THE UNIVERSITY
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Malawi Social Cash Transfer Program Baseline Evaluation Report

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List of Acronyms

CES-D	Center for Epidemiological Studies Depression Scale
CPI	Consumer Price Index
CSR	Center for Social Research
CSSC	Community Social Support Committee
DC	District Commissioner
DD	Difference-in-Differences
DFID-UK	Department for International Development-United Kingdom
DSWO	District Social Welfare Office
EU	European Union
FAO	Food and Agriculture Organization
FGD	Focus Group Discussion
FISP	Farm Input Subsidy Program
GFATM	Global Fund to Fight AIDS, Tuberculosis and Malaria
GoM	Government of Malawi
IDI	In-Depth Interview
IHS3	Third Integrated Household Survey
IRB	Internal Review Board
KfW	Kreditanstalt für Wiederaufbau (German Development Bank)
MDHS	Malawi Demographic and Health Survey
MoGCSW	Ministry of Gender, Children and Social Welfare
MoEPD	Ministry of Economic Planning and Development
NCST	National Committee for Science and Technology
NSO	National Statistics Office
PtoP	From Protection to Production
SCTP	Social Cash Transfer Programme
SD	Standard Deviation
SPG	Squared Poverty Gap
TA	Traditional Authority
UNC-CH	University of North Carolina at Chapel Hill
UNICEF	The United Nations Children's Fund
UNIMA	University of Malawi
VC	Village Cluster
WHO	World Health Organization

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Executive Summary

Samples. The mixed methods baseline survey for the impact evaluation of the Malawi SCTP was completed successfully. The quantitative sample size is 3,531 households and 16,078 individuals from two Traditional Authorities (TA) each in Salima and Mangochi districts. The qualitative sample consists of 16 treatment households, four households in each study TA.

Randomization and balance. Immediately after data collection, coin tosses were held in Salima and Mangochi to assign Village Clusters into immediate entry treatment and delayed-entry control groups. The coin tosses resulted in 48 percent of sample households in the treatment group and the remainder in the control group. Randomization was successful in that the two groups of households display similar characteristics across a range of indicators in the areas of poverty and food security, child and adult health, livelihoods and economic activity, and adolescent welfare and development.

Poverty and food security. The poverty and ultra-poverty rates in the sample are 85 and 60 percent respectively, significantly higher than the comparable rural rates from IHS3 of 58 and 28 percent respectively. Mean per capita consumption is MWK 41,522 per year (about US$0.34 per person per day) and 20 percent of the sample eats only one meal per day. Though not all recipient households are ultra-poor, the (ultra) poverty rate is in the middle range of such rates for comparable programs around the world. Nevertheless targeting performance could be improved.

Livelihoods. The main source of livelihood for households is crop production and average land size is just over one acre. Twenty-three percent of households sold any crops, and the use of improved inputs is low, with the exception of fertilizer, which is used by 70 percent of households due to the government's farm input subsidy program (FISP). Over half the sample engages in ganyu labor and 23 percent have a non-farm enterprise.

Adolescent development. School enrollment for those 14-17 is 70 percent (96 percent in primary school and 4 percent in secondary school), and 41 percent of those age 10-17 work for pay. In addition, individual interviews were conducted with up to three residents ages 13-19 in the sample households. Based on these data, 33 percent of adolescents reported having had sex, of whom 33 percent used a condom at first sex, and 47 percent showed depressive symptoms based on a ten item depression scale. Rates of sexual debut are higher than comparable samples from the MDHS indicating that under-reporting is not a problem in the study, and also that the study population may engage in riskier behavior.

Young child health, nutrition and development. Pre-school age children represent 12 percent of residents in SCTP households. Stunting, wasting and under nutrition rates in the SCTP are equivalent to those reported in MDHS. Seventeen percent of children have only one meal a day compared to only one percent in IHS3, but the percent who ate vitamin A rich foods in the previous day is comparable to MDHS (67 percent). Morbidity rates for fever are lower in the SCTP survey (26) versus MDHS (35) but rates of cough are significantly higher (26 versus 7 percent), which may be due to the fact that the SCTP evaluation was conducted during the winter season. Nearly 80 percent of children ages 3-5 are enrolled in pre-school.

Adult health. We compute adult health indicators on those age 50+ as this group represents 20 percent of residents in SCTP households. In this group, nearly 60 percent have a self-reported disability and 54 percent have a self-reported chronic illness. These high rates correlate well with self-reports of general health, where nearly half the group reports being in the two worst categories of general health. Thus, health status is quite low among older residents in SCTP households.

Disability. In addition to self-reported disability, the survey inquired about functional limitations in five domains for all residents ages 10 and above. The most limitation was for 'seeing' with 13 percent reporting difficulty. Overall 23 percent of those aged 10+ had some limitation in any of the five domains with the two most common domains being 'seeing' and 'climbing/walking'.

Safety Nets and Transfers. SCTP households are four times as likely to receive remittances or transfers from individuals compared to the rural ultra-poor (82 versus 22 percent). However they are also significantly more likely to send transfers out of the household (31 versus 12) suggesting a complex pattern of informal risk insurance. Meanwhile 70 percent of SCTP households receive formal assistance from government or other agencies, with the most important program being the FISP (54 percent) followed by free maize (16 percent) and school feeding (15 percent).

Stages of Progress. Focus group discussions were held in four communities to understand how these communities define poverty and the factors responsible for poverty dynamics. Communities estimated that, on average, 46 to 71 percent of households were ultra-poor (*ovutikitsitsa, masikini*) and their key features included having nobody or few people fit to work, which is a key targeting criterion for the SCTP. Migration was cited as an important avenue to escape ultra-poverty, and the FISP was cited as an important government program that increased economic mobility.

Transfer size. A key requirement for generating impacts on household welfare and behavior is the size of the transfer. We simulate the likely transfer amount to be received by each household and estimate it to be 17 percent of per capita consumption. This share is lower than many other successful programs in the region, and suggests that the Ministry should review the size of the transfer to ensure it is large enough to have the intended effect on participants.
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1. Introduction and Background

Introduction

This document constitutes the baseline report for the impact evaluation of the Malawi Social Cash Transfer Programme (SCTP). The impact evaluation is being implemented by the University of North Carolina at Chapel Hill (UNC-CH) and the Center for Social Research of the University of Malawi (CSR UNIMA), with technical support on productive and spillover effects provided by the From Protection to Production (PtoP) Project of the Food and Agriculture Organization (FAO). This report describes the status of eligible households prior to their entrance into the program, and thus serves as an important basis for comparing changes over time in order to measure program impacts. The report also assesses the success of the study design, which entails the random selection of Traditional Authorities (TAs) and the subsequent random assignment of Village Clusters (VCs) into treatment and delayed-entry control groups. Specifically, the report tests whether the treatment and delayed-entry control groups are balanced across a range of key outcomes and impact indicators that the program could affect.

Malawi Social Cash Transfer Program Description

Background

The Government of Malawi's (GoM's) Social Cash Transfer Program (SCTP) is an unconditional cash transfer program targeted to ultra-poor, labor constrained households. The program began as a pilot in Mchinji district in 2006. Since 2009, the program has expanded to reach an additional eight districts (Chitipa, Likoma, Machinga, Mangochi, Phalombe, Salima, Thyolo and Balaka) out of 28 total districts in Malawi. The program has gone to full scale in Mchinji, Chitipa and Likoma and by 2012, had reached nearly 30,000 households. Further scale-up in the current implementing districts is scheduled to begin in 2013 and further expansion to new districts is to begin in 2014.

The program is administered by the Ministry of Gender, Children and Social Welfare (MoGCSW) with additional policy oversight provided by the Ministry of Economic Planning and Development (MoEPD). UNICEF Malawi is responsible for technical support and guidance. Funding for the program from 2007-2012 was largely provided by the Global Fund to Fight AIDS, Tuberculosis and Malaria (GFATM). In 2011, the German Government (through Kreditanstalt für Wiederaufbau, or KfW) and the GoM signed an agreement to provide funding for the SCTP for three and a half years. In 2013, Irish Aid signed an agreement to scale up to one additional district, and in 2014, the German Government (KfW) and the European Union (EU) topped up the donor contribution to enable full coverage in the existing seven districts as well as scale-ups in additional districts. The World Bank is also providing resources for scale up to an additional two districts beginning in 2014.

Eligibility criteria are based on a household being ultra-poor (unable to meet the most basic urgent needs, including food and essential non-food items such as soap and clothing) and labor constrained (defined as having a ratio of 'fit to work' to 'not fit to work' of more than three). Household members are defined as 'unfit' if they are below 18 or above 64 years of age, or if they are age 18 to 64 but have a chronic illness or disability or are otherwise unable to work. A household is labor constrained if there are no 'fit to work' members in the household, or if the ratio of unfit to fit exceeds three.[1]

Beneficiary selection is done through a community-based approach with oversight provided by the local District Commissioner's (DC's) Office and the District Social Welfare Office (DSWO). Community

[1] Social Cash Transfer Inception Report, Ayala Consulting. July 2012.

members are appointed to the Community Social Support Committee (CSSC), and the CSSC is responsible for identifying households that meet these criteria. These lists are to include roughly 12 percent of the households in each VC, in order to achieve a target coverage rate of ten percent. The transfer amount varies based on household size and the number of children enrolled in primary and secondary school. Table 1.1 describes the benefit amounts.

Table 1.1 Transfer Amounts by Household Size and Number of Children in School

Household Size	Monthly Cash Benefit	Residents age ≤ 21 in Primary School	Residents age ≤30 in Secondary School
1 Member	Mk 1,000	No. of Children x MWK 300	No. of Children x MWK 600
2 Members	Mk 1,500		
3 Members	Mk 1,950		
≥ 4 Members	Mk 2,400		

Source: Social Cash Transfer Inception Report, Ayala Consulting. July 2012.

Impact Evaluation— Objectives, Locations and Timeline

The Malawi SCTP Impact Evaluation is government led, and is being executed by The University of North Carolina at Chapel Hill (UNC-CH) and the Center for Social Research at University of Malawi (CSR UNIMA). The impact evaluation consists of a baseline survey with two follow-up surveys. The baseline and first follow-up are funded by UNICEF, the German Government through KfW, Irish Aid and FAO, and the International Initiative for Impact Evaluation (3ie) and the European Union (EU) are providing additional funding for the second follow up survey.

Objectives

The objectives of the SCTP are to reduce poverty and hunger, and to increase school enrollment rates in these ultra-poor households. The 2007-2008 impact evaluation of the pilot project in Mchinji demonstrated that the Malawi SCT Project had a range of positive outcomes including increased food security, ownership of agricultural tools and curative care seeking.[2] Since that time, the program has undergone some changes and significant expansion. This evaluation was requisitioned in order to measure impacts on a number of key indicators through a larger-scale evaluation.

There are four broad research areas for evaluation: 1) Welfare impact on children and their caretakers, 2) Behavior change within the household, 3) Access to and linkages with other social services[3], and 4) Impact on familial environment for children. The objectives of the evaluation are to answer the following key questions on these topics:

1. Does the SCTP improve consumption, reduce food insecurity and increase diet diversity?
2. Does the SCTP affect economic productivity and wealth accumulation?
3. Does the SCTP affect health and nutrition of young children?
4. Does the SCTP affect schooling and child labor among older children?

[2] Miller et al., 2010

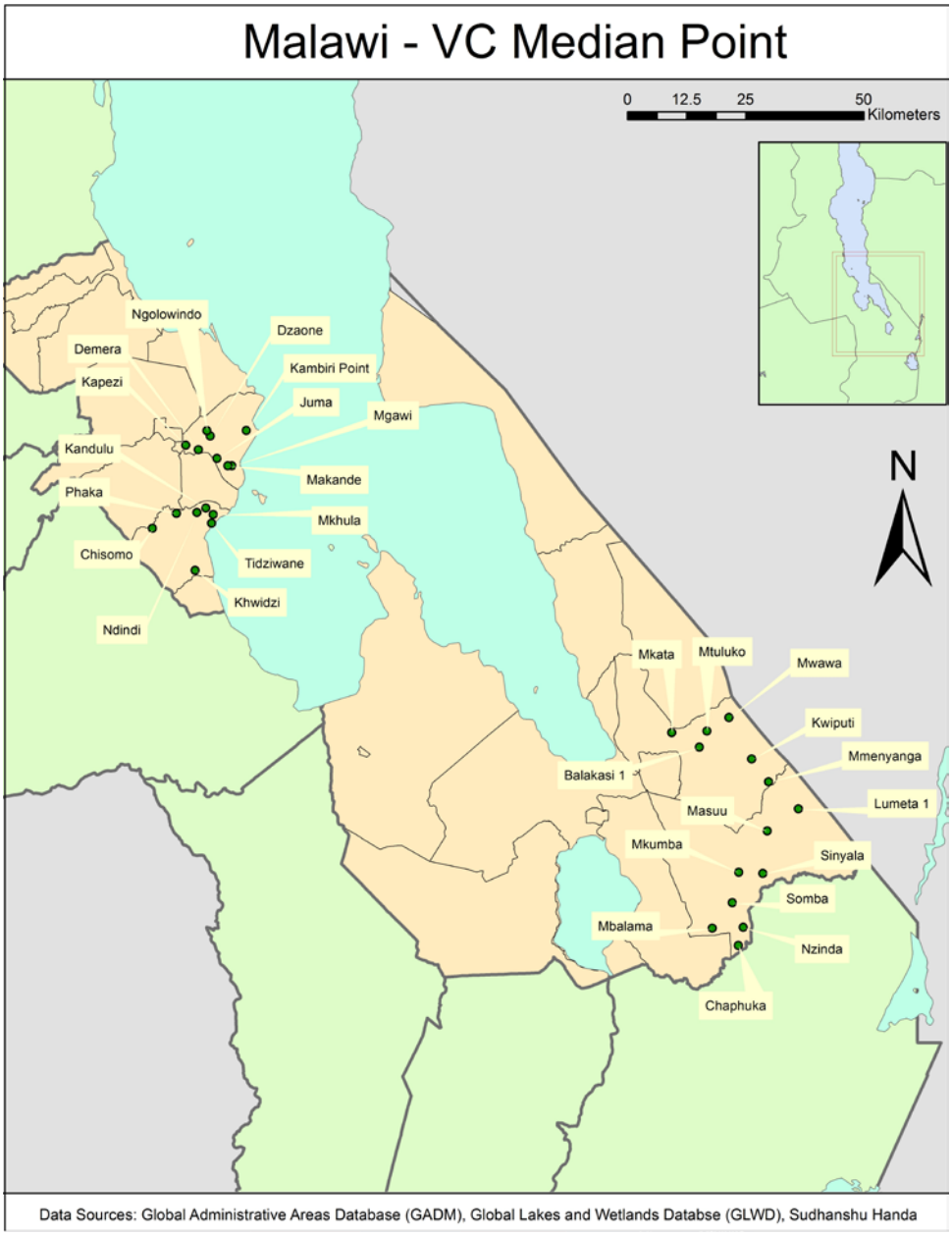
[3] The qualitative component of the study will explore what services beneficiaries use and what services they would wish to access. The quantitative component includes modules on access to other interventions, such as school feeding, fertilizer input subsidy, and credit and loans. The community questionnaire asks about the quality of health and education services.

5. Does the SCTP affect the safe transition into adulthood among adolescents?
6. Does the SCTP affect the health and wellbeing of caregivers?

Study Locations

The MoGCSW planned to expand the SCTP to 18 districts over the next three years, starting in 2014. The districts scheduled for scale-up in 2013 were Salima and Mangochi, so the MoGCSW took this opportunity to integrate the impact evaluation into the planned expansion activities. Subsequently, the research team worked with the Ministry, Ayala Consulting and development partners to randomly select two study TAs for each district (Maganga and Ndindi TAs in Salima, and Jalasi and M'bwana Nyambi TAs in Mangochi). Figure 1.1 shows a map of the study areas highlighting the Village Clusters included in the evaluation.

Figure 1.1 Malawi SCTP Impact Evaluation Study Areas



Timeline

Several key events were involved in the planning and execution of the baseline survey. UNC and CSR collaborated with GoM, UNICEF, FAO and other key stakeholders to coordinate planning and field activities. After the contract was signed, in September 2012 a stakeholders planning workshop was held in order to agree on the design and timeline for the evaluation. At this workshop, the study TAs were selected to enable GoM to begin targeting activities. In February 2013, members of the evaluation team from UNC, CSR and FAO travelled to Lilongwe to present the Inception Report to a group of stakeholders, including representatives from GoM, UNICEF, Ayala Consulting, KfW and Irish Aid. (See Appendix A.1 and A.2 for documentation of the workshops.) Survey instruments were finalized in May 2013. Due to targeting delays, the training did not begin until mid-June. Instruments were piloted and field tested by enumeration teams in Zomba as part of the training. Field work began at the end of June and was completed in November 2013. The table below describes the activities.

Table 1.2 Timeline for Key Events for Malawi SCTP Baseline Evaluation

Event	Stakeholders	Timeframe
Stakeholders Planning Workshop	UNC, CSR, GoM, KfW, UNICEF, Ayala	September 2012
Inception Workshop	UNC, CSR, FAO, GoM, KfW, Irish Aid, UNICEF, Ayala, ILO, USAID	February 2013
Instruments deigned, reviewed and approved	UNC, CSR, FAO, UNICEF, GoM	January-May 2013
Ethics Reviews completed (UNC and Malawi IRBs)	UNC, CSR	May 2013/ April 2013
Random selection of VCs	UNC, CSR, GoM DCs/ DSWOs	June/ July 2013
Targeting completed	Ayala, GoM, local communities	June-August 2013
Enumerator Training	UNC, CSR, FAO	June 2013
Instruments piloted and finalized	UNC, CSR, FAO	June 2013
Quantitative Data Collection	CSR	June-September 2013
Qualitative Data Collection	CSR	November 2013
Data Entry and Cleaning	CSR, UNC	July-October 2013
Data Analysis	UNC	November 2013-January 2014

2. Conceptual Framework[4]

The SCTP provides an unconditional cash transfer to households that are labor constrained and ultra-poor. These households, at very low levels of consumption, will spend almost all of their income. We therefore expect that among the beneficiary population, virtually all of the cash transfer will be spent at the initial stages of the program, and the composition of spending will focus on basic needs such as food, clothing and shelter. Once immediate basic needs are met, and possibly after a period of time, the influx of new cash may then trigger further responses within the household economy—for example, by providing room for investment and other productive activity, the use of services and the ability to free up older children to attend school.

Figure 2.1 brings together these ideas into a conceptual framework that shows how the SCTP can affect household activity, the causal pathways involved, and the potential moderating and mediating factors

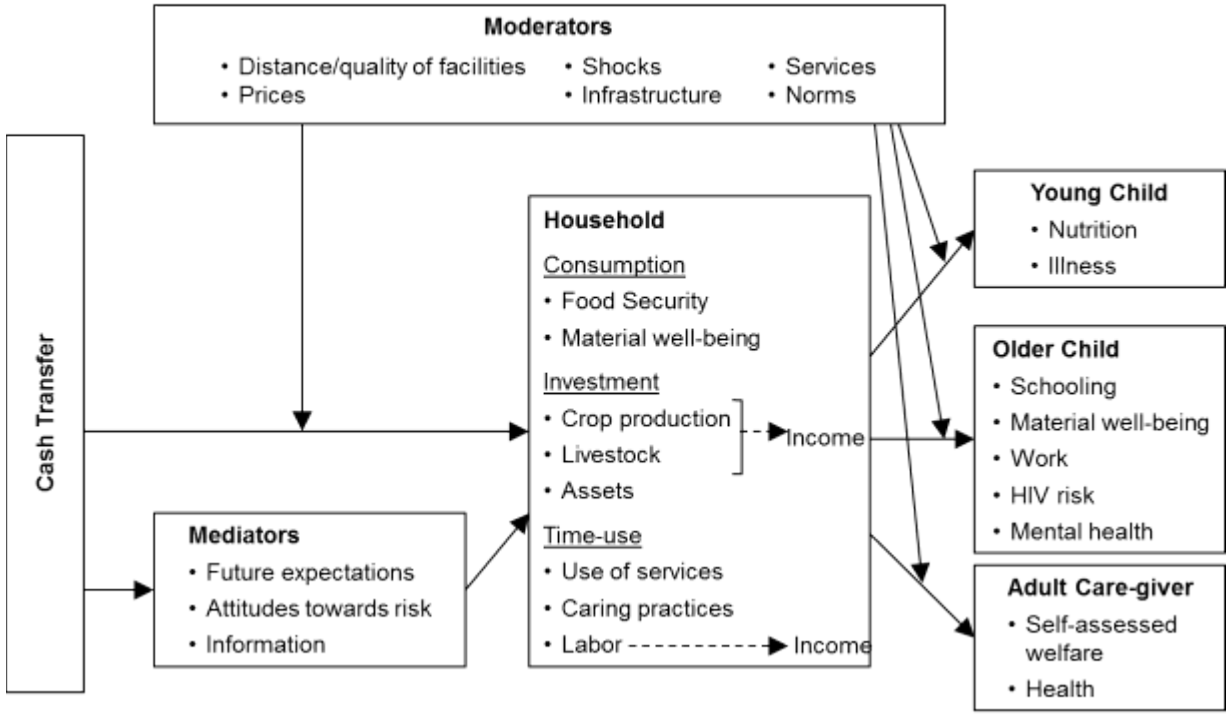
[4] This section is taken from the Malawi SCT Impact Evaluation Inception Report.

(moderators and mediators). The diagram is read from left to right, that is, from inputs to impacts. We expect a direct effect of the cash transfer on household consumption (food security, diet diversity), on the use of services and possibly even on productive activity after some time. Sociological and economic theories of human behavior suggest that the impact of the cash may work through several mechanisms (mediators), such as the degree to which the household is forward looking and the expectations the household has about the quality of life in the future (which could determine investment and other choices with longer term implications). Similarly, the impact of the cash transfer may be smaller or larger depending on local conditions in the community. These moderators include access to markets and other services, prices and shocks. Moderating effects are shown with lines that intersect the direct causal pathways between the cash transfer and outcomes to indicate that they can influence the strength of the direct effect.

The next step in the causal chain is the effect on young children and adolescents, and here we focus on young children under age five and adolescents ages 13-19 since these are important demographic groups for public policy. The key point to recognize here is that any potential impact of the program on these groups must work through the household through spending or time allocation decisions (including use of services). The link between the household and children can also be moderated by environmental factors, such as distance to schools or health facilities, as indicated in the diagram, and household-level characteristics themselves, such as the mother's literacy.

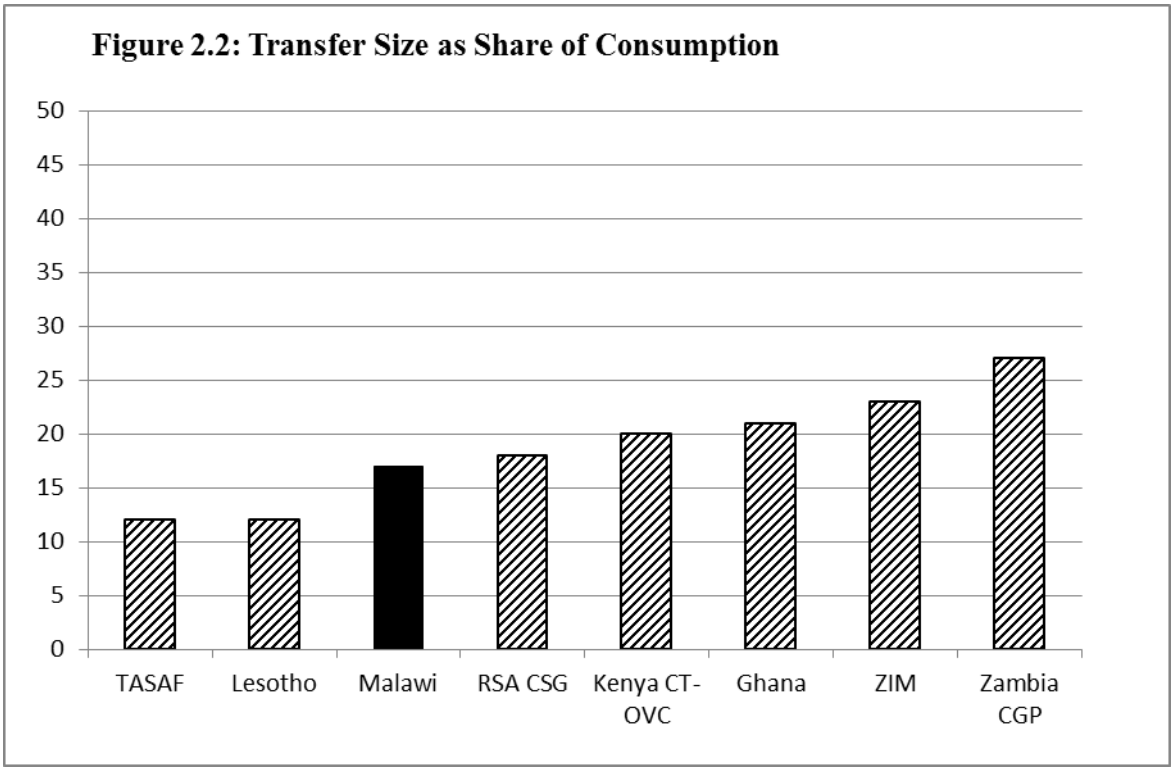
In Figure 2.1, we list some of the key indicators along the causal chain that we will analyze in the evaluation of the SCT. These are consistent with the long time frame of the project and are in most cases measured using established items in existing national sample surveys such as the Malawi Demographic and Health Survey (MDHS) and the Third Integrated Household Survey (IHS3).

Figure 2.1:. Conceptual Framework for Impact Evaluation of Malawi SCT



A key requirement for a cash transfer program such as the SCTP to generate impacts is for the value of the transfer to be sufficiently large enough as a share of the target population's consumption. Based on SCTP transfer rules we have simulated the amount of transfer each household in the evaluation sample is likely to receive and computed its value as a proportion of total consumption of the household. Figure 2.2 shows the simulated share along with those from other cash transfer programs in the region. The simulated amount in Malawi works out to US$5.88 per household per month, or 17 percent of consumption, which is slightly below the 'rule of thumb' of 20 percent that is typically observed among programs that have shown to have had positive impacts on household welfare. It may be necessary for the Ministry to review the value of the transfer in order to ensure it is large enough to generate impacts on household welfare.

Figure 2.2: Transfer Size as Share of Consumption



Source: Authors' own calculations based on program parameters and evaluation survey data.

3. Study Design, Sampling and Data Collection

The impact evaluation for Malawi's SCTP uses a mixed methods, longitudinal, experimental study design, combining quantitative surveys, qualitative in-depth interviews and focus group discussions and simulation models to demonstrate wider community economic impacts. The quantitative survey design consists of a cluster-randomized longitudinal study with a baseline survey in June 2013 and two follow - up surveys. The first two rounds of data collection are financed by UNICEF Malawi, the German Government through KfW, Irish Aid and FAO, with the second follow-up financing provided by the International Initiative for Impact Evaluation (3ie) and the EU; GoM provides significant contributions and support to all three rounds. The qualitative component includes two parts: 1) in-depth interviews (IDIs) of the caregiver and a young person (aged 13-19) in 16 Treatment households, and 2) community-based focus group discussions (FGDs) in each TA using the "Stages of Poverty" methodology. Insights from these qualitative interviews and discussions provide complementary data to that obtained through the survey and will allow us to examine certain topics in more depth, in particular the role and evolution

of social networks and the mechanisms and dynamics that shape outcomes related to the cash-transfer program.[5]

Baseline data collection was conducted to allow the study team to accurately describe characteristics of beneficiary households before receiving any cash transfers. This data will then be compared to data collected in the follow-up rounds using a difference-in-differences (DD) approach to assess the full impacts of the cash transfer program. Data collected on the control group allows the researchers to identify which impacts over time are directly attributable to the cash transfer, controlling for outside influences. This is done by taking the overall impacts experienced by beneficiaries and subtracting the impacts also experienced by control households. The remaining impacts are those directly related to the cash transfer itself.

Quantitative Sampling

The longitudinal impact evaluation includes 3,531 eligible households and 821 non-eligibles located in 29 VCs across four TAs in two districts. There are 14 VCs (1,678 households) in the treatment group and 15 VCs (1,853 households) in the control – or delayed-entry— group. The non-eligible households will be used by FAO to build the local economy simulation model.

The study districts, Salima and Mangochi, were used for the study in order to integrate with GoM's SCTP expansion plans, which had programed to begin expansion in these two districts in 2013. The study design uses both random selection (for the selection of study areas at the TA and VC level) and random assignment (to determine treatment and control VCs), the most rigorous approach available according to evaluation literature.[6]

TA and VC Selection

The selection of TAs was conducted at an evaluation planning meeting convened in Lilongwe in September 2012 where stakeholders from GoM, UNICEF, and KfW were present. (See Appendix A.1 for documentation.) The names of all TAs in a district were put into a hat[7] and two TAs were selected at random for each TA. In Salima, Maganga and Ndindi TAs[8] were selected and in Mangochi, Jalasi and M'bwana Nyambi TAs were selected. Once the TAs were selected for the study, MoGCSW prioritized these locations for targeting in order to complete the process in time for data collection, which was to begin in May 2013.

Through a transparent process which included the participation of government officials at the local District Commissioner's Office (the DC, SCTP Desk Officer and the Social Welfare Officer) and members of the SCTP evaluation team, VCs were randomly selected from a hat and put on a list in the order they were selected. These proceedings were held in Salima and Mangochi on June 25th and July 12th, 2013 respectively. (See Appendix B.1 and B.2 and Figures 3.1.1 and 3.1.2 for documentation.) The

[5] Additionally, the FAO, with direct funding from the Department for International Development-United Kingdom (DFID-UK), is building a simulation model to predict the potential of the SCTP to generate local economy-wide effects. Those results will be reported separately to the Government of Malawi.
[6] Shadish, Cook & Campbell, 2002.
[7] TAs that already had the program were excluded from the random selection process. For this reason three TAs in Salima and four in Mangochi were excluded from the randomization exercise.
[8] When TAs were being randomly selected for Salima, the first TA that was drawn for Salima was Pemba TA. After discussion among the stakeholders, it was understood that Pemba TA was slated to be part of a UN Humanitarian Intervention which included a cash transfer component, so Pemba was disqualified for consideration in the study for this reason. Ndindi TA was selected randomly as an alternate.

number of eligible households varied greatly between VCs, ranging from 66 to 258 households in a VC. For the evaluation, the intention was to collect surveys from 3,500 eligible households (T and C) and 800 non-eligible households, for a total of 4,300 surveys. The surveys were to be split evenly across the two districts so it was expected that in each district, the field team would interview about 1,750 eligibles and 400 non-eligibles. Therefore, starting at the top of the randomly ordered list of VCs, the evaluation team calculated the number of VCs that would need to be visited based on the number of total SCTP-selected (i.e. eligible) households in the VC. Additionally, as the statistical power of the study was based on having a minimum number of VCs included, it was determined that there needed to be at least 29 VCs included in the study. The number of VCs was allocated across the two districts (Salima=15 VCs; Mangochi=14 VCs). Details are below in Table 3.1.1.

Figure 3.1.1 VC Selection at Salima DC's Office

Figure 3.1.2 VC Selection at Mangochi DC's Office

Table 3.1.1 Village Cluster Selection for SCTP Impact Evaluation Study

District	Traditional Authority	Total VCs	Study VCs
Salima	Maganga	11	8
	Ndindi	13	7
Mangochi	Jalasi	9	6
	M'bwana Nyambi	12	8
	Total	45	29

Household Selection

The baseline evaluation includes 3,531 SCTP-eligible households across both districts. The process for selecting households for interviews varied between the two districts. Salima VCs had a smaller number of selected households in each VC, allowing for all such households in a VC to be interviewed[9] while still reaching the target number of VCs required. Mangochi generally had very large numbers of selected households per VC. Therefore, in order to reach at least 14 VCs, a random selection of eligible households was taken in each VC. See Table 3.1.2 for a summary of the intended and actual number of surveys collected in each TA. In addition to the beneficiary interviews, the evaluation includes 821 non-

[9] One exception was Kandulu VC in Ndindi TA. It had a large number of beneficiaries and interviewing all of them would have significantly exceeded the target sample size for the district. Therefore, the eligible households were listed in random order and the interviewed in the order they appeared on the list.

eligible households from the two districts. Non-eligible households were selected randomly, and as such, include both poor and wealthier households. See Appendix D for a detailed note on the calculation of weights.

Table 3.1.2 Intended and Actual Number of Eligible Households Interviewed, by TA

District	Traditional Authority	Intended	Actual
Salima	Maganga	934	869
	Ndindi	890	906
Mangochi	Jalasi	750	753
	M'bwana Nyambi	1,000	1,003
	Total	3,574	3,531

Treatment and Control Assignment

The baseline survey was conducted "blind", meaning that treatment (T) and control (C) status were not assigned until after the baseline survey was completed in order to maintain maximum objectivity during data collection. After baseline data collection was concluded, the District Commissioner's Office in each of the two districts convened meetings of local and national level government officials, local traditional leaders, CSSC members and representatives from the SCTP evaluation team to determine which VCs would enter delayed-entry control status. At these meetings, a coin toss was conducted and half of the VCs in each TA were randomly assigned to the treatment group. Beneficiaries in these VCs will receive the program immediately. The other half of the VCs were randomly assigned to the delayed-entry control group. The coin toss random assignment was held in Salima on September 24th and in Mangochi on September 30th, 2013. Treatment and control VCs are shown in Table 3.1.3. (See Appendix C.1 and C.2, and Figures 3.1.3 and 3.1.4 for details and documentation of the proceedings.)

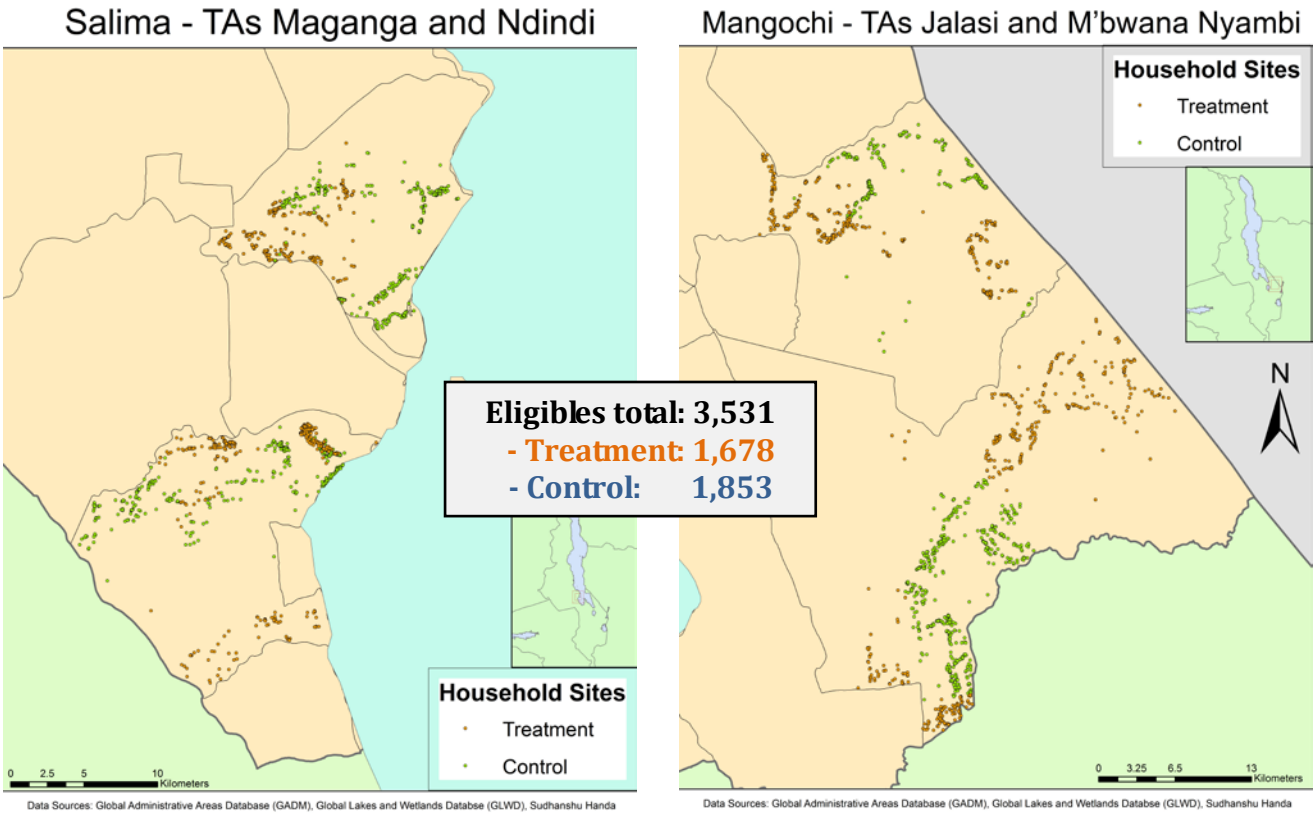
Figure 3.1.3 Coin Toss for Assignment of T & C VCs Salima DC's Office

Figure 3.1.4 Coin Toss Assignment of T & C VCs Mangochi DC's Office

Table 3.1.3 Results of Random Assignment of Treatment and Control for Village Clusters

District	Traditional Authority	Treatment (T)	Control (C)
Salima	Maganga	Demera	Mgawi
		Juma	Makande
		Dzaone	Ngolowindo
		Kapezi	Kambiri Point
	Ndindi	Khwidzi	Chisomo
		Phaka	Mkhula
		Kandulu	Ndindi
			Tidziwane
Mangochi	Jalasi	Mkata	Mwawa
		Kwiputi	Mmenyanga
		Balakasi 1	Mtuluko
	M'bwana Nyambi	Chaphuka	Sinyala
		Lumeta 1	Mkumba
		Masuku	Somba
		Mbalama	Nzinda

Figure 3.1.5 Map of Treatment and Control Households for the SCTP Evaluation



Qualitative Sampling

After treatment and control VCs were assigned, the qualitative sample of 16 households was selected from treatment VCs for in-depth interviews (IDIs) of the caregiver and a young person. We used a stratified sampling approach to facilitate comparison across sex and orphan status, resulting in a sample that was half male and half orphaned. Geographically, our sample covers two districts, Salima and Mangochi, and 4 TAs (Maganga, Ndindi, Jalasi, and M'bwana Nyambi). Four households were selected from each TA. We determined the sample size based on our previous experience, guidelines for longitudinal qualitative research, and feasibility. A prerequisite for selection of a household was that the household had to have at least one youth aged 13-19 years of age who had completed the Young Person's Module in the quantitative survey (see below). This would allow for a richer analysis of the youth IDIs as the qualitative interview could be linked to information on behavior and attitudes of this same youth from the quantitative survey. These households were then sorted based on gender and age of caregiver and young person, and other characteristics of the young person. Sixteen households were selected on the basis of having a balance of characteristics among the youth respondents, including female/ male, orphan/ non-orphan, had sex/ never had sex and currently enrolled in school/ not currently enrolled in school. Alternate households with similar characteristics were selected to match each of the 16 selected in case participants refused the IDI or were unavailable.

Focus group discussions (FGDs) were also held in each of the four TAs. FGD participants were community members aged 18 and above who had lived in the community for an extended period of time and have detailed knowledge of the community. In each TA, two focus group discussions were held simultaneously in similar locations—one for males and one for females—for a total of eight FGDs. The number of FGDs was determined by the fact that we wanted to cover each TA to account for general geographical and cultural differences that could affect the Stages of Progress results. The specific locations within the TAs was driven by the fact that, for logistical purposes, the FGDs were conducted during the same time period as the IDIs; therefore, FGDs were held in the same VCs where the IDIs were given. Field work for the qualitative study was conducted in November 2013.

Quantitative Data Collection

Data collection was carried out by the Center for Social Research (CSR), University of Malawi (UNIMA). Peter Mvula and Maxton Tsoka organized the field work and oversaw field teams. Support was provided by researchers and support staff from UNC and FAO.

While baseline data collection was originally scheduled for May and June 2013, it was postponed due to delays on the ground in completing the targeting process in the study TAs. Training of supervisors and enumerators took place from the June 10th to 22nd and teams deployed to Salima to begin field work on June 24th. Quantitative data collection was carried out from June 26th to September 9th, 2013 and qualitative interviews were conducted from November 6-20, 2013.

Due to the above mentioned targeting delays, at the time teams left for Salima only six beneficiary lists were ready for VCs in Maganga TA, four lists for Ndindi TA and none for Mangochi. Since the majority of the beneficiary lists were still in process, the field managers were in close touch with the SCTP Desk Officers and Ayala Consulting in order to prioritize the next stage of field work so teams would not be left without work. This proved logistically challenging at times, as there were not always enough interviews to occupy all of the field teams. However, the field managers worked with the supervisors to ensure that teams without a full interview schedule were engaged in call backs or other important logistics. However, in the end, due to the good communication between stakeholders and dynamic planning on the part of CSR, baseline data collection was completed mostly on schedule and without exceeding the budget. The schedule was delayed somewhat because the final beneficiary list for Mgawi

VC (Maganga TA) did not arrive until August 21st. This last VC was a newly formed VC and targeting took longer than anticipated. By this time, most of the teams were finishing their work and returning to Zomba. Three teams were later redeployed to Mgawi VC for one week to complete the final set of interviews.

CSR selected the field team from a pool of applicants that were experienced in household and community surveys. There were nine field teams, each consisting of a supervisor, five enumerators and a driver, for a total of nine supervisors, 45 enumerators, and nine drivers. One enumerator was assigned to interview two to three households per day. They were also responsible for administering the Young Person's interview for households that had adolescent youth ages of 13 to 19. Supervisors organized the team's work and conducted community interviews. Interviews were conducted orally in the local language to be culturally sensitive. All enumerators spoke fluent Chichewa, but only a few teams had a fluent Chiyao speaker. In predominantly Chiyao areas where the main respondent did not speak Chichewa, another household member would be called upon for translation when necessary. However, due to the sensitive nature of the questions in the Young Person's module, these interviews had to be given to youth in private one-on-one sessions with an enumerator of the same gender. For this reason, two Chiyao speakers in Mangochi were trained specifically on the Young Person's Module to be on call as needed. When a supervisor encountered a case where the youth did not speak Chichewa and the team did not have a Chiyao speaker of the same gender as the respondent, the supervisor would organize for the youth to be interviewed by one of the two 'on call' Chiyao speakers.

Conditions in the field varied greatly. Generally, the field teams were well received by the local communities. Local people, especially Group Village Heads and Village Headmen were cooperative and quite willing to provide support to the field teams in locating households within their villages. In some locations, households were close together and easy to reach. However, other locations were quite challenging to navigate, such as Kambiri Point (Salima, Maganga TA) where some beneficiaries were located on the shore of Lake Malawi and there were few through roads. Additionally, Mkata and Mtuluko (Mangochi, Jalasi TA) and Mbalama and Somba (Mangochi, M'bwana Nyambi TA) were especially logistically challenging. There was no mobile network reception, and many households in these TAs were several kilometers from a passable road, making organizing team logistics and sharing anthropometric and GPS equipment between enumerators on the same team a difficult task.

Locating and interviewing youth ages 13-19 for the Young Person's Module also proved problematic at times. The survey began just as schools were closing for vacation. Many youth were away visiting relatives or had gone to Mozambique or South Africa for work at the time of the interviews. In parts of Salima, and most of Mangochi, there were initiation ceremonies taking place during this time as well. During initiation ceremonies, young males and females are forbidden from leaving the initiation camp. For males, this could be as long as 30 days, and for females, 1-2 weeks. The field teams were diligent about scheduling callbacks for youth interviews. In mid-August, two teams were specially deployed to revisit households where youth interviews were missed to try to trace and interview those young people. In the end, we reached 77 percent of the youth that were eligible for interviews.

An additional challenge field teams encountered was that communities assumed the enumerators were from government and the interviews were related to SCTP eligibility. This was likely due to the fact that government had conducted the data collection for the SCTP targeting in the few months prior to the data collection. The assumption that the field team was there to interview people for the SCTP led to some inaccurate responses on some surveys, such as respondents inflating the number of people (especially children) in the household, or not being honest about their income and assets. There were many cases where respondents would combine two to three household during the enrollment in order to qualify for the transfer, but then some of the household members would show up on the household roster as members of another household during the baseline survey.

Field teams took several steps to prevent this dynamic from biasing the data. First, supervisors would identify the survey as the Malawi Economic, Health and Demographic Survey (MEHDS) to differentiate it from the SCTP. Second, each member of the field team wore an ID badge clearly indicating they were from UNIMA and were not affiliated with government. Third, when visiting the community, supervisors tried to avoid using CSSC members since they are known by the community. Lastly, when households appeared to be giving inaccurate information about household makeup, assets or income, enumerators and supervisors developed best practices for probing to get to the truth. The supervisors should be congratulated for their detail-oriented work in sorting out duplicate and "ghost" households, and in their patient and respectful manner of managing difficult situations in the field.

Qualitative Data Collection

The qualitative work was conducted from November 6th to 20th, 2013. The gap between the quantitative and qualitative work was due to the fact that data entry and verification was not completed until October 30th. UNC then reviewed the data and conducted sampling as described above. The IDIs and FGDs were carried out by four members of the quantitative study team to provide continuity and familiarity with the topics. Each enumerator interviewed the caregiver and a youth from one household per TA, for a total of 16 households. In each TA, two focus groups were held (one male and one female) to discuss the state of the community and how economic conditions of the households have changed over time. In order to facilitate timely qualitative analysis, a detailed and structured summary of the interviews and FGDs was prepared upon the completion of each session. This form captured key insights from the interview related to the study goals as well as general context of the participant and setting that could be used to aid interpretation of the data.

Figure 3.2.1 Enumerator Administering the Raven's Test for Logical Reasoning to Malawian Youth

Figure 3.2.2 Supervisor Taking Anthropometric Measures in the Field

Data Entry

Data entry was done by CSR. CSR employed a data manager, Nick Shawa, and ten data entry clerks to accomplish the task. Data entry training was held from 4th to 6th of July, and data entry began on July 8th, roughly two weeks into data collection. The data entry protocol included three main steps to achieve maximum accuracy. First, the data entry program (CSPro) included extensive consistency checks to improve data quality. Second, when clerks encountered inconsistencies during data entry, they would flag them and send those surveys back to the field for correction. Third, each survey was entered by two different clerks. This "double entry" system allowed for comparison between the two entries to identify any inconsistencies between the cases. The data manager would then refer to the original questionnaire to find the correct response.

For the qualitative exercise, each interview was recorded, summarized, and then transcribed and translated by the research assistant who conducted the interview to provide for maximum detail and to capture nuances that may otherwise be missed. Transcriptions and translations were overseen and verified by Maxton Tsoka and Peter Mvula of CSR. FGDs were recorded and then the details were captured in extensive summaries, including key quotes.

Qualitative Data Analysis

As noted above, all qualitative IDIs were audio-recorded, transcribed verbatim and translated. FGDs were audio-recorded and detailed summaries were produced. For the purpose of this report, our analysis was based primarily on the field summaries prepared during the fieldwork as the transcripts were not complete when initial analysis began. We used the summaries to develop analytic matrices to describe and compare young people's social network composition and structure.[10] We also systematically coded the IDI summaries to identify salient education, health and other concerns of both young people and caregivers. We were able to review all of the transcripts between writing the initial draft of this report and the revised version and have incorporated additional findings. For FGDs, the Stages of Progress methodology was used for analysis. Group responses were coded by community and main themes have been summarized for this report in chapter seven.

4. Survey instruments

The evaluation consisted of six major components:

1. **Household Survey** administered to the main respondent for the household;
2. **Young Person's Survey** for up to three youth ages 13-19 in the household;
3. **Anthropometric Measures** for children ages 6 months to 5 years in the study households;
4. **Community Survey** given to a group of knowledgeable community members to gather information on community norms, resources, pricing and access to services (~2 surveys per VC)
5. **IDIs** for caregivers and one youth from 16 treatment households
6. **FGDs** with knowledgeable community members to identify the "Stages of Progress" through which households move into and out of poverty in each TA**.**

Survey instruments were reviewed for ethical considerations and approved by the UNC-CH Internal Review Board (IRB) and Malawi's National Commission for Science and Technology (NCST), National Committee for Research in Social Sciences and Humanities (UNC IRB Study No. 12-2496; Malawi NCST Study No. RTT/2/20). Survey topics for each part of the survey are described in Table 4.1.

[10] Miles MB and Huberman AM, 1994.

Table 4.1 Survey Questionnaire Topics

Household Survey
Roster and Orphan Status
Education — 3+ years
Health — All
Disability
Child Health and Anthropometry— 0-5 years
Access to Educational and Health Services
Fertility— women ages 12-49
Time-Use (chores, agriculture, other)— ages 6+
Labor (wage/ ganyu)— ages 10+
Household Enterprises
Transfers Received and Made
Other Income
Credit
Expectations for the Future
Self-Assessed Poverty and Food Security
Social Safety Nets
Shocks and Coping Strategies
Expenditure
Land-Use
Crop Production and Sales
Agriculture and Livestock
Fishing
Hired Labor
Sustainable Land Management
Housing Conditions and Household Assets
Mortality and Changes in Household Membership

Young Person's Module— ages 13-19
Future Aspirations
Expectations for Future Quality of Life and Health
Raven's Test for Logical Reasoning
Mental Health
Sexual Activity
Risk Taking Behaviors
Time Preference

Caretaker In-Depth Interview
Personal Background
Social Networks
Family Support Systems
Household Economy
School Attendance
Health and Family Well-Being
Experiences with HIV and AIDS

Youth In-Depth Interview
Personal Background
Personal Network Inventory
Extended Family Network
Broader Social/Community Networks
Household Economy
Well-Being
Education and School Experience
Sexual Behavior
Experiences with HIV and AIDS

Focus Group Discussions
Identification of stages of progress in community
Reasons for movements into and out of poverty

Community Survey
Access to Basic Services
Access to Educational and Health Facilities
Educational Costs
Agricultural Resources
Agricultural Prices
Ganyu Wage Rates
Community Natural Resource Management
External Shocks
Community Norms and Culture
Prices of Food and Common Non-Food Items
Businesses Activities

Enterprise Module
Revenue, sales, profits
Source of inputs or raw materials

Instruments available for download at http://www.cpc.unc.edu/projects/transfer/countries/malawi.

5. Description of the Samples and Comparison with National Data

Treatment and Comparison Groups

The randomization process within the SCTP-eligible sample was successful in terms of creating equivalent groups at baseline, and mean characteristics between the treatment and comparison groups are balanced. We tested many primary outcome measures and control variables for statistical differences between the two groups (Appendix F) using OLS regression with cluster robust standard errors to account for the nested nature of our data because the survey design clustered households within district-TA level. Only a handful of the indicators we analyzed were statistically significantly different at baseline (p-value of less than .05), however, all of the differences were minor such that there is little practical difference between the two groups.

Table 5.1.1 shows mean values at baseline for the key indicators of interest for the program broken down by treatment and control. Later in the report these indicators are interpreted, but it is important to note here the success of the study design in obtaining baseline balance in these indicators. All of these key indicators are balanced and not significantly different for treatment and control. This table exhibits the wide range of domains of this analysis including welfare and food security, health and schooling, caregiver well-being, adolescent behavior, and household productivity. This range of indicators further underscores the substantial complexity involved in designing and implementing the survey instrument since effects of an unconditional cash transfer could occur across the spectrum of domains.
.
The following sections will provide a picture of the family characteristics and the lifestyles of SCTP-eligible households before they started receiving the cash transfers. We present this picture by describing the entire sample in the rest of the report because the two groups (T and C) were statistically similar and both represent eligible recipients for the program. We describe the six areas of the sample that relate to the goals of the program: demographics, self-reported welfare, caregiver health and well-being (including chronic illness and disability), young children (health and nutrition), adolescents (education, time use, mental health, and sexual behavior) and household productivity (labor supply and income activities). We also provide an overview of household shocks and safety nets, including transfers and credit. When possible we present comparisons with national samples taken from Malawi's Third Integrated National Household Survey (IHS3) or from Malawi's Demographics and Health Survey (MDHS).

Table 5.1.1 Key Indicators of Interest at Baseline by Treatment Status

	Full Sample (%)	Treatment (%)	Control (%)
Poverty and Food Security			
Per Capita Consumption (annual MWK)	41,522	42,652	40,503
Poverty rate, individuals	85.2	83.8	86.5
Ultra-poverty rate, individuals	60.4	59.9	60.8
Eat only one meal per day	19.3	21.3	19.4
Adolescent Development			
Ganyu work for pay (age 10-17)	40.8	42.4	39.3
School enrollment (14–17)	70.5	66.7	74.3
Primary school enrollment (14-17)	95.8	95.8	95.7
Secondary school enrollment (14-17)	4.2	4.2	4.3
Chronically ill (age 10-17)	6.9	7.4	6.4
Morbidity last 2 weeks, (age 10–17)	16.3	17.0	15.6
Took curative action if sick (age 10-17)	77.9	75.6	80.2
Has blanket, shoes & change of clothes (age 5-18)	12.6	12.8	12.4
Ever had sex (age 13-19)	32.4	34.3	30.5
Used condom at first sex (age 13-19)	34.5	33.9	35.3
Depressive symptoms (age 13-19)	46.8	43.7	50.0
Young Child Health, Nutrition & Development			
Enrolled in ECD centers (age 3-5)	78.6	78.6	78.5
Stunted (age 0-5)	47.9	49.8	45.5
Wasted (age 0-5)	3.9	4.3	3.5
Underweight (age 0-5)	17.6	18.0	17.3
Consumed Vit A rich foods previous day (6-59 months)	67.0	71.0	63.1
Diarrhea past two weeks (6-59 months)	16.6	16.6	16.5
Fever past two weeks (6-59 months)	26.1	24.0	28.2
Cough past two week (6-59 months)	26.0	25.8	26.2
Sought care if sick (6-59 months)	74.0	70.2	77.4
Preventive care last six months (6-59 months)	49.8	48.1	51.5
Skilled attendant at birth (6-59 months)	79.2	81.6	71.4
Adult Health (age 50+)			
Chronic illness	54.1	56.0	52.2
Morbidity	53.2	56.0	50.2
Took curative action if sick	80.5	81.3	78.0
Any disability	58.6	60.8	56.3
Poor/fair general health	47.0	47.8	46.3
Economic Activity & Productive Assets (households)			
Engaged in wage employment	5.5	4.8	6.2
Engaged in ganyu labor (adults)	57.0	55.5	58.5
Non-farm enterprise	23.1	23.8	22.5
Own any land	89.8	90.0	89.6
Own less than 1 acre	24.7	25.8	23.7
Selling any crops	22.7	21.4	24.0

Description of the Qualitative Sample

The average age of youth participants in the qualitative sample was 15.1 years and just over half were in school (9/16) and sexually active or had some past sexual experience (10/16). Among youth who were not in school, almost all had attended school at some point and cited reasons for dropping out ranging from needing to work (*ganyu*[11]) to make money for their families, lack of basic hygiene supplies (especially among young women), lack of money for transport and school uniform fees, and poor performance (i.e. having to repeat grades several times). Several youth participants mentioned bullying in school as a problem. While over half had been sexually active, and some of the young women had babies, few participants indicated being sexually active at the time of the interview and there was a general negative connotation to sexual activity in their narratives related to both delaying having children as well as risk of HIV.

Table 5.1.2 Characteristics of the Qualitative Sample

District	TA	Sex	Age	Orphan	Sexual activity	In school?
Salima	Maganga	F	16	Yes, double	Yes	No
		F	18	No	Yes	No
		M	14	Yes, double	No	Yes
		M	14	No	Yes	No
	Ndindi	M	14	No	Yes	Yes
		M	15	Yes, mother	No	Yes
		F	15	Yes, father	Yes	Yes
		F	14	Yes, father	yes	Yes
Mangochi	Jalasi	M	16	No	No	No
		M	14	Yes, double	Yes	Yes
		F	16	No	Yes	No
		F	17	Yes, double	Yes	Yes
	M'bwana	M	13	Yes, double	No	No
		M	16	Yes, mother	Yes	Yes
		F	15	No	No	Yes
		F	15	Yes, double	No	No

SCTP-Eligible Household and Sample Characteristics

Introduction

This section describes household and individual demographic characteristics of the SCTP-eligible sample. Household and demographic indicators examined include the sample age and sex distribution, marital status, disability status, educational status, orphan-hood, household size, dependency ratio, key characteristics of the household head, deaths in the household in the past year, movement out of the household in the past year and characteristics of the household's dwelling. Indicators were compared between treatment and comparison households (Appendix F), and comparisons to the IHS3[12] rural ultra-poor are made for select indicators.

[11] *Ganyu* labor is defined for the purposes of this survey as informal off-farm labor, or day labor.
[12] National Statistics Office, Republic of Malawi. Integrated Household Survey 2010-201: Household Socio-Economic Characteristics Report. September 2012.

Characteristics of the Sample

A total of 16,078 individuals were interviewed for the SCTP baseline survey. There are slightly fewer individuals assigned to treatment (48.9 percent) than in the comparison group, and the majority of respondents are female (57.3 percent).

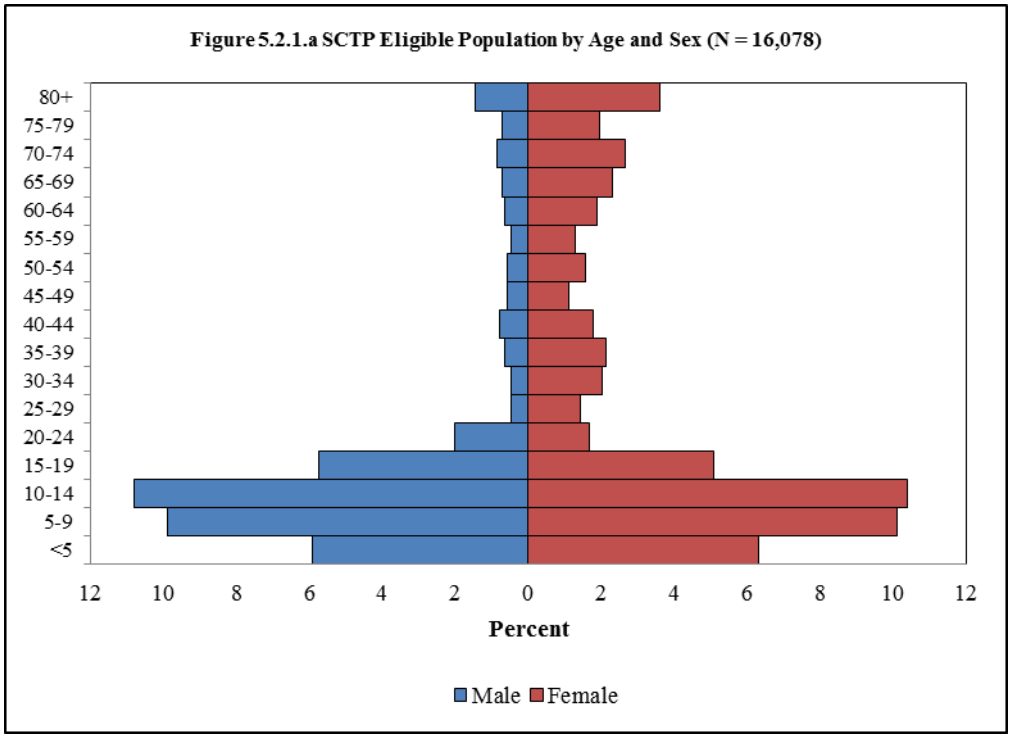
Table 5.2.1 shows the age and sex distribution of the SCTP-eligible sample. Compared to the IHS3 rural ultra-poor sample, the SCTP has a smaller proportion of under-five children, a larger proportion of children ages 5-19 (52.0 percent SCTP, compared to 45.8 percent IHS3), a smaller proportion of adults ages 20-64 (21.5 percent SCTP, compared to 32.3 percent), and a much larger proportion of elderly people (14.3 percent SCTP, compared to 3.4 percent IHS3).

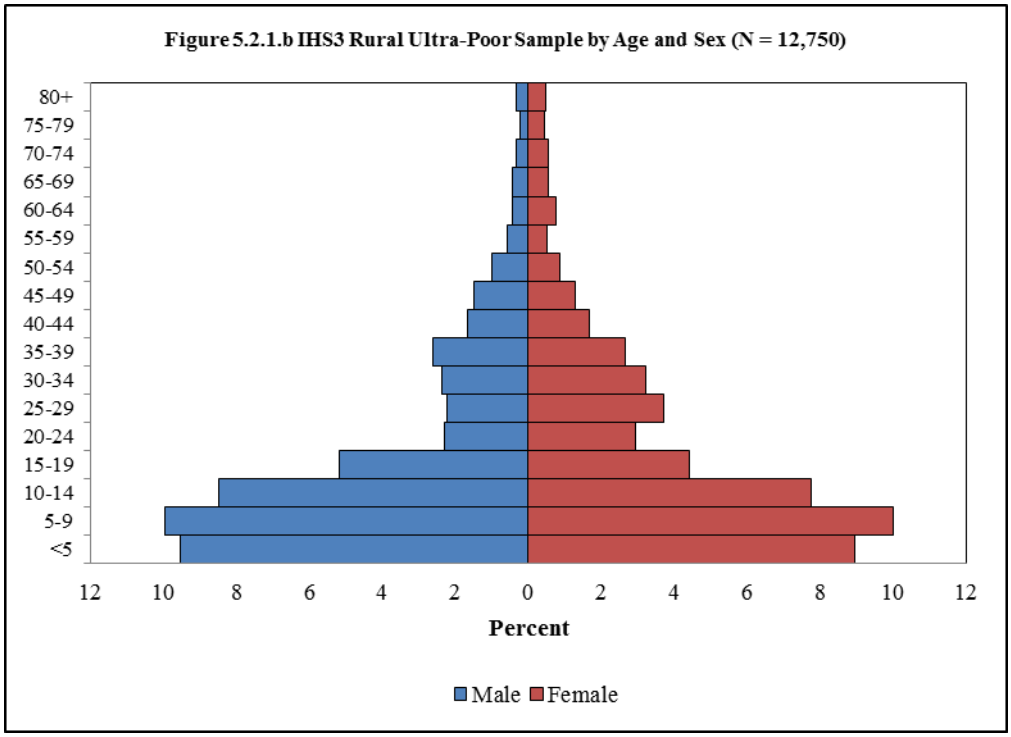
Table 5.2.1 Percent Age Distribution by Sex

Age	SCTP - Male	SCTP - Female	SCTP - Total	IHS3[1]
<5	13.8	11.0	12.2	18.5
5-9	23.2	17.6	20.0	20.0
10-14	25.3	18.2	21.2	16.2
15-19	13.5	8.8	10.8	9.6
20-24	4.8	2.9	3.7	5.2
25-29	1.1	2.5	1.9	5.9
30-34	1.1	3.5	2.5	5.6
35-39	1.5	3.7	2.8	5.3
40-44	1.8	3.1	2.5	3.3
45-49	1.3	2.0	1.7	2.8
50-54	1.3	2.7	2.1	1.9
55-59	1.1	2.3	1.8	1.1
60-64	1.5	3.3	2.5	1.2
65-69	1.7	4.0	3.0	1.0
70-74	2.0	4.7	3.5	0.9
75-79	1.7	3.4	2.7	0.7
80+	3.4	6.3	5.1	0.8
Total	100.0	100.0	100.0	100.0
N	6,913	9,165	16,078	12,750

[1] IHS3 rural ultra-poor

Figure 5.2.1a presents the population pyramid by age and sex for the SCTP-eligible sample. Starting around age 25, there are significantly more females than males, a trend that increases among the elderly. Another important feature illustrated by the population pyramid is the low presence of working-age adults. The sex imbalance and shortage of working-age adults is more severe in the SCTP-eligible sample than the IHS3 rural ultra-poor sample (Figure 5.2.1b).





The SCTP population age structure has important implications for economic dependency, particularly as the population pyramid bows inward among persons in the economically active age range[13] (18-64 years).

[13] SCTP eligibility criteria defines 'working age' as ages 18-64, relying on the concept of 'fit to work' rather than strict age cut-offs.

We define the demographic dependency ratio as the sum of children under 18 and adults 65 and older, divided by the working-age population (18 to 64 years). Approximately 75 percent of the SCTP-eligible sample is classified as a 'dependent' (under 17 or over 64 years), yielding a dependency ratio of 3.0. Of the 3,531 households, 26 percent had no working-age household member. A dependency ratio of 3 means that each person in the prime-age group supports three children or elderly persons. The high dependency ratio of the SCTP-eligible sample is not surprising as one of the program's household eligibility criteria is labor constraint, which is precisely aimed at targeting such households. In contrast, the IHS3 rural ultra-poor sample dependency ratio is 1.8.

Table 5.2.2 presents the current marital status of individuals ages 12 and older by sex and age. Significantly more males (64.2 percent) than females (32.2 percent) have never been married ($p < 0.001$), whereas significantly more females (30.1 percent) than males (3.4 percent) are widowed ($p < 0.001$). Less than two percent of adolescents age 12-17 have been married/cohabitating.

Table 5.2.2 Current Marital Status, Individuals Ages 12 and Older

Characteristic	N	Never married	Married/cohabitating	Separated/divorced	Widowed
SCTP					
Total	9,513	44.4	23.4	12.3	19.9
Sex					
Male	3,668	64.2	29.4	3.1	3.4
Female	5,845	32.2	19.8	18.0	30.1
Age (years)					
12-17	3,286	98.2	0.9	0.5	0.4
18-24	1,121	79.3	8.5	11.0	1.2
25-34	716	12.3	37.9	39.5	10.3
35-49	1,154	3.0	49.8	29.8	17.4
50-64	1,034	1.5	50.0	16.8	31.7
65+	2,202	0.6	33.2	10.7	55.5
IHS3[1]					
Total	6,951	38.2	50.1	6.3	5.4
Sex					
Male	3,320	46.6	51.4	1.1	1.0
Female	3,631	30.6	48.9	11.1	9.5

[1] IHS3 rural ultra-poor

The full SCTP-eligible sample is balanced between T and C groups, as are male and female subpopulations. Compared to the SCTP-eligible sample, significantly fewer women are widowed in the IHS3 rural ultra-poor sample (30.1 percent compared to 9.5 percent, respectively); this is likely a result of the SCTP-eligible age distribution, which has a higher concentration of older people than the rural ultra-poor sample.

Table 5.2.3 presents the current educational status of adults ages 18 and older in the SCTP-eligible sample by sex. Women are generally more educated than men, with only 39 percent of women reporting less than primary or no education, compared to 70 percent of men ($p<0.001$). The full SCTP-eligible sample is balanced between T and C groups, as are male and female subpopulations. A higher percentage of the SCTP-eligible sample (60 percent) has less than primary education, compared to 39 percent of the IHS3 rural ultra-poor sample.

Table 5.2.3: Current Educational Status, Individuals Ages 18 and Older

Educational Status	SCTP	SCTP - Male	SCTP - Female	IHS3[1]
Less than primary	60.3	69.8	39.3	38.7
Some primary	32.2	26.0	45.9	43.1
Primary complete	4.0	2.3	7.9	9.8
Some secondary	2.8	1.7	5.3	5.4
Secondary complete or more	0.7	0.3	1.5	3.0
N	6,152	4,207	1,945	4,942

[1] IHS3 rural ultra-poor

Orphan Status

In the SCTP baseline survey, an orphan is defined as a child age 17 and under with at least one parent deceased. Table 5.2.4 presents the orphan status of the SCTP-eligible sample. Of the 9,851 children, 33.2 percent are classified as orphans, with the majority being paternal orphans (17.1 percent).

Table 5.2.4 Percent Distribution - Orphan Status of Children Ages 0 to 17

Status	SCTP[1]	IHS3[2]
Both parents alive	65.4	88.4
Single orphan: mother dead	8.1	1.9
Single orphan: father dead	17.1	7.1
Both parents dead	8.3	2.5
Unknown	1.1	0.2
N	9,851	7,809

[1] The SCTP maternal orphan figures include 0.33 percent with mother dead and father unknown; SCTP paternal orphan includes 0.02 percent with father dead and mother unknown; unknown includes 0.97 percent mother alive and father unknown, 0.10 percent father alive and mother unknown, and 0.07 percent both mother and father unknown.

[2] IHS3 rural ultra-poor

Compared to the IHS3 rural ultra-poor sample, the SCTP-eligible sample has significantly more orphans (35 versus 12 percent), highlighting how the SCTP targeting criteria selects families with high dependency ratios and high numbers of orphans.

Characteristics of Households

The SCTP evaluation definition of a household includes “all individuals who normally live and eat their meals together in [the] household”, excluding anyone who has been away for six or more months—the same definition used in the IHS3. The sample consists of 4,352 total households. Of these, 3,531 (81.1 percent) households are classified as SCTP-eligible, with 1,678 (47.5 percent) in the treatment group and 1,853 (52.5 percent) in the comparison group.

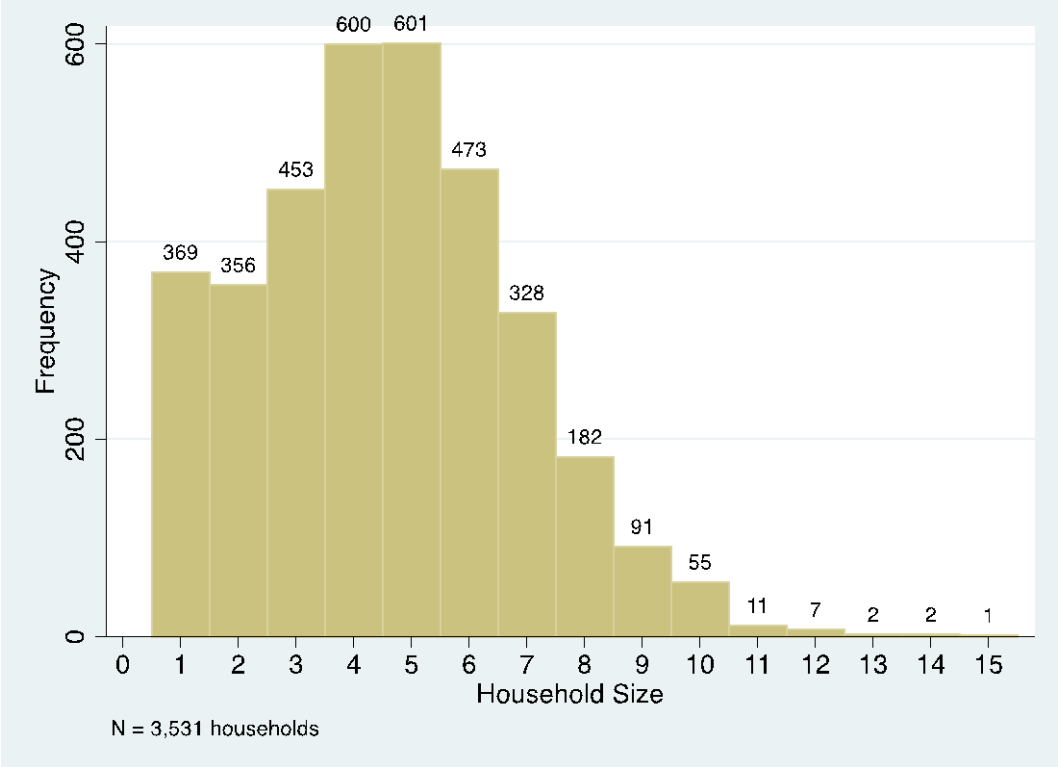
Table 5.2.5 and Figure 5.2.2 present the distribution of households by household size. Household size ranges from one member to 15 members. The median household size of the SCTP-eligible sample is four people, with a mean size of 4.5. The distribution of SCTP-eligible households appears to have a larger concentration of small households than the IHS3 rural ultra-poor sample.

Table 5.2.5 Distribution of Households by Household Size (%)

Number of Household Members	SCTP	IHS3[1]
1	11.1	0.6
2	10.6	4.0
3	12.7	9.3
4	17.0	15.9
5	17.1	18.8
6	13.0	20.6
7	8.9	14.8
8+	9.6	16.1
N (households)	3,531	2,252

[1] IHS3 rural ultra-poor

Figure 5.2.2 Distribution of Household Size Among SCTP-Eligible Households



As shown in Table 5.2.6, the majority of SCTP-eligible household members are children. There are more children and a higher dependency ratio on average in female-headed households than in male-headed households. The household dependency ratio is calculated as the total number of children (0-17 years) and elderly (65 and older) household members divided by the number of working-age adults (18-64 years) in the household. The median household dependency ratio for the full SCTP-eligible sample and for the sub-sample of female-headed households is 2.5, indicating that there are 2.5 dependents (either children or elderly) for every working-age adult in the household. As previously discussed, a low household dependency ratio in the SCTP-eligible sample should be interpreted with respect to the household eligibility criteria of labor constraint.

Table 5.2.6 Average Number of Household Members Among SCTP-Eligible Households

Characteristic	Median	Mean	SD
Full Sample (N = 3,531 households)			
Total household members	4	4.5	2.3
Number of adults age 18-64	1	1.1	1.0
Number of elderly (>64)	1	0.6	0.7
Number of children (0-17)	3	2.7	2.0
Dependency Ratio	2.5	2.7	1.7
Male-headed household (N = 609 households)			
Total household members	4	4.5	2.5
Number of adults age 18-64	1	1.3	1.1
Number of elderly (>64)	1	0.9	0.8
Number of children (0-17)	2	2.4	2.1
Dependency Ratio	2	2.1	1.4
Female-headed household (N = 2,922 households)			
Total household members	4	4.5	2.2
Number of adults age 18-64	1	1.1	1.0
Number of elderly (>64)	1	0.6	0.6
Number of children (0-17)	3	2.8	2.0
Dependency Ratio	2.5	2.8	1.7
IHS3[1] (N = 2,252 households)			
Total household members	6	5.6	2
Number of adults age 18-64	2	2.0	1.0
Number of elderly (>64)	0	0.2	0.5
Number of children (0-17)	3	3.5	1.7
Dependency Ratio	2	2.0	1.2

[1] IHS3 rural ultra-poor

No significant differences were found between treatment and comparison households with respect to household size distribution, makeup, or dependency ratio (Appendix F). The average SCTP-eligible household (mean size of 4.5) is smaller than the average household in the IHS3 rural ultra-poor sample (mean of 5.6). On average, there are more adults and children and fewer elderly household members in the IHS3 rural ultra-poor sample than in the SCTP-eligible sample.

Characteristics of Household Heads

Table 5.2.7 presents information about key characteristics of household heads. The average age of the head of household for SCTP-eligible households is 58 years. The vast majority of SCTP household heads are female (84 percent), which is 10 percentage points higher than the 73 percent of households headed by women in the IHS3 rural ultra-poor sample.

The SCTP baseline survey asked household members if they had difficulty seeing, hearing, walking/climbing steps, remembering/concentrating, or communicating. Household members could respond “no difficulty”, “yes – some difficulty”, “yes – a lot of difficulty”, or “cannot perform activity at all”. Household heads are classified according to the worst limitation status they report on any of the five functional areas recorded in the survey (disability status by task is further broken down in the health chapter). Approximately 36 percent of household heads have some difficulty with at least one task, and 10 percent have a lot of difficulty with at least one task—these rates are significantly higher than household heads in rural ultra-poor households as calculated from IHS3.

Table 5.2.7 Characteristics of Household Head

	SCTP		IHS3[1]	
	Mean	SD	Mean	SD
Age	58.0	19.9	43.3	15.5
Female (percent)	83.5		73.3	
Marital Status				
Married/cohabitating (percent)	29.3		75.2	
Divorced/Separated (percent)	24.8		12.6	
Widowed (percent)	43.3		11.9	
Disability Status				
Some difficulty	35.8		11.0	
A lot of difficulty	10.1		1.7	
Cannot perform at all	1.2		0.3	
Highest level education completed				
Primary: incomplete (percent)	25.7		42.6	
Primary: complete (percent)	1.8		10.7	
Secondary: incomplete (percent)	1.1		4.8	
Secondary: complete (percent)	0.1		2.6	
None (percent)	71.3		39.3	
Religion				
Islam (percent)	78.7		18.2	
Christianity (percent)	19.6		73.2	
Other (percent)	1.7		8.6	
N	3,531		2,251	

[1] IHS3 rural ultra-poor

No significant differences were found between T and C groups for any of the household head indicators. The majority of SCTP household heads are widowed (43 percent), have no education (26 percent) and are Muslim (79 percent), compared to the IHS3 rural ultra-poor sample in which the majority of household heads are married, have at least some primary education, and are Christian. The high proportion of Muslim heads is because the evaluation sample is taken from Salima and Mangochi districts which have significant Muslim populations relative to the rest of Malawi.

The SCTP Baseline Survey asked households to report on the number of deaths of household members in the past 12 months (Table 5.2.8). Among the SCTP-eligible sample, majority of households had no deaths, while 6.5 percent reported one deceased household member. Most of the reported deaths were among females and adults age 18-64. Approximately 29 percent of the deceased were the spouse of the head of household, and 26 percent were the child of the head of household. Most (53 percent) had been continuously sick for at least three months prior to death, an indication of chronic illness. Only 6 percent of SCTP-eligible households reported loss of land or other assets as a result of a household death in the past year.

Table 5.2.8 Household Deaths Among SCTP-Eligible Households, Past 12 Months

Characteristic	%
Number of deaths in household (N)	3,531 households
0	93.1
1	6.5
2	0.4
Sex (N)	261 individuals
Male	32.8
Female	67.2
Age at death (N)	261 individuals
<5	13.6
5-17	13.2
18-64	43.2
>64	30.0
Relationship to household head (N)	261 individuals
Spouse	28.7
Parent	11.4
Child	25.7
Grandchild	14.2
Other relative	18.5
Non-relative	1.5
Sick for 3 months before death	52.8
Lost land or other assets	6.0

No significant differences were found between T and C groups for any of the household member death indicators.

The SCTP Baseline Survey also asked households about changes in household membership due to members moving away in the past 12 months. Most of the SCTP-eligible households reported no out-migration. Of those household members who left, nearly 60 percent were male, half were adults and 41 percent were children age 5-17, and most were the child of the head of household. The most commonly reported reason for moving away was “moved to live with relatives”, followed by marriage or pregnancy.

No significant differences were found between T and C groups for any of the household member migration indicators

Table 5.2.9 Movement Out of the Household Among SCTP-Eligible Households, Past 12 Months

Characteristic	%
Number who moved away (N)	3,531 households
0	87.9
1	10.5
2	1.2
3+	0.5
Sex (N)	510 individuals
Male	58.7
Female	41.3
Age at when moved (N)	507 individuals
<5	5.1
5-17	40.6
18-64	50.6
>64	3.6
Relationship to household head (N)	510 individuals
Spouse	18.9
Parent	0.9
Child	40.9
Grandchild	25.7
Other relative	13.6
Reason for moving away (N)	510 individuals
Work	16.4
School	1.3
Live with relative	38.4
Marriage or pregnancy	20.8
Breakup of household	13.9
Other	9.2

Table 5.2.10 presents dwelling characteristics for the SCTP-eligible sample. The majority of the SCTP-eligible sample owned their house (92 percent). The most common outer wall material was mud brick (60 percent), most roofs were made of grass (92 percent), and most floors were smoothed mud (92 percent). Approximately 34 percent of SCTP-eligible households were overcrowded, meaning there were three or more household members per room (excluding bathrooms, storerooms, or garage). None of the SCTP-eligible households had electricity connectivity in the dwelling. 85 percent of households reported having any ventilation in the area typically used for cooking, and 95 percent reported that collecting firewood was their primary source of cooking fuel. Most SCTP-eligible households had access to an improved drinking water source (89 percent), while only 37 percent reported having an improved toilet facility. Only 8.4 percent of households had at least one member who owned a cell phone. Over half (55 percent) of the SCTP-eligible households reported that at least one household member sleeps under a bed net to protect against mosquitoes at some time during the year.

No significant differences were found between T and C groups for any of the household dwelling indicators.

Table 5.2.10 Characteristics of the Household's Dwelling Among SCTP-Eligible Households and IHS3 Rural Ultra-poor

Characteristic	Eligibles	IHS3 Rural Ultra--poor
Own house	91.5	93.1
Outer wall material		
Grass	2.3	0.9
Mud	6.6	11.4
Compacted earth	3.9	16.2
Mud brick	60.1	38.2
Burnt brick	26.6	29.0
Other	0.5	4.3
Roof material		
Grass	91.7	87.6
Iron sheets	5.4	12.3
Plastic sheeting	2.5	0.0
Other	0.4	0.1
Floor material		
Sand	5.7	3.0
Smoothed mud	92.3	92.7
Smoothed cement	1.8	4.3
Other	0.2	0.0
Overcrowded	33.8	41.1
Electricity in dwelling	0	0.0
Any cooking ventilation	84.7	-
Cooking Fuel		
Collected firewood	95.1	95.8
Purchased firewood	1.3	3.0
Crop residue	2.5	0.8
Other	1.1	0.4
Improved drinking water source	89.2	50.5
Improved toilet facility	37.3	39.4
Own cellphone	8.4	12.8
Any member sleeps under net	55.1	46.3
N	3,531 households	2,310 households

[*] "Improved drinking water source" includes water piped into dwelling or yard/plot, communal standpipe, protected well in yard/plot, protected public well, and borehole. "Improved toilet facility" includes traditional latrine without roof, no toilet, or any toilet facility shared with another household.

Welfare

This section characterizes the general welfare of the households measured by self-reported monetary and food consumption as well as perceptions of wellbeing. All welfare indicators were compared between treatment and control households (Appendix F), but full sample statistics are reported below when no significant differences were found.

Measurement of Welfare

The measure of welfare used in the poverty analysis is the total annual per capita consumption reported by a household. A detailed explanation of construction of annual consumption can be found in Appendix E. The survey instrument included the full IHS3 consumption expenditure module in order to accurately describe living conditions according to national statistical norms, and to provide a rigorous assessment of targeting performance of the program. The IHS3 program files were used to replicate the construction of the consumption aggregates with the exception of use value of durable goods, which we were not able to replicate. However, this component of consumption only represents 1.2 percent of the total in rural South and Central Malawi according to IHS3. Although this component is virtually negligible, for completeness, we remove this component of consumption from the IHS3 aggregates to maintain a strict 'apples to apples' comparison wherever we compare IHS3 data with SCTP data. All monetary units reported are for August 2013, hence IHS3 consumption figures (and poverty lines) are inflated to this period.

Our estimates of poverty use the national poverty and ultra-poverty lines provided by the National Statistics Office (NSO). Table 5.3.1 shows the lines used to derive 2010 national poverty figures for the IHS3, which use the original lines from IHS2 adjusted for inflation. We in turn have further inflated these lines to August 2013 in order to derive poverty rates for SCTP households using established national norms. When comparing poverty rates across SCTP and IHS3 households, we remind the reader that the IHS3 consumption aggregate we use does not include the use value of durable goods in order to be fully comparable to SCTP—hence the poverty rates we report here may differ slightly from those reported from IHS3, though the difference is small because the share of consumption devoted to use value of durables is very tiny among the poor.

Table 5.3.1 Poverty Lines (MWK) Per Person Per Year With Adjustments

Poverty line* 2010 (MWK)	2010 Ultra-poverty line*	Inflation rate to August 2013	Poverty line 2013 (MWK)	2013 Ultra-poverty line
37,002	22,956	1.47	54,392	33,746

* The IHS2 poverty and ultra-poverty lines are MWK 16,165 and MWK 10,029 respectively per person per year. These are inflated by 228.9 percent for IHS3; IHS3 monetary units are then inflated by 47 percent to bring to August 2013 units.

Technical Note on Poverty Lines and Adjustments

Since one of the main objectives of this analysis is to provide comparable poverty statistics with those from the IHS3, it is necessary to ensure inflation changes over time are accounted for and that we use a constant real poverty line. Therefore, this analysis uses poverty lines from the IHS3 updated to August 2013 prices in order to reflect the higher cost of living. The IHS3 lines are reported in February 2010 MWK. The inflation rate from February 2010 to January 2013 is 1.50, which is calculated from Malawi's NSO national consumer price index (CPI) data using 'headline inflation', the same procedure as was used to inflate the poverty line between IHS2 and IHS3. The inflation rate between January and August 2013 was 0.98, so multiplying 0.98 and 1.50 gives an overall inflation factor of 1.47. This is the factor we use to convert the IHS3 poverty lines to August 2013 prices.

In addition to adjusting poverty lines for inflation, nominal consumption of the household was also adjusted for spatial and temporal cost-of-living differences through August 2013. The temporal adjustments are made monthly using the 2013 rural CPI to accommodate the duration of the fieldwork over several months, whereas spatial differences take into account the differences in prices by the location of the household. Spatial indexes are especially important because our sample is entirely rural whereas the poverty lines are set at the national level. The spatial price index from the NSO combines prices per region and the national basket weights for the chosen bundle to calculate adjustments for regions. The spatial price index used for this analysis is the Rural Centre (0.979) and the Rural South (1.006) in accordance with the NSO data. Hence measured consumption in the SCTP data is multiplied by 1.006 (Mangochi) and 0.979 (Salima) to arrive at comparable units to those of the poverty lines.

Results on Consumption and Poverty

The actual consumption of our eligible SCTP sample is much lower than among all rural households and among households from among the rural sample of IHS3 (Table 5.3.2). The average annual per capita consumption of our sample is MWK 41,522 (US$0.34 per day[14]) and the median is MWK 33,500 (US$0.28 per day). While this average is higher than the ultra-poverty line of MWK 33,746, most of our sample is poor (Table 5.3.4), and the average consumption of the poor is lower than the ultra-poverty line (Table 5.3.3). In comparison, among all rural households from the IHS3 average consumption is MWK 73,713 (US$0.61 per day). Food consumption per capita is consequently also significantly lower at MWK 32,092 (US$0.31 per day) in the SCTP-eligible sample relative to national rural populations at MWK 46,723 ($US0.46 per day). This is expected since the SCTP targets poor households.

Table 5.3.2 Per Capita Consumption (Annual MWK)

	SCTP	IHS3 Rural
Average consumption	41,522	73,713
Median consumption	33,500	55,712
Average food consumption	32,092	46,723
Median food consumption	25,766	36,130

Note: Households in the top 1% of SCTP total and food consumption and households with zero or improbably low food consumption were dropped (<2% total dropped).). All figures are reported in August 2013 prices.

Table 5.3.3 Per Capita Consumption for Poor and Ultra-poor Households (Annual MWK, August 2013 prices)

	SCTP	IHS3 Rural
Average poor consumption	29,206	35,084
Average poor food consumption	22,567	23,497
Average Ultra-poor consumption	21,802	24,714
Average ultra-poor food consumption	16,853	16,538

The figure below (Figure 5.3.1) shows graphically the distribution of consumption per capita in the three samples along with the inflation adjusted ultra-poverty line (vertical line). Consistent with the results in Table 5.3.2, the distribution of consumption among SCTP is significantly to the left relative to the two IHS3 samples.

Figure 5.3.2 shows spending patterns for SCTP and IHS3 rural South/Central households. Almost 80 percent of the total budget for SCTP households is devoted to food alone, which is consistent across all

[14] The exchange rate used for these calculations is 330 MWK = US$1.

quintiles of total consumption, highlighting the precarious existence of this entire group. The next largest spending component is housing (10 percent) followed by furnishings, health, and transportation and communication, all of which attract three percent of the total budget. Education comprises only one percent of spending, and clothing even less than that.

Figure 5.3.1 Distribution of Consumption in SCTP and IHS3

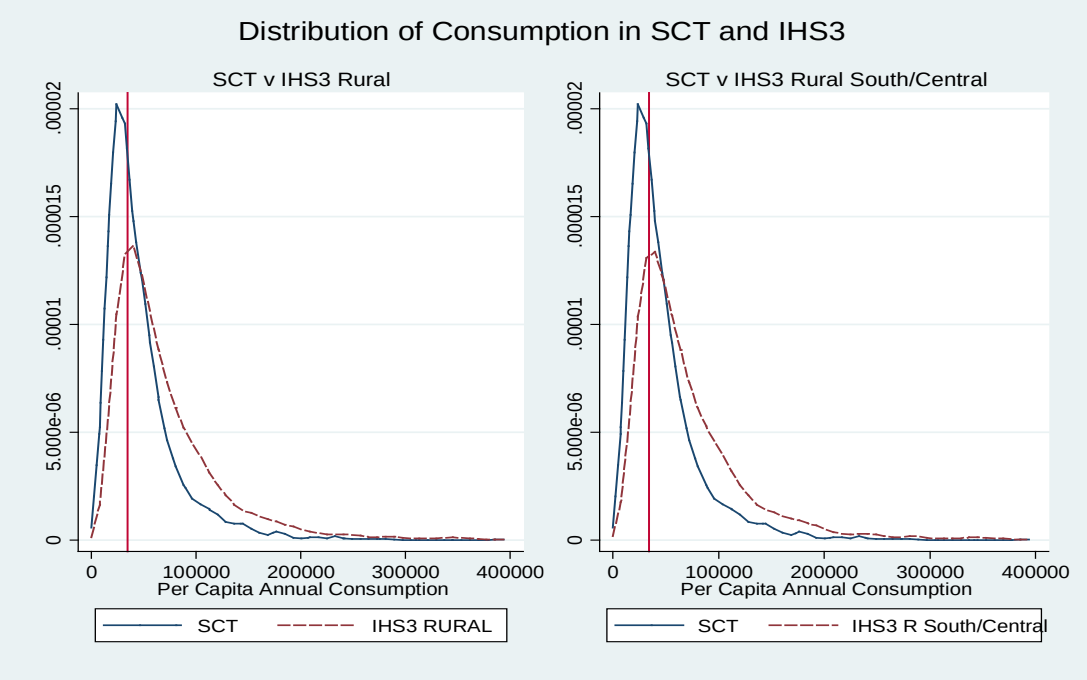
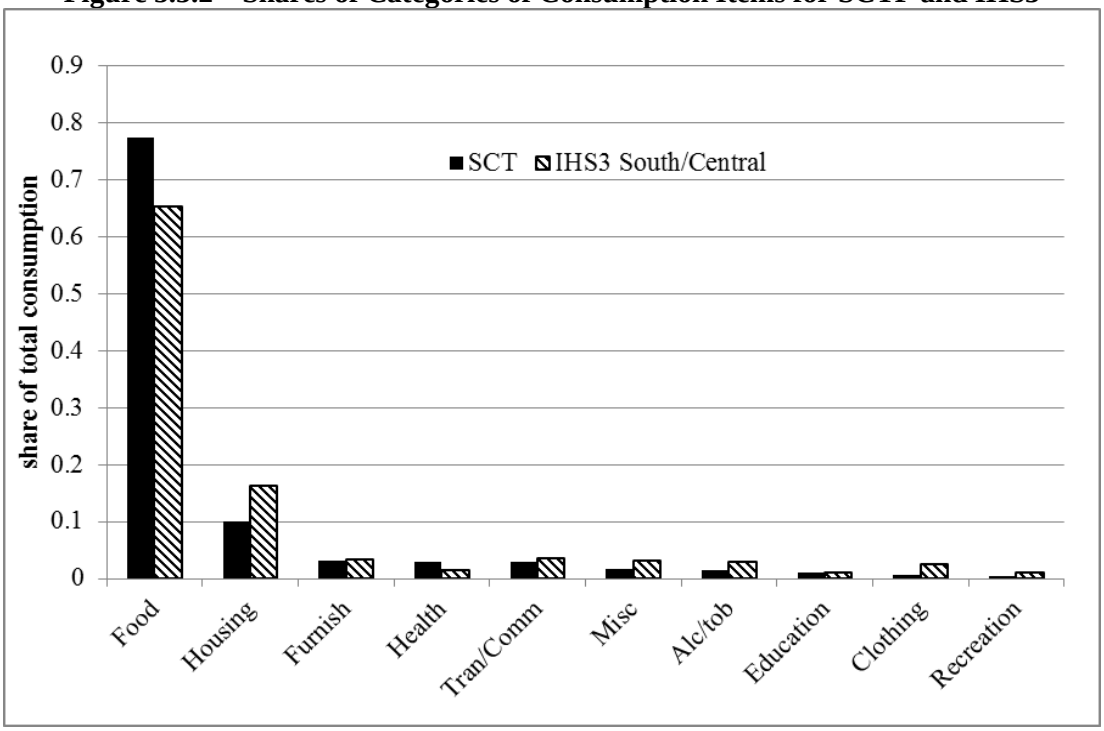


Figure 5.3.2 Shares of Categories of Consumption Items for SCTP and IHS3

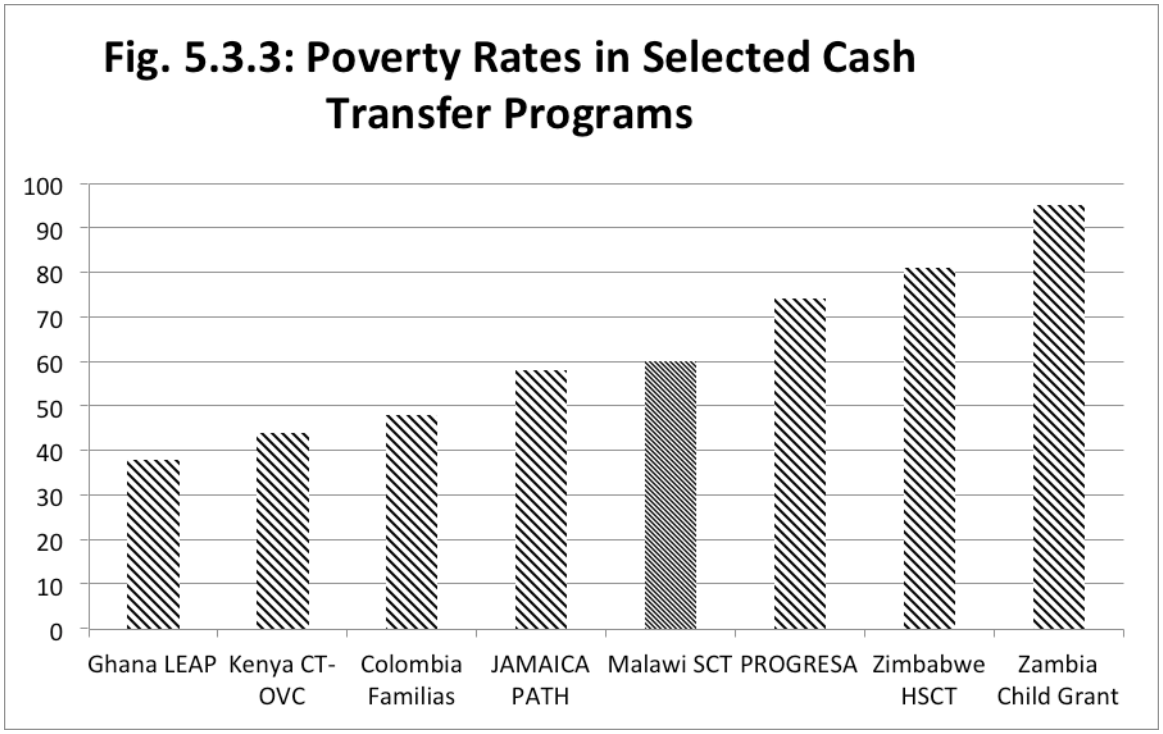


Households with per capita consumption lower than the poverty line are considered poor. Ultra-poor households are identified as those households whose per capita consumption on both food and non-food items is lower than the food poverty line. Table 5.3.4 shows poverty and ultra-poverty rates for individuals in the SCTP and IHS3. The poverty rate among individuals in SCTP households is 85 percent compared to 56 percent in the IHS3 comparison sample (rural). Not only is the poverty rate greater among the SCTP-eligible sample, but also the poverty gap, which represents the average consumption shortfall relative to the poverty line. The average consumption of SCTP individuals is 49 percent below the poverty line, compared to an average gap of 21 percent for the IHS3 rural poor. The squared poverty gap (SPG) measures the severity of poverty by giving more weight to individuals farther away from the line; it thus takes into account the distribution of consumption among the poor. The SPG is three times the level among SCTP households (29 percent) compared to the rural IHS3 sample (10 percent). Not only are SCTP beneficiaries significantly poorer than other rural residents, among those that are poor, SCTP beneficiaries are much worse off.

The bottom panel of Table 5.3.4 provides poverty indicators using the ultra-poverty line. By this yardstick, 60 percent of SCTP individuals are ultra-poor compared to 28 percent in the IHS3 comparison samples. The poverty gap and SPG are also significantly bigger among the poor in the SCTP, which highlights the relative poverty of SCTP recipients compared to the rest of rural Malawi.

Table 5.3.4 Poverty and Ultra-poverty Rates, Poverty Gap and Poverty Gap Squared (%)

	SCTP	IHS3 Rural
Poverty Line		
Headcount	85.2	55.8
Gap	49.4	20.9
Squared Gap	29.1	10.3
Ultra-Poverty Line		
Headcount	60.4	27.5
Gap	36.9	7.8
Squared Gap	18.1	3.1



The 60 percent ultra-poverty rate and even the 85 percent poverty rate among SCTP households may seem low for a program that aims to target the poorest 10 percent of households. However it is important to note that (ultra) poverty gap and squared (ultra) poverty gap rates are four and five times (respectively) the national (rural) average indicating that the SCTP targeting approach is selecting the poorest of the poor. It may be that the demographic criterion, which captures vulnerability rather than poverty, is the reason some households are selected at the community level even though their consumption is above the ultra-poverty line. Nevertheless, in Figure 5.3.3 we show poverty rates of cash transfer beneficiaries for some selected programs, including two major programs in Latin America (Colombia and Mexico) which are hailed as highly successful programs. The Malawi SCTP falls squarely in the middle of this figure, indicating that targeting is well within the range found internationally, although of course there is certainly room for improvement.

Food Security

To complement consumption and poverty results and provide more of a picture of households' welfare state, we also report on household food security. The average annual food share is 77 percent of total household consumption among SCTP households. Consequently, with such a high percent of consumption devoted to food, many households are often food insecure and only 49 percent of households' previous harvest lasted more than 3 months. When asked about whether in the past 7 days they had ever worried about not having enough food to eat, 83 percent of SCTP households had worried compared to less than half (48 percent) of ultra-poor rural households from the IHS3. SCTP households typically eat around 2 meals a day and 81 percent have more than one meal per day, whereas in the IHS3, ultra-poor rural households in Malawi also consume about 2 meals per day but 96 percent eat more than one meal per day. SCTP households have only around 10 staple food items that they consume regularly such as maize, tanaposi (rape/ turnip), tomatoes, wild greens, cassava, and pigeon peas.

Table 5.3.5 Food Security Indicators (%)

	SCTP	IHS3 Rural Ultra-poor*
Worry that did not have enough food in past 7 days	83	48
Meals per day	1.9	2.2
Ate more than one meal	80.7	96.2
Number of months last maize harvest (2011-2012) lasted	3.9	
Current maize will last more than 3 months	9.7	
Number of months current maize in granary will last	1.2	

*Not all reported indicators are comparable to IHS3 but they are reported where relevant

Subjective Welfare

We also asked the main respondents about self-perceived relative welfare. Our sample of SCTP-eligible households was targeted because of their poverty and reported self-perceptions seem to align with other material aspects of their welfare. Table 5.3.6 shows that respondents are most likely to describe themselves as worse off than both their neighbors and friends. Compared to neighbors, 54 percent of households describe themselves as worse off, 44 percent as the same, and only 2 percent describe themselves as better off. Friends tend to be perceived as slightly more equal to our households; 48 percent describe themselves as the same as their friends and 50 percent describe themselves as worse off. Results from the IHS3 for the ultra-poor rural households also showed that households tended to perceive themselves as poor or poorer than their friends and neighbors. However, a lower percentage of this sample perceived themselves as worse off to neighbors (40 percent) and friends (43 percent).

Table 5.3.6 Subjective Relative Welfare (%)

	SCTP	IHS3 Rural Ultra-poor
Compared to neighbors		
Worse off	54.1	40.8
Same	43.5	51.4
Better off	2.5	7.7
Compared to Friends		
Worse off	50.0	43.5
Same	48.2	51.4
Better off	1.8	5.2

We also asked households their perceptions of future adverse shocks. Respondents tended to believe they would experience food shortage and need financial assistance in the next year. Using a scale from 1 (very unlikely) to 5 (very likely), 75 percent believed they were likely or very likely to experience a food shortage while 62 percent believed they were likely or very likely to need financial assistance.

Qualitative Findings on Poverty and Food Security

Almost all of the youth and caregiver participants in the qualitative interviews could easily think of a time when they did not have food and most reported an average of two meals a day, as was also found in the quantitative survey (Table 5.3.5). When asked about times of particular hardship and food shortage, most participants indicated reducing to one meal a day or just skipping meals altogether. In addition to reducing the number of meals, other strategies for coping with food shortage included picking mangoes or bananas, begging at the mill for maize husks, and children skipping school to perform additional *ganyu*. One caregiver from Maganga described how his family coped during a food shortage by foraging for food:

> *What we do when there is food shortage? We go to the garden we cut bananas, when we do that in the afternoons we cook and eat the bananas and in the evening that's when we go to look for food we can eat for dinner and we sleep and days go by like that.*

Food shortage had negative impacts on both youth and caregivers. Caregivers indicated that children suffered from having insufficient food and food low in nutrition value at a time when they are growing and having to skip school to do *ganyu*. Caregivers also indicated that food shortage had a negative impact on their own wellbeing as they gave their food to the children and it also caused anxiety and stress. The same caregiver quoted above described the impact of poverty and food shortage on the family dynamics,

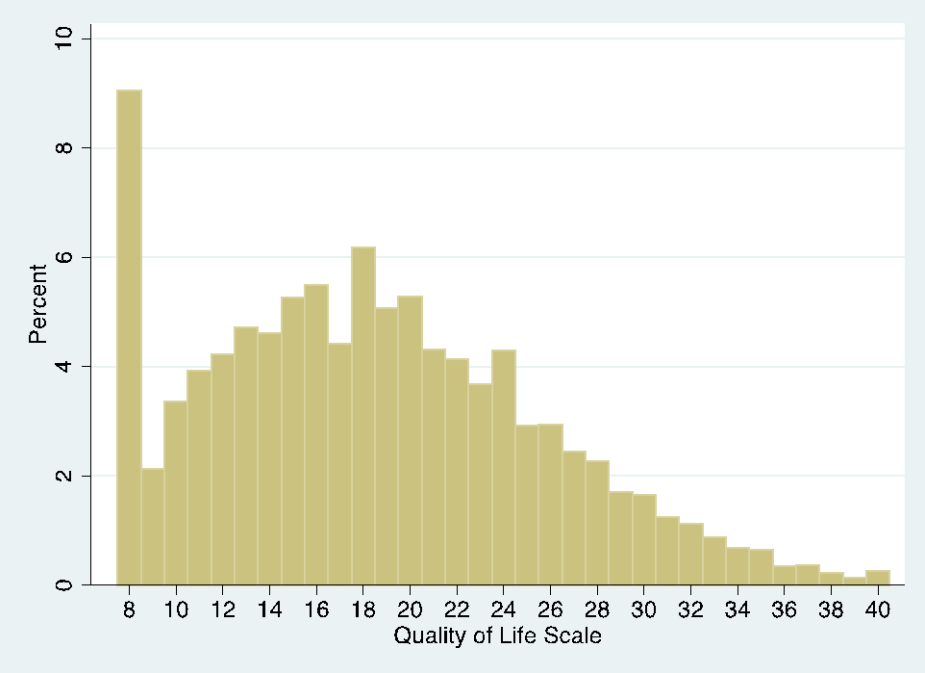
> *I am the one that worries a lot, and my wife also worries, because she says when the man in the house has no money what can we do? So, if I complain, my wife also complains because when you don't have money the wife does all she can so that there should be food.*

This quote also shows the gendered nature of roles and responsibilities and how insufficient resources and food can cause stress by challenging the roles that men and women are expected to play.

Psychological Measures of Caregivers

Most large-scale household surveys like the IHS3 or the MDHS do not ask many (if any) questions about individual subjective welfare. A unique aspect of our survey is that we questioned main respondents about their individual expectations and preferences. To assess respondents' self-perceived quality of life, a series of eight positive statements were read to the respondent such as "I am satisfied with my life" and "If I could live my life over, I would change almost nothing." Each statement was ranked on a 1-5 scale based on how much the respondent agreed with the statement, the higher the number indicating greater agreement. Out of the full range of 8-40, the average was an 18 indicating that the typical adult respondent answered *not likely to agree* (score of 2) to most of the statements.

Figure 5.3.4 Caregivers' Quality of Life Scale Scores



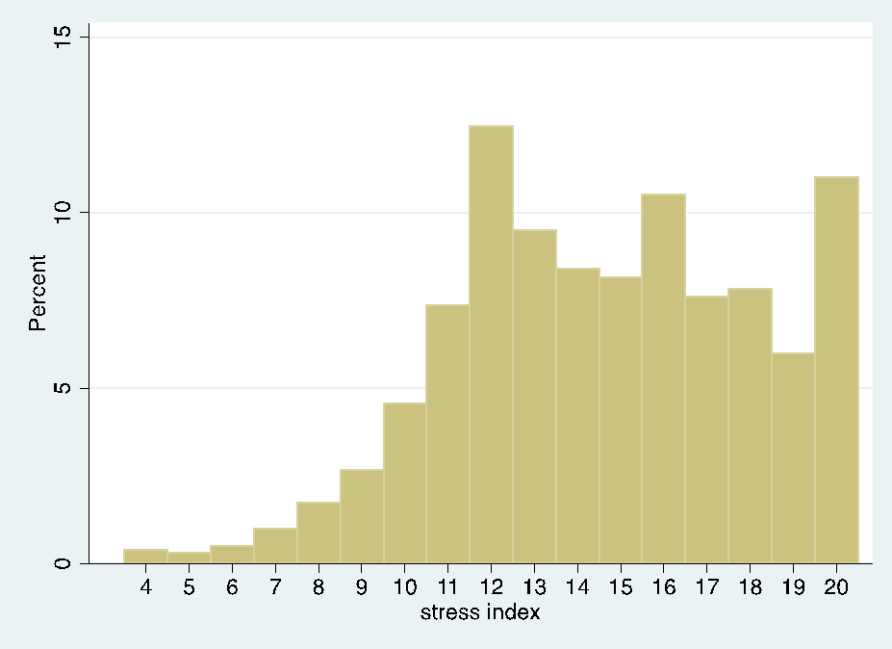
To assess their expectations about the future, three questions asked whether the respondent thought their life would be better in one, two and three years. The majority of people (53 percent) had positive outlooks about the next year, but this declined over two and three years with only 45 and 43 percent respectively believing in a better future. Additional items questioned respondents about expectations of future also using a scale of 1-5 with higher numbers representing increasing likelihood. Respondents answered that they tended to believe they would experience a food shortage (mean of 4.1) and need financial assistance (mean of 3.6) in the next year.

Table 5.3.7 Future Expectations About Life

Do you think your life will be better in……. from now?	% reporting 'yes'
One year	52.6
Two years	45.1
Three years	43

To assess their level of stress, questions were asked about difficulties, anxieties and control issues respondents felt in their lives. All questions were asked about the last month and given a rank of 1-5 representing an increasing amount of time they felt those issues applied to them such as being "unable to control the important things in life" and having "difficulties piling up". The average score of 15 out of a range of 4-20 shows that respondents tend to have these issues frequently and gives the indication that stress is a large and daily part of these poor households' lives.

Figure 5.3.5 Caregivers' Stress Scale Scores



Qualitative Insights about Caregiver Psychological Wellbeing

In their narratives, nearly all caregivers reflected an overwhelming sense of stress and anxiety related to their scarcity of resources, the pressures of resource allocation, daily survival and their children's future. Their words echoed the themes in the stress index above.

Discussions about future expectations in the qualitative interviews focused more on what the caregivers hoped for their children. They emphasized wanting their children to have enough resources to avoid poverty and viewed education as a key part of this. Some also expressed value-based aspirations, such as wanting their children to be kind, independent, and helpful in the community. There was also a gendered nature to some of these responses with caregivers of girls emphasizing the importance of finding a husband. A female caregiver from Maganga, however, articulated her aspiration for both a husband and an education for her female dependents, who she hoped would avoid "crippling" relationships with men,

> ***Interviewer:*** *So what do you hope for in [X]'s future?*
>
> ***Participant:*** *She has reached puberty; she could want to marry, say next year that is her choice. Me, I want that she should not play around with men [now],that she will find a man in the future. But these days these children? Eee, no.*
>
> ***Interviewer:*** *So what is your hope for [X] here?*
>
> ***Participant:*** *I don't want her to do relationships because she will cripple.*
>
> ***Interviewer:*** *Cripple?*
>
> ***Participant:*** *She will be infected with diseases*
>
> ***Interviewer:*** *Mm, then?*
>
> ***Participant:*** *The man to marry her will find her here, she should just be patient, and in future she will find him. The man should ask for her hand in marriage and then they should have a wedding. That is what I hope for.*

Interviewer: *What about M.?*

Participant: *She should also have a white wedding. The same with D. They should also finish school.*

This quote reflects an interesting combination of traditional aspirations for a young woman to marry along with the contemporary context of HIV (the crippling disease) as a threat to young women's wellbeing and the importance of education. Several caregivers seemed to place future aspirations or expectations in the hands of 'fate' or 'God'. This was especially apparent for older caregivers who expressed hopelessness and felt they had done everything they could do and were still facing overwhelming poverty.

Health

This section describes the general health status of the SCTP-eligible sample. Indicators reviewed include self-reported status, disability, morbidity, time use during illness, use of curative care services and incidence of health expenditure. Indicators were compared between treatment and comparison households (Appendix F), and comparisons to IHS3 rural ultra-poor statistics are drawn where available.

Self-Reported Health Status

Household members were asked to rate their general health status on a five-point Likert scale. Table 5.4.1 presents the percentage of respondents reporting poor, fair, good, very good, and excellent health by sex and age. The majority of the SCTP-eligible sample reported good health (41.7 percent), with only five percent reporting poor health. Women were significantly more likely to report poor health ($p = 0.032$) and fair health ($p = 0.002$) than men; this differential is likely driven by the high concentration of women in older age categories compared to relatively few men. Not surprisingly, reporting fair/poor health increases with age. Household heads were more than twice as likely to report poor (11.8 percent) or fair (27.5 percent) health than the general population, which also is likely due to the high concentration of households headed by older women.

Table 5.4.1 Self-Reported Health Status Among the SCTP-Eligible Sample

Characteristic	N	Poor	Fair	Good	Very Good	Excellent
Total	16,028	5.0	12.2	41.7	23.3	17.7
Sex						
Male	6,892	4.0	9.1	41.5	25.0	20.4
Female	9,136	5.8	14.6	41.9	22.0	15.7
Age (years)						
<10	5,168	1.6	6.9	44.3	26.5	20.7
10-17	4,656	1.6	4.8	42.7	27.9	23.1
18-24	1,118	2.5	5.7	38.8	29.5	23.5
25-34	715	5.1	13.4	43.1	21.8	16.6
35-49	1,153	6.1	16.3	42.3	19.7	15.6
50-64	1,027	8.3	27.0	40.3	16.6	7.8
65+	2,191	19.1	33.4	35.3	9.3	2.8
Household Head	3,519	11.8	27.5	38.1	14.6	7.9

No significant differences in the probability of reporting fair/poor health were found between treatment and comparison groups.

Disability

All household members age 10 and older were asked if they had any difficulties seeing, hearing, walking or climbing steps, remembering or concentrating, or communicating, even with assistance such as glasses or hearing aids. Responses were on a four-point Likert scale (no difficulty, some difficulty, a lot of difficulty, cannot perform activity at all). Table 5.4.2 presents the percentages of SCTP-eligible household members reporting difficulty with each task by age and sex, as well as the highest level of disability reported for any task ('any disability').

Very few respondents from the SCTP-eligible sample reported not being able to perform a task at all, with the largest percentage (0.4 percent) reported for seeing and walking/climbing steps. More people reported having a lot of difficulty with walking and climbing steps than any other task (3.3 percent). Respondents had the least trouble with communication, with 96.2 percent reporting no difficulty communicating. In general, women reported more difficulty with the various tasks than men, and frequency of difficulty with tasks increased with age. Again, these trends are likely driven by higher concentrations of women in older age categories in the SCTP-eligible sample. It is important to note that household heads fared worse for all tasks than the total sample.

No significant differences in the percent of respondents reporting difficulties were found between treatment and comparison groups. Larger percentages of the SCTP-eligible sample reported not being able to perform tasks at all or having a lot of difficulty performing tasks than the IHS3 rural ultra-poor sample. Only 0.2 percent of the IHS3 rural ultra-poor sample reported not being able to perform at least one task, compared to 1.0 percent of the SCTP-eligible sample.

Table 5.4.2 Disability – % Reporting Difficulty with Task, Ages 10 and Above

Characteristic	N	None	Some	A lot	Cannot perform at all
Seeing					
Total	10,878	86.6	11.3	1.7	0.4
Sex					
Male	4,354	91.7	6.5	1.4	0.4
Female	6,524	83.2	14.5	2.0	0.3
Age (years)					
10-17	4,653	98.7	1.3	0.0	0.0
18-24	1,121	98.3	1.6	0.1	0.0
25-34	716	95.2	4.3	0.4	0.1
35-49	1,154	91.4	7.3	1.1	0.2
50-64	1,034	77.0	19.4	2.8	0.8
65+	2,200	56.0	36.5	6.3	1.2
Household Head	3,531	71.4	24.5	3.6	0.5
IHS3[1]	7,828	96.2	3.3	0.4	0.1
Hearing					
Total	10,877	93.1	5.9	0.9	0.2
Sex					
Male	4,354	95.2	3.9	0.6	0.3
Female	6,523	91.7	7.2	1.1	0.1
Age (years)					
10-17	4,652	97.6	1.9	0.4	0.2
18-24	1,121	97.1	2.5	0.2	0.2
25-34	716	95.7	3.6	0.7	0.0
35-49	1,154	96.9	2.5	0.4	0.2

Characteristic	N	None	Some	A lot	Cannot perform at all
Hearing (cont'd)					
50-64	1,034	92.1	6.8	0.9	0.2
65+	2,200	79.7	17.5	2.6	0.2
Household Head	3,531	88.4	10.4	1.1	0.1
IHS3[1]	7,828	98.0	1.8	0.2	0.1
Walking/Climbing Steps					
Total	10,876	86.6	9.7	3.3	0.4
Sex					
Male	4,354	91.8	5.3	2.5	0.4
Female	6,522	83.2	12.6	3.8	0.5
Age (years)					
10-17	4,651	99.0	0.7	0.2	0.1
18-24	1,121	98.2	1.4	0.4	0.0
25-34	716	95.1	3.3	1.4	0.2
35-49	1,154	90.2	7.3	2.1	0.4
50-64	1,034	80.3	15.4	3.6	0.6
65+	2,200	54.5	32.3	11.9	1.4
Household Head	3,531	71.1	21.6	6.7	0.6
IHS3[1]	7,828	96.7	2.6	0.6	0.1
Remembering/Concentrating					
Total	10,876	92.5	6.5	1.0	0.1
Sex					
Male	4,354	95.3	3.9	0.7	0.2
Female	6,522	90.6	8.1	1.2	0.1
Age (years)					
10-17	4,651	98.6	1.1	0.2	0.1
18-24	1,121	97.0	2.0	0.8	0.2
25-34	716	95.3	3.9	0.7	0.0
35-49	1,154	94.6	4.2	1.1	0.1
50-64	1,034	90.5	8.6	0.9	0.0
65+	2,200	76.8	20.3	2.7	0.1
Household Head	3,531	86.0	12.7	1.3	0.0
IHS3[1]	7,828	98.8	1.1	0.2	0.0
Communicating					
Total	10,876	96.2	2.9	0.7	0.2
Sex					
Male	4,354	96.7	2.3	0.8	0.2
Female	6,522	95.9	3.2	0.7	0.2
Age (years)					
10-17	4,651	98.5	1.0	0.3	0.2
18-24	1,121	97.8	1.0	0.9	0.2
25-34	716	96.0	2.5	1.2	0.4
35-49	1,154	97.8	1.4	0.8	0.1
50-64	1,034	95.7	3.7	0.4	0.2
65+	2,200	90.5	7.9	1.5	0.1
Household Head	3,531	94.9	4.6	0.4	0.0
IHS3[1]	7,828	99.7	0.2	0.1	0.0

Characteristic	N	None	Some	A lot	Cannot perform at all
Any Disability					
Total	10,876	75.8	17.9	5.4	1.0
Sex					
Male	4,354	83.6	11.1	4.2	1.1
Female	6,522	70.6	22.3	6.1	0.9
Age (years)					
10-17	4,651	94.8	4.2	0.7	0.3
18-24	1,121	91.5	6.4	1.6	0.5
25-34	716	84.5	11.6	3.2	0.7
35-49	1,154	79.0	15.7	4.5	0.8
50-64	1,034	60.1	31.8	6.6	1.5
65+	2,200	32.6	47.6	17.2	2.6
Household Head	3,531	52.9	35.8	10.1	1.2
IHS3[1]	7,828	92.1	6.5	1.1	0.2

[1]IHS3 rural ultra-poor

Chronic Illness

SCTP-eligible respondents ages 10 and older were also asked if they suffered from any chronic illness. Table 5.4.3 presents the percentages of individuals with self-reported chronic illness by age and sex. Approximately 24 percent of the sample reported having a chronic illness, which is more than five times the percent of respondents who suffered from a chronic illness in the IHS3 rural ultra-poor sample. Women were significantly more likely to report chronic illness than men ($p = 0.004$). The percent of respondents reporting chronic illness increased with age.

Table 5.4.3 Self-Reported Chronic Illness, Ages 10 and Above

Characteristic	SCTP (N)	SCTP - Mean (%)	IHS3[1] (N)	IHS3[1] - Mean (%)
Total	10,875	24.2	7,837	4.2
Sex				
Male	4,351	17.7	3,758	3.5
Female	6,524	28.5	4,079	4.9
Age (years)				
10-17	4,651	6.9	2,915	2.2
18-24	1,121	9.8	1,077	2.4
25-34	716	16.6	1,456	4.1
35-49	1,154	25.3	1,441	5.1
50-64	1,034	40.5	544	6.2
65+	2,199	60.5	404	17.3
Household Head	3,531	44.5	2,244	6.5

[1] IHS3 rural poor

No significant difference in the percent of respondents reporting chronic illness was found between treatment and comparison groups.

Morbidity and Curative Care

The SCTP baseline survey asked household members if they suffered any illness or injury during the past two weeks, and if so, the number of days the respondent had to stop normal activities because of the illness and the number of days any other household member had to stop normal activities to care for the respondent. Table 5.4.4 presents the percent of individuals with any illness or injury during the past two weeks, the percentage of respondents who had to stop normal activities themselves, and the percentage of respondents who report a caregiver had to stop normal activities to care for them.

In total, 28.5 percent of the SCTP-eligible sample suffered illness or injury in the two weeks preceding the survey, which is nearly 15 percentage points higher than the percent reporting any illness during the past two weeks in the IHS3 rural ultra-poor sample (13.9 percent). Of those with illness or injury, 64 percent reported having to stop normal activities and 62 percent reported that another household member had to stop their normal activities to serve as caretaker because of the illness. A significantly larger percent of women reported illness/injury than men ($p = 0.006$), while a significantly larger percent of men reported that a caretaker had to stop normal activities to care for them ($p = 0.027$). Children under age 10 were more likely to report illness/injury than children and adolescents ages 10 to 17 and young adults ages 18 to 24. Over 76 percent of children under 10 reporting an illness or injury in the past two weeks had a household member who had to stop daily activities to care for them. Half of all household heads reported an illness or injury in the past two weeks, with 64 percent having to stop normal activities due to the illness/injury.

No significant difference in the percent of respondents reporting illness or injury, having to stop normal activities, or having a caretaker stop normal activities was found between treatment and comparison groups in the full SCTP-eligible sample. All sub-groups of the SCTP-eligible sample reported a higher percentage of illness/injury and having to stop normal activities due to illness/injury than the IHS3 rural ultra-poor sample.

Table 5.4.4 Illness or Injury and Disruption of Normal Activities, Past 2 Weeks

	Any Illness or Injury		Stopped Normal Activities		Caretaker Stopped Normal Activities	
Characteristic	N	Mean (%)	N	Mean (%)	N	Mean (%)
Total	16,078	28.5	4,633	63.9	2,960	62.4
Sex						
Male	6,912	23.8	1,670	62.1	1,025	70.1
Female	9,166	32.1	2,963	64.9	1,935	58.4
Age (years)						
<10	5,183	25.9	1,373	64.6	874	76.1
10-17	4,668	16.3	776	58.9	458	65.8
18-24	1,121	15.4	178	57.2	106	59.2
25-34	716	28.0	208	64.4	137	50.3
35-49	1,154	31.5	379	68.7	265	57.5
50-64	1,034	43.4	455	65.1	300	51.7
65+	2,202	57.7	1,264	65.0	820	54.1
Household Head	3,531	49.4	1,746	64.2	1,130	49.4
IHS3[3]	12,692	13.9	1,765	56.7	997	51.1

[1] The respondent had to stop normal activities for at least one day due to illness in the past two weeks.
[2] Another member of the household had to stop normal activities for at least one day to care for the respondent due to illness in the past two weeks
[3] IHS3 rural ultra-poor. Illness during the past two weeks.

Respondents suffering from an illness or injury during the past two weeks were asked to report the most recent illness or injury. Table 5.4.5 presents the percentage distribution among the most commonly reported conditions by sex and age. The most commonly reported illnesses among the full SCTP-eligible sample were fever/malaria (27.5 percent) and cough, cold, or chest infection (27.4 percent). Fever/malaria and cough/cold/chest infection were also the most commonly reported illnesses by age and sex. The highest percent of respondents reporting fever/malaria, diarrhea, and cough/cold/chest infection was the under-ten age group.

Like the SCTP-eligible sample, the IHS3 rural ultra-poor sample also had the highest percent of respondents report fever/malaria. However, the IHS3 had a smaller percent report cough/cold/chest infection than the SCTP-eligible sample; this may be because the IHS3 also asked respondents about sore throat and fever, which may have been captured by the cough/cold/chest infection option in the SCTP Baseline Survey.

The only statistically significant difference between the percent of treatment and comparison groups reporting illness types occurred with dental problems; 3.1 percent of the treated group and 2.0 percent of the comparison group reported dental problems as the most recent illness/injury (p=value = 0.020) (Appendix F).

Respondents also reported on what action was taken in response to the illness/injury. Table 5.4.6 presents the percentage distribution of the most common responses.

The majority of SCTP-eligibles suffering from an illness or injury in the past two weeks sought treatment at a public health facility, which is a result similar to that in the IHS3 rural sample. However, the proportion of the SCTP sample that did nothing is nearly twice that of the IHS3 rural ultra-poor sample (23.0 percent versus 10.6 percent, respectively). A large percentage of the IHS3 rural ultra-poor sample reported buying medicines at the local pharmacy or grocery (17.8 percent); this is larger than the combined total of SCTP-eligible respondents who reported going to either the pharmacy or grocery (12.2 percent). Household heads were slightly more likely to either do nothing or use medicine they had in stock and less likely to seek care at a public facility than the general SCTP-eligible sample.

No significant difference in the percent of respondents reporting each type of action taken in the face of their most recent action was found between treatment and comparison groups in the full SCTP-eligible sample.

Table 5.4.5 Most Recent Illness Among Those with Any Illness/Injury, Past 2 Weeks

		Sex		Age (years)							Household	
Condition	Total	Male	Female	<10	10-17	18-24	25-34	35-49	50-64	65+	Head	IHS3[1]
Fever/malaria	27.5	27.5	27.5	34.0	27.8	30.4	33.8	31.2	24.0	19.5	24.0	46.5
Diarrhea/vomiting/abdominal pain	11.5	13.2	10.6	17.6	10.6	12.2	6.6	8.7	8.5	8.1	8.6	10.5
Cough/cold/chest infection	27.4	27.7	27.2	30.2	31.5	26.3	22.0	22.1	24.2	25.7	24.1	17.5
Headache	2.0	1.6	2.3	1.0	3.7	1.2	4.2	2.7	1.1	2.1	2.4	6.3
Asthma	2.8	4.1	2.1	3.2	3.5	2.8	1.0	2.0	0.8	3.2	2.3	1.6
Heart problem/chest pain	2.8	1.4	3.6	0.1	0.7	0.5	4.9	3.0	5.8	5.9	5.4	0.6
Skin problem	4.0	4.4	3.7	4.4	3.9	3.5	4.3	3.2	4.2	3.7	4.0	2.8
Dental problem	2.6	2.4	2.7	1.1	2.6	5.5	2.5	6.6	4.5	1.9	3.3	1.5
Backache	3.5	2.4	4.0	0.1	0.6	2.3	0.8	4.1	6.5	8.0	6.4	0.9
Fracture/wound/injury	6.0	6.2	5.9	4.0	7.5	7.5	8.8	4.5	6.6	6.8	6.6	2.9
Arthritis/rheumatism	2.1	1.3	2.5	0.0	0.2	0.0	1.3	0.5	3.4	5.8	4.1	.
Other	7.9	7.9	7.8	4.5	7.4	7.9	9.9	11.4	10.4	9.4	8.6	9.1
N	4,535	1,626	2,909	1,357	757	172	205	378	436	1,230	1,709	1,765

[1] IHS3 rural ultra-poor; did not ask about arthritis or rheumatism.

Table 5.4.6 Action Taken for Most Recent Illness, Past 2 Weeks

		Sex		Age (years)							Household	
Action Taken	Total	Male	Female	<10	10-17	18-24	25-34	35-49	50-64	65+	Head	IHS3[1]
Did nothing	20.3	18.7	21.2	15.2	22.3	17.4	16.4	19.4	21.4	25.3	22.4	10.6
Used medicine they had in stock	6.5	5.8	6.9	4.9	7.5	4.6	5.0	5.9	5.9	8.4	7.4	3.0
Sought treatment at public facility	51.6	51.9	51.4	59.8	48.3	54.0	62.9	56.8	49.0	42.5	48.2	57.2
Sought treatment at private facility	3.3	3.6	3.2	2.9	2.7	3.3	2.3	3.1	4.1	4.1	3.7	7.5
Went to local pharmacy	5.3	6.0	4.9	5.9	5.3	7.6	2.8	4.6	4.8	5.3	4.8	0.7
Traditional healer	3.1	3.3	3.1	2.0	2.6	3.9	3.0	3.0	4.4	4.2	3.9	2.5
Bought medicine at grocery/store	6.9	7.5	6.6	6.5	7.8	6.4	5.6	5.2	7.1	7.6	6.9	17.8
Other	2.8	3.3	2.6	2.8	3.7	2.9	1.9	2.0	3.3	2.5	2.7	0.7
N	4,631	1,669	2,962	1,373	776	178	208	379	455	1,262	1,744	1,765

[1] IHS3 rural ultra-poor

Health Expenditures

The SCTP Baseline Survey asked household members to report total expenditures on all illness and injuries, medical care not related to illness, and non-prescription medications during the four weeks before the survey, including the estimated value of any in-kind payments. Table 5.4.7 presents the distribution of respondents who reported any expenditure by category.

Among the three expenditure categories, the largest percent of the SCTP-eligibles reported having any expenditure on non-prescription medications (e.g., Panadol, Fansidar, cough syrup, etc.) in the past four months (16.5 percent), followed by 4.6 percent with expenditure for illness and injury (including medicine, tests, consultations, and inpatient fees), and 0.9 percent with expenditures for non-illness related medical care (e.g., preventative health care, prenatal visits, checkups). Women reported a significantly higher probability of expenditure across the three categories compared to men. As expected, the probability of any expenditure for illness and injury increased with age.

Table 5.4.7 Percent With Any Health Expenditures, Past 4 Weeks

	All Ills and Injuries[1]		Non-Illness Related Medical Care[2]		Non-Prescription Medications[3]	
Characteristic	N	Mean (%)	N	Mean (%)	N	Mean (%)
Total	16,063	4.6	16,066	0.9	16,063	16.5
Sex						
Male	6,906	4.0	6,908	0.7	6,906	13.7
Female	9,157	5.1	9,158	1.0	9,157	18.6
Age (years)						
<10	5,176	3.3	5,178	0.7	5,178	12.3
10-17	4,664	2.7	4,664	0.2	4,663	10.5
18-24	1,120	3.1	1,120	1.2	1,119	11.1
25-34	716	3.5	716	1.2	716	18.0
35-49	1,153	6.1	1,153	2.1	1,152	20.5
50-64	1,033	8.1	1,033	1.4	1,033	29.0
65+	2,201	10.2	2,202	1.7	2,202	32.7
Household head	3,529	8.4	3,529	1.8	3,528	30.2

[1] Includes medicine, tests, consultations, and inpatient fees
[2] Includes preventative health care, prenatal visits, and checkups
[3] Includes Panadol, Fansidar, cough syrup, etc.

No significant difference in the percent of respondents reporting any expenditure in the three categories was found between treatment and comparison groups in the full SCTP-eligible sample.

Household-Level Health Indicators

Table 5.4.8 presents the percentage of SCTP-eligible households with at least one member reporting poor health, affected by a disability, chronic illness, illness/injury in the past two weeks, and any medical expenditure (across all three categories) in the past four months.

Nearly 20 percent of households reported having at least one member who reported poor health, compared to only 5 percent of the total SCTP-eligible sample reporting poor health. Over three times as many SCTP-eligible households than IHS3 rural ultra-poor households reported having at least one member respond that they could not perform a task at all. Approximately 24 percent of the total SCTP population reported having a chronic illness, compared to 55.2 percent of households reporting that at least one member has a chronic illness. Over 75 percent of SCTP households reported having at least one member with an illness or injury in the past week, compared to 52.1 percent of the IHS3 rural ultra-poor sample. Lastly, over half of all SCTP-eligible households reported having any medical expenditure in the past four months.

No significant differences were found between treatment and comparison groups for the household-level health indicators.

Table 5.4.8 Household Health Indicators, SCTP-Eligible Sample

	SCTP Mean (%)	IHS3[2] Mean (%)
At least 1 member self-reported poor health	17.6	.
At least 1 member with a severe disability[1]	3.0	0.8
At least 1 member with chronic illness	55.2	12.3
At least 1 member with illness/injury in past 2 weeks	75.3	52.1
At least 1 member with any medical expenditure past 4 months	53.5	.
N (households)	3,531	2,251

[1] *Severe disability* indicates that a respondent answered "cannot perform at all" to at least one of the following tasks: seeing, hearing, walking/climbing steps, remembering/concentrating, or communicating.
[2] IHS3 rural poor

Qualitative Insights on Adult Health and Health Expenditures

When discussing their own health, caregivers emphasized chronic conditions including rheumatoid arthritis, heart disease and high blood pressure. Arthritis was particularly concerning to participants as it impacted their ability to do household chores or *ganyu*. These chronic health conditions also fueled stress among caregivers as some youth had to drop out of school due to their caregiver's chronic conditions. A few caregivers also described caring for children with chronic conditions or disability including epilepsy, severe depression, and cerebral palsy. Infectious diseases, most notably malaria and pneumonia, were also mentioned as health concerns but less frequently and they also appeared to be less disruptive to the household's overall wellbeing.

Echoing the quantitative survey findings, caregivers indicated a preference for receiving health care at the hospital or other clinics where they could get free medication. Medicine was also described as being available at local grocery stores or through local district nurses. None of the caregivers indicated a preference for local healers. The most salient barrier to accessing health care was distance and the lack of transportation or money to pay for transportation. While medicine was considered fairly easily available, some indicated they had stopped taking medications for chronic conditions due to cost. The following exchange provides an example these barriers in the context of a caregiver with rheumatoid arthritis:

> ***Interviewer:*** *How would you describe your health status?*
>
> ***Participant:*** *My health is not that strong as I am getting old. I have rheumatism, especially this leg. I spent the past month without walking.*
>
> ***Interviewer:*** *Did you go to the hospital?*

> ***Participant:*** *No, I did not go to the hospital, there was no one to take me.*
>
> ***Interviewer:*** *So what did you do to get better?*
>
> ***Participant:*** *I was buying tablets from the local grocery.*
>
> ***Interviewer****: So how are you feeling now?*
>
> ***Participant:*** *Today I would say I am feeling better than I was. I have stopped taking the pills because I don't have money now.*
>
> ***Interviewer:*** *Amongst the problems that you face, what would you say is your major challenge?*
>
> ***Participant:*** *My biggest challenge is my health status because I cannot manage to walk even to this facility which we say is close because of my bad leg.*

This participant's experience reflects the salience of chronic conditions and the burden of multiple, overlapping barriers to health care access including social isolation and limited networks, cost, and transportation.

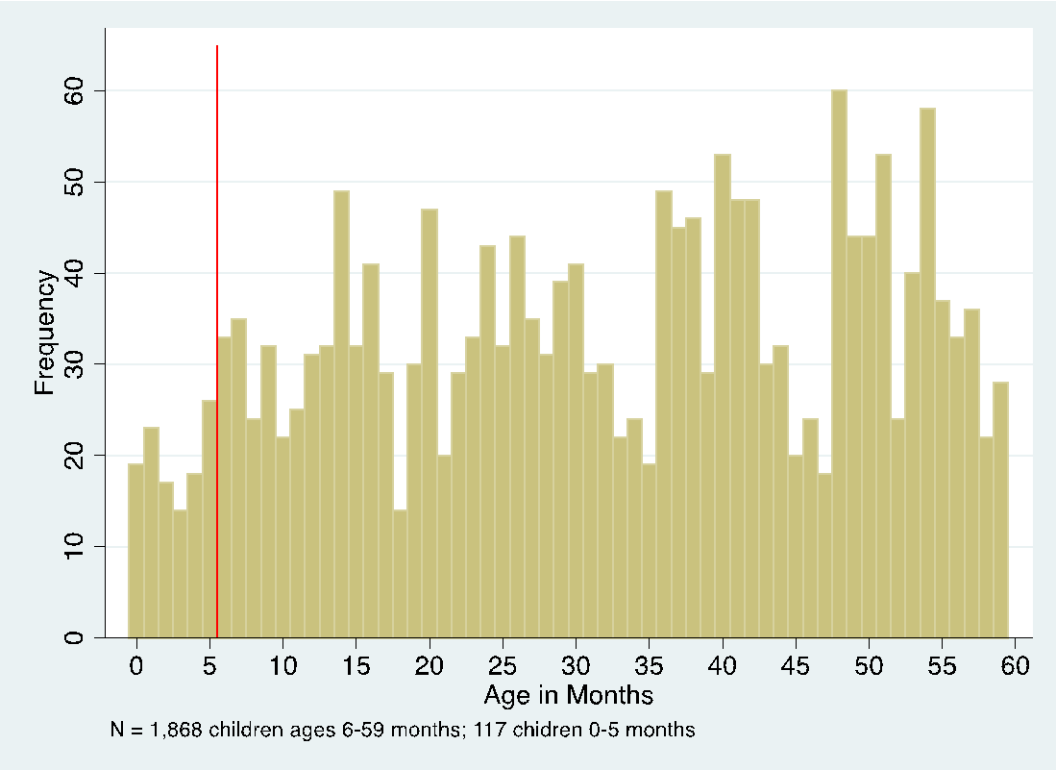
Children

This section describes the health, education, and time use of children under 18 years of age. Indicators related to nutritional status, feeding practices, morbidity and use of curative care services, use of preventive care services, delivery location and assistance and child mortality are presented for children under five years old. The educational standing of children age 6-17 is described, including current enrollment, grade-for-age, education gap, temporary withdrawal from school, and school expenditures. Lastly, time use patterns of children ages 10-17 are examined for activities including domestic chores, unpaid productive work for the household, fishing, unpaid productive labor for the household and paid (wage and *ganyu*) productive labor outside the household.

Under-Five

The 2013 SCTP Impact Evaluation Baseline Survey included 1,868 SCTP-eligible children under-five (i.e., ages 6-59 months inclusive). Approximately 52 percent of the children are female, and 49 percent are members of the treatment group. Figure 5.5.1 shows the age distribution of all under-five SCTP-eligible children. All anthropometric and other under-five indicators for this report are calculated only for children ages six to 59 months.

Figure 5.5.1 Under-Five Age Distribution [1]



[1] All 2013 SCTP Baseline Survey under-five indicators are calculated for children ages 6-59 months; the vertical red line indicates the demarcation between ages five and six months.

Table 5.5.1 presents the under-five age distribution by sex. The percentage of children in each age category is roughly similar by sex, with slightly more males in the 12-23 month category and slightly more females in the 6-11 month and 48-59 month categories. The age distribution of children under five in the SCTP-eligible sample mirrors that of the IHS3 rural ultra-poor sample.

Table 5.5.1 Under-Five Age Distribution by Sex, SCTP-Eligible Sample

	SCTP Eligible Sample (N = 1,868)			IHS3[1] (N = 2,011)
Age (months)	Male	Female	Total	Total
6-11	9.0	10.0	9.5	8.7
12-23	22.2	20.1	21.1	20.6
24-25	20.7	20.5	20.6	22.4
36-47	23.8	23.2	23.5	24.8
48-59	24.4	26.3	25.4	23.5
Total	100.0	100.0	100.0	100.0

[1] IHS3 rural ultra-poor

Anthropometrics

The SCTP baseline survey collected anthropometric data for children ages 6-71 months; anthropometric indicators for underweight (weight-for-age), stunting (height-for-age), and wasting (weight-for-height) are reported for children ages 6-59 months. Children under 24 months were measured lying down `

Anthropometric indicators were calculated from raw weight (kg) and height (cm) data using the growth standards released by the World Health Organization's (WHO's) Multicenter Growth Reference Study in 2006.[15] The underweight, stunting, and wasting indicators calculated for the SCTP-eligible sample are presented in standard deviation units from the median of the WHO reference sample.

The weight-for-age indicator is a composite measure of both stunting and wasting, reflecting both current and chronic malnutrition. Children with a weight-for-age z-score less than minus two standard deviations (<-2SD) from the median of the WHO reference population are classified as underweight, and those less than minus three standard deviations are severely underweight.

Height-for-Age is an indicator of cumulative growth retardation and is a measure of long-run growth deficits. Children with a height-for-age z-score less than minus two standard deviations are considered stunted (short for age), and those less than minus three standard deviations are severely stunted.

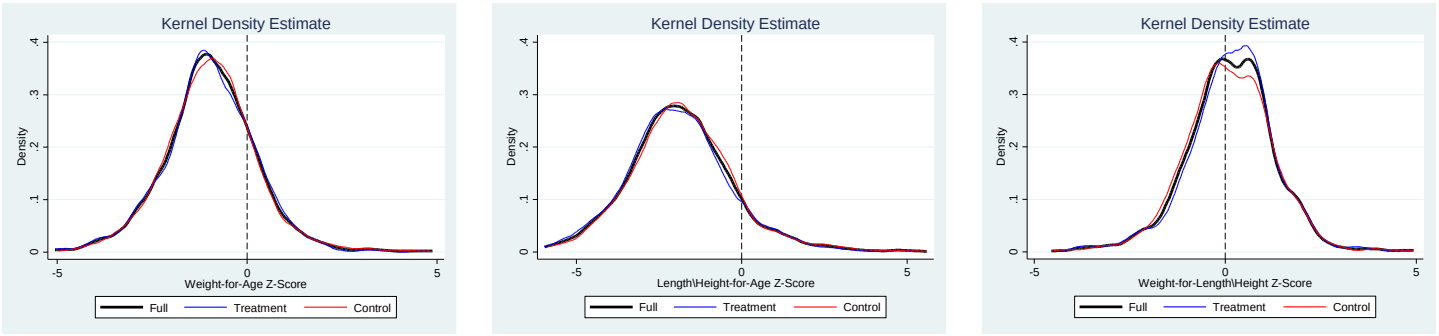
Weight-for-height is an indicator of current nutritional status and acute malnutrition. Children with a weight-for-height z-score below minus two standard deviations are considered wasted (thin), and those below minus three standard deviations are severely wasted.

Figure 5.5.2 presents the distribution of weight-for-age, height-for-age, and weight-for-height z-scores for the SCTP-eligible and IHS3 rural ultra-poor children. Each distribution follows an approximately normal distribution. Weight-for-age and height-for-age distributions are shifted to the left of the median WHO reference charts (indicated by a dashed vertical line at zero), indicating that the SCTP-eligible and IHS3 rural ultra-poor children fare worse in terms of underweight and wasting than the global reference population. The weight-for-age and height-for-age distributions of the SCTP-eligible sample are farther to the left of the zero reference line than the IHS3 rural ultra-poor sample, suggesting that SCTP-eligible children fare worse than the comparable IHS3 group for underweight and stunting.

[15] WHO Multicentre Growth Reference Study Group. 2006. *WHO child growth standards: length/height-for age, weight-for-age, weight-for-length, weight-for-height, and body mass index-for-age: Methods and development*. Geneva: WHO.

Figure 5.5.2 Distribution of Anthropometric Z-Scores

SCTP-Eligible Sample:



IHS3 Rural Ultra-Poor Sample:

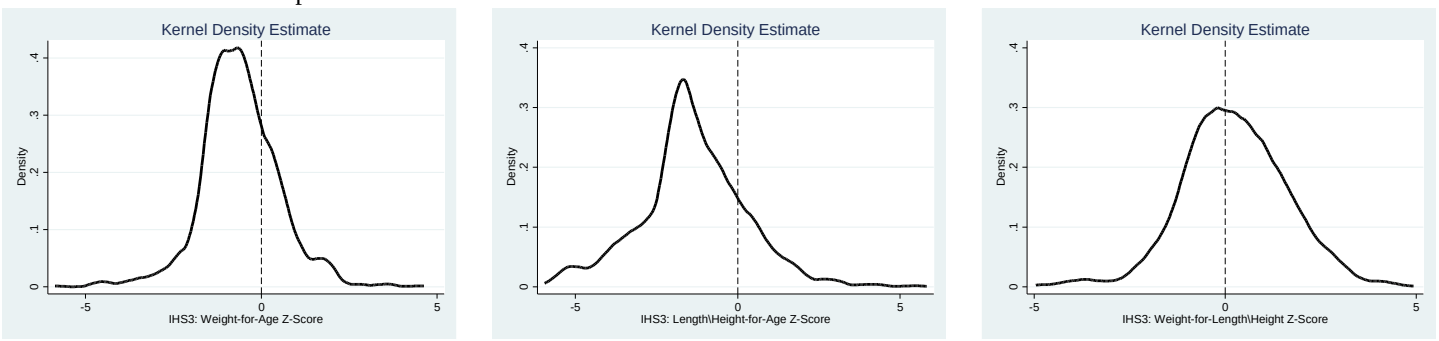


Table 5.5.2 presents the mean and standard deviation of z-scores for the SCTP-eligible sample of children, as well as indicators for the prevalence of underweight, severe underweight, stunting, severe stunting, wasting and severe wasting. The spread of each z-score distribution is greater than 1 (as indicated by the z-score standard deviation), indicating that the z-scores for the SCTP-eligible sample are more dispersed than those of the WHO reference population.

The average weight-for-age z-score for the SCTP-eligibles was -1.0, which is worse than the average z-score for the IHS3 rural ultra-poor sample (-0.6). The SCTP-eligible sample has a 10 percentage point higher prevalence of underweight than the IHS3 comparison sample (17.6[16] percent compared to 7.0 percent, respectively). The prevalence of severe underweight in the SCTP-eligible sample is more than twice that of the IHS3 sample (4.7 percent versus 2.2 percent). The highest prevalence of underweight and severe underweight occurs in the 12-23 month age category (20.6 percent and 5.8 percent, respectively). There is no significant difference between the prevalence of underweight and severe underweight in males and females.

The average height-for-age z-score for the SCTP-eligibles (-1.8) was slightly worse than the IHS3 rural ultra-poor sample (-1.4). Substantially more of the SCTP-eligible children were stunted (47.6 percent) than the IHS3 rural ultra poor comparison sample (29.3 percent), and more of the SCTP-eligible children were severely stunted. Stunting and severe stunting prevalence increase with age, with the highest

[16] For moderate underweight, wasting and stunting indicators, the results reported in the IHS3 report have been recently updated and are reported in a brief issued by the World Bank, "Child Anthropometrics and Malnutrition in Malawi", which can be found at: http://siteresources.worldbank.org/INTSURAGRI/Resources/7420178-1294259038276/MW_Anthro_Brief.pdf. Our calculations are consistent with those reported in this brief, which also show that malnutrition rates among rural ultra poor are not consistently worse off than the national rates.

percentage of children stunted and severely stunted in the 36-47 month age category. No significant differences in height-for-age z-scores or stunting prevalence were found between males and females.

Lastly, the average weight-for-height z-score of the SCTP population (0.1) is slightly better than that of the IHS3 rural ultra-poor sample (0.2). The prevalence of wasting in the SCTP population is 3.9 percent, which is lower than the rate of wasting in the IHS3 sample (4.2 percent). The prevalence of severe wasting is low (1.1 percent) and similar to the IHS3 sample. No significant differences were found between males and females with respect to mean weight-for-age z-score or wasting/severe wasting prevalence. The prevalence of wasting and severe wasting decreases with age.

No significant differences were found in the z-score means or prevalence of underweight, stunting, or wasting between treatment and comparison groups for the full SCTP-eligible sample. A significant difference in the mean weight-for-height z-score of children ages 36-47 months was found in treatment and comparison groups ($p = 0.032$), in the prevalence of wasting between males in the treatment and comparison groups ($p = 0.037$), in the prevalence of severe wasting among children ages 24-35 months ($p = 0.048$), and in the prevalence of severe stunting among children ages 12-23 months ($p = 0.031$).

Table 5.5.2 Nutritional Status of Children, Ages 6-59 Months

	SCTP-Eligible Sample					IHS3[2]				
Characteristic	N	Mean Z-Score	SD Z-score	% < -2SD[1]	% < -3SD[1]	N	Mean Z-Score	SD Z-score	% < -2SD[1]	% < -3SD[1]
Weight-for-Age (Underweight)										
Total	1,783	-1.0	1.2	17.6	4.7	1,963	-0.6	1.1	7.0	2.2
Child Sex										
Male	854	-1.0	1.2	18.5	4.1	1,004	-0.6	1.1	7.8	1.9
Female	929	-0.9	1.2	16.8	5.2	959	-0.6	1.1	6.2	2.5
Age (months)										
6 - 11	162	-0.7	1.4	12.6	4.4	175	-0.4	1.2	8.0	2.3
12 - 23	365	-0.9	1.3	20.6	5.8	416	-0.4	1.2	5.5	2.0
24 - 35	377	-0.9	1.3	19.1	4.3	433	-0.6	1.2	8.4	2.5
36 - 47	425	-1.0	1.1	16.2	4.2	483	-0.7	1.0	7.1	1.8
48 - 59	454	-1.1	1.1	17.2	4.7	456	-0.8	1.0	6.6	2.3
Length/Height-for-Age (Stunting)										
Total	1,752	-1.8	1.6	47.6	21.0	1,925	-1.4	1.6	29.3	14.6
Child Sex										
Male	835	-1.9	1.6	49.1	22.9	979	-1.5	1.7	31.5	16.4
Female	917	-1.8	1.6	46.3	19.3	946	-1.3	1.6	26.9	12.6
Age (months)										
6 - 11	158	-0.9	1.3	16.8	5.6	174	-1.0	1.8	23.9	12.5
12 - 23	359	-1.8	1.6	43.0	20.6	404	-1.1	1.7	22.0	11.1
24 - 35	366	-1.8	1.8	53.3	22.5	424	-1.6	1.7	36.7	18.6
36 - 47	422	-2.1	1.5	53.8	26.2	475	-1.5	1.5	32.5	15.9
48 - 59	447	-2.0	1.5	52.3	20.9	448	-1.5	1.5	27.4	13.2
Weight-for-Length/Height (Wasting)										
Total	1,763	0.1	1.1	3.9	1.1	1,920	0.2	1.4	4.2	1.7
Child Sex										
Male	846	0.2	1.2	4.4	1.4	978	0.3	1.4	4.1	1.5
Female	917	0.1	1.1	3.4	0.8	942	0.2	1.4	4.4	2.0
Age (months)										
6 - 11	159	-0.3	1.4	9.1	2.7	170	0.3	1.5	5.1	1.9
12 - 23	363	-0.1	1.2	7.0	1.3	404	0.3	1.4	4.2	0.9
24 - 35	368	0.2	1.1	3.3	1.4	426	0.4	1.4	3.8	1.9
36 - 47	423	0.4	1.0	1.1	0.6	475	0.2	1.4	4.7	2.6
48 - 59	450	0.2	1.1	2.5	0.5	445	0.1	1.3	3.8	1.3

[1] %<-2SD includes both moderate and severe; %<-3SD includes severe.
[2] IHS3 rural ultra-poor

Feeding Practices

The 2013 SCTP Baseline Survey collected information about the number of times children were currently given solid foods in a day and the types of food children had eaten in the last day.

Table 5.5.3 presents the distribution of number of meals per day among the SCTP-eligible sample, ages 6-59 months. 'Number of meals per day' is defined as the number of times the child is currently given solid foods in a day. Approximately half of SCTP-eligible children consume two meals per day, and one-third consumes three or more; over half of IHS3 rural ultra-poor *households* reported that children under five years typically consume three meals per day. There was no significant difference between the number of meals per day for the T and C groups. Female children were significantly more likely than male children to have zero meals per day (p = 0.010).

Table 5.5.3 Number of Meals Per Day Among SCTP-Eligible Children Under-Five, Solid Food (%)

		Number of Meals Per Day				
Characteristic	N	0	1	2	3	4 or more
Total	1,868	1.0	15.8	49.6	31.5	2.2
Child Sex						
Male	895	0.6	17.3	49.5	31.0	1.6
Female	973	1.3	14.4	49.7	32.0	2.7
Age (months)						
6 – 11	171	5.0	19.0	40.6	33.7	1.6
12 – 23	387	1.3	15.2	47.8	33.1	2.6
24 – 35	389	0.2	15.9	51.0	31.2	1.8
36 – 47	442	0.2	15.7	49.7	32.4	2.1
48 – 59	479	0.6	15.0	53.1	28.9	2.4
IHS3[1]	2,003	0.6	2.1	43.7	51.5	2.2

[1]IHS3 rural ultra-poor; IHS3 asks about number of meals are taken per day in the *household* for children ages 6-59 months.

The percentage of children consuming Vitamin A-rich fruits and vegetables (including pumpkin, red or yellow yams or squash, carrots, red sweet potato, dark green leafy vegetables, mango, papaya and guava) in the past day is presented in Table 5.5.4. On average, 67.0 percent of the SCTP-eligible under-five sample had consumed vitamin A-rich fruits and vegetables in the past day, with no significant differences between males and females.

No significant differences in the percentage of children consuming vitamin A-rich fruits and vegetables in the past day were found between the full treatment and comparison groups. Significant differences were found, however, between males in the treatment and comparison groups (p = 0.024) and children in the 12-23 months age categories (p = 0.024).

Table 5.5.4 SCTP-Eligible Children Under-Five Consuming Vitamin A-Rich Fruits and Vegetables in the Last Day (%)

Characteristic	N	Mean (%)
Total	1,868	67.0
Child Sex		
Male	895	68.4
Female	973	65.7
Age (months)		
6 – 11	171	41.3
12 – 23	387	65.5
24 – 35	389	71.3
36 – 47	442	72.5
48 – 59	479	69.2

Morbidity and Use of Curative Care

Mothers or guardians were asked to report whether the child had diarrhea, fever, or an illness with a cough at any time in the last two weeks, and, if so, where the child received treatment for the condition (public facility, private facility, pharmacy, traditional healer, or no treatment was sought).

Fewer than half (43.6 percent) of SCTP-eligible children ages 6-59 months had diarrhea, fever, and/or a cough in the past two weeks (Table 5.5.5). No significant difference in the incidence of diarrhea/fever/cough in the past two weeks was found between males and females or between the full treatment and comparison groups. The probability of illness in the past two weeks decreased with age. Children in the SCTP-eligible sample were much more likely to have had an illness in the past two weeks than children in the IHS3 rural ultra-poor sample (43.6 percent versus 16.8 percent, respectively).

Table 5.5.5 also presents the breakdown of percentages of children suffering from diarrhea, fever, and cough in the past two weeks, and the action taken for children with the illness.

The incidence of diarrhea in the past two weeks was much higher among SCTP-eligible children (16.6 percent) than the IHS3 comparison sample (2.0 percent). No significant difference in the probability of diarrhea was found between males and females or between the SCTP treatment and comparison groups. Diarrheal incidence decreased with age. Among SCTP-eligible children reporting diarrhea, the majority sought care at a public facility (61.1 percent), while a quarter (25.1 percent) did not seek treatment. Approximately 64 percent of the SCTP sample sought care from a health facility or provider (public or private facility), compared to 81 percent in the IHS3 rural ultra-poor sample. No significant difference in the probability of taking a particular action in response to diarrheal incidence was found between the treatment and comparison groups.

The incidence of fever in the past two weeks was higher among SCTP-eligible children (26.1 percent) than the IHS3 comparison sample (13.8 percent). No significant difference was found in the probability of fever between males and females. A statistically significant difference in the incidence of fever was found, however, between the treatment and comparison groups ($p = 0.038$). Among those SCTP-eligible with fever in the past two weeks, the majority sought curative care at a public facility (55.4 percent), followed by 26 percent who sought no treatment. The percent of children who sought treatment from a traditional healer was significantly different between the full treatment and comparison groups, but the

percentage is low. Approximately 61 percent of SCTP-eligible children with fever sought treatment from a health facility or provider (public or private facility), compared to 75 percent in the IHS3 sample.

Just over one-fourth of SCTP-eligible children had an illness with a cough in the two weeks before the survey. A slightly higher percent of females (27.3 percent) than males (24.5 percent) reported a cough, although this difference was not statistically significant. Like diarrhea and fever, the incidence of cough slightly decreased with age. The majority of children with cough sought treatment at a public facility (55.0 percent), followed by 27 percent who did not seek treatment. No significant differences were found in the incidence of cough or the type of action taken among children with cough between treatment and comparison groups. Many more children were reported to have an illness with a cough in the past two weeks in the SCTP-eligible sample than in the IHS3 comparison sample.

Table 5.5.5 Morbidity and Use of Curative Care Services Among Children 6-59 Months, Past 2 Weeks

	SCTP-Eligible								IHS3[1]
		Child Sex		Child Age (months)					
	Total	Male	Female	6 - 11	12 - 23	24 - 35	36 - 47	48 - 59	Total
N	1,868	895	973	171	387	389	442	479	2,011
% With Diarrhea, Fever, or Cough in the Past 2 weeks	43.6	43.7	43.5	63.2	50.6	45.0	35.5	36.9	16.8
% With Diarrhea in the Past 2 Weeks	16.6	17.1	16.0	36.8	25.4	15.3	10.4	8.4	2.0
Use of Curative Care Services (N)	324	164	160	63	108	63	49	41	37
Public facility	61.1	56.6	65.4	58.8	74.2	60.7	56.3	37.6	81.0
Private facility	3.0	3.4	2.6	3.3	3.7	3.8	0.0	3.1	0.0
Pharmacy	9.0	11.5	6.5	9.8	5.1	5.0	12.3	19.4	7.7
Traditional healer	1.9	2.1	1.7	1.1	2.6	0.0	1.9	4.0	0.0
Did not seek treatment	25.1	26.5	23.8	27.1	14.4	30.5	29.5	35.9	11.3
% With Fever in the Past 2 Weeks	26.1	26.3	25.9	32.7	30.7	28.8	22.2	21.3	13.8
Use of Curative Care Services (N)	518	249	269	55	131	117	105	110	284
Public facility	55.4	57.6	53.3	49.0	63.4	62.0	52.2	45.1	71.6
Private facility	5.6	6.8	4.4	8.0	4.4	6.0	5.7	4.9	3.1
Pharmacy	11.8	10.6	12.9	7.9	11.4	7.8	13.0	17.7	15.8
Traditional healer	1.4	2.0	0.8	0.0	2.3	0.7	1.6	1.7	1.0
Did not seek treatment	25.9	23.0	28.6	35.0	18.4	23.5	27.6	30.6	8.6
% With Cough in the Past 2 Weeks	26.0	24.5	27.3	37.8	27.8	24.5	22.9	24.1	1.0
Use of Curative Care Services (N)	506	229	277	65	119	96	106	120	27
Public facility	55.0	56.0	54.2	62.6	64.7	51.0	55.0	44.7	61.3
Private facility	4.5	3.6	5.2	1.0	4.8	4.5	6.3	4.6	0.0
Pharmacy	11.9	12.9	11.1	10.4	7.0	15.6	8.8	17.2	20.8
Traditional healer	1.7	0.6	2.5	2.1	3.9	0.0	2.3	0.0	0.0
Did not seek treatment	26.9	26.8	27.0	23.8	19.6	28.8	27.6	33.6	17.9

[1] IHS3 rural ultra-poor; figures are for the first reported illness or injury.

In the qualitative interviews with caregivers, we probed on whether there were any difference in how they responded to health concerns among boys and girls and did not find any noticeable differences. Almost all caregivers indicated that they would give priority to children over other adults with regard to going to the hospital.

Preventive Care Practices

The SCTP baseline survey collected information on preventive care practices among children under-five, including participation in a nutrition program, participation in an under-five clinic, checkup at a well-baby or under-five clinic in the last six months, and whether the child had a health passport (to keep track of clinic visits, immunizations, etc.).

Table 5.5.6 shows the percentage of children ages 6-59 months participating in each of the four preventive care practices. Very few SCTP-eligible children (4.0 percent) were reported to be participating in a nutrition program, compared to the 20.1 percent reported in the IHS3 rural ultra-poor sample. About three-fourths of children were reported to be participating in an under-five clinic (close to the 74.1 percent reported in the IHS3 reference sample), half were reported to have had a checkup at a well-baby or under-five clinic in the past six months, and 87.1 percent had a health passport. No significant differences were found between the full SCTP-eligible treatment and comparison groups for the four preventive care indicators.

Table 5.5.6 Preventive Care Practices Among SCTP-Eligible Children Ages 6-59 Months

Characteristic	N	Participation in Nutrition Program Mean (%)	Participation in Under-Five Clinic Mean (%)	Checkup at Well-Baby or Under-Five Clinic (last 6 months) Mean (%)	Possession of a Child Health Passport Mean (%)
Total	1,868	4.0	73.0	49.8	87.1
Child Sex					
Male	895	3.8	72.6	48.6	85.6
Female	973	4.2	73.4	51.0	88.4
Age (months)					
6 – 11	171	4.4	96.2	72.9	97.0
12 – 23	387	4.5	91.7	61.7	93.9
24 – 35	389	5.3	82.6	57.1	90.2
36 – 47	442	4.0	67.0	44.6	81.8
48 – 59	479	2.4	46.7	30.4	80.0
IHS3[1]	2,011	20.1	74.1		

[1] IHS3 rural ultra-poor; information not collected for Well-Baby/Under-Five clinic checkup or Child Health Passport.

Delivery Location and Assistance

The baseline survey also asked the mothers or guardians where each child under-five was born (hospital, health facility, village health post, dispensary/pharmacy, at the home of a traditional birth attendant (TBA) or midwife, at the child's own home or the home of a relative/friend, outside, or other) and who assisted with the delivery of the child (doctor, nurse, midwife, clinical officer, TBA, relative/friend, or other).

Table 5.5.7 presents the place of delivery and type of assistance received during delivery for SCTP-eligible children. Nearly 80 percent of SCTP children were delivered in a health facility (includes hospital, health facility, and village health post), compared to 76.4 percent of the IHS3 rural ultra-poor

sample who reported delivery in a hospital. No significant differences were found between treatment and comparison groups for any of the delivery locations.

Nearly 80 percent of SCTP-eligible children were delivered by a skilled attendant (doctor, nurse, midwife, or clinical officer), compared to 77 percent of IHS3 children. A nurse delivered the majority of SCTP children. No significant differences were found between treatment and comparison groups with respect to assistance during delivery.

Table 5.5.7 also presents delivery location and assistance for births in the SCTP-eligible sample that occurred in the two years before the survey to make comparison with the IHS3 rural ultra-poor sample more direct; trends between all SCTP-eligible under-five births and SCTP-eligible births in the past two years are the same.

Table 5.5.7 Delivery Location and Assistance

	SCTP-Eligible	SCTP-Eligible past 2 years	IHS3[3]
Place of Delivery (%)			
Hospital	49.7	48.8	76.4
Health facility	28.7	30.6	.
Village health post	1.1	0.7	.
Dispensary or pharmacy	0.1	0.1	.
At home of TBA or midwife	5.2	5.6	21.1
At own home or relative/friend's home	14.2	11.8	
Outside	0.9	1.9	.
Other	0.1	0.6	2.5
% Delivered in a health facility[1]	79.5	80.2	
Assistance During Delivery (%)			
Doctor	3.8	4.0	24.3
Nurse	54.3	56.9	51.1
Midwife	19.9	18.3	1.2
Clinical officer	1.3	1.1	.
TBA	8.4	7.3	11.3
Relative/friend	11.4	10.8	10.6
Other	1.0	1.7	1.5
% Delivered by a skilled attendant[2]	79.2	80.2	76.6
N	1,868	675	897

[1] SCTP health facility includes hospital, health facility, and village health post.
[2] SCTP skilled attendant includes doctor, nurse, midwife, and clinical officer
[3] IHS3 rural ultra-poor; The IHS3 asks about delivery for children born in the last 24 months, and only reports on hospital, home, and other delivery locations.

Child Mortality

The 2013 SCTP Baseline Survey asked women if they had ever given birth to a child who was born alive but later died, and if so, the number of children who have died. Table 5.5.8 presents the percentage of SCTP-eligible women ages 15-49 years who have given birth and lost a child. The majority of women (57.5 percent) had given birth but had not lost a child, followed by 23.3 percent who had lost one child. The probability of having had a child die increased with current maternal age, with 19.0 percent of

women ages 45-49 years reporting that four or more of their children had died. No significant differences in the number of children who have died were found between T and C groups.

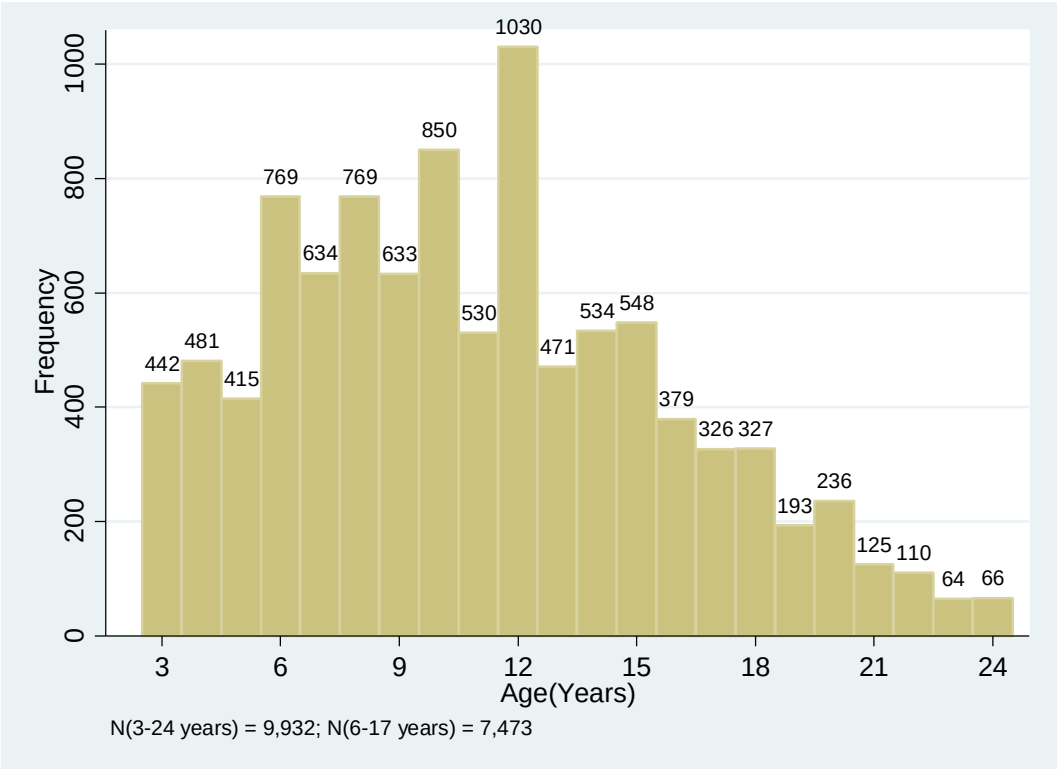
Table 5.5.8 SCTP-Eligible Women (ages 15-49) Who Have Ever Had a Child Die (%)

Characteristic	N	None	1	2	3	4 or more
Total	1,645	57.5	23.3	8.7	5.3	5.3
Age						
15-19	127	90.5	7.0	1.2	0.6	0.6
20-24	183	84.4	15.6	0.0	0.0	0.0
25-29	211	70.3	23.1	3.6	1.7	1.3
30-34	329	60.2	24.2	10.2	2.8	2.6
35-39	336	50.9	24.0	12.3	7.7	5.1
40-44	285	35.7	29.7	15.1	10.5	9.0
45-49	174	28.5	31.2	10.3	11.0	19.0

Education

In addition to collecting anthropometric and health data from children under-five, the 2013 SCTP Impact Evaluation Baseline Survey also collected education information from all household members age three and above. This section describes the current educational status of children and adolescents in the SCTP-eligible sample. Figure 5.5.3 presents the distribution of children, adolescents, and young adults ages 3-24 years; the majority of education indicators are calculated for children and adolescents age 6-17.

Figure 5.5.3 Age Distribution, 3-24 Years



Approximately 79 percent of the SCTP-eligible sample (ages 3-24 years old) were attending school during the 2012-2013 academic year, compared to 83 percent in the IHS3 rural ultra-poor sample (Table 5.5.9). The percent currently attending school decreased with age. Among the SCTP-eligible children currently attending school, 6.4 percent were in pre-school, 90.7 percent were in primary school, and 2.9 percent were in secondary school. No significant difference was found between males and females or between the treatment and comparison groups.

Table 5.5.9 SCTP-Eligible Sample Currently Attending School (2012-2013 Academic Year) (%)

			Among Those Currently Attending		
Characteristic	N	Total	Pre-School	Primary (Grades 1-8)	Secondary (Grades 9-12)
Total	7,556	78.7	6.4	90.7	2.9
Child Sex					
Male	3,846	79.5	5.6	91.1	3.3
Female	3,710	77.9	7.3	90.3	2.4
Age (years)					
3 – 5	348	95.7	82.1	17.9	0.0
6 – 9	1,926	93.7	7.3	92.7	0.0
10 - 13	2,651	87.4	0.0	100.0	0.0
14 - 15	1,011	74.8	0.0	98.5	1.5
16 - 17	651	63.6	0.0	90.8	9.2
18 - 24	969	33.6	0.0	62.6	37.4
IHS3[1]	5,301	82.6	0.5	96.3	3.3

[1] IHS3 rural ultra-poor

The official entry age for primary school in Malawi is age six; primary school runs from grades 1-8, and secondary school is made up of grades 9-12. Table 5.5.10 presents net school attendance for primary and secondary school; net school attendance is calculated as the percentage of children in the age group that officially corresponds to a particular schooling level who are attending that particular level of schooling.

The net pre-school attendance rate is 78.6 percent, indicating that nearly 80 percent of children eligible for early child development programs (ages 3-5 years) are currently attending pre-school. This is more than twenty times higher than the rate for the IHS3 rural ultra-poor sample (3.6 percent).

Approximately 87 percent of primary school-age children (ages 6-13) in the SCTP-eligible sample are currently attending primary school. This is lower than the net primary school attendance rate of the IHS3 comparison sample (96.9 percent).

Three percent of secondary school-age SCTP-eligible adolescents (age 14-17) were attending secondary school during the 2012-2013 academic year; this is slightly less than half the percentage of IHS3 rural ultra-poor adolescents ages 14-17 who were attending secondary school in the year of the survey (2010-2011 academic year).

No significant differences in net school attendance rates were found between males and females or between T and C groups.

Table 5.5.10 Net School Attendance Age 3 to 17 (2012-2013 Academic Year)

	Pre-School (age 3-5)		Primary School (grades 1-8; age 6-13)		Secondary School (grades 9-12; age 14-17)	
Characteristic	N	Mean (%)	N	Mean (%)	N	Mean (%)
SCTP						
Total	348	78.6	4,577	87.1	1,662	3.0
Child Sex						
Male	161	81.7	2,294	87.3	854	2.5
Female	187	76.0	2,283	86.8	808	3.4
IHS3[1]						
Total	184	3.6	3,123	96.9	1,096	5.4
Child Sex						
Male	79	2.9	1,561	96.6	573	4.0
Female	105	4.1	1,562	97.4	523	6.9

[1] IHS3 rural ultra-poor attending school during the 2010-2011 school year

The high percentage of adolescents 14-17 year-old who are reported as being currently enrolled in school in Table 5.5.9 (approximately 70 percent), taken into consideration with the 3 percent reported to be in secondary school in Table 5.5.10, suggests that the majority of 14-17 year-olds are still in primary school (i.e., below grade-for-age). Table 5.5.11 presents the percentages of students who were at, below, and above the official grade-for-age during the 2012-2013 academic year. *At grade-for-age* means that a 7 year-old is in the 2nd grade, or a 15 year-old is in the 10th grade.

The majority (88.7 percent) of SCTP-eligible primary school age children currently enrolled in school were below grade-for-age during the 2012-2013 school year, and nearly all SCTP-eligible students (99.0 percent) age 14-17 currently enrolled in school were below grade-for-age. The IHS3 rural ultra-poor sample had about 10 percentage points fewer children below grade-for-age in primary school (79.0 percent), but nearly all of the IHS3 secondary school age children were below grade-for-age (98.7 percent).

No significant differences in grade-for-age were found between males and females or treatment and comparison groups.

Table 5.5.11 Grade-for-Age (2012-2013 Academic Year)

	Primary (grades 1-8; age 6-13)				Secondary (grades 9-12; age 14-17)			
Characteristic	N	% At	% Below	% Above	N	% At	% Below	% Above
Total	4,133	9.1	88.7	2.2	1,172	0.8	99.0	0.2
Child Sex								
Male	2,066	7.8	89.7	2.5	619	0.7	99.2	0.1
Female	2,067	10.3	87.7	2.0	553	0.9	98.9	0.3
IHS3[1]	3,057	17.0	79.0	4.0	904	0.7	98.7	0.6

[1] IHS3 rural ultra-poor, 2010-2011 academic year

Table 5.5.12 shows the percent of children age six who were enrolled in the correct grade (Standard 1) during the 2012-2013 academic year (the 2010-2011 academic year for the IHS3 rural ultra-poor sample).

Only 23.4 percent of SCTP-eligible six-year-olds were enrolled in the first grade, compared to 60 percent who were not enrolled at all. More than twice the number of six-year-olds were enrolled in Standard 1 in the IHS3 rural ultra-poor sample (47.3 percent) than in the SCTP-eligible sample, and fewer (41.4 percent) were not enrolled in school at all.

No significant differences were found between treatment and comparison groups with respect to the percentage of SCTP-eligible six-year-olds currently enrolled in the correct grade.

Table 5.5.12 SCTP-Eligible 6-year-olds Enrolled in Correct Grade (Standard 1) (%)

Characteristic	N	Correct	Pre-School	Above	Not Enrolled
Total	769	23.4	11.2	5.7	59.8
Child Sex					
Male	374	20.7	9.1	6.1	64.2
Female	395	25.9	13.2	5.2	55.7
IHS3[1]	590	47.3	1.2	10.2	41.4

[1] IHS3 rural ultra-poor, 2010-2011 academic year

Table 5.5.13 presents the education gap at grades of interest (key primary levels, and all secondary levels) for those children ages 6 -17 years who are supposed to be at-grade, but are below-grade. The education gap is calculated as the average number of grades students who are below grade-for-age are (e.g., a 14-year-old is considered at grade-for-age if she is currently enrolled in Form 9; among the 395 14-year-olds who are currently enrolled in school but are below grade-for-age, the average number of grades they are behind is 4.4). All of the 6-year-old children who were supposed to be in Standard 1 and are currently enrolled but below grade were in pre-school (i.e., one year behind). The SCTP-eligible 10-year-olds who are currently enrolled and are an average of 2.9 grades below Standard 5 (the education gap is approximately three years), compared to 2.5 grades in the IHS3 rural ultra-poor sample. The average number of grades behind for the SCTP-eligible sample increases by grade, with students who would normally be in Standard 8 at 4.2 years behind (i.e., they are currently in Standard 4 on average), and students that should be in Form 12 nearly 6 grades behind (i.e., currently in Standard 6). These figures are close to those found in the IHS3 rural ultra-poor sample.

No significant differences were found in the average education gap between males and females; the only significant difference between T and C groups was in Form 11 ($p = 0.033$).

Table 5.5.13 Average Number of Grades Behind Among SCTP-Eligible Children (Education Gap), Ages 6-17 Years

	Total			Male			Female			IHS3[2]		
Grade	N[1]	Mean	SD	N[1]	Mean	SD	N[1]	Mean	SD	N[1]	Mean	SD
Std 1	96	1.0	0.0	38	1.0	0.0	58	1.0	0.0	5	1.0	0.0
Std 5	643	2.9	1.0	308	2.9	1.0	335	2.9	1.0	425	2.5	1.0
Std 8	396	4.2	1.4	205	4.3	1.4	191	4.1	1.4	315	3.9	1.5
Form 9	395	4.4	1.6	200	4.4	1.6	195	4.4	1.7	280	4.1	1.7
Form 10	355	4.8	1.7	191	4.9	1.7	164	4.6	1.7	270	4.7	1.8
Form 11	227	5.0	1.8	113	5.1	1.7	114	5.0	1.8	205	4.8	1.9
Form 12	181	5.6	1.8	109	5.7	1.8	72	5.6	1.7	137	5.5	2.0

[1] Reported sample size refers to children who are supposed to be at-grade, but are below-grade.
[2] IHS3 rural ultra-poor

Table 5.5.14 presents the dropout rate by school level for the 2011-2012 to 2012-2013 academic years. The dropout rate is defined as the percent of students in a given grade in the previous school year who are

not currently attending school in the current school year. The dropout rate for students in primary school moving between the 2011-2012 to 2012-2013 academic years was 5.8 percent, which is higher than the IHS3 rate of 0.6 [1] reported for the IHS3 rural ultra-poor sample. The dropout rate for secondary school is 8.0 [1], which is also higher than the IHS3 sample (2.3 percent). No significant differences in the primary and secondary school dropout rates were found between males and females or T and C groups.

Table 5.5.14 Dropout Rates by School Level Among the SCTP-Eligible Sample (2011-2012 to 2012-2013 Academic Years)

	Primary (grades 1-8; age 5-12 in 2011-2012)		Secondary (grades 9-12; age 13-16 in 2011-2012)	
Characteristic	N	Mean (%)	N	Mean (%)
Total	3,062	5.8	1,500	8.0
Child Sex				
Male	1,528	6.1	780	8.7
Female	1,534	5.5	720	7.3
IHS3[1]	2,135	0.6	1,092	2.3

[1] IHS3 rural ultra-poor; 2009-2010 and 2010-2011 academic years

All respondents currently attending school were asked if, at any time in the past 12 months, they had temporarily withdrawn from school (had missed more than two consecutive weeks of instruction) and if so, why. Table 5.5.15 shows the percentage of students age 6-17 who were attending school during the 2012-2013 academic year but temporarily withdrew, and Table 5.5.16 presents the primary reason for withdrawal.

Among the SCTP-eligible sample, 13.5 percent temporarily withdrew during the 2012-2013 academic year, compared to 3.8 percent of the IHS3 rural ultra-poor sample who reported withdrawing during the 2010-2011 academic year. There was no significant difference in the probability of temporary withdrawal between males and females or between the treatment and comparison groups.

Table 5.5.15 Temporary Withdrawal From School Among Those Attending (2012-2013 Academic Year)

	SCTP-Eligible		IHS3	
Characteristic	N	Mean (%)	N	Mean (%)
Total	5,305	13.5	3,963	3.8
Child Sex				
Male	2,685	14.5	2,023	4.0
Female	2,620	12.6	1,940	3.6
Age (years)				
6 - 9	1,804	12.4	1,517	3.5
10 - 13	2,329	14.5	1,543	4.0
14 - 15	758	14.5	559	3.6
16 - 17	414	11.3	345	4.5

[1] IHS3 rural ultra-poor; 2010-2011 academic year

Of those SCTP-eligible students who temporarily withdrew during the 2012-2013 academic year, over half did so because they did not have the money necessary for school-related expenses, followed by 26.5 percent who had to withdraw because of illness. These findings emphasize the toll financial hardship

takes on the educational opportunities accessible to orphans and vulnerable children in the SCTP-eligible sample.

Table 5.5.16 Reason for Temporary Withdrawal Among the SCTP-Eligible Sample (Ages 6 – 17 years)

		SCTP-Eligible		IHS3
Reason for Withdrawal	Total (N = 718)	Male (N = 389)	Female (N = 329)	Total (N = 144)
No money for necessary expenses	53.3	54.1	52.5	42.3
Own illness	26.5	25.8	27.3	40.6
Help needed at home	3.0	2.3	3.8	1.9
Funeral	1.1	1.1	1.2	0.8
Disinterested in school	1.6	2.2	0.9	2.6
Laziness	9.1	9.1	9.1	
Other	5.3	5.4	5.2	11.7

[1] IHS3 rural ultra-poor; 2010-2011 academic year/ [2] Disinterest and laziness combined for IHS3.

Lastly, information on education-related expenditures was collected for children and adolescents attending the 2012-2013 academic year, including money spent by the household, family and friends. Expenditure categories included: tuition and fees; expenditures on after school programs and tutoring; school books and stationary; school uniforms and clothing; boarding fees; contributions made for school building or maintenance; transportation; parent/teacher association and other fees; and other education-related costs. Table 5.5.17 presents the percentage of students who reported any education expenses for the 2012-2013 year. Most of the SCTP-eligible students (88.9 percent) ages 6-17 years reported having educational expenditures, compared to 93.6 percent of the IHS3 rural ultra-poor sample, with the probability of having any expenditure increasing with age.

No significant differences in the percent of students reporting educational expenses were found between males and females or treatment and comparison groups.

Table 5.5.17 Any School Expenditure Among Students Currently Attending School (2012-2013 Academic Year), Ages 3-17

Characteristic	N	Mean (%)
Total	5,619	88.9
Child Sex		
Male	2,829	89.0
Female	2,790	88.7
Age (years)		
3 – 5	328	62.6
6 – 9	1,799	85.8
10 – 13	2,323	91.9
14 – 15	756	93.3
16 – 17	413	95.9
Currently Enrolled in Primary School	5,147	91.1
Currently Enrolled in Secondary School	53	100.0
IHS3[1]	4,142	93.6

[1] IHS3 rural ultra-poor

Qualitative Insights into Education

Based on our stratified sampling approach, approximately half of the youth participants were in school; among the other half, most had been in school but had dropped out. For several of the in-school youth, school was a place where they could escape the pressures of their home lives. School also provided access to social networks of other youth who were in school and more potential connections beyond their socially isolated homes who could provide support with homework and school supplies. Only one youth participant indicated being actively involved in school activities as most youth balanced school along with household chores and *ganyu*.

A small number of youth reported being bullied by teachers or peers at school, usually because of their poverty status. One orphaned youth described this:

> ***Interviewer****: Can you tell me what you don't like about school?*
>
> ***Participant****: There are a lot of bullies in our school who make fun of me. They make insensitive jokes and call me an orphan.*
>
> ***Interviewer****: What are some of the challenges that you face in school?*
>
> ***Participant****: There a lot of violent people in school, they provoke me so that I should get into a fight with them.*

In addition to bullying from peers, youth participants described a combination of support and bullying from teachers. According to some youth, teachers and school administrators could be very critical of dirty uniforms and lack of supplies while others indicated that they relied on teachers for basic school supplies including pencils, notebooks and soap to wash uniforms, as described by this participant:

> ***Interviewer:*** *How does [teacher] help you or your family?*
>
> ***Participant:*** *He buys me notebooks but not food.*
>
> ***Interviewer:*** *He buys you school materials?*
>
> ***Participant:*** *Yes.*
>
> ***Interviewer:*** *Can you give me an example of a day when you were in need and [teacher] stepped in to help?*
>
> ***Participant:*** *There was a time when I didn't have notebooks, when I looked at my clothes they were very dirty so I went to see [teacher] for notebooks and I still wore dirty clothes at school.*

This quote highlights how important this teacher was in terms of the youth's access to notebooks, but also the clear limits on what the teacher would not provide, namely soap and food.

When we probed on reasons for school missing school or dropping out, the most common reasons were lacking the basic supplies or uniform to attend school, the need to do ganyu to support the family, and to take care of younger children. The salience of having a dirty uniform came up repeatedly throughout interviews, as articulated by this youth participant, describing how poverty in her household impacts school attendance:

> ***Participant:*** *With no washed clothes, they don't go to school, sometimes not going because their shoes have worn out. Also they do not go because there is no food, can they go with hunger at school?*

Another reason for dropping out of school among girls was pregnancy. None of the young women in the sample had returned to school and generally lived very isolated lives and most lacked support from the fathers of their babies. In contrast, caregivers expressed hope that youth who dropped out of school for ganyu or to help in the house could return if the family achieved some financial stability as expressed by this caregiver:

> ***Interviewer:*** *Ok, how do you feel seeing C. going for ganyu? Right now he has even stopped going to school so he can work and support the family.*
>
> ***Respondent:*** *In my heart I am not happy that he has stopped school to go and herd cattle but this has happened because of poverty and also because they don't have a father. This is happening because they cannot find any other jobs, so he just said let me go try herding cattle so I can help my little brothers and sisters.*
>
> ***Interviewer:*** *What are your hopes for C.`s future?*
>
> ***Respondent:*** *C. needs to go back to school so that he can have a good future and help me and his brothers and sisters.*
>
> ***Interviewer:*** *Since he has already dropped out do you see him going back to school?*
>
> ***Respondent:*** *Yes, I see him going back; when they open he goes back to school.*

Youth and caregiver narratives clearly reflect a strong belief in the importance of education along with substantial and, for some, insurmountable economic and social barriers to school attendance.

Time Use and Child Labor[17]

Children and adolescents age 10-17 were asked about their time use and labor practices, including time spent completing domestic chores, farming, fishing, unproductive and productive household activities, and participation in wage and *ganyu* labor. Table 5.5.18 presents the average time spent in each activity and the percent of SCTP-eligible children who participated in wage labor and *ganyu* labor. Note that the reference period for each of these categories is different, depending on the type of activity. For example the reference period for domestic chores is the previous day since these are frequent/daily activities; *ganyu* work is captured for the last agricultural season as well as the last 7 days (separately) since the intensity and type of *ganyu* varies with the season.

Children were asked about the number of hours they spent during the previous day performing domestic chores, including collecting water, collecting firewood/fuel materials, taking care of children, cooking, or cleaning. On average, children ages 10-17 years spent 0.8 hours collecting water, 0.4 hours collecting

[17] Note that for the purposes of this baseline report, "child labor" is used to describe any level of unpaid productive work for the household, unpaid productive labor for the household, and paid productive labor outside of the household, including wage work or *ganyu* labor. While we do provide estimates for children ages 10 – 13 years, our casual usage of the term differs from the official definition of child labor provided in the Child Labor National Action Plan 2010 – 2016: "*Any activity that employs a child below the age of 14 or that engages a child between the ages of 14 and 17 and prevents him or her from attending school or concentrating on school, or negatively impacts on the health, social, cultural, psychological, moral, religious and related dimensions of the child's upbringing.*" (Ministry of Labor, Government of Malawi. *Child Labor: National Action Plan on Child Labor for Malawi 2010 – 2016.* April 2010.)

firewood, and 1 hour in child care, cooking, or cleaning. Statistically significant differences in the number of hours spent performing domestic chores were found between males and females for each of the three chore types, with girls reporting significantly more time spent in each activity than boys. No significant difference was found in average time spent in each chore between treatment and comparison groups.

Children were also asked about the number of days in the past rainy season that they spent doing unpaid productive work for the household, including land preparation or planting, weeding, fertilizing, and other non-harvest work, and harvesting. On average, 10-17 year olds spent 18.5 days during the last season on unpaid productive work for the household, with the average number of days increasing with age. No significant differences were found between males and females or between treatment and comparison groups.

The average number of days in the past week spent in fishing activities was 0.01 days. This corresponds with the lack of fishing activities in the SCTP households that is discussed later in this report. No significant differences were found by sex or treatment/comparison status.

Unpaid productive labor for the household includes activities such as running or helping in any of the household's non-agricultural or non-fishing businesses; livestock herding, preparing fodder, or other livestock activities; and collecting nuts or other tree fruits, honey, or other products from forests for either food consumption, medicine, or sales for the household. On average, children ages 10-17 years spent 0.7 hours in the past week on such activities, with older adolescents reporting slightly more time. No significant differences in hours during the past week spent on unpaid productive labor were found between males and females or treatment and comparison groups.

Paid productive labor outside of the household includes casual, part-time, or *ganyu* labor, as well as wage, salary, commission, or any payment in kind labor for anyone who is not a household member. On average, 1.8 hours were spent during the last week on paid productive labor outside the household. Children age 16-17 years spent 2.9 more hours per week on paid productive labor than children age 10-13 years. There were no significant differences in hours worked the previous week in paid productive labor between males and females or treatment and comparison groups.

Lastly, household members age 10 and older were asked about their participation in wage labor and *ganyu* labor for anyone who is not a member of the household during the past 12 months. Among children age 10-17 years, only 1.5 percent reported having any wage labor over the course of the past year (compared to 0.3 percent reported in the IHS3 rural ultra-poor sample), whereas 40.8 percent reported having any *ganyu* labor during the past year (14.3 percent for the IHS3 sample). No significant differences in the probability of participating in wage labor or *ganyu* labor during the past year were found between males and females or treatment and comparison groups.

Table 5.5.18: Time Use Among Children and Adolescents, Age 10 to 17

Indicator	N	Mean	SD
Domestic Chores (hours yesterday)			
Collecting Water			
Total	4,664	0.8	1.2
Child Sex (p = 0.003)			
Male	2,391	0.4	0.9
Female	2,273	1.2	1.3
Child Age (years)			
10 - 13	2,879	0.8	1.2
14 - 15	1,081	0.9	1.2
16 - 17	704	0.8	1.0
Collecting firewood/fuel materials			
Total	4,664	0.4	1.1
Child Sex (p = 0.008)			
Male	2,391	0.1	0.6
Female	2,273	0.7	1.3
Child Age (years)			
10 - 13	2,879	0.4	1.0
14 - 15	1,081	0.5	1.1
16 - 17	704	0.5	1.2
Child care, cooking, or cleaning			
Total	4,662	1.0	1.4
Child Sex (p = 0.002)			
Male	2,390	0.5	0.9
Female	2,272	1.5	1.7
Child Age (years)			
10 - 13	2,878	0.8	1.2
14 - 15	1,080	1.2	1.5
16 - 17	704	1.3	2.0
Total Domestic Chores			
Total	4,668	2.2	2.7
Child Sex (p = 0.003)			
Male	2,394	1.0	1.7
Female	2,274	3.4	3.0
Child Age (years)			
10 - 13	2,881	2.0	2.5
14 - 15	1,082	2.5	2.9
16 - 17	705	2.6	3.1

Indicator	N	Mean	SD
Unpaid Productive Work for Household (days in the past rainy season)			
Total	4,668	18.5	21.9
Child Sex			
Male	2,394	18.4	21.9
Female	2,274	18.6	21.9
Child Age (years)			
10 – 13	2,881	14.2	19.7
14 – 15	1,082	24.1	22.9
16 – 17	705	27.9	24.3
Fishing (days in the past week)			
Total	4,665	0.0	0.2
Child Sex			
Male	2,392	0.0	0.3
Female	2,273	0.0	0.1
Child Age (years)			
10 – 13	2,879	0.0	0.2
14 – 15	1,081	0.0	0.3
16 – 17	705	0.0	0.3
Productive Labor (hours last week)			
Unpaid productive labor for household			
Total	4,668	0.7	3.5
Child Sex			
Male	2,394	0.7	3.7
Female	2,274	0.6	3.3
Child Age (years)			
10 – 13	2,881	0.6	2.9
14 – 15	1,082	0.8	4.2
16 – 17	705	1.0	4.3
Paid productive labor outside household			
Total	4,668	1.8	6.6
Child Sex			
Male	2,394	2.0	7.1
Female	2,274	1.6	6.0
Child Age (years)			
10 – 13	2,881	0.9	4.3
14 – 15	1,082	2.9	8.6
16 – 17	705	3.9	9.8

Indicator	N	Mean	SD
% With any wage employment (past 12 months)			
Total	4,667	1.5	
Child Sex			
Male	2,393	2.0	
Female	2,274	0.9	
Child Age (years)			
10 – 13	2,881	0.7	
14 – 15	1,081	2.9	
16 – 17	705	2.3	
IHS3[1]	2,925	0.3	
% With any ganyu work (past 12 months)			
Total	4,667	40.8	
Child Sex			
Male	2,393	41.9	
Female	2,274	39.7	
Child Age (years)			
10 – 13	2,881	28.5	
14 – 15	1,081	57.1	
16 – 17	705	67.2	
IHS3[1]	2,925	14.3	

[1] IHS3 rural ultra-poor

Qualitative Insights into Time Use

Echoing the quantitative findings, we found the same gendered patterns in the types of household chores done by boys and girls. Many youth described some involvement in *ganyu*, agreeing with the quantitative findings. *Ganyu* was especially prevalent among youth who had elder caregivers and had to do more to support their household. Nevertheless, some youth still maintained a very firm commitment to education and sense of agency in how they used their time, as expressed by this particularly resilient youth participant:

> ***Interviewer:*** *The ganyu that you do, does it affect your school?*
>
> ***Participant:*** *I don't take the ganyu too seriously. I put school first. I only go for ganyu when I have spare time… I would not miss school because someone is asking me to go and do ganyu unless I really need the money for me to be in school.*

This participant added that it was difficult to concentrate in school when you have only had one meal but he still persevered and prioritized his education.

Adolescents

Transition to Adulthood

To assess the impact of the SCTP on the safe transition to adulthood, we administered a separate questionnaire to adolescents of the household between ages 13-19 covering topics such as sexual activity, mental health, alcohol and cigarette consumption and expectations about the future. Up to three adolescents were interviewed for each household. Out of 2,737 eligible youth, we interviewed 2,109 for a response rate of 77 percent. Qualitative in-depth interviews were administered to respondents to the Young Person's Module from 16 households.

The average age of the sample is 15.4 and there are even proportions of males and females. A comparison was done between youth that were interviewed and not interviewed within the eligible age range of 13-19. No significant differences were found in terms of sex or age. The majority of youth in this age range are either children (or adopted children) of the head or a grandchild. Among interviewed youth, slightly more were children of the head (56 versus 53 percent) and slightly less were nieces or nephews (3 versus 6 percent) compared to those not interviewed. We believe that there is a very minimum chance of bias in our sample of interviewed youth.

Sexual Experience and Behavior

The youth questionnaire included a detailed section on sexual experience and behaviors that we analyzed by both treatment status and by gender. Assessing sexual activity and behavior among youth can be a good indication of risk exposure to youth pregnancy, sexually transmitted infections (STIs), and in particular HIV and AIDs. We find strong balance between the treatment and control sexual indicators, however, there are significant differences by gender. As a result, male and female differences will be reported (Table 5.6.1). IHS3 does not have a comparable section for youth so the MDHS results are used when applicable to compare results on youth sexual activity.

Sexual debut is not widely prevalent in our youth sample, at only 32 percent (age 13-19). Males are more likely (38 percent) than females to have debuted (27 percent). Table 5.6.1 shows rate of sexual debut in the SCTP sample and unmarried 15-19 year olds from the South/Central region calculated from the MDHS; the table also shows 15-19 year olds from the SCTP in order to make direct comparisons with MDHS. Sexual debut increases dramatically in the SCTP between the 13-19 and 15-19 age groups from 32 to 44 percent; the 44 percent rate in the 15-19 year old sample of SCTP is much higher than the 33 percent reported in MDHS. Restricting the MDHS to the bottom quintile, which is likely to be more comparable to SCTP households, increases the sexual debut rate to 38 percent. Reported sexual debut is higher for females in the SCTP but lower among males. The main concern with self-reported sexual debut in face-to-face interviews is under-reporting and this does not seem to be a problem in the SCTP.

Table 5.6.1: Sexual Debut in SCTP and MDHS[1] (% of Total Sample)

	SCTP 13-19	SCTP 15-19	MDHS	MDHS Bottom Quintile
All	32	44	33	38
Females	27	37	24	27
Males	38	50	55	61

[1]MDHS samples are for young people age 15-19 from South/Central region only, calculated by authors from DHS micro data.

Age at first sex is an important indicator because young people who debut at an early age are considered to be at a higher risk of contracting HIV and other STIs than young people who delay debut. . Of adolescents who report ever having sex, the average age of sexual debut in our sample is 14 years and there is no significant difference between males and females. Focusing on the 15-19 year old group, mean

age of debut is 14.5, slightly higher than the 14.3 in the MDHS and 15 in the bottom quintile. In MDHS as in the SCTP, mean age of debut is always younger for males than females.

Table 5.6.2 Age at First Sex in SCTP and MDHS[1]

	SCTP 13-19	SCTP 15-19	MDHS	MDHS Bottom Quintile
All	14.0	14.5	14.3	15.0
Females	13.7	14.9	14.8	15.1
Males	14.5	14.2	13.9	14.8

[1]MDHS samples are for unmarried young people age 15-19 from South/Central region only, calculated by authors from MDHS micro data. All figures are based on those who reported having ever had sex.

Among those adolescents who have had their sexual debut, a third of them used a condom at first sex, and for respondents' last reported sex 41 percent used a condom. In the MDHS, non-married females and males age 15-19, 45 percent used a condom during their last sex. The average age of the first sexual partner is also about 14 years old, although between males and females, first sexual partner tends to be older for females (17 years old) compared to males (13 years old). Current or last partner's age is most often younger (64 percent of youth), although males are twice as likely as females to have a younger partner (80 versus 41 percent). Age of one's sexual partner is an important indicator in particular for young women because they are more likely to have sexual relationships with considerably older men, a risky practice that can contribute to the spread of HIV and other STIs because older men are more likely to have already been exposed to these diseases. For MDHS rural adolescent women age 15-19 who had sex in the previous 12 months preceding the survey, 0.3 percent of them had a partner 10+ years older in the MDHS, however, in our sample fewer than 1 percent of females have ever had a partner 5 to 9 years older and none 10+ years older.

Respondents were also asked about risky sexual behaviors such as concurrent or overlapping relationships and transactional sex. According to UNAIDS, concurrent relationships are defined as "overlapping sexual partnerships where intercourse with one partner occurs between two acts of intercourse with another partner."[18] These overlapping sexual partnerships are more risky than monogamy because it can create large interconnected sexual networks, which enables faster spread and greater infection rates for diseases such as HIV. Youth ever involved in a concurrent partnership is only 7.5 percent, but males are much more likely to have had an overlapping partnership (10 percent of males compared to 4 percent of females). In comparison, MDHS data indicate that only 0.2 percent of female adolescents and 2.7 percent of male adolescents (ages 15-19) had concurrent relationships, but this was only over the last 12 months.

Transactional sex is the exchange of sex for money, favors, or gifts. This type of behavior is risky because it involves compromised power relationships and is associated with the spread of sexual diseases because of the likelihood of having multiple partners. In our sample, 49 percent have engaged in transactional sex (either given or received). However, females are much more likely than males to have engaged in any transactional sex. Sixty-five percent of females have had transactional sex, but they are much more likely to have received (63 percent) than given (9 percent). In comparison only 37 percent of males have had any transactional sex, but they are much more likely to have given (37 percent) than received (8 percent). In the MDHS sample, only males were surveyed about whether they had paid for any transactional sex activity and only 5 percent of males age 15-19 had ever done so.

Non-consensual sex is also a critical issue for the similar reason that there are unbalanced power dynamics in the relationship. In our sample 20 percent have ever been forced, pressured, or tricked into having sex. Almost 40 percent of females have ever been forced, pressured or tricked while only 7

[18] UNAIDS, 2009

percent of males have experienced this. By looking at each option individually, both females and males are more likely to have been pressured than forced or tricked.

Table 5.6.3 Sexual Activity and Behaviors for Adolescents (% unless otherwise noted)

Indicator	Full	Male	Female	P-value
Sexual debut	32.4	38.0	26.6	**0.00**
Sexual debut age (mean)	14.0	13.7	14.5	0.10
Used condom first time sex	34.5	33.9	35.5	0.81
Used condom last time sex	40.6	45.9	33.3	0.15
First sex partner age (mean)	14.5	13.0	16.8	**0.00**
Most recent sex partner age (mean)	16.2	14.6	18.5	**0.01**
First sex partner age				
Younger	58.9	82.1	25.0	**0.00**
About the same age	15.5	9.6	24.0	**0.01**
About 1-4 years older	25.5	8.3	50.1	**0.00**
About 5-9 years older	0.1	0.00	0.3	0.34
Most recent sex partner age				
Younger	63.8	82.1	25.0	**0.00**
About the same age	13.7	9.6	24.0	0.59
About 1-4 years older	22.2	8.3	50.1	**0.00**
About 5-9 years older	0.1	0.0	0.3	0.10
Ever transactional sex	48.8	37.7	65.2	0.07
Ever given	25.5	36.6	8.9	0.07
Ever received	30.0	7.9	62.5	**0.00**
Sex ever forced, pressured, tricked	20.3	7.3	39.4	**0.00**
Pressured	19.6	11.3	31.6	**0.02**
Tricked	10.6	5.4	18.2	**0.01**
Forced	11.8	4.6	22.3	**0.00**
Concurrency ever	7.5	9.8	4.4	0.14

While over half of the qualitative youth participants had been sexually active, and some of the young women had babies, few participants indicated being sexually active at the time of the interview and there was a general negative connotation to sexual activity in their narratives. A couple of the girls, especially those that have children, mentioned discussing boyfriends with their friends, but it does not seem that they explicitly talk about sex. Among boys there was also very little indication of discussing sexual activity. When discussing past partnerships, some of the girls indicated there was a transactional nature to the relationship, including the provision of money or other goods. One young woman described how a sexual relationship with a transactional quality evolved:

> ***Respondent****: When I was working in town he stopped me and told me he wants to go out with me. I refused. Then we met another day he asked again. I refused, then we met again and he asked me out again and this time I said yes.*
>
> ***Interviewer****: All this happened in town.*
>
> ***Respondent****: Mmmmhhh.*
>
> ***Interviewer****: Ok. so what did the relationship mean to you?*
>
> ***Respondent****: Like he used to give me money.*

It is worth noting as well that this relationship started when the young woman was working in town, likely a consequence of her family's state of poverty.

Youth participants were aware of condoms as a way to "avoid diseases" and many indicated that they had used them in their sexual encounters. The participant quoted above had described that she always insisted on using condoms to protect herself from diseases even though her partner sometimes resisted. Another female participant noted that she and her boyfriend did not use condom because he was the primary decision maker and didn't want to use a condom.

> ***Interviewer**: Did he want to use a condom?*
>
> ***Respondent**: No he did not.*
>
> ***Interviewer**: What did he say was his reasons why?*
>
> ***Respondent**: He said it is painful.*
>
> ***Interviewer**: To whom?*
>
> ***Respondent**: To him, he said he feels pain when he is wearing a condom.*
>
> ***Interviewer**: So how did you feel that you did not use a condom?*
>
> ***Respondent**: I was worried that I will fall pregnant if we don't use a condom.*
>
> ***Interviewer**: Mmh, any other reason?*
>
> ***Respondent**: Because I left school because I got pregnant, also after he impregnated me, he went to live in Zomba and rarely comes here.*

This quote reflects a high level of awareness about the dual protection offered by condoms but an inability to negotiate condom use with her male partner. Her experience also highlights the impact of getting pregnant on young women's educational trajectories.

Alcohol and Cigarette Use

Both alcohol and cigarette use are very rare in our sample. Only 3 percent have ever tried alcohol and 1 percent has ever tried cigarettes. Males are more likely to have tried both alcohol and tobacco than females.

Table 5.6.4 Alcohol and Tobacco Use (%)

	Full Sample	Male	Female	P-value
Ever had a drink	2.94	4.04	1.811	0.09
Ever smoked	1.09	1.84	0.34	**0.03**[1]

[1]Bold p-values represent a significant difference between males and females

Mental Health

The youth questionnaire also measured expectations and mental health. We measured mental health by using the short form of the Center for Epidemiological Studies Depression (CES-D) scale. We used a 10-item variant of the short form proposed by Andresen, Malmgren, Carter, and Patrick. The responses for each item are on a scale from 1 (rarely) to 4 (all the time) so that the response totals ranged from 10 to 40. The cut-off point for depressive symptoms is 20 or above. Table 5 shows that 47 percent of adolescents in our sample have depressive symptoms. This scale was also administered to similar populations as part of the evaluations of the Zambia Multiple Category Cash Transfer Programme (MCP), the Kenya Cash

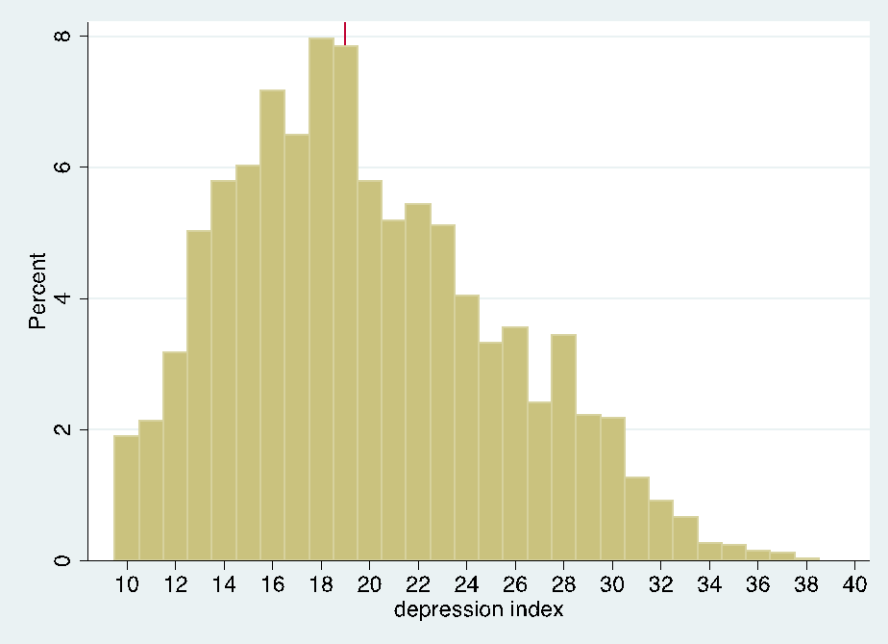
Transfer for Orphans and Vulnerable Children (CT-OVC) Programme (which was administered four years after intervention), and the Zimbabwe Harmonised Social Cash Transfer (HSCT) Programme. Therefore, we show estimates from these samples as a point of reference for the results but are not attempting to compare directly across samples. According to the CES-D scale, the percentage of adolescents with depressive symptoms in Malawi is much greater than in Zambia, Kenya, or Zimbabwe. However, the median CES-D score was only slightly greater (19) than the average of 18. Figure 5.6.1 shows the distribution of the CES-D score for Malawi, roughly centered at 19. The Cronbach alpha is a measure of internal consistency for scale measures—we obtained an alpha of 0.72, which indicates acceptably high internal validity for the scale.

Table 5.6.5 % of Adolescents with Depressive Symptoms[1] in Malawi and Other Cash Transfer Evaluations

	Malawi SCT	Zimbabwe HSCT	Zambia MCT	Kenya CT-OVC
Age range	13-19	13-20	13-17	15-18
All	47	37	25	27
Male	45	36	26	34
Female	49	39	23	19

[1]Depressive symptoms is defined as scoring 20 or above on the CES-D Scale

Figure 5.6.1 Distribution of CES-D Score in Malawi



Youth were also asked about their expectations for the future, similar to the main respondents in the full survey. Compared to the main respondents, adolescents tend to have an upward trending outlook for the future. Most (50 percent) believe that life will be better in a year, similar to caregivers (53 percent). Males are slightly more likely (54 percent) to believe in better future in a year than females (47 percent). However, a greater majority (70 percent) of youth believe that life will be better in five years compared to a declining belief in the future among caregivers (for two and three years in the future only 45 and 43 percent respectively believe in a better future).

Table 5.6.6 Will Your Life Be Worse/the Same/Better in 1 or 5 Years?

In one year	
Worse	4.8
About the same	44.7
Better	50.5
In five years	
Worse	4.3
About the same	26.0
Better	69.7

During qualitative interviews, youth participants shared the same principal concerns and worries as the caregivers: poverty, food shortage, how to finish school, and concerns for their future. A caregiver described these worries in the context of her eldest child:

> ***Respondent:*** *His only worry is poverty. He says, "Mum, how will you take care of these young ones?" This is because in this house he is the eldest of the children. That is why he decides to be going for ganyu so that he can help me.*

This young man's stress reflects his role as the male elder of the house, which carries the expectation that he will contribute to supporting the family.

The themes of depression, stress and hopelessness were generally more salient among caregivers than youth with the exception of young women who had children and were significantly impacted by a desperate lack of opportunity and extreme social isolation. A handful of youth, mostly those who were disabled and the young women with children, lacked social support and interaction, which affected their mental health. These participants were also clearly less comfortable being interviewed compared to the other youth.

Social Network Characteristics of Youth

In general, the qualitative interviews showed that youth had fairly small social networks consisting of mostly "strong" family and friend ties with fewer "bridging" ties, or peers who extend beyond the immediate network of the participant and may provide linkages to other resources, ideas, and opportunities. Youth had an average of 2.8 peers in their networks (range 0 to 6). Males had larger networks (average 3.5 peers) compared to females (average 2.1 peers) and, in general, seemed more socially connected. Young women who had babies were especially isolated. The largest male peer network included six peers, three close male friends and three more peripheral friends, and was the only example of a network with both strong and bridging ties. The most socially isolated participant was a young woman who was out of school and had an infant who indicated she had no peer network, describing herself as "secretive". We observed indications of homophily, or the phenomenon of "birds of a feather flock together", with regard to the composition of peer networks. All networks were unisex and in-school youth had mostly peers who were also in-school while those out of school generally had peers who were out of school. Several participants, male and female, who had more than one peer indicated having one very close friend out of the group. Males described doing school work, playing soccer, *ganyu* and doing chores as the main ways they spent time with their peers. Two young men mentioned going to see videos with their friends. Female participants emphasized more time spent doing chores and *ganyu* with their friends, with less discussion of doing schoolwork together.

Household Economic Activity

In this section we describe the main economic activity of SCTP households through labor supply, non-farm business, crop production and livestock and fishing production.

Labor Supply—Adults

Most households (57 percent) have had at least one adult (18-65) participate in *ganyu* labor in the past 12 months, but only 6 percent of households have had an adult member working in the formal wage sector. Reported daily *ganyu* wages for adults vary greatly with a range of MWK 75 to 3,000 per day (excluding the very top and bottom outliers), but the average *ganyu* wage is about MWK 541 per day (about US$1.64). Households tend to work around 90 days annually in *ganyu* labor, which would make the average annual income from *ganyu* MWK 48,690 (US$148). In rural areas in Malawi, the IHS3 reports that 73 percent of adults (15 and older) engaged in income generating activities in the past 7 days—13 percent engaged in *ganyu* labor and 6 percent were engaged in wage employment.

Table 5.7.1 Household Labor Supply (Adults 15-65)

Households with adult in wage employment (%)	5.5
Household with adult in ganyu labor (%)	57
Average days a year of ganyu labor per HH (mean)	90
Average ganyu wage per day (MWK)	541

Non-farm Enterprise

About a quarter of the sample reported operating a non-farm enterprise in the last year. In the rural sample in the IHS3 about 18 percent of households from the Central Region and 17 percent of the households from the Southern Region had enterprises. Enterprises are almost entirely run by household members since only 0.6 percent of our sample had hired help for their enterprise. Similarly, the IHS3 finds that in rural areas, 93 percent have no non-household members engaged in the enterprise. Enterprises tend to be profitable as well. We asked the amount earned or lost from the enterprise in the last month of operation and the average monthly profit from enterprises is MWK 2,498 (about US$7.57)

Table 5.7.2 Household Engagement in Non-farm Enterprises

Households with non-farm enterprise (%)	23.1
Household hiring labor for non-farm enterprise (%)	0.6
Total earned (MWK) from enterprise last month of operation (mean)	2,498

Crop Production

Most households in the sample engage in agricultural production. Ninety-six percent reported either owning and/or cultivating land for the last rainy season (Table 5.7.3). This is the same picture in the rest of rural Malawi as well since according to the IHS3, 94 percent of rural households engaged in agriculture. The most important crop was maize, which was grown by 99 percent of crop producers, followed by pigeon peas (22 percent), groundnuts (19 percent), and rice and pumpkin (nkhwani) which are both grown by 6 percent of farmers. Crop production was mainly used for household consumption. Table 5.7.3 shows that the share of households selling crops was small (23 percent) but pigeon peas, groundnuts, and maize were the most common crops sold.

Table 5.7.3 Crop Production and Sales

Owned and/or cultivated land last rainy season	95.6
Main crops produced (% of all producing households)	
Maize	99.5
Groundnut	19.3
Rice	5.8
Pigeon pea	22.1
Pumpkin (nkhwani)	6.0
Sold any crops	22.7
Main crops sold (% of those selling)	
Maize	99.0
Groundnut	35.6
Pigeon pea	37.7

Ten percent of households reported not owning any land. For the 90 percent of households that did report land ownership, the average size of the plot(s) were 1.5 acres, with 25 percent cultivating less than one acre and 50 percent cultivating between one and two acres. Producers tend to use traditional production systems and therefore few households use inputs such as irrigation and pesticides (Table 5.7.4). Similarly in the IHS3, in rural Malawi only 1 percent used pesticides and 0.5 percent used irrigation. However, chemical fertilizer is the exception and 69 percent of farmers in the sample use chemical fertilizer as an input (only 26 percent use organic fertilizer). In the IHS3, rural households were also much more likely to use chemical fertilizer (61 percent) than organic fertilizer (11 percent). The high usage of chemical fertilizers in the SCTP sample can be attributed to the high proportion of the cultivating households (55 percent) receiving vouchers for fertilizers from the farm input subsidy program (FISP). It is unclear how the remaining 14 percent not receiving vouchers but using chemical fertilizers are getting this input. A small percent are likely purchasing outright because 58 percent of cultivating households report buying their fertilizer, but the rest might have received chemical fertilizer in-kind or as a gift, but we do not ask those questions in the survey.

Table 5.7.4 Use of Agriculture Inputs of Cultivating Households (%)

Hired farm labor	4.2
Irrigation	4.9
Fertilizer	68.7
Pesticides	2.3
Receiving vouchers for fertilizer	55.4

Despite being almost an entirely agricultural sample, not many households own basic agricultural implements for production (Table 5.7.5). Except for hand hoes—which are owned by almost 87 percent of households (94 percent in IHS3) — few households own other agricultural implements. Only 18 percent of SCTP households own an axe (56 percent rural IHS3), 18 percent own a sickle (compared to 50 percent of rural IHS3), and only 23 percent own panga knives (compared to 34 percent rural IHS3).

Livestock Production

Most households are not involved in livestock activities as hardly any households own livestock. In comparison, 50 percent of rural Malawians in the IHS3 sample are engaged in livestock activities. The most common livestock owned are chickens, owned by 16 percent of households, and goats/sheep which

are owned by about 10 percent of households; ownership of other livestock is less than 1 percent. This explains the absence of asset ownership related to livestock. Besides fodder and an oxcart, there are no households who own anything else related to livestock production (Table 5.7.5).

Table 5.7.5 Asset Ownership—Agricultural and Livestock (%)

	Owned Asset	Purchased Asset in Last 12 Months
Agricultural Implements		
Hand Hoe	86.9	5.9
Slasher	1.2	0.02
Axe	13.6	0.3
Sprayer	0.4	0.02
Panga Knife	23.3	0.6
Sickle	18.4	0.9
Treadle Pump	0.08	0
Watering Can	1.1	0
Livestock		
Calf	0.06	0
Steer/Heifer	0	0
Cow	0.13	0.04
Bull/Ox	0.06	0
Donkey or mule horse	0.02	0
Goat and/or sheep	9.9	1.2
Pig	0.35	0.14
Chickens	15.5	3.7
Beehive	0.04	0
Livestock inputs		
Fodder	0.02	
Manufactured feed, Salt	0	
Vet Services/Drugs/Medicines	0	
Machinery		
Ox Cart	0.04	0
Ox Plough	0	0
Generator, Motorized Pump	0	0
Structures/Buildings		
Chicken House	0	
Livestock Kraal	0	
Poultry Kraal	0	
Storage House	0	
Granary	0	
Barn	0	
Pig sty	0	

Fishing

Both Salima and Mangochi border Lake Malawi, but despite this fact, just one percent of households engage in fishing activities and this is primarily for household consumption purposes since only 27 percent of those that engage in fishing sold fish. The lack of fishing households in our sample is surprising but likely due to the fact that those engaged in fishing are better off and do not qualify for the SCTP.

In conclusion, the primary source of livelihoods among SCTP households is crop production, with 23 percent of households selling any crop. The most common crops produced are maize, groundnut and pigeon peas, and these are also the most common crops sold. Crop production technology is rudimentary with the exception of chemical fertilizer which is used by two-thirds of the sample due to the government's fertilizer subsidy program, and agricultural tools are limited to hoes, pangas and sickles. The second most important livelihood source is *ganyu* labor, followed by non-farm enterprise. There is very little engagement in wage labor, and livestock ownership is also low except for chickens, goats and sheep. This profile of economic activity is consistent with the relative poverty of SCTP households that we reported earlier in the report, and is to be expected given the targeting criteria of the SCTP.

Household Shocks and Safety Nets

Recent Shocks to the Household

Household welfare can be negatively affected by adverse shocks, such as drought or death of a household member, due to resulting economic and emotional tolls that shocks can take on families. The survey asked household respondents whether they have been affected by a number of common shocks in the last 12 months, and how they responded to the shock. Table 5.8.1 highlights the average number of shocks that households have experienced and which ones are the most common. The average number of shocks for the SCTP-eligible sample is 2.5 in the last year but some households had as many as 9. The largest reported shock in the previous 12 months (approximately July 2012-July 2013) was unusually high prices reported by 83 percent of SCTP households. The next two most commonly reported shocks were drought/irregular rains and then unusually high costs of agricultural inputs, at 62 and 44 percent respectively. A significant difference (p value of .04) for the impact of drought and irregular rains was found between treatment and control households, although the difference is not large (4 percentage points) and does not suggest there is a practical difference in experience of shocks between T and C households.

These three main shocks suggest an inter-related nature of problems facing SCTP households particularly since they are almost entirely poor agricultural households. The relationship suggested is that the food supply would decline as a result of poor weather conditions, thus increasing food prices. Coupled with unusually high costs of inputs, which would also contribute to higher food prices, the effect of the food shortage would be compounded, resulting in more the widespread effect of high food prices.

In comparison, only 30 percent of the rural ultra-poor from the IHS3 reported unusually high food prices, while 50 percent experienced drought or irregular rains and 27 percent experienced unusually high agricultural prices. It is likely that instead of a fundamental difference between these two groups, weather and national or regional economic conditions varied significantly and created harsher conditions in 2013 than the rural poor felt in 2010-2011.

We also asked households about their responses to shocks to understand how they might smooth consumption and maintain welfare. Table 5.8.1 shows the main mitigation measures used to overcome various shocks affected by the households. The most common mitigation measure reported by 31 percent of eligible households was to rely on unconditional help from relatives and friends, but changing eating

patterns (21 percent) and relying on own savings (18 percent) were also measures used. Ultra-poor rural households from the IHS3, on the other hand, were more likely to rely on their own savings (23 percent) and less likely to receive unconditional help (13 percent). Also because food prices were not as much of an issue, only 3 percent of households changed their eating patterns.

Table 5.8.1 Household Experience with Major Shocks and the Responses

	SCTP	IHS3 Rural Ultra-poor
Total Shocks (mean)	2.5	1.6
Top Shocks (%)		
Unusually high food prices	82.8	30.4
Drought/Irregular rains	61.9	49.6
Unusually high costs of agricultural inputs	44.3	27.1
Top Responses (%)		
Unconditional help from relatives or friends	30.7	12.6
Changed eating patterns	21.0	3.4
Own-savings	18.2	23.2

Social Safety Nets

This survey also collected information on assistance received by the household from social safety net programs. These programs in Malawi seek to prevent the poor or those vulnerable to shocks and poverty from falling below a certain poverty level. Table 5.8.2 shows that 70 percent SCTP-eligible households are receiving at least one type of assistance whereas only 22 percent of the rural ultra-poor households from the IHS3 were receiving assistance at the time of the survey.

The main reason for this discrepancy is the SCTP evaluation survey asks whether households receive vouchers or coupons from the FISP program for chemical fertilizer, but the IHS3 does not include this as a social safety net. Since about 54 percent of the SCTP sample receive these vouchers, this is the largest source of governmental support for this group and likely the reason for such a comparatively high proportion of assistance.

The second most common safety net program for SCTP-eligible households is free maize. While 16 percent receive this in-kind assistance in the SCTP sample, free-maize is received by only 3 percent of the IHS3 sample. However the next most common assistance received, the school-feeding program that also gives in-kind assistance, equally supports 15 percent of both samples. Table 5.8.2 shows the top five safety net programs for SCTP households and it is worth mentioning is that they are all are food-based. Each program is tied to the provision of food, either through giving maize directly or through cash-like instruments (food stamps, coupons) that may be used to purchase food. It is understandable to see these programs being targeted towards SCTP-eligible households considering they aim to support households that have trouble with adequate consumption and nutrition.

Table 5.8.2 Proportion of Households Receiving Aid from Safety Net Programs (%)

	SCTP	IHS3 Rural Ultra-poor
Received any assistance	69.8	22.0
Programs		
Vouchers for fertilizers or seeds (FISP)	53.5	N/A
Free Maize	16.3	3.1
School Feeding Program	14.7	14.7
Free Food (other than Maize)	14.3	0.5
Food/Cash-for-Work Program	7.5	1.9

Transfers Into and Out of the Household

As shown in this report, eligible SCTP households are clearly vulnerable and in need of economic support, however, Table 5.8.3 shows that most households are receiving some monetary or in-kind support from those close to them. In the last 12 months, 82 percent of SCTP households received either direct or in-kind transfers from family, friends, or community members. Nevertheless, a sizable proportion of them (31 percent) are also making transfers out of the household. It might seem to go against their own self-interest for such poor households to reach from their pockets to give to others, but it is not uncommon for households to support family and community in their times of need and it might be a way of securing themselves of continued support from these same relationships. In comparison to the rural ultra-poor from the IHS3, a smaller proportion of households are receiving or making transfers. In this comparison group, only 22 percent of households have received transfers in the last 12 months and only 12 percent have made transfers.

Table 5.8.3 Transfers Into and Out of the Household

	SCT	IHS3 Rural Ultra-poor
Receiving transfers (%)	82.4	22.3
Making transfers (%)	30.8	12.4
Amount received (MWK) (mean)*	60,956	66,330
Amount given (MWK) (mean)*	12,943	62,318

* IHS3 amounts adjusted for August 2013 prices explained in the Welfare section

Additionally, we asked our households how much they received and gave in monetary value. SCTP households received on average MWK 60,956 (US$185) and gave away MWK 12,943 (US $39). Ultra-poor rural households from the IHS3, on the other hand, received and gave more balanced amounts. Adjusting for 2013 prices (see welfare section for how this was calculated), these households received on average MWK 66,330 (US$200) and gave MWK 62,318 (US$189) over the last 12 months.

Credit

In addition to transfers, households may use credit to smooth consumption and maintain welfare. Our survey collected information on loans and credit purchases to understand SCTP households' access to credit. For loans we distinguish between long-standing loans, those that were acquired prior to June 2012, and current loans. Table 5.8.4 shows that while only 7 percent of households had a previous outstanding loan (and a net balance due of MWK 2,000), 27 percent currently hold a loan. Among current loans (those

taken out after June 2012) the median amount taken is also MWK 2,000 and the current outstanding amount is MWK 1,000. Of great interest are both the source of loans and the reason for entering into debt. Almost three-fourths of loans are taken out from neighbors or relatives, and the top two reasons, which dominate any other reasons reported for taking a loan, are consumption and health expenses. Thus debt is primarily driven by the need to smooth consumption due to what is likely to be idiosyncratic shocks such as food or other consumption needs and ill-health.

The survey instrument asked a series of questions to identify households that were possibly 'credit constrained'. For example, those households who do not currently have a loan may not have wanted or needed one, or may have wanted one and applied and were denied, or did not even apply because they did not believe they would be eligible. The survey instrument allows us to distinguish between these groups of households to identify their position in the credit market. Based on these questions, we define 44 percent of all households as credit constrained for loans, meaning that they wanted a loan but do not have one, for example because they are do not have enough collateral, or they have a loan now but would have wanted to borrow more money but could not.

In addition to obtaining cash through loans, another important mechanism for consumption smoothing is to obtain goods on credit. We see that 30 percent of the sample actually have made purchases on credit, and the total amount purchased on credit is MWK 1,000, of which about half has been re-paid. The most common items purchased are consumption (food-90 percent) followed by health services (5 percent). Similar to loans, we also identify the household's position in the market for hire purchase through a series of hypothetical questions and discover that virtually every household that did not purchase on credit would have liked to—69 percent of households are constrained when it comes to purchase on credit. The three most common reasons for not asking for credit are of lack of collateral (27 percent), belief that they would be refused (23 percent) and credit not available in community (15 percent). It will be interesting to see whether participation in the SCTP improves the position of the household in the loan and credit market, effectively enabling them to access more goods or cash in order to better cope with shocks or meet other large obligations.

Table 5.8.4 Loans and Purchases on Credit

Had Loans	
Had loan from prior to June 2012 (%)	6.9
Amount outstanding if had prior loan (median MWK)	2,000
Have recent loan (last 12 months) (%)	26.8
Amount borrowed if have current loans (median MWK)	2,000
Amount outstanding on current loans (median MWK)	1,000
Source of loan (%)	
Neighbor or relative	73
Village bank	13
Reason for loan (%)	
Consumption	64
Health	15
Constrained (loans)	44.4
Purchase on Credit	
Have made purchases on credit last 12 months (%)	29.7
Amount of purchases on credit (median MWK)	1,000
Amount of paid back (median MWK)	500
Constrained (credit) (%)	69.3

7. Stages of Progress: Community Perceptions of Poverty and Wellbeing

Introduction

An important part of understanding the SCTP's impacts on poor households over time is understanding poverty and wellbeing as it is perceived by the rural communities receiving the SCTP. Using the Stages of Progress methodology (Krishna 2005), research assistants conducted focus group discussions (FGDs) in each of the four study TAs.

Group Village Headmen were asked to recruit a group of community members who 1) have been longtime residents and 2) have deep knowledge of the community and changes that have impacted the local area. The groups convened at a centralized place in the TA. FGDs were conducted separately for men and women to allow for free discussion, for a total of eight FGDs (two per TA). Six to ten senior community members of various ages were present for the discussions.

A team of two research assistants of the same gender led discussions about the local community's perceptions of poverty and movement into and out of poverty since 2004. In the first part of the conversation, participants were asked to discuss the characteristics of poor households in the community. They were then asked to define the stages of progress in material wellbeing, moving from deep poverty to prosperous. To list the stages, participants were asked to identify what a poor household might do with some additional cash at each stage as they improved their material wellbeing.

Community Definitions of Poverty

Participants described different groups that are part of their communities. These generally were defined as ultra-poor, poor and non-poor (See Figure 7.1 for Chichewa names given to these categories by the communities.)

Categories of Wellbeing

This section described how the communities characterized each of these categories (ultra-poor, poor and non-poor).

Ultra-poor household: This category describes between 50-80 percent of community members in theses study TAs.

- Not enough food; poor quality food
- Housing in disrepair
- No one able/ old enough to work
- Children can't go to school because lack of clothing and soap/ need for *ganyu*

"These people have trouble finding food, their clothes usually don't look good, their place usually doesn't look good and their houses sometimes leak during the rain"… "because they don't have enough food they usually eat once a day in the evening so that they could have a good sleep."

Poor household: This category describes between 15-35 percent of community members in study TAs.

- Eat better quality food
- Better housing and utensils
- Use more farming inputs (fertilizer)
- Own a few chickens/ a goat
- Own small businesses
- Children in school (very few in secondary)

Non-poor household: This category represents a marginal portion of the current population in most TAs at around 5 percent, but in one TA participants estimated that about 25 percent of the households in the community are categorized as non-poor.

- No worries about food
- Nice 'permanent' housing (cement floor, brick walls/ fence, metal roof)
- Buy more land; intensify agriculture
- Own goats, sometimes ox and ox cart
- Children in school (secondary) or abroad (South Africa/ Mozambique)
- Motorcycle/ Car for personal transport
- Bank Account
- Electricity in homes
- Own big business (grocery, etc.)

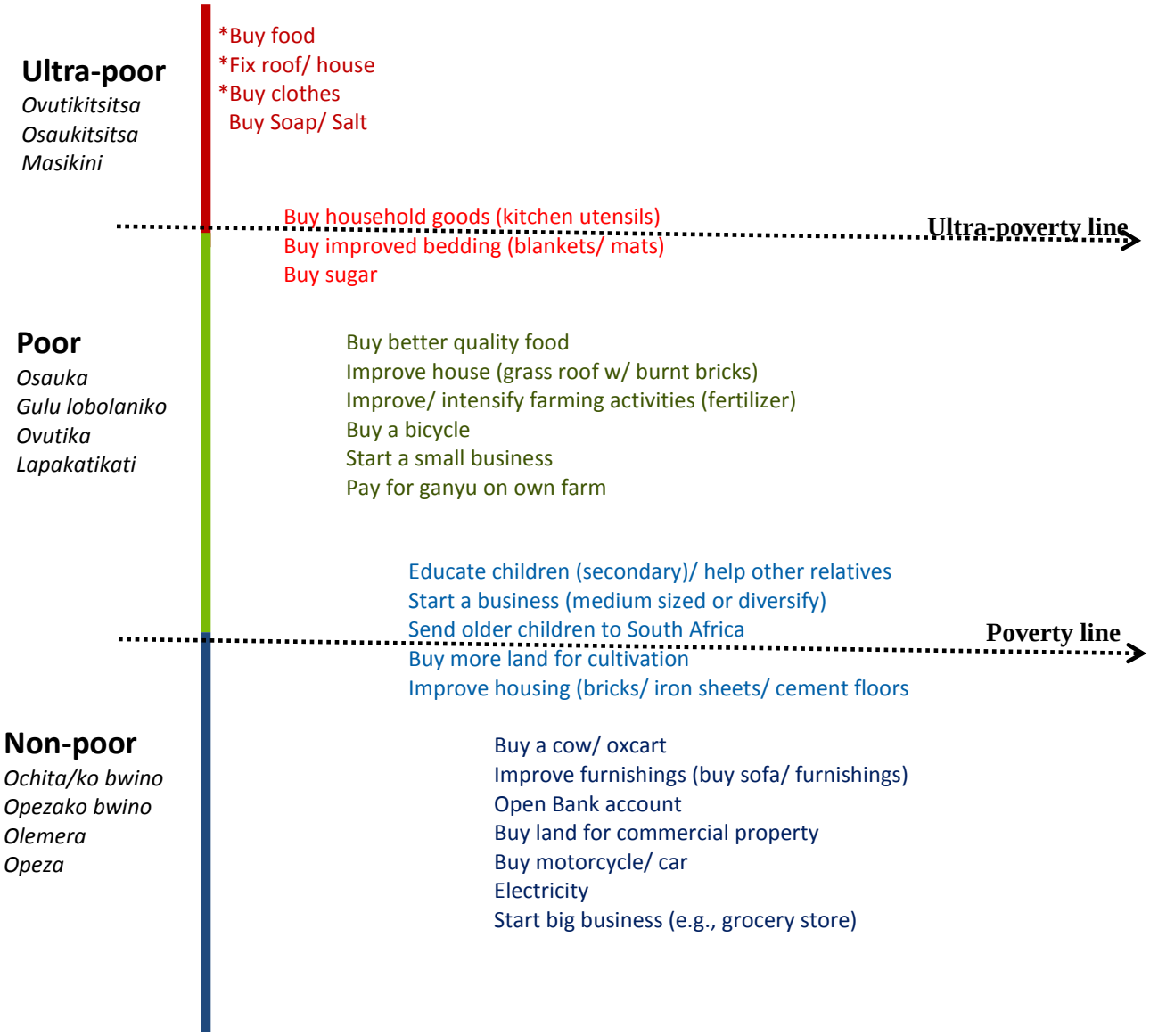
It is notable that electricity was listed as one of the highest stages of material wellbeing in a household in these rural areas. This compliments the finding from the quantitative survey that not a single SCTP eligible household has electricity.

Poverty Cut-off Lines

Participants defined the ultra-poverty and poverty line cut-offs between the stages of progress they described previously. Results across communities were quite similar, especially at the poorer stages, which is consistent with findings from other Stages of Progress studies.[19] Figure 7.1 describes the stages as defined by the local residents. As the figure shows, the stages listed fall on a spectrum. The exact cut-off for poverty and non-poor categories varied only slightly across group discussions. The categories that varied from group to group are represented by the groupings of stages that cross the cut off lines in Figure 7.1. Overall, communities agreed on the vast majority of classification and characteristics of the Stages of Progress.

[19] Krishna, 2005

FIGURE 7.1 Stages of Progress as Defined by SCTP Evaluation Communities



* These are consistently the first 3 items mentioned for how an ultra poor household would spend additional resources.

Movement Into and Out of Poverty

Communities were asked to describe key factors that led to movement into and out of poverty in the last several years. The year 2004 was chosen as a reference date since it was a year that Dr. Bingu wa Mthalika was voted into power and most people remember that event.

Participants estimated the percentage of households in the community that fall into each of the stages as of November 2013. They were then asked to estimate the percentage if household that fell into each stage in Figure 7.1 in 2004. Table 7.1 shows the percentages in each major category for 2004 and 2013. The last three columns represent the *net* change. Since participants were only asked to identify the total percentage in a category in 2004 and 2013, we are unable to determine to what degree the net percentage changes are driven by movement into or out of poverty. For example, a positive net change of 12 percent in ultra-poverty category could be attributed to 15 percent of households moving out of ultra-poverty and an additional three percent falling into ultra-poverty from either non-poor or poor categories.

Table 7.1 % of Households Allocated to Each Category, and Net Change from 2004 to 2013[1]

	2004			2013			Net Change (2004 to 2013)		
	Ultra	Poor	Non	Ultra	Poor	Non	Ultra	Poor	Non
Salima-Maganga	46	34	16	67	28	6	21	-6	-10
Salima-Ndindi	78	15	3	71	22	8	-8	7	5
Mangochi-Jalasi	50	30	20	71	19	10	21	-11	-10
Mangochi-M'bwana Nyambi	55	27	19	45	25	27	-10	-2	8

[1]The numbers represent an average of the women's and men's groups' responses. During discussions, groups did not always categorize 100% of the households, so totals in the table do not necessarily sum to 100%.

In general, Salima-Ndindi and Mangochi-M'bwana Nyambi TAs have fewer ultra-poor households in 2013 than in 2004. The percentages of non-poor have made an almost equivalent increase. Conversely, Salima-Maganga and Mangochi- Jalasi TAs estimated that significantly more households are living in ultra-poverty in 2013 as compared to 2004, with fewer poor and non-poor households.

Reasons for Movement Out of Poverty

Reasons cited for moving out of poverty range from environmental factors and personal initiative to government and other support programs:

- Good rainy seasons
- People work hard instead of relying on government handouts
- Children finish school/ grow up and make money
- Remittances from abroad (South Africa/ Mozambique)

"Some will see that they are in dire poverty and will cultivate crops that season for sale. They will use the proceeds to make a passport and for transport to South Africa."

- Government Programs
  - Farm Input Subsidy Program (FISP)--use of fertilizer is newer practice and increases yields
  - Local Development Fund (LDF) / MASAF/ Ministry of Forestry projects create employment
  - Ministry of Agriculture Extension Services

- NGOs- irrigation/ intensive agriculture/ grain storage/ seed loans/ micro-credit/ pay for school fees & uniforms
- Clubs/ Organizations help people access money/ resources

Reasons for Movement Into Poverty

Similarly, reasons for moving into poverty spanned a range of factors, including environmental stresses, personal losses or mistakes, and lack of institutional or government support:

- Climate change/ drought/ flooding

"… in the old days we used to harvest granaries of maize, enough to eat and all other money we would find was used for other things. These days our money is all being used for food."

"…in the last two years, we had floods at the beginning of the season and a dry spell at the end of the rainy season. That means that all the plans that one had….are all destroyed. In the end you see that someone who was doing well is even struggling to find n'sima."

- Death of a spouse/ Old age
- Mismanagement of wealth/ failed businesses
- Unstable prices- e.g., for buying/ selling maize
- Devaluation of MWK
- Change in ruling party in government = people lost positions of power
- Ultra-poor don't have access to micro-finance
- Have to pay or have connections to get seasonal employment
- Limited access to necessities in community because people too poor to buy

Community Suggestions for Decreasing Rural Poverty

The focus group participants cited particular programs that have helped their communities in the past, and programs they think would support poverty alleviation in the future. These suggestions include:

- Increase & monitor FISP and food programs to keep vendors from reselling
- GoM should create jobs- Malawi Social Action Fund (MASAF) (e.g., road building)
- GoM and NGOs should give loans for small business
- Control inflation/ cost of food/ fuel/ transport
- ADMARC open all year
- GoM should provide treadle pumps to support crop irrigation
- GoM should bring back farmer clubs for fertilizer loans
- GoM should build more public facilities (primary schools, health, boreholes) in the communities and provide related resources

8. Conclusion

The baseline quantitative survey for the impact evaluation of the Malawi SCTP was successfully conducted between June-August 2013. A total of 3,531 households were interviewed of which 48 percent are part of the immediate entry intervention group and the remained in the delayed-entry control group. This report confirms two essential features of a baseline data collection exercise. First, the randomization of households into control and treatment groups was successful in that the two groups of households are similar across a range of indicators covering food security and poverty, child and adult health, economic activity and livelihoods, and adolescent welfare and behavior. Second, data is of good quality. Response rates were almost perfect, and key indicators described in the report match up well with those reported from national data collection exercises such as the IHS3 and MDHS.

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Appendix A.1 Stakeholders Workshop- September 2012

September 17, 2012
Lilongwe, Malawi

The Steering committee for the Social Cash Transfer Impact Evaluation (IE) met on September 17, 2012 at UNICEF offices to discuss the timing and design of the IE. The following decisions were made:

1. Two Traditional Authorities (TAs) each in Salima and Mangochi will be included in the study. A total of 3500 households or approximately 35-40 Village Clusters (VCs) will be necessary for the study;

2. The 2 TAs per district were selected by lottery during the meeting. These TAs are Pemba and Maganga in Salima District and Mbwana Nyambi and Jalasi in Mangochi District.

3. The MGCSW will prioritize these 4 TAs for targeting during the next few months in order to identify the eligible list of households and their corresponding VCs. This will be completed by February 2013

4. In the case where more than 35-40 VCs exist in these TAs, VCs will be randomly ordered to participate in the study. This random ordering will be done by District Commissioners. Once targeting is complete we will know exactly how many VCs will enter the study; entry into the study will be based on the (random) ranking conducted by the DCs.

5. The baseline survey will then be conducted in March-April 2013.

6. After completion of the baseline survey, VCs will be randomly allocated to intervention and delayed treatment status. Those VCs randomly allocated to intervention status will be enrolled in the program and begin receiving transfers. The details of this lottery (who, where) will be decided in due course (April/May 2013).

7. The length of the study will be a minimum of 12 months. Subsequent to that there are 3 options: 1) Leave controls out and conduct 24 month follow-up; 2) Leave controls out and conduct 18 month follow-up; 3) controls enter at 12 months and conduct 24 month follow-up. This decision will be made later. GoM officials highlighted the potential benefits of a longer follow-up period.

Meeting for preparation of impact evaluation on Malawi Social Cash Transfer Programme

17 September 2012

Participant List

1. Willard Manjolo, Director Social Welfare, MoGCSW
2. Annie Namagonya, Coordinator SCTP, MoGCSW
3. Laurent Kansinjiro, SCTP Secretariat, MoGCSW
4. Reagan Kaluluma, SCTP Secretariat, MoGCSW
5. Harry Mwamlima, Director Poverty Reduction and Social Protection, MoEPD
6. Tom Mtenje, PRSP, MoEPD
7. Twapashagha Twea, PRSP, MoEPD
8. Maxton Tsoka, CSR
9. Peter Mvula, CSR
10. Ashu Handa, UNC
11. Maike Muenz, KfW
12. Chantal Elmont, Ayala Consulting
13. Maki Kato, Chief Social Policy, UNICEF
14. Sophie Shawa, Social Policy, UNICEF
15. Clemens Gros, M&E, UNICEF
16. Tayllor Spadafora, Social Policy, UNICEF

Appendix A.2: Inception Workshop Documentation- February 2013

Malawi SCTP Impact Evaluation Inception Workshop February 2013
Summary of agreements regarding activities, time-line and responsibilities
Submitted by UNC to UNICEF

Table A.2 lists the agreements made at the recently concluded SCTP Impact Evaluation Inception Workshop held in Lilongwe February 12-13, 2013. Dates indicated are completion dates.

The most critical activity, upon which the entire baseline evaluation study hinges, is the successful completion of the targeting of households in the four selected study Traditional Authorities (TAs). This activity, which includes the final verification step with communities, is highlighted in the table and is expected to be completed by April 19, 2013. Once this is complete, the baseline survey is expected to be launched approximately six weeks later.

Another important event is the coin toss which will determine entry into the immediate intervention (T) or delayed-entry control (C) group. This is currently scheduled for July 15, 2013 and will be conducted in the districts with technical support from the Center for Social Research. It is recommended that this process be transparent and well-documented so that there is no perception of favoritism in terms of which groups enter the delayed-entry arm.

First payments to beneficiaries in intervention Village Clusters is proposed for September 15, 2013; a significant delay between baseline data collection and first payments will mean there is less time for program effects to manifest themselves prior to the 12-month follow-up. Already due to the bi-monthly payment cycle beneficiary households will only receive four or five payments representing 8-10 months of cash prior to the 12-month follow-up survey. In order to meet this time schedule the District Council's must make their budget requests (for transfer payments) to the Secretariat by August 7th.

Table A.2: Target Completion Date for baseline Study Activities

Activity	Responsible	Complete by (dd/mm)
Complete submission of budget to UNICEF for targeting (Mangochi, Salima)	DCs	15/2
UNICEF request KfW approval to use existing money	UNICEF	15/2
UNICEF processes request, provides cash	UNICEF	8/3
Prepare targeting work plan, targeting team	MoGCSW, DCs	22/2
Commence targeting in two TAs	MoGCSW	27/2
Submit draft Inception Report	UNC	21/2
UNC sign contract with CSR	UNC	15/3
FAO sign contract with CSR	FAO	31/3
Comments on Inception Report and instruments	UNICEF	14/3
Submit final Inception Report	UNC	21/3
Ethics Review UNC	UNC	25/2
Ethics Review Malawi	CSR	Completed
Obtain or create listing for non-eligible sample, draw sample	FAO	15/5
Field work plan (recruitment, data entry program, etc)	CSR	10/5
Final beneficiary lists by VC compiled	MoGCSW, DCs	19/4
VCs randomly ordered, selected for study	MoGCSW, CSR	3/5
Enumerator training (Q & Q)	CSR, UNC, FAO	29/5
Baseline Q & Q field work launched	CSR, UNC, FAO	3/6
Field work ends	CSR	15/7
Coin toss	MoGCSW, DCs, CSR	15/7
Budget request from DCs to Secretariat	DCs	7/8
Beneficiaries enrolled in T VCs (3rd community meeting)	MoGCSW, DCs	15/8
Communication to Control VCs (during community meetings)	DCs	
Secretariat transfers money to Salima, Mangochi	MoGCSW	31/8
First payment made to beneficiaries	MoGCSW	15/9
Draft baseline report (Q & Q)	UNC, CSR, FAO	15/10
Baseline dissemination workshop	UNICEF	1/11
Final baseline report (Q & Q)	UNC, CSR, FAO	15/11

MoGCSW=Ministry of Gender, Children and Social Welfare; UNC=University of North Carolina; CSR=Center for Social Research, University of Malawi; DC=District Council.

Appendix B.1: Village Cluster Random Selection— Salima

Malawi Social Cash Transfer Baseline Evaluation--- Random Selection of Village Clusters to be included in the SCT evaluation-

Meeting minutes-- June 25, 2013

Present:

Charles Kalemba, District Commissioner, Salima District
Fedda Mbwana, District Social Welfare Officer, Salima District
Macsencio Shillin, Desk Officer, SCTP, Salima District
Maxton Tsoka, Center for Social Research (CSR), University of Malawi Zomba
Sara Abdoulayi, University of North Carolina at Chapel Hill (UNC)
Karen Thome, FAO
Alessandro Romeo, FAO

Mr. Tsoka introduced the evaluation team, consisting of researchers from CSR, UNC, and FAO, to the DC and District Officers. He explained that the purpose of the meeting was to inform the DC of the evaluation taking place in Salima District in Maganga and Ndindi TAs, and to explain the methodology for selecting the VCs to be visited for the evaulation.

Methodology for random selection of VCs: For each of the above mentioned TAs, all VCs in the TA are written on a piece of paper and put into a hat to be drawn out at random. For each TA, twelve VCs are to be selected in this way. The VCs would be recorded in the order drawn from the hat.

For the evaluation, 1,750 households in Salima district will be visited (about 875 in each TA). Once the VCs are selected using the above methods, the evaluation team will visit *all* eligible households in a VC until they have reached 875 households in that TA. Therefore, it is likely that not all of the twelve VCs drawn will be visited for the baseline evaluation.

After the baseline evaluation is completed, the VCs will be randomly assigned to either the "treatment" group (those getting the CT) or "control" group (those who will receive the CT when the program scales up in 12 months).

Mr. Tsoka requested that the DC and District Officers participate in the random selection process of VCs for transparency purposes. They all agreed to participate. Mr. Shillin printed a list of all VCs in Maganga (11 VCs) and Ndindi (13 VCs). The names of all VCs in Ndindi were put into the hat and the DC drew them out at random in the following order:

Ndindi

1. Chisomo
2. Mkhula
3. Ndindi
4. Tidziwane
5. Khwidzi
6. Phaka
7. Kandulu
8. Magumbwa
9. VC1
10. VC2
11. Mbwemba
12. VC3

Note: Manthimba was left in the hat, as the selection was only for 12 VCs per TA.

The DC then repeated the same for Maganga TA, drawing the 11 VCs in the following order.

Maganga

1. Demera
2. Juma
3. Dzaone
4. Kapezi
5. VC1
6. Makande
7. Ngolowindo
8. Kambiri Point
9. Senga Bay
10. Mwayiwanthu
11. Mpatsanjoka

The lists above were recorded as the VCs were drawn in the presence of all meeting participants. All guests signed the DC visitors' registry book, and photos were taken to document the whole of the process.

The meeting closed with the DC and District Officers offering their support as needed, and wishing the evaluation team good luck in the field.

Appendix B.2: Village Cluster Random Selection- Mangochi

Malawi Social Cash Transfer Baseline Evaluation--- Random Selection of Village Clusters to be included in the SCTP evaluation
Meeting minutes—July 12, 2013
Present:
B.C. Mandere, Mangochi District Commissioner
Susan Chakuwa, District Social Welfare Officer
Maxton Tsoka, Center for Social Research (CSR), University of Malawi Zomba

Mr. Tsoka explained that the purpose of the meeting was to inform the DC of the evaluation taking place in Mangochi District in Jalasi and M'bwana Nyambi TAs, and to explain the methodology for selecting the VCs to be visited for the evaluation.

Methodology for random selection of VCs: For each of the above mentioned TAs, all VCs in the TA are written on a piece of paper and put into a hat to be drawn out at random. For each TA, VCs are to be randomly ordered in this way. The VCs would be recorded in the order drawn from the hat.

For the evaluation, 1,750 households in Mangochi district will be visited (about 875 in each TA). Once the VCs are selected using the above methods, the evaluation team will visit *all* eligible households in a VC until they have reached 875 households in that TA. Therefore, it is likely that not all of the VCs drawn will be visited for the baseline evaluation.

After the baseline evaluation is completed, the VCs will be randomly assigned to either the "treatment" group (those getting the CT) or "control" group (those who will receive the CT when the program scales up in 24 months).

Mr. Tsoka requested that the DC and DSWO participate in the random selection process of VCs for transparency purposes. They all agreed to participate. The names of all VCs in Jalasi were put into the hat and the DC drew them out at random in the following order:

Jalasi
1. Mwawa
2. Mmenyanga
3. Mtuluko
4. Mkata
5. Kwiputi
6. Balakasi 1
7. Balakasi 2
8. Chiponde
9. Namwera

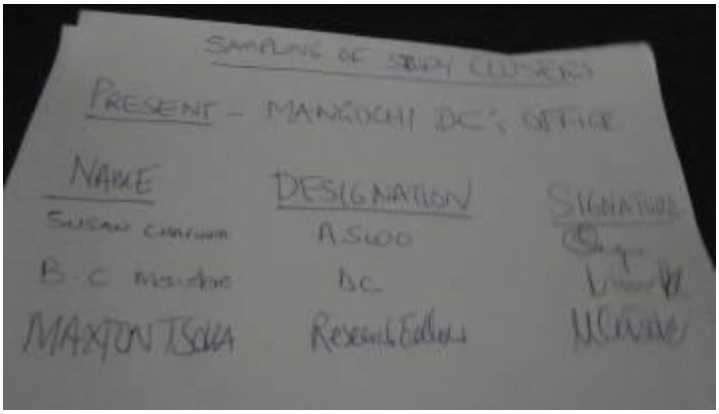
The DC then repeated the same for M'bwana Nyambi TA, drawing the VCs in the following order.

M'bwana Nyambi

1. Chaphuka
2. Lumeta 1
3. Masuku
4. Mbalama
5. Sinyala
6. Mkumba
7. Somba
8. Nzinda
9. Nsenda
10. Mbere
11. Kaipa
12. Chisope

The lists above were recorded as the VCs were drawn in the presence of all meeting participants. All guests signed in a notebook and photos were taken to document the whole of the process. The meeting closed with the DC and District Officers offering their support as needed, and wishing the evaluation team good luck in the field.

Photo B.2 Signatures of Meeting Participants



Appendix C.1: Village Cluster Treatment and Control Assignment- Salima

Malawi Social Cash Transfer Baseline Evaluation---
Random Assignment of Village Clusters to Treatment and Control Status

District Commissioner's Office, Salima -- September 24, 2013

Meeting Purpose:

At a previous meeting on June 25, 2013, Village Clusters in the study TAs (Maganga and Ndindi) were randomly ordered using a lottery selection process. Quantitative data collection in all of the study VCs was completed in early September 2013.

The purpose of today's meeting is to do the random assignment of VCs to the Treatment (T) or the 'delayed-entry' Control (C) group. The process is described below:

***Methodology for random assignment of VCs to T or C*:**

The ordering of the VCs (as described above) was used to determine which VCs would be included in the study. The research team determined that a minimum of 29 VCs were needed across two Districts (Salima and Mangochi), with a roughly equal number of VCs in each district. Fifteen VCs were included from Salima – the first eight VCs on the randomly ordered list in Maganga, and the first seven of the same in Ndindi. The study VCs are listed below in the order of selection.

The assignment of T and C status will be made by dividing the list for each TA in half (top half of the list, and bottom half of the list). A coin toss will determine which one will be the Treatment group. The District Commissioner will decide whether "Heads" will equal the top half of the list, or bottom.. Whichever side of the coin shows after the coin toss will be designated the **'Treatment'** Group.

Figure C.1 Coin Toss Result for Maganga (HEADS)

Note: Ndindi Result was also HEADS.

STEP 1: Assign "Heads" to either Top OR Bottom of list. Write in below.

Maganga

1. Demera
2. Juma
3. Dzaone — TOP= Heads (Heads or Tails)
4. Kapezi

****

5. Mgawi — BOTTOM= Tails (Heads or Tails)
6. Makande
7. Ngolowindo
8. Kambiri Point

Ndindi

1. Chisomo
2. Mkhula — TOP= Tails (Heads or Tails)
3. Ndindi
4. Tidziwane

****

5. Khwidzi — BOTTOM= Heads (Heads or Tails)
6. Phaka
7. Kandulu

STEP 2: Toss the coin and write in the result below. This will be the "**Treatment**" group

RESULTS:

Maganga Treatment: ~~Tails~~ Heads (Heads or Tails)

Ndindi Treatment: ~~Tails~~ Heads (Heads or Tails)

The undersigned parties were witness to the random assignment of VCs to T or C status.

NAME & ORGANIZATION (PLEASE PRINT)	SIGNATURE
TA Maganga TRADITIONAL LEADER	[signature]
TA Ndindi TRADITIONAL LEADER	[signature]
Dr. E. Kainja DIRECTOR SCTP	[signature]
G. C. Gangata DED, (CHAIR OF MEETING)	[signature]
H. Mwamlima DIRECTOR, SSP, MEPD	[signature]
B. Msusa MEPD, SSP	[signature]
Mateso Karembe DEC MEMBER	[signature]
J. C. Chidzanja DEC MEMBER	[signature]
C. M. Kumikundi DEC MEMBER	[signature]
B L. Kausinjiro SCTP, MGCSW	[signature]
F. A. Mbwana DSWO, SA	[signature]
M. SHILLIN SCTP, DESK OFFICER, SA	[signature]
Imran Nedi MEPD	[signature]
P B Phewa DEC MEMBER	[signature]

Appendix C.2: Village Cluster Treatment and Control Assignment- Mangochi

Malawi Social Cash Transfer Baseline Evaluation--- Random Assignment of Village Clusters to Treatment and Control Status

District Commissioner's Office, Mangochi -- September 30, 2013

Meeting Purpose:

At a previous meeting on July 12, 2013, Village Clusters in the study TAs (Jalasi and M'bwana Nyambi) were randomly ordered using a lottery selection process. Quantitative data collection in all of the study VCs was completed in early September 2013.

The purpose of today's meeting is to do the random assignment of VCs to the Treatment (T) or the 'delayed-entry' Control (C) group. The process is described below:

***Methodology for random assignment of VCs to T or C*:**

The ordering of the VCs (as described above) was used to determine which VCs would be included in the study. The research team determined that a minimum of 29 VCs were needed across two Districts (Salima and Mangochi), with a roughly equal number of VCs in each district. Fourteen VCs were included from Mangochi– the first six VCs on the randomly ordered list in Jalasi, and the first eight of the same in M'bwana Nyambi. The study VCs are listed below in the order of selection.

The assignment of T and C status will be made by dividing the list for each TA in half (top half of the list, and bottom half of the list). A coin toss will determine which one will be the Treatment group. The District Commissioner will decide whether "Heads" will equal the top half of the list, or bottom. Whichever side of the coin shows after the coin toss will be designated the **'Treatment'** Group.

Figure C.2 Coin Toss Result for Jalasi (TAILS) and M'bwana Nyambi (HEADS)

STEP 1: Assign "Heads" to either Top OR Bottom of list. Write in below.

Jalasi

1. Mwawa
2. Mmenyanga TOP= Heads (Heads or Tails)
3. Mtuluko
   ****
4. Mkata
5. Kwiputi BOTTOM= tails (Heads or Tails)
6. Balakasi 1

M'bwana Nyambi

1. Chaphuka
2. Lumeta 1 TOP= Heads (Heads or Tails)
3. Masuku
4. Mbalama
   ****
5. Sinyala
6. Mkumba BOTTOM= Tails (Heads or Tails)
7. Somba
8. Nzinda

STEP 2: Toss the coin and write in the result below. This will be the "**Treatment**" group

RESULTS:
Jalasi Treatment: Tails (Heads or Tails) Mbwana Nyambi Treatment: Heads (Heads or Tails)

The undersigned parties were witness to the random assignment of VCs to T or C status.

NAME (PLEASE PRINT)	ORGANIZATION (PLEASE PRINT)	SIGNATURE
Ernest Ikadzokoya	Mangochi D.Council	
Senior Chief Jalasi	TA	on Chief Jalasi
TA Bwanyambi	TA	Chief Bwanyambi
HARRY MWAMLIZIMA	MEPD	
WA MAKOLO	MOGCSW	
ST CHAFUWA	Social welfare	
H. MWANBELILE	POLICE REP	
SM NKhoswe	NIB	
J. SALIM	WATER DEVELOPMENT	
Y.C. Mwale	Com. Dev.	
G. MATCHOMBE	MANGOCHI D. COUNCIL	
V.D. MUSA	National Registration	
Imran Nedi	MEPD	
Aggrey Mfune	SCCCS Malawi	

Appendix D: Sampling Design and Weight Calculation

This note describes the procedure of sampling design and calculation of sampling weights for the evaluation of the SCTP in Malawi. More details of the sampling design are presented in section 3 of the report. The impact evaluation is based on a difference-in-differences experimental design which will basically compare changes overt time in the treatment group to changes in the control group.

Selection Procedure

The districts of Salima and Mangochi were selected by the GoM as they were in the next phase of the SCTP expansion plan for 2013. Next, two Traditional Authorities (TA) were selected in each district by a simple random sample procedure. In Salima, 7 out of 11 TAs were included in the study, and in Mangochi, there were 8 out of 12 TAs entering the randomization (Table 1).

Table D.1 Number of total, in the study, and selected TAs per district

District	TA			Population 2013 (estimated)	
	Total	In Randomization	Selected	In Randomization	Total
Salima	11	7	2	50,432	85, 128
Mangochi	12	8	2	115,285	203,866

In the second stage of selection, a simple random sample of Village Clusters (VC) was selected in each TA and some of them were selected for the treatment group (see table 2).

Table D.2 Number of VC selected and assigned to treatment and control groups

District	TA	VC			
		Total	Selected	Treatment	Control
Salima	Maganga Ndindi	11 13	8 7	4 3	4 4
Mangochi	Jalasi Mbwana Nyambi	9 12	6 8	3 4	3 4
Total		45	29	14	15

Finally, in Salima, the list of VCs in each TA was randomly ordered and, starting from the top of the list, all eligible households were selected in the VCs up to the total quota in the TA. In Mangochi, 125 eligible households per VC were randomly selected in each selected VC. Similar procedures were followed for non-eligible households, but the number of non-eligible households selected per VC in Mangochi was 29 (see tables 3 and 4).

Table D.3 Number of eligible households selected

District	TA	Households			
		Total	Total Sample	Treatment Sample	Control Sample
Salima	Maganga Ndindi	1,470 1,786	934 890	384 403	550 487
Mangochi	Jalasi Mbwana Nyambi	2,039 2,260	750 1,000	375 500	375 500
Total		7,555	3,574	1,662	1,912

Table D.4 Number of non-eligible households selected

District	TA	Household			
		Total	Total Sample	Treatment Sample	Control Sample
Salima	Maganga	9,530	214	88	126
	Ndindi	8,452	204	92	112
Mangochi	Jalasi	17,888	174	87	87
	Mbwana Nyambi	18,042	232	116	116
Total		53,912	824	383	441

Weighting

As a consequence of the sampling procedure, a set of weights should be computed for eligible households and another set for non-eligible households. First, weights for eligible households are defined as follows.

$$w = k\frac{M_i}{m_i}\frac{N_j}{n_j}$$

Where k is the inverse of the probability of selection of a TA (Table 1). M_i is the number of VC in a TA, and m_i is the number of selected VC. N_j is the number of eligible households in a VC, and n_j is the number of selected eligible households. Similarly, weights for non-eligible households are defined by:

$$w = k\frac{M_i}{m_i}\frac{N_j^*}{n_j^*}$$

Where N^*_j is the number of non-eligible households in a VC, and n^*_j is the number selected non-eligible households.

Finally, the set of weights ***w*** is adjusted to reproduce the total number of eligible and non-eligible households at the TA-level and total number of households at the District level.

Appendix E: Creating the Annual Consumption Aggregate

Creating the consumption aggregate was guided by the IHS3 methodology. The entire food module and most of the non-food modules were taken directly from the IHS3 so we could construct the most accurate welfare measures from the SCTP sample to compare directly to national welfare levels. The consumption aggregate from the IHS3 is comprised of four main components; food, non-food, durable goods (excluded in our analysis), and housing. To report consumption as accurately as possible, every source including purchases and non-market transactions are included. Some food and non-food components are asked over different reference periods, but all consumption is annualized to generate consumption per year.

Food Component

The first step in creating the consumption aggregate is to include the food component. Food consumption is measured from asking about every food consumed in the household in the past week and only food that was actually consumed, as opposed to total food purchased or produced, is included in the consumption aggregate. The food component encompasses all possible sources of consumption so households are asked about food from purchases, food that was home produced, and food received as a gift. To value the food component, households were asked for the amount paid for purchased goods or the market value of home produced goods. Therefore, it is possible to estimate a unit value for purchased or home produced food items by dividing the value by the quantity purchased. Gifts, however, were not given a market value so to include these food items in the consumption aggregate, unit values from purchases and produced items are used to impute values of food gifted and any other items that were missing values.

To impute values spatial differences were taken into account and the median unit values were computed at several levels: VC, TA, district, and the full sample. For households with missing value data, the median unit value from its village cluster (the most local unit), was used to impute that consumption. If no other household consumed the same item in that VC or if there were not enough observations to obtain a reliable unit value, the median unit value from the next highest geographic level was used to estimate the value of that consumption. Additionally, consistency checks were performed based on IHS3 procedures for extreme amounts in quantities, unit values, and total spending. Very small percentages of outliers were found, but these data were reassigned values using this same process of assigning median values.

Another issue worth mentioning is that in replicating the IHS3, the 2013 SCTP Baseline Survey used a great variety of quantity unit codes like cups, heaps, and plates that needed to be standardized for comparison purposes. Before assigning unit values to food items to use for imputing values, all non-standard units had to be converted to standard ones such as kilograms and liters so that all unit values for a food item represented the same amount. The IHS2 and IHS3 had already developed conversion factors to convert all non-standard units into these standard units. While almost every food and unit item pair was converted into standard units using these conversion factors, a few food-unit pairs had no conversion factor and so these were also assigned imputed values as well.

Non-food Component

The next step was to value the non-food components of the consumption aggregate. Non-food consumption includes items such as toiletries, clothing, and expenditures on transportation. Only values were collected for non-food items because items are generally too heterogeneous to try to calculate prices. Four different reference periods were used for different groups of non-food components (1 week, 1 month, 3 months and 12 months), reflecting the frequency of that purchase or consumption, but all expenditures were converted into annual figures.

In replicating the IHS3, some non-food expenditures which were asked about were excluded from the consumption aggregate for a variety of reasons including the fact that they did not actually represent consumption, like payments of debts, financial transactions, and remittances. Another reason was that for some expenditures, such as those on weddings and funerals, expenditures are infrequent but often involve large amounts and so were excluded to avoid overestimating the true welfare of the household.

Durable Goods

The ownership of durable was not collected for this survey because the rural poor population targeted was not expected to have much consumption in this category. However, because this was collected in the IHS3, we amended the IHS3 consumption aggregate by taking out all items from this category so we could compare our results directly with IHS3 results.

Housing

Housing is included in the consumption aggregate to measure the flow of services received by the household from occupying its dwelling. The value of these services can be measured from rent paid for households that rent their dwellings, but most households own their dwellings. To overcome this issue, IHS3 asks homeowners how much rent they could receive if they rented out dwellings. Using this self-predicted rent and actual rents, IHS3 actually estimates a hedonic rental regression model to approximate the value of housing for home owners. This rental regression uses actual or imputed rent as the dependent variable and a set of independent variables that included the type of materials used for walls, roof, and floors; the number of rooms; access to electricity; and geographical location of the household. The 2013 SCTP Baseline Survey did not include the question about self-predicted rents and very few households reported rents. Therefore, to have enough rent data to estimate the regression, we appended the data set with IHS3 data from rural South and Central. We then ran the regression with the IHS3 sample to impute rent for our sample without any rent information.

Appendix F: Comparison of Treatment and Comparison Groups – Baseline

	Full Sample %	SD	N	Treatment % [T]	SD [T]	N [T]	Control % [C]	SD [C]	N [C]	Diff T-C	p-value
Demographic Indicators											
Household Size			3531								
1	11.1		3531	11.1		1678	11.0		1853	0.1	0.93
2	10.6		3531	11.2		1678	10.1		1853	1.0	0.56
3	12.7		3531	12.8		1678	12.7		1853	0.1	0.87
4	17.0		3531	16.8		1678	17.2		1853	-0.4	0.89
5	17.1		3531	17.8		1678	16.4		1853	1.4	0.47
6	13.0		3531	12.0		1678	13.9		1853	-1.9	0.49
7	8.9		3531	8.2		1678	9.6		1853	-1.3	0.22
8+	9.6		3531	10.1		1678	9.1		1853	1.0	0.46
Total Household Members (mean)											
Total Household Members (mean)	4.5	2.3	3531	4.5	2.3	1678	4.5	2.3	1853	0.0	0.69
Children (0-17 years) (mean)	2.7	1.0	3531	2.7	2.0	1678	2.8	2.0	1853	-0.1	0.47
Adults (18-64 years) (mean)	1.1	0.7	3531	1.1	1.0	1678	1.2	1.0	1853	0.0	0.69
Elderly (>64 years) (mean)	0.6	2.0	3531	0.7	0.6	1678	0.6	0.7	1853	0.1	0.16
Dependency ratio	2.5	1.7	3531	2.7	1.7	1678	2.7	1.7	1853	0.0	0.87
Current Marital Status (12 and older)											
Never married	44.4		9513	44.07		4548	44.69		4965	-0.6	0.49
Married/cohabitating	23.4		9513	23.76		4548	23.09		4965	0.7	0.77
Separated/divorced	12.3		9513	11.78		4548	12.77		4965	-1.0	0.08
Widowed	19.9		9513	20.38		4548	19.44		4965	0.9	0.58
Current Educational Status (18 and older)											
None	60.3		6152	60		2953	60.6		3199	-0.6	0.71
Primary: incomplete	32.2		6152	32.5		2953	31.9		3199	0.6	0.70
Primary: complete	4		6152	3.9		2953	4.1		3199	-0.2	0.63
Secondary: incomplete	2.8		6152	2.9		2953	2.7		3199	0.2	0.84
Secondary: complete	0.7		6152	0.7		2953	0.6		3199	0.1	0.81
Orphan Status (0-17 years)											
Both parents alive	65.4		9851	63.7		4604	67.0		5247	-3.3	0.42
Single orphan: mother dead	8.1		9851	8.5		4604	7.7		5247	0.8	0.23
Single orphan: father dead	17.1		9851	17.7		4604	16.5		5247	1.2	0.33
Both parents dead	8.3		9851	9.3		4604	7.3		5247	2.0	0.39
Unknown	1.1		9851	0.8		4604	1.4		5247	-0.6	0.36
Household Head Characteristics											
Age (mean)	58.0	19.9	3531	59.1	20.0	1678	57.0	19.7	1853	2.2	0.17
Female	83.5		3531	82.8		1678	84.2		1853	-1.4	0.36
Married/cohabitating	29.3		3531	29.7		1678	28.9		1853	0.8	0.82
Separated/divorced	24.8		3531	23.1		1678	26.5		1853	-3.4	0.11
Widowed	43.3		3531	44.6		1678	42.0		1853	2.6	0.46
Head's Education											
Primary: incomplete	25.4		3531	25.7		1678	25.2		1853	0.4	0.84
Primary: complete	1.8		3531	1.5		1678	2.1		1853	-0.5	0.38
Secondary: incomplete	1.1		3531	1.1		1678	1.1		1853	0.0	0.95
Secondary: complete	0.1		3531	0.1		1678	0.0		1853	0.1	0.45
None	71.62		3531	71.6		1678	71.64		1853	0.0	0.99
Head's Disability Status											
Some difficulty	35.8		3531	38.7		1678	33		1853	5.7	0.17
A lot of difficulty	10.1		3531	10.2		1678	9.9		1853	0.3	0.88
Cannot perform at all	1.2		3531	1.3		1678	1.1		1853	0.2	0.74
Head's Religion											
Islam	78.68		3531	75.16		1678	82.09		1853	-6.9	0.28
Christianity	19.64		3531	22.62		1678	16.75		1853	5.9	0.30
Other	1.681		3531	2.224		1678	1.156		1853	1.1	0.35
Household Death											
0	93.1		3531	92.4		1678	93.7		1853	-1.3	0.57
1	6.5		3531	7.3		1678	5.8		1853	1.5	0.49
2	0.4		3531	0.2		1678	0.5		1853	-0.3	0.41
Movement out of the Household											
0	87.9		3531	88.4		1678	87.4		1853	1.0	0.54
1	10.5		3531	9.8		1678	11.1		1853	-1.3	0.50
2	1.2		3531	1.3		1678	1		1853	0.3	0.20
3+	0.5		3531	0.5		1678	0.5		1853	0.0	0.97

Appendix F: Comparison of Treatment and Comparison Groups – Baseline

	Full Sample %	SD	N	Treatment % [T]	SD [T]	N [T]	Control % [C]	SD [C]	N [C]	Diff T-C	p-value
Welfare Indicators											
Consumption (households)											
Per capita total expenditure (MWK) (mean)	41522	28276	3492	42652	29662	1655	40503	26935	1837	2149	0.03
Per capita food expenditure (MWK) (mean)	32092	22589	3492	33031	23840	1655	31245	21370	1837	9258	**0.02**
Poverty Measures (individuals)											
Poor	85.2		3531	83.8		1678	86.5		1853	-2.7	0.02
Poor poverty gap	49.4		2702	49.8		1251	49.0		1451	0.8	0.34
Poor poverty gap squared	29.1		2702	29.4		1251	28.9		1451	0.5	0.52
Ultra Poor	60.4		3531	59.9		1678	60.8		1853	-0.9	0.60
Ultra poor poverty gap	36.9		1763	36.9		829	36.8		934	0.1	0.92
Ultra poor poverty gap squared	18.1		1763	18		829	18.1		934	-0.1	0.92
Food Security											
Maize lasted more than 3 months	48.7		3531	48.1		1678	49.4		1853	-1.3	0.79
Current maize will last more than 3 months	9.7		3531	9.7		1678	9.7		1853	0.0	0.99
Number of months last years maize harvest (2011-2012) lasted	3.9	2.5	3530	3.9	2.6	1678	3.9	2.5	1852	0.0	0.91
Number of months current maize in grainery will last	1.2	1.6	3496	1.2	1.6	1665	1.2	1.7	1831	0.0	0.92
Meals per day	1.9	0.6	3531	1.9	0.6	1678	1.9	0.6	1853	0.0	0.56
Eat only one meal per day	19.3		3531	20.3		1678	18.4		1853	1.9	0.39
Number of food items consumed per household	10.3	4.4	3530	10.5	4.5	1677	10.2	4.2	1853	0.3	0.74
Subjective Welfare											
Worry that did not have enough food in past 7 days	83.0		3531	83.7		1678	82.4		1853	1.3	0.62
Compared to neighbors											
Worse off	54.1		3531	57.3		1678	51.1		1853	6.2	0.32
Same	43.5		3531	40.5		1678	46.5		1853	-6.0	0.33
Better off	2.4		3531	2.2		1678	2.5		1853	-0.3	0.58
Compared to friends											
Worse off	50.0		3531	51.5		1678	48.6		1853	2.9	0.37
Same	48.2		3531	46.9		1678	49.5		1853	-2.6	0.43
Better off	1.8		3531	1.6		1678	1.9		1853	-0.3	0.57
Caregiver Indicators											
Feel that life will be better in:											
1 year	52.6		3531	52.0		1678	53.2		1853	-1.1	0.77
2 years	45.1		3531	43.2		1678	46.9		1853	-3.7	0.33
3 years	43.0		3531	40.2		1678	45.7		1853	-5.5	0.20
In next year, how likely is it that you											
experience a food shortage *	4.1	1.1	3530	4.1	1.1	1675	4.1	1.1	1851	0.0	0.83
likely or very likely food shortage (%)	75.3		3530	75.9		1675	74.6		1851	1.3	0.62
need financial assistance*	3.6	1.5	3525	3.6	1.5	1674	3.6	1.5	1851	-0.1	0.52
likely or very likely financial (%)	61.6		3525	60.7		1674	62.4		1851	-1.7	0.49
Quality of life index**	17.7	6.7		17.2	6.5	1678	18.3	6.8	1853	-1.0	0.34
Stress Index***	14.9	3.4	3530	14.8	3.2	1677	15.0	3.5	1853	-0.2	0.60

Notes: *Questions were asked on a 1-5 scale. 1 being the least likely and 5 being the mostly likely for the event to occur.

**Index was created from 8 positive statements concerning one's quality of life. Scores range from 8-40, 40 representing the highest perception of one's quality of life.

*** Index created from 4 negative statment ranked 1-5 concerning stresses in one's life. Scores range from 4-20, 4 representing the

Appendix F: Comparison of Treatment and Comparison Groups – Baseline

	Full Sample %	SD	N	Treatment % [T]	SD [T]	N [T]	Control % [C]	SD [C]	N [C]	Diff T-C	p-value
Health Indicators											
Self-Reported Health Status											
Poor	5.0		16028	4.0		7562	5.8		8466	-1.9	0.86
Fair	12.2		16028	9.1		7562	14.6		8466	-5.5	0.73
Good	41.7		16028	41.5		7562	41.9		8466	-0.4	0.48
Very good	23.3		16028	25.0		7562	22.0		8466	3.0	0.92
Excellent	17.7		16028	20.4		7562	15.7		8466	4.7	0.66
Disability (10 and older)											
Seeing											
None	86.6		10878	85.4		5187	87.8		5691	-2.4	0.19
Some	11.3		10878	12.6		5187	10.0		5691	2.5	0.09
A lot	1.7		10878	1.7		5187	1.8		5691	-0.1	0.89
Cannot perform at all	0.4		10878	0.3		5187	0.4		5691	-0.1	0.78
Hearing											
None	93.1		10877	92.6		5186	93.5		5691	-0.9	0.50
Some	5.9		10877	6.4		5186	5.4		5691	1.0	0.39
A lot	0.9		10877	0.9		5186	0.9		5691	0.0	0.89
Cannot perform at all	0.2		10877	0.1		5186	0.2		5691	-0.1	0.22
Walking/Climbing Steps											
None	86.6		10876	91.8		5185	83.2		5691	8.7	0.25
Some	9.7		10876	5.3		5185	12.6		5691	-7.3	0.15
A lot	3.3		10876	2.5		5185	3.8		5691	-1.3	0.67
Cannot perform at all	0.4		10876	0.4		5185	0.5		5691	-0.1	0.92
Remembering/Concentrating											
None	92.5		10876	92.3		5185	92.6		5691	-0.2	0.81
Some	6.5		10876	6.5		5185	6.4		5691	0.1	0.86
A lot	1.0		10876	1.0		5185	1.0		5691	0.0	0.80
Cannot perform at all	0.1		10876	0.1		5185	0.1		5691	0.0	0.46
Communicating											
None	96.2		10876	95.9		5185	96.5		5691	-0.6	0.29
Some	2.9		10876	3.2		5185	2.5		5691	0.8	0.13
A lot	0.7		10876	0.7		5185	0.8		5691	-0.1	0.49
Cannot perform at all	0.2		10876	0.1		5185	0.2		5691	-0.1	0.31
Any Disability											
None	75.8		10876	74.2		5185	77.4		5691	-3.2	0.15
Some	17.9		10876	19.4		5185	16.3		5691	3.1	**0.04**
A lot	5.4		10876	5.5		5185	5.3		5691	0.2	0.81
Cannot perform at all	1.0		10876	0.9		5185	1.1		5691	-0.2	0.58
Chronic Illness (10 and older)	24.2		10875	25.7		5187	22.7		5688	3.1	0.36
Illness/Injury in past 2 weeks											
Any illness or injury	28.5		16078	30.0		7587	27.1		8491	2.9	0.36
Respondent stopped normal activities	63.9		4633	67.4		2324	60.1		2309	7.3	0.09
Caregiver stopped normal activities	62.4		2960	67.6		1556	56.3		1404	11.3	0.10

Appendix F: Comparison of Treatment and Comparison Groups – Baseline

	Full Sample			Treatment			Control				
	%	SD	N	% [T]	SD [T]	N [T]	% [C]	SD [C]	N [C]	Diff T-C	p-value
Most Recent Illness, Past 2 Weeks											
Fever/malaria	27.5		4535	27.1		2280	27.8		2255	-0.7	0.64
Diarrhea/vomiting/abdominal pain	11.5		4535	10.6		2280	12.5		2255	-1.9	0.14
Cough/cold/chest infection	27.4		4535	26.4		2280	28.5		2255	-2.1	0.45
Headache	2.0		4535	2.4		2280	1.6		2255	0.8	0.27
Asthma	2.8		4535	2.9		2280	2.7		2255	0.1	0.73
Heart problem/chest pain	2.8		4535	2.4		2280	3.3		2255	-0.9	0.31
Skin problem	4.0		4535	4.7		2280	3.1		2255	1.6	0.19
Dental problem	2.6		4535	3.1		2280	2.0		2255	1.1	0.02
Backache	3.5		4535	3.6		2280	3.3		2255	0.3	0.80
Fracture/wound/injury	6.0		4535	6.0		2280	6.1		2255	-0.1	0.92
Arthritis/rheumatism	2.1		4535	2.0		2280	2.2		2255	-0.1	0.79
Other	7.9		4535	8.7		2280	6.9		2255	1.9	0.32
Sought Curative Care, Past 2 Weeks											
Did nothing	20.3		4631	21.8		2322	18.8		2309	3.0	0.23
Used medicine they had in stock	6.5		4631	8.4		2322	4.5		2309	3.9	0.15
Sought treatment at public facility	51.6		4631	47.3		2322	56.1		2309	-8.8	0.07
Sought treatment at private facility	3.3		4631	3.6		2322	3.0		2309	0.6	0.67
Went to local pharmacy	5.3		4631	5.4		2322	5.3		2309	0.1	0.95
Traditional healer	3.1		4631	2.8		2322	3.5		2309	-0.6	0.32
Bought medicine at grocery/store	6.9		4631	6.8		2322	7.1		2309	-0.3	0.93
Other	2.8		4631	3.8		2322	1.8		2309	2.0	0.24
Any Health Expenditure, Past 4 Weeks											
All ills and injuries	4.6		16053	5.3		7580	4.0		8483	1.3	0.44
Non-illness related medical care	0.9		16066	1.0		7582	0.8		8484	0.2	0.33
Non-prescription medications	16.5		16063	17.4		7582	15.7		8481	1.7	0.39
Household-Level Health Indicators											
At lease 1 member in poor health	17.6		3531	16.8		1678	17.6		1853	-0.7	0.74
At least 1 member with a disability	3.0		3531	2.8		1678	3.2		1853	-0.4	0.66
At least 1 member with chronic illness	55.2		3531	58.7		1678	51.8		1853	7.0	0.27
l member with illness/injury in past 2 weeks	75.3		3531	77.0		1678	73.6		1853	3.5	0.27
with any medical expenditure past 4 months	53.5		3531	56.2		1678	50.9		1853	5.3	0.39
Child Indicators											
Under-Five Health (6-59 months)											
Weight-for-Age (Underweight)											
Weight-for-Age Z-score	-1.0	1.2	1783	-1.0	1.2	834	-0.9	1.2	949	0.0	0.37
% Underweight (<-2SD)	17.6		1783	18.0		834	17.3		949	0.7	0.71
% Severely underweight (<-3SD)	4.7		1783	4.9		834	4.5		949	0.4	0.67
Length/Height-for-Age (Stunted)											
Length/Height-for-Age Z-score	-1.8	1.6	1752	-1.9	1.6	825	-1.8	1.6	927	-0.1	0.19
% Stunted (<-2SD)	47.6		1752	49.8		825	45.5		927	4.3	0.25
% Severely stunted (<-3SD)	21.0		1752	22.1		825	20.0		927	2.1	0.31
Weight-for-Length/Height (Wasted)											
Weight-for-Length/Height Z-score	0.1	1.1	1763	0.2	1.1	830	0.1	1.2	933	0.1	0.05
% Wasted (<-2SD)	3.9		1763	4.3		830	3.5		933	0.8	0.47
% Severely wasted (<-3SD)	1.1		1763	1.1		830	1.1		933	0.0	0.89
Number of Meals Per Day											
0	1.0		1868	0.5		878	1.4		990	-0.9	0.06
1	15.8		1868	14.0		878	17.5		990	-3.5	0.29
2	49.6		1868	47.9		878	51.2		990	-3.4	0.47
3	31.5		1868	34.6		878	28.6		990	6.0	0.38
4+	2.2		1868	3.0		878	1.3		990	1.7	0.32
Consumed Vitamin-A Rich Fruits and Vegetables (past day)	67.0		1868	71.0		878	63.1		990	7.9	0.08

Appendix F: Comparison of Treatment and Comparison Groups – Baseline

	Full Sample %	SD	N	Treatment % [T]	SD [T]	N [T]	Control % [C]	SD [C]	N [C]	Diff T-C	p-value
Diarrhea, Fever, and/or Cough (past 2 weeks)	43.6		1868	42.1		878	45.0		990	-2.9	0.35
Diarrhea (past 2 weeks)	16.6		1868	16.6		878	16.5		990	0.1	0.96
Use of curative care services (diarrhea)											
Public facility	61.1		324	56.0		153	66.0		171	-10.0	0.41
Private facility	3.0		324	3.3		153	2.7		171	0.6	0.80
Pharmacy	9.0		324	10.4		153	7.6		171	2.9	0.38
Traditional healer	1.9		324	1.9		153	1.8		171	0.1	0.95
Did not seek treatment	25.1		324	28.4		153	22.0		171	6.4	0.64
Fever (past 2 weeks)	26.1		1868	24.0		878	28.2		990	-4.2	**0.04**
Use of curative care services (fever)											
Public facility	55.4		518	47.9		226	61.4		292	-13.5	0.11
Private facility	5.6		518	6.1		226	5.1		292	1.0	0.07
Pharmacy	11.8		518	13.3		226	10.6		292	2.8	0.19
Traditional healer	1.4		518	0.4		226	2.2		292	-1.8	**0.04**
Did not seek treatment	25.9		518	32.3		226	20.7		292	11.5	0.13
Cough (past 2 weeks)	26.0		1868	25.8		878	26.2		990	-0.4	0.89
Use of curative care services (cough)											
Public facility	55.0		506	53.3		233	56.7		273	-3.5	0.31
Private facility	4.5		506	4.5		233	4.5		273	0.0	0.98
Pharmacy	11.9		506	12.5		233	11.4		273	1.1	0.71
Traditional healer	1.7		506	1.0		233	2.3		273	-1.2	0.17
Did not seek treatment	26.9		506	28.8		233	25.2		273	3.6	0.48
Preventive Care Practices											
Participation in nutrition program	4.0		1868	3.8		878	4.2		990	-0.4	0.81
Participation in under-five clinic	73.0		1868	72.4		878	73.6		990	-1.2	0.62
Checkup at well-baby or under-five clinic (last 6 months)	49.8		1868	48.1		878	51.5		990	-3.3	0.52
Possession of a child health passport	87.1		1861	85.1		878	88.9		983	-3.8	0.12
Delivery Location and Assistance											
Place of Delivery				48.1		878	51.2		990	-3.2	0.52
Hospital	49.7		1868	28.3		878	29.1		990	-0.8	0.91
Health facility	28.7		1868	1.0		878	1.2		990	-0.1	0.80
Village health post	1.1		1868	6.4		878	0.1		990	6.2	0.41
Dispensary or pharmacy	0.1		1868	15.3		878	4.0		990	11.3	0.57
At home of TBA or midwife	5.2		1868	0.8		878	13.2		990	-12.4	0.39
At own home or relative/friend's home	14.2		1868	0.2		878	1.1		990	-1.0	0.55
Outside	0.9		1868	0.1		878	0.1		990	0.0	0.66
Other	0.1		1868	77.4		878	81.4		990	-4.1	0.43
% delivering in a health facility	79.5										
Assistance During Delivery											
Doctor	3.8		1868	4.1		878	3.6		990	0.5	0.71
Nurse	54.3		1868	56.1		878	52.5		990	3.6	0.48
Midwife	19.9		1868	15.4		878	24.1		990	-8.8	0.19
Clinical Officer	1.3		1868	1.1		878	1.4		990	-0.3	0.79
TBA	8.4		1868	9.3		878	7.5		990	1.8	0.65
Relative/friend	11.4		1868	12.6		878	10.3		990	2.3	0.22
Other	1.0		1868	1.4		878	0.7		990	0.8	0.20
% delivered by a skilled attendant	79.2		1868	76.7		878	81.6		990	-4.9	0.36
Ever had a child die (women 15-49)											
None	57.5		1645	57.8		755	57.2		890	0.6	0.50
1	23.3		1645	23.6		755	23.0		890	0.6	0.60
2	8.7		1645	8.7		755	8.7		890	0.0	1.00
3	5.3		1645	5.5		755	5.1		890	0.4	0.51
4 or more	5.3		1645	4.4		755	6.1		890	-1.7	0.27

Appendix F: Comparison of Treatment and Comparison Groups – Baseline

	Full Sample %	SD	N	Treatment % [T]	SD [T]	N [T]	Control % [C]	SD [C]	N [C]	Diff T-C	p-value
Education (Ages 6-17)											
Percent Currently Attending School (2012-2013) (Ages 3-24)	78.7		7556	77.0		3586	80.4		3970	-3.4	0.06
Net School Attendance											
ECD (Preschool, Age 3-5)	78.6		348	78.6		165	78.5		183	0.1	0.99
Primary (Grade 1-8, Age 6-13)	87.1		4577	85.5		2127	88.2		2450	-2.7	0.19
Secondary (Grade 9-12, Age 14-17)	3.0		1662	2.8		816	3.2		846	-0.4	0.76
Grade-For-Age (2012-2013)											
Primary (Grade 1-8, Age 6-13)											
At	9.1		4133	8.2		1902	9.9		2741	-1.7	0.27
Below	88.7		4133	89.8		1902	87.7		2741	2.0	0.42
Above	2.2		4133	2.1		1902	2.4		2741	-0.3	0.76
Secondary (Grade 9-12, Age 14-17)											
At	0.8		1172	0.8		543	0.8		629	0.0	0.99
Below	99.0		1172	99.2		543	98.8		629	0.4	0.52
Above	0.2		1172	0.0		543	0.4		629	-0.4	0.39
Education Gap - Average # Grades Behind											
Standard 1	1.0	0.0	96	1.0	0.0	55	1.0	0.0	41	0.0	.
Standard 5	2.9	1.0	643	2.9	0.1	303	2.8	0.9	340	0.0	0.88
Standard 8	4.2	1.4	396	4.1	1.4	197	4.3	1.4	199	-0.2	0.56
Form 9	4.4	1.6	395	4.3	1.7	193	4.5	1.6	202	-0.2	0.50
Form 10	4.8	1.7	355	4.8	1.7	170	4.8	1.7	185	-0.1	0.71
Form 11	5.0	1.8	227	4.8	1.9	95	5.2	1.7	132	-0.4	**0.03**
Form 12	5.6	1.8	181	5.6	1.8	80	5.7	1.8	101	-0.1	0.55
Dropout Rates (2011-2012/2012-2013)											
Primary (Grade 1-8, Age 5-12 in 2011-2012)	5.8		3063	5.7		1424	5.9		1639	-0.2	0.95
Secondary (Grade 9-12, Age 13-16 in 2011-2012)	8.0		1499	8.4		722	7.7		777	0.7	0.79
Temporary Withdrawal from School (2012-2013) (age 6-17)	13.5		5305	13.6		2445	13.4		2860	0.2	0.94
Any School Expenditure (2012-2013) (ages 3-17)	90.7		5619	90.4		2590	87.5		3029	3.0	0.50
Time Use (Ages 10 -17)											
Domestic Chores (hours yesterday)											
Collecting water	0.8	1.2	4663	0.8	1.2	2212	0.8	1.1	2451	0.0	0.74
Collecting firewood/fuel materials	0.4	1.1	4663	0.5	1.2	2212	0.4	0.9	2451	0.1	0.33
Child care, cooking, or cleaning	1.0	1.4	4661	1.0	1.5	2211	1.0	1.4	2450	0.0	0.88
Total domestic chores	2.2	2.7	4667	2.3	2.8	2215	2.1	2.6	2452	0.1	0.18
Unpaid productive work for household (days in the past rainy season)	18.5	21.9	4667	18.2	21.3	2215	18.8	22.5	2452	-0.6	0.79
Fishing (days in the past week)	0.0	0.2	4664	0.0	0.2	2212	0.0	0.2	2452	0.0	0.72
Productive Labor (hours last week)											
Unpaid productive labor for household	0.7	3.5	4667	0.7	3.4	2215	0.7	3.6	2452	0.0	0.76
Paid productive labor outside household	1.8	6.6	4667	1.9	7.1	2215	1.8	6.2	2452	0.1	0.69
% With any wage employment (past 12 months)	1.5		4667	1.3		2215	1.6		2452	-0.3	0.60
% With any ganyu work (past 12 months)	40.8		4667	42.4		2215	39.3		2452	3.1	0.47

Appendix F: Comparison of Treatment and Comparison Groups – Baseline

	Full Sample			Treatment			Control				
	%	SD	N	% [T]	SD [T]	N [T]	% [C]	SD [C]	N [C]	Diff T-C	p-value
Youth Indicators											
Age of respondents (mean)	15.4	1.8	2109	15.4	1.9	1045	15.3	1.8	1064	0	0.60
Male	50.5		2109	52.7		1045	48.5		1064	4	**0.04**
Child well-being index* (age 5-18)											
No items	22.9		8215	18.8		3831	26.6		4384	-7.8	0.52
One item	38.4		8215	40.9		3831	36.0		4384	4.9	0.40
Two items	26.2		8215	27.5		3831	25.0		4384	2.5	0.65
Three items	12.6		8215	12.8		3831	12.4		4384	0.4	0.94
Marital status (age 12-19)											
Monogamous married	1.1		3806	1.4		1813	0.7		1993	0.7	**0.00**
Polygamous married	0.2		3806	0.4		1813	0.0		1993	0.4	0.14
Separated	0.3		3806	0.2		1813	0.5		1993	-0.3	**0.02**
Divorced	0.8		3806	0.6		1813	1.0		1993	-0.4	**0.01**
Widow/widower	0.5		3806	0.6		1813	0.3		1993	0.3	0.24
Never married	97.1		3806	96.8		1813	97.4		1993	-0.6	0.20
Sexual debut	32.4		2101	34.3		1040	30.5		1061	4	0.23
Sexual debut (15-19 yr old)	43.6		1277	46.5		622	40.7		655	6	0.27
Sexual debut age (mean)	14.0	2.4	655	14.1	2.3	340	13.8	2.3	315	0	0.15
Used condom first time sex	34.5		658	33.9		341	35.3		317	-1	0.73
Used condom last time sex	40.6		437	38.6		227	42.9		210	-4	0.52
First sex partner age (mean)	14.5	3.3	525	14.7	3.2	263	14.2	3.3	262	1	0.19
Last sex partner age (mean)	16.2	3.5	382	16.6	3.7	198	15.7	3.3	184	1	0.17
First sex partner age groups											
Younger	58.9		662	57.6		343	60.3		319	-3	0.13
About the same age	15.5		662	15.7		343	15.2		319	1	0.57
About 1-4 years older	25.5		662	26.5		343	24.5		319	2	0.40
About 5-9 years older	0.1		662	0.2		343	0.0		319	0	0.47
Last sex partner age groups											
Younger	63.8		662	61.6		343	66.4		319	-5	0.27
About the same age	13.7		662	14.3		343	13.2		319	1	0.56
About 1-4 years older	22.2		662	24.0		343	20.1		319	4	0.25
About 5-9 years older	0.3		662	0.2		343	0.4		319	0	0.74
Any transactional sex	48.8		660	47.0		341	50.7		319	-4	0.41
Any given	25.5		660	23.8		341	27.4		319	-4	0.55
Any received	30.0		660	29.5		341	30.5		319	-1	0.66
Sex ever forced, pressured, tricked	20.3		662	21.6		343	18.8		319	3	0.47
Pressured	19.6		662	22.5		343	16.2		319	6	0.42
Tricked	10.6		662	13.6		343	7.1		319	6	0.12
Forced	11.8		662	13.1		343	10.3		318	3	0.34
Concurrency	7.5		439	9.4		228	5.3		211	4	0.34
Self-perceived HIV Risk											
No Risk	65.0		1875	63.5		925	66.6		950	-3	0.51
Small	18.3		1875	19.4		925	17.1		950	2	0.15
Moderate	4.3		1875	3.7		925	4.8		950	-1	0.22
Great	12.3		1875	13.3		925	11.2		950	2	0.68
Has AIDS or HIV	0.2		1875	0.1		925	0.2		950	0	0.74
Risk, Depression, Hope											
Ever had a drink	2.9		2109	3.1		1045	2.7		1064	0	0.52
Ever smoked	1.1		2109	1.1		1045	1.1		1064	0	0.92
CES-D-10	46.8		2109	43.7		1045	49.9		1064	-6	0.39
CES-D (mean)	19.9	5.6	2104	19.6	5.6	1043	20.2	5.5	1061	-1	0.46
Play for 3000 MWK	60.1		2109	61.1		1045	59.2		1064	2	0.64
Play for 6000 MWK	58.1		860	57.5		421	58.8		439	-1	0.57
Play for how much (mean)	16258.8	17867.0	337	18142.9	20074.5	166	14378.2	15179.9	171	3765	0.09
Life in a year											
Worse	4.8		2104	4.5		1043	5.1		1061	-1	0.69
About the same	44.7		2104	43.5		1043	46.0		1061	-2	0.62
Better	50.5		2104	52.0		1043	48.9		1061	3	0.53
Life in 5 years										0	
Worse	4.3		2100	4.5		1041	4.1		1059	0	0.73
About the same	26.0		2100	23.2		1041	28.9		1059	-6	0.24
Better	69.7		2100	72.3		1041	67.0		1059	5	0.21

Appendix F: Comparison of Treatment and Comparison Groups – Baseline

	Full Sample			Treatment			Control				
	%	SD	N	% [T]	SD [T]	N [T]	% [C]	SD [C]	N [C]	Diff T-C	p-value
5 year goals:											
Living goals (with whom)											
Living with one or both parents	34.6		2105	33.6		1043	35.5		1062	-2	0.82
Living alone	8.9		2105	8.0		1043	9.8		1062	-2	0.55
Living with boyfriend, girlfriend or spouse	17.1		2105	19.0		1043	15.1		1062	4	0.30
Same situation as now	32.2		2105	31.9		1043	32.5		1062	-1	0.93
Living goals (where)											
Lilongwe/Blantyre	17.8		2104	18.9		1043	16.9		1061	2	0.34
In district	20.0		2104	20.7		1043	19.3		1061	1	0.72
Other town in Malawi	5.8		2104	4.4		1043	7.2		1061	-3	**0.01**
Outside Malawi	2.8		2104	2.8		1043	2.9		1061	0	0.68
Same place as now	53.5		2104	53.2		1043	53.7		1061	0	0.91
Education goals											
In primary school	12.1		2093	11.9		1035	12.3		1058	0	0.89
Finished primary school	10.5		2093	10.1		1035	11.0		1058	-1	0.70
In secondary school	34.4		2093	33.3		1035	35.4		1058	-2	0.71
Finished secondary school	8.3		2093	8.2		1035	8.3		1058	0	0.92
Vocational training course	0.8		2093	0.7		1035	1.0		1058	0	0.44
Training College	2.7		2093	3.0		1035	2.3		1058	1	0.54
University	2.9		2093	2.4		1035	3.3		1058	-1	0.59
Not in school/training	26.8		2093	28.1		1035	25.4		1058	3	0.08
Work goals											
Own my own business	20.9		2104	20.2		1043	21.6		1061	-1	0.67
Farming	3.8		2104	4.8		1043	2.7		1061	2	**0.01**
Casual jobs/paid to do work	16.8		2104	19.3		1043	14.3		1061	5	**0.04**
Steady job/wage employment/office job	14.7		2104	14.5		1043	14.9		1061	0	0.88
Not working	4.0		2104	4.2		1043	3.8		1061	0	0.64
Student	39.2		2104	36.3		1043	42.3		1061	-6	0.39
Agency index (mean)*	5.4	1.8	2065	5.5	1.9	1011	5.4	1.7	1054	0	0.95
*Scale of likeliness of future goals (range of 4-16) from questions ranked on a scale of 1-4 with 1 being the most likely											
Productivity Indicators											
Labor supply											
Households with adult in wage employment	5.5		3531	4.8		1678	6.2		1853	-1.3	0.28
Household with adult in ganyu labor	57.0		3531	55.5		1678	58.5		1853	-3.0	0.51
Average days ganyu per HH	90.0	82.8	2067	89.4	82.5	965	90.6	83.2	1102	-1.2	0.89
Average ganyu wage per day per HH	541.0	539.2	2066	573.0	600.9	965	511.5	473.7	1101	61.5	0.01
Non-farm enterprises											
Households with non-farm enterprise	23.1		3531	23.8		1678	22.5		1853	1.3	0.43
Household hiring for enterprise	0.6		872	0.4		436	0.8		436	-0.5	0.33
Total earned from enterprise (past year)	2497.8	6089.0	866	2660.6	6624.5	432	2332.2	5493.7	434	328.4	0.03
Agriculture & Land											
Owned Any Land	89.8		3531	90.0		1678	89.6		1853	0.3	0.66
Hired farm labor	4.2		3379	4.6		1606	3.9		1773	0.8	0.56
Irrigation	4.9		3379	4.9		1606	4.8		1773	0.0	0.95
Fertilizer	68.7		3379	69.3		1606	68.0		1773	1.4	0.80
Pesticides	2.3		3379	2.9		1606	1.8		1773	1.1	0.47
Hired farm labor	4.2		3379	4.6		1606	3.9		1773	0.8	0.56
Acres (mean)	1.4	2.6	3375	1.4	1.2	1604	1.5	3.5	1771	-0.1	0.53
Under one acre	24.7		3158	25.8		1514	23.7		1644	2.1	0.30
Own one to two acres	50.4		3158	48.5		1514	52.3		1644	-3.8	0.06
Own two to four acres	21.7		3158	22.4		1514	21.0		1644	1.4	0.26
Own over four acres	3.2		3158	3.3		1514	3.1		1644	0.2	0.88
Vouchers for fertilizer	53.5		3531	53.1		1678	53.8		1853	-0.7	0.90

Appendix F: Comparison of Treatment and Comparison Groups – Baseline

	Full Sample			Treatment			Control				
	%	SD	N	% [T]	SD [T]	N [T]	% [C]	SD [C]	N [C]	Diff T-C	p-value
Crop Production											
Sold any crops	22.7		691	21.4		333	24.0		358	-2.6	0.68
Main crops sold			691			333			358		
Maize	99.0		691	98.2		333	99.6		358	-1.3	0.88
Groudnut	35.6		691	36.1		333	35.3		358	0.8	0.85
Pigeonpeas	37.7		691	31.5		333	43.1		358	-11.6	0.13
Main crops produced											
Maize	99.5		3284	99.4		1561	99.6		1723	-0.2	0.52
Groundnut	19.3		3284	20.0		1561	18.6		1723	1.4	0.65
Rice	5.8		3284	4.3		1561	6.8		1723	-2.5	0.63
Pigeon pea	22.1		3284	20.8		1561	23.3		1723	-2.5	0.38
Pumpkin (nkhwani)	6.0		3284	7.5		1561	4.6		1723	2.9	0.23
Fishing											
Fishing hhld	1.0		3531	0.7		1678	1.2		1853	-0.5	0.52
Sell fish (out of those who fish)	27.3		41	17.7		12	32.8		29	-15.1	0.22
Hired fishing help	0.0		41	0.0		12	0.0		29	0.0	
Owned Asset											
Implements											
Hand Hoe	86.9		3531								
Slasher	1.2		3531								
Axe	13.6		3531								
Sprayer	0.4		3531								
Panga Knife	23.3		3531								
Sickle	18.4		3531								
Treadle Pump	0.1		3531								
Watering Can	1.1		3531								
Livestock inputs											
Fodder	0.0		3531								
Manufactured feed, Salt			3531								
Vet Services/Drugs/Medicines			3531								
Machinery											
Ox Cart	0.0		3531								
Ox Plough	0.0		3531								
Generator, Motorised Pump	0.0		3531								
Structures/Buildings											
Chicken House	0.0		3531								
Livestock Kraal	0.0		3531								
Poultry Kraal	0.0		3531								
Storage House	0.0		3531								
Granary	0.0		3531								
Barn	0.0		3531								
Pig sty	0.0		3531								
Purchased Asset in last 12 months											
Implements											
Hand Hoe	6.8		2075								
Slasher	1.6		54								
Axe	2.0		455								
Sprayer	6.4		16								
Panga Knife	2.4		842								
Sickle	4.7		647								
Treadle Pump	0.0		3								
Watering Can	0.0		36								
Machinery											
Ox Cart	0.0		2								
Ox Plough	0.0		0								
Generator, Motorised Pump	0.0		0								

Appendix F: Comparison of Treatment and Comparison Groups – Baseline

	Full Sample %	SD	N	Treatment % [T]	SD [T]	N [T]	Control % [C]	SD [C]	N [C]	Diff T-C	p-value
Own livestock											
Calf	0.1		3531								
Steer/Heifer	0.0		3531								
Cow	0.1		3531								
Bull/Ox	0.1		3531								
Donkey or mule/horse	0.0		3531								
Goat and/or sheep	9.9		3531								
Pig	0.4		3531								
Chickens	15.5		3531								
Beehive	0.0		3531								
Purchased livestock in last 12 months											
Calf	0.0		4								
Steer/Heifer	0.0		0								
Cow	34.1		6								
Bull/Ox	0.0		3								
Donkey or mule/horse	0.0		0								
Goat and/or sheep	11.3		357								
Pig	35.3		18								
Chickens	19.4		678								
Beehive	0.0		0								
Fish gear											
Mosquito net (usipa)	0.1		3531								
Beach seine (Kambuzi)	0.3		3531								
Dugout (Bwato)	0.1		3531								
Other	0.5		3531								
Boat/Engine											
Plankboat w/o engine	0.0		3531								
Plankboat with engine	0.0		3531								

Appendix F: Comparison of Treatment and Comparison Groups – Baseline

	Full Sample			Treatment			Control				
	%	SD	N	% [T]	SD [T]	N [T]	% [C]	SD [C]	N [C]	Diff T-C	p-value
Safety Net Programs											
Receiving any assistance	69.8		3531	69		1678	70.6		1853	-1.6	0.81
Value (MWK) received (mean)	979.8	949.4	2415	927.7	712.4	1167	1029.8	1128.9	1248	-102.1	0.14
Maize (kgs) received (mean)	8.0	5.8	678	8.6	6.1	331	7.4	5.5	347	1.2	0.18
Top Programs											
Vouchers or coupons to buy fertilizers or seeds (FISP)	53.5		3531	53.1		1678	53.8		1853	-0.7	0.90
Free Maize	16.3		3531	16.2		1678	16.3		1853	0.0	0.97
School Feeding Programme	14.7		3531	16.2		1678	13.3		1853	2.9	0.41
Free Food (other than Maize)	14.3		3531	15.3		1678	13.3		1853	2.0	0.60
Food/Cash-for-Work Programme	7.5		3531	6.4		1678	8.5		1853	-2.1	0.21
Transfers In and Out											
Received transfers	82.4		3531	79.9		1678	84.8		1853	-4.9	0.36
Made transfes	30.8		3531	28.4		1678	33.1		1853	-4.7	0.25
Transfer amount received (mean)	60593.1	142063.5	2808	56923.5	98205.8	1295	63846.0	171794.6	1513	-6922.5	0.34
Transfer amount given (mean)	12866.2	27702.2	1089	14397.6	35409.1	483	11610.2	19143.4	606	2787.4	0.34
Shocks and Responses											
Total shocks (mean)	2.5	1.3	3531	2.5	1.3	1853	2.5	1.3	1678	-0.1	0.71
Top Shocks											
Unusually high prices for food	82.8		3531	82.2		1853	83.5		1678	-1.4	0.70
Drought/Irregular Rains	61.9		3531	63.8		1853	60.0		1678	3.9	**0.04**
Unusually high costs of agricultural inputs	44.3		3531	42.4		1853	46.3		1678	-3.9	0.64
Serious illness or accident of household member(s)	17.4		3531	17.1		1853	17.7		1678	-0.6	0.48
Floods/Landslides	7.3		3531	6.0		1853	8.6		1678	-2.6	0.50
Top Responses											
Received unconditional help from relatives/friends	30.7		3531	29.3		1853	32.2		1678	-2.9	0.30
Changed eating patterns	21.0		3531	21.2		1853	20.9		1678	0.3	0.96
Relied on own-savings	18.2		3531	18.1		1853	18.3		1678	-0.2	0.96
Credit and Loans											
Have previous loan	6.9		3531	6.8		1853	7.1		1678	-0.3	0.75
Have current loan	26.7		3531	25.4		1853	28		1678	-2.6	0.08
Constrained - loans	44.4		3531	45.2		1853	43.7		1678	1.5	0.36
Have current credit	29.2		3531	29.9		1853	28.6		1678	1.3	0.39
Constrained - credit	69.3		3531	68.5			70			-1.5	0.34

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