i> )	Q27 Age (months)	Q28 Weight (0.1 kg)		Q29 Height (0.1 cm)		Q30 Bilateral oedema 1 = Yes 2 = No	Q31 MUAC (cm)	

**Q32 - Q39 Morbidity for children aged 6 – 59 months or (65 – 109.9cm) in the household**

First Name <i>Follow same order as per table above</i>	Q32 Has the child experienced or shown any sign of illness within the last 14 days/2 weeks( <b>if no skip to Q 37</b> ) 1= Yes 2= No	Q33 Diarrhoea in the last 2 wks 1=Yes 2= No	Q34 ARI in the last two weeks 1=Yes 2= No	Q35 Febrile illness/ suspected Malaria in the last two weeks 1=Yes 2= No	Q36 (If ≥9 month) Suspected Measles in last one month 1=Yes 2= No	Q37 Do you have a mosquito net? (If no go to <b>Q39</b> )  1=Yes 2= No	Q38 Did child sleep under a mosquito net last night? 1=Yes 2= No	Q39 Where did you seek healthcare assistance when child was sick? ( <b>If yes in Q33 – 36</b> ) 1=No assistance sought 2=Own medication 3=Traditional healer 4=Private clinic/ Pharmacy 5= Public health facility
<b>1</b>								
<b>2</b>								
<b>3</b>								
<b>4</b>								

**Q40. Do you have any member of the household who has died since June \_\_\_\_\_, 2011?**

Name \_\_\_\_\_ Sex \_\_\_\_\_ Date of birth\_\_\_\_/\_\_\_\_/\_\_\_\_

Cause of death \_\_\_\_\_

1. Diarrhoeal disease
2. ARI
3. Measles
4. Malaria
5. STD/HIV and AIDS
6. Anaemia
7. Pregnancy/Birth complications
8. Accident/killed/physical injuries
- 9 = Hunger/Starvation
10. Other, specify (e.g. still birth) \_\_\_\_\_

## **SECTION C: WATER, SANITATION AND HEALTH FACILITIES**

**Q41a What is your main source of drinking water during the wet season? \_\_\_\_\_**

1. Tap
2. Borehole
3. River
4. Well (not protected)
5. Well (protected)
6. Spring
7. Rain water
8. Lake

**Q41b Do you treat your drinking water? \_\_\_\_\_** 1 = Yes 2 = No (*If no go to Q42a*)

**Q41c If Yes in Q41b how do you treat your water? \_\_\_\_\_**

1. Boiling,
2. Use traditional herbs,
3. Use chemicals (water guard),
4. Filters/sieves

**Q42a What is your main source of drinking water during the dry season? \_\_\_\_\_**

1. Tap
2. Borehole
3. River
4. Well (not protected)
5. Well (protected)
6. Spring
7. Lake

**Q42b Do you treat your drinking water? \_\_\_\_\_** 1 = Yes 2 = No (*If no go to Q43*).

**Q42c If Yes in Q42b how do you treat your water? \_\_\_\_\_**

1. Boiling,
2. Use traditional herbs,
3. Use chemicals (water guard),
4. Filters/sieves

**Q43. How much water do you use in litres per day. \_\_\_\_\_**

**Q44 How far is the water source to and from \_\_\_\_\_ minutes**

**Q45 What kind of toilet facility does your household have? \_\_\_\_\_**

1. Flush toilet
2. Traditional pit latrine
3. Ventilated improved latrine
4. No facility/Bush/Field
5. Digging a hole
6. Flying toilet

**Q46 Do you have access to health facilities/ health care services? \_\_\_\_\_** 1 = Yes 2 = No

**Q47a How far is the nearest health facility, where you get your services? \_\_\_\_\_ mins**

**Q47b Which means of transport do you use to get there? \_\_\_\_\_**

1. Walking
2. Bicycle ride
3. Mini bus/Matola ride
4. Motorcycle
5. Cart
4. Others (specify) \_\_\_\_\_

## SECTION D: FOOD AVAILABILITY AND ACCESSIBILITY

**Q48** Have you experienced food shortages in the last one month? \_\_\_\_\_

1 = Yes                      2 = No (if no skip to **Q50**)

<b>Q49. If yes, what did you do cope?</b>	<b>Relative Frequency</b> 1=Never 2=Hardly at all (<1 times/ week) 3=Once in a while (1-2 times/ week) 4= Pretty often (3-6 times/week) 5=All the time (Every day)
a. Shift to less preferred (low quality, less expensive) foods?	
b. Limit the portion/quantity consumed in a meal?	
c. Take fewer numbers of meals in a day?	
d. Borrow food on credit from the shop/market?	
e. Borrow food on credit from another household?	
f. Consume preserved seeds or meat?	
g. Restrict consumption of adults in order for small children to eat?	
h. Gather wild food or hunt?	
i. Rely on food donations from relatives?	
j. Rely on food donations from the clan/community?	
k. Seek or rely on food aid from humanitarian agencies?	
l. Send household members to eat elsewhere?	
m. Does piece work (ganyu)	
n. Beg for food?	
o. Skip entire days without eating?	
p. Consume spoilt or left-over foods	

## SECTION E: DIETARY INTAKE

### Q50 24 hr Household Dietary Diversity

Twenty four-hour recall for food consumption in the households: The interviewer should establish whether the previous day and night was usual or normal for the households. If unusual- feasts, funerals or most members absent, then another day should be selected.

Food group consumed: What foods groups did members of the household consume in the past 24 hours (from this time yesterday to now)? Include any snacks consumed.		Source
Type of food	1 = Yes 0 = No	1 = purchase 2 = produce from the farm 3 = purchase and farm produce 4 = Relief food
Cereals and cereal products ( <i>e.g. maize, spaghetti, rice, bread</i> )?		
Milk and milk products ( <i>e.g. goat/cow fermented milk, milk powder</i> )?		
Sugar and honey?		
Oils/fats ( <i>e.g. cooking fat or oil, coconut milk, butter, ghee, margarine</i> )?		
Meat, poultry, offal ( <i>e.g. goat, beef; chicken or their products</i> )?		
Pulses/legumes, nuts ( <i>e.g. beans, lentils, green grams, cowpeas; peanut, )</i> ?		
Roots and tubers ( <i>e.g. sweet potatoes, cassava, arrowroot Irish potatoes</i> )?		
Vegetables ( <i>e.g. green or leafy vegetables, tomatoes, carrots, onions</i> )?		
Fruits ( <i>e.g. water melons, mangoes, grapes, bananas, lemon</i> )?		
Eggs?		
Fish and sea foods ( <i>e.g. fried/boiled/roasted fish, lobsters</i> )?		
Miscellaneous ( <i>e.g. spices, chocolates, sweets, beverages, etc</i> )?		

### Q51 What is your main source of food for the entire household? \_\_\_\_\_

1 = purchase

2 = produce from the farm

3 = purchase and farm produce

4 = Food aid

5 = others (specify) \_\_\_\_\_

## **APPENDIX 2:        FOCUS GROUPS DISCUSSION GUIDE**

**Topic:** Issues affecting Social cash Transfer.

1.     What is the extent of poverty in your area?
2.     Which programs target the poor of the poorest in your community?
3.     Which other programs can you recommend in your community to assist the poor of the poorest?
4.     Can you explain the criteria the community uses to choose the poor of the poorest households in your community.
5.     How does social cash transfer program contribute to household nutrition status?
6.     Who controls household income?
7.     What factors affect income allocation at household level?
8.     What the most problems faced by the poor of the poorest households?
9.     How does poverty affect household food availability at household level?

## **APPENDIX 3:        CONSENT**

### **REQUEST FOR CONSENT TO PARTICIPATE IN THE SOCIAL CASH TRANSFER STUDY**

I would like to ask you to allow the study team to ask you some questions regarding the Social Cash Transfer Programme and Nutrition. As part of the study, both households which in the programme and those who are not are asked to provide some of their personal details and information about performance of the programme. Measurements for weight, height and mid upper will also be taken for under five children living in your household.

The study is expected to inform policy makers and implementers in nutrition, health, social services and planning sectors on the contribution of the intervention on nutrition. This will supplement the existing knowledge and contribute to the designing, testing and adoption of interventions that will promote the nutritional status and overall wellbeing of poor Malawians.

There are no risks associated with your full or partial participation in the study.

The information which you will give in the study will be kept confidential. Your identity will not be disclosed in any public reports or publications or any other parties.

Do you have any questions?

Do you agree to be respondent in this study?        Yes:.....        No: .....

**Respondent's Name:**\_\_\_\_\_ **Signature/thump print** \_\_\_\_\_ **Date:** \_\_\_\_\_

**Interviewer's Name:** \_\_\_\_\_ **Signature:** \_\_\_\_\_ **Date:** \_\_\_\_\_

## APPENDIX 4: A LETTER OF INTRODUCTION TO THE DISTRICT COMMISSIONER

Tel. No. (265) 01 773 825  
Fax No. (265) 01 773 827  
Email :

All Communication should be addressed to:  
The Secretary for Nutrition, HIV and AIDS



In reply please quote No .....

OFFICE OF THE PRESIDENT AND CABINET  
Private Bag B401  
Lilongwe 3  
MALAWI

### SECRETARY FOR NUTRITION, HIV AND AIDS

---

Ref. No. NHA/1/ADM

23<sup>RD</sup> September 2011

The District Commissioner  
Salima District Assembly  
SALIMA.

Dear Sir/Madam

#### IMPACT OF SOCIAL CASH TRANSFER ON NUTRITION

The Government of Malawi has been implementing Social Cash Transfer from 2006 which started with a pilot district of Mchinji. The programme has so far been scaled up to other four districts of Chitipa, Salima, Mangochi, and Phalombe. A study to assess contribution of Social Cash Transfer Programme on nutrition in Salima District has been planned to be conducted in your district. The study is expected to inform policy makers and implementers in nutrition, health, social services and planning sectors on the contribution of the intervention on nutrition. This will supplement the existing knowledge and contribute to the designing, testing and adoption of interventions that will promote the nutritional status and overall wellbeing of poor Malawians.

As part of the study, both households which are in the programme and those that are not will be asked to provide some of the personal details and information about performance of the programme. Measurements for weight, height and mid upper arm will also be taken for under five children living in the few sampled household.

Thank you in advance for any assistance rendered during this important exercise.

Norman Mwambelulu  
for SECRETARY FOR NUTRITION, HIV AND AIDS.



## APPENDIX 5: TRAINING TIMETABLE

DAY ONE				
TIME	CONTENT	TEACHING METHODS	TEACHING AIDS	FACILITATOR
08.30 – 09.00	Introduction and Logistics	Ice breaker	Flip Chart Felt pens	Principal Investigator
09.30 – 10.30	Title, aim, purpose and objectives of the study.	Lecture/ Discussion	LCD projector/ Slides	Principal Investigator
10.00 – 11.00	Tea Break			
11.00– 13.00	Questionnaire	Discussion	Questionnaires	Principal Investigator
13.00 - 14.00	Lunch Break			
14.00 – 15.30	Conducting an FGD	Discussion/ Question and answer/ Lecture	FGD guide/ LCD projector/ Laptop.	Principal Investigator
15.30 – 16.30	Ethics in Research	Brainstorming/ Q&A	Flip chart/ Markers	Principal Investigator
DAY TWO				
08.30 – 09.00	Recap	Q&A	Flip charts/ Markers	Principal Investigator
09.00 – 13.30	Questionnaire pre testing and anthropometry	Practical exercise	Questionnaire/MUAC tapes/ Height boards/ weighing Scales	All
13.30 – 14.30	Lunch Break			
14.30 – 16.00	Debriefing and corrections	Discussion	Pretested tools/ flip charts/ marker pens	All
16.00 – 16.30	Allocation of duties	Discussion	Flip charts/ marker pens	Principal investigator
REFRESHMENTS AND DEPARTURE				