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of NORTH CAROLINA
at CHAPEL HILL



Malawi Social Cash Transfer Program Midline Impact Evaluation Report

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Acknowledgements

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Acronyms

3ie	International Initiative for Impact Evaluation
CES-D	Center for Epidemiological Studies Depression Scale
CPI	Consumer Price Index
CSR	Centre 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 Programme
GF	Global Fund to Fight AIDS, Tuberculosis and Malaria
GoM	Government of Malawi
HAZ	Height-for-age z-score
IDI	In-Depth Interview
IE	Impact Evaluation
IHS3	Third Integrated Household Survey
IRB	Internal Review Board
KfW	Kreditanstalt für Wiederaufbau (German Development Bank)
KII	Key Informant Interview
MDHS	Malawi Demographic and Health Survey
MIS	Monitoring Information System
MoGCDSW	Ministry of Gender, Children, Disabilities, and Social Welfare
MoFEPD	Ministry of Finance, Economic Planning and Development
NCST	National Committee for Science and Technology
NFE	Non-Farm Enterprise
NSO	National Statistics Office
PCA	Principal Component Analysis
PMT	Proxy Means Test
PtoP	From Protection to Production
RIMA	Resilience Index Measurement and Analysis Model
SCT	Social Cash Transfer
SCTP	Social Cash Transfer Programme (Malawi)
SD	Standard Deviation
SPG	Squared Poverty Gap
TA	Traditional Authority
UNC-CH	University of North Carolina at Chapel Hill
UNGASS	United National General Assembly Special Session
UNICEF	The United Nations Children's Fund
UNIMA	University of Malawi
VC	Village Cluster
WAZ	Weight-for-age z-score
WHO	World Health Organization
WHZ	Weight-for-height z-score

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Executive Summary

This report is the Midline Impact Report for the Malawi Social Cash Transfer Programme (SCTP) Impact Evaluation. It provides impact estimates of the SCTP on a range of indicators covering the six main objectives of the programme, as described below. The analysis is based on a mixed methods approach. The *quantitative* design consists of Baseline (conducted in June-August 2013), Midline (conducted November 2014-January 2015), and Endline (planned for October 2015). Half of the sample (~1,750 households) were randomized out to a delayed-entry control group. The *qualitative* study also includes a baseline and follow-up conducted shortly after the quantitative surveys, and includes an innovative longitudinal set of in-depth interviews of caregivers and adolescents who are also part of the quantitative survey, and so are ‘embedded’. At the time of the midline data collection, households had received between five and six payments, and so had been in the programme for approximately one year—as such, the results reported here should be interpreted as one-year impact results. Table 1 summarizes the statistical significance of a set of key indicators in each of the six programme objective areas. Because the value of the transfer is significantly higher among poorer households, we also report impacts among households in the bottom half of the baseline consumption distribution. As can be seen from this table, after only one year of operation, the SCTP has already been able to have a far-reaching impact on beneficiary households; as the text of this report documents, these impacts tend to be higher among the poorest households, highlighting the important fact that *the value of the transfer matters considerably for both the range and depth of impact one can expect from the programme*.

Consumption, food security and material needs: Programme households now report eating more meals per day and worrying less about food. However, an overall increase in annual consumption is only registered amongst the poorest households. The poverty rate has decreased by 5 percentage points (pp) and the poverty and squared poverty gap by 9 pp. There is a large impact (16 pp) on the material well-being of children age 5-17, defined as having a pair of shoes, a blanket and two sets of clothes.

Economic productivity and asset accumulation: After only 12 months of operation, the SCTP has had an impressive impact on livelihoods strengthening and asset accumulation. Programme households have more crop production, and more possession of livestock (primarily chickens and goats). They also have more non-agricultural assets (primarily radios) and agricultural assets (sickles).

Health and nutrition of young children: Compared to household economic and consumption impacts, the impacts on young child health and nutrition are less pronounced. Part of the challenge here is that SCTP households actually have relatively few children under the age of five, given their unique demographic structure. Nevertheless, there are strong impacts on the use of curative health care services, and on young child feeding among the poorest households.

Schooling and child labour: Programme impacts among older children are very strong, with large impacts on school enrolment at all ages in the order of 14 pp, as well as on-age entry into school among six-year-olds, and grade progression. The programme has also reduced paid work outside the home. The schooling impacts indicate the strong demand for schooling, and suggest that conditions related to school enrolment are not necessary among these poor households.

Safe transition to adulthood: The evaluation study includes a novel module administered to young people between the ages of 13-19 (at baseline), to understand their health, well-being and transition to adulthood. Based on these face-to-face interviews with young people, the results show that respondents in SCTP households were more likely to delay their first sexual encounter, and among females in the poorest households, there was a significant reduction in first pregnancy.

Well-being of care-givers: The final programme objective is to improve the well-being of caregivers of orphans and vulnerable children. We find that the programme has had a significant positive impact on their physical health, with reductions in symptoms of chronic illness, morbidity, and increase in the use of curative care, though we find no impacts on stress.

Table 1: Summary of Impacts in Programme Objective Areas

Objective Area	All households	Poorest 50 per cent of households
<u>Consumption, food security</u>		
Consumption		**
Food consumption		**
Meals per day	**	**
Poverty	**	N/A
Poverty gap	**	**
Squared poverty gap	**	**
<u>Economic productivity</u>		
Livestock	**	**
Crop production	**	**
Agricultural assets	**	**
Non-agricultural assets	**	**
<u>Health, nutrition of young children</u>		
Weight-for-age		
Weight-for-height		
Height-for-age		
3+ meals per day		**
Illness	**	
Curative care		**
<u>Schooling, child work, material needs</u>		
Enrolment ages 6-13	**	**
Enrolment ages 14-17	**	**
Hours unpaid work		
Hours paid work	**	**
Material needs (blanket, clothes, shoes)	**	**
<u>Safe transition to adulthood (13-19-year-olds)</u>		
Sexual debut	**	**
Early pregnancy		**
Mental health		
<u>Health</u>		
Chronic illness	**	**
Morbidity	**	**
Curative care	**	**
Caregiver Stress	**	**

(**) denotes statistically significant in the hypothesized direction at 5 per cent confidence level; See text for full definitions of indicators used.

The midline evaluation also fielded an operational module to understand beneficiary perceptions of the programme and its implementation. In most areas studied, the feedback was positive, though there were some notable issues that could be addressed. For example, most beneficiaries reported spending more than four hours at the pay-point waiting to receive their money, and the majority of beneficiaries in Salima are not aware that they can recover a payment if they miss the official payment day. Finally, 80 per cent of beneficiaries are under the impression that there are conditions attached to the transfer, specifically for the care and protection of children. This corresponds to the significant increases observed in spending on education and clothing. A final key issue is the value of the transfer, which represents about 18 per cent of pre-programme consumption among beneficiaries on average, lower than the critical threshold of 20 per cent which is thought to be the minimum required to generate transformative impacts on households. The new transfer levels (implemented in May 2015) will bring this share to 23 per cent. The much larger impacts among households that were poorer at baseline, for whom the transfer share was already at 23 per cent of consumption, underscores the need to be vigilant about maintaining the real value of the transfer in order to ensure the programme meets its stated objectives.

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1. Introduction

This document constitutes the Midline 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 Centre for Social Research of the University of Malawi (CSR UNIMA), with technical support on productive and spill over effects provided by the *From Protection to Production (PtoP)* project of the Food and Agriculture Organization (FAO). This report describes the impacts of the programme on individuals, households, and communities, 17 months after baseline data was collected. At the time of follow-up, most beneficiaries had received five to six payment instalments (equalling 10 to 12 months of transfers) so results can be interpreted as one-year impacts of the programme on beneficiaries.

2. Background

2.1 Description of the Malawi Social Cash Transfer Programme

The Government of Malawi's (GoM's) SCTP (locally known as the Mtukula Pakhomo) is an unconditional cash transfer programme targeted to ultra-poor, labour-constrained households. The programme began as a pilot in Mchinji district in 2006. Since 2009, the programme has expanded to reach 18 out of 28 districts in Malawi. The programme has experienced impressive growth beginning in 2012, and most notably in the last 12 months. By March 2015, the SCTP had reached over 100,000 beneficiary households, and had gone to full scale in 10 districts. GoM expects to have enrolled over 175,000 households by the end of 2015.

The SCTP is administered by the Ministry of Gender, Children, Disabilities and Social Welfare (MoGCDSW) with additional policy oversight provided by the Ministry of Finance, Economic Planning and Development (MoFEPD). UNICEF Malawi provides technical support and guidance. Funding for the programme from 2007-2012 was largely provided by the Global Fund to Fight AIDS, Tuberculosis and Malaria (GF). In 2011, the German Government (through Kreditanstalt für Wiederaufbau, or KfW) and the GoM signed an agreement to provide substantial funding for paying arrears in existing areas. In 2013, Irish Aid signed an agreement to expand into one new district, and in 2014, KfW and the European Union (EU) topped-up donor contributions to enable full coverage in the seven existing districts, as well as scale-up into eight additional districts. Also in 2014, GoM launched a "government-funded" district (Thyolo) and the World Bank committed to providing resources to expand into two additional districts. The SCTP was launched in these 11 newly funded districts starting in mid-2014 through early 2015.

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 labour-constrained (defined as having a ratio of 'not fit to work' to 'fit to work' of more than three). Household members are defined as 'unfit' if they are below 19 or above 64 years of age, or if they are age 19 to 64 but have a chronic illness or disability, or are otherwise unable to work. A household is labour-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 members are appointed to the Community Social Support Committee (CSSC), and the CSSC is responsible for identifying households that meet these criteria and creating a list. These lists are to include roughly 12 per cent of the households in each Village Cluster (VC), and after further screening, the list is narrowed in order to achieve a target coverage rate of 10 per cent. The ultra-poor eligibility condition is implemented through a proxy means test (PMT).

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

The transfer amount varies based on household size and the number of children enrolled in primary and secondary school. At the time of this follow-up, the transfer amounts were as shown in the first column of Table 2.1.1 below. Transfer amounts increased across the board in May 2015 (new amounts in column two).

Table 2.1.1: Structure and Level of Transfers (Current MWK)

	Prior to May 2015	After May 2015
1 Member	1,000	1,700
2 Members	1,500	2,200
3 Members	1,950	2,900
4+ Members	2,400	3,700
Each primary school child ¹	300	500
Each secondary school member ²	600	1,000

¹ Provided for household residents age 21 or below in primary school. ² Provided for household residents age 30 or below in secondary.

2.2 Malawi SCTP Impact Evaluation— Objectives, Locations and Timeline

The Malawi SCTP Impact Evaluation has been contracted to UNC-CH and CSR UNIMA and consists of a baseline survey with two follow-up surveys. The Baseline and first follow-up (Midline) are funded by UNICEF, the German Government through KfW, Irish Aid and FAO; the International Initiative for Impact Evaluation (3ie) and the European Union (EU) are providing additional funding for the second follow-up (Endline) survey. GoM provides significant in-kind contributions and support to all three rounds.

Objectives

The objectives of the SCTP are to reduce poverty and hunger, and to increase school enrolment rates in these ultra-poor households. The 2007-2008 impact evaluation of the pilot project in Mchinji demonstrated that the Malawi SCT Pilot Scheme had a range of positive outcomes including increased food security, ownership of agricultural tools and curative care seeking.² Since that time, the programme has undergone some changes in targeting and operations, 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) Behaviour change within the household, 3) Access to and linkages with other social services³, 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 labour among older children?
5. Does the SCTP affect the safe transition into adulthood among youth?
6. Does the SCTP affect the health and well-being of caregivers?

² Miller, C., Tsoka, M., & Reichert, K. (2010). Impacts on children of cash transfers in Malawi. In S. Handa, S. Devereux, & D. Webb, *Social protection for Africa's children*. London: Routledge Press.

³ 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.

Study locations

The MoGCDSW planned to retarget in existing areas, and expand the SCTP to cover 18 districts, starting in 2012. The districts scheduled for scale-up in early 2013 were Salima and Mangochi, so the MoGCDSW took this opportunity to integrate an 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 Traditional Authorities (TAs) in each district (Maganga and Ndindi TAs in Salima, and Jalasi and M'bwana Nyambi TAs in Mangochi).

Timeline

The study began with a Planning Meeting and an Inception Workshop (September 2012 and February 2013, respectively) where several key stakeholders met to organize the planning and execution of the Impact Evaluation (IE). UNC-CH and CSR UNIMA collaborated with GoM, UNICEF, FAO and other key stakeholders to coordinate planning and field activities for both baseline and the first follow-up. The Baseline Report includes a full description of the planning and study design, including selection of study areas and assignment to treatment (T) and control (C) status.⁴ A summary is included for the readers' convenience in Annex A.

While follow-up was originally planned for 12 months after baseline, the first payments (covering January and February 2014) were not administered until March and April 2014. After discussion between the evaluation team, GoM, and UNICEF, the decision was taken to conduct the follow-up in November 2015, at 17 months, in order for there to be an adequate number of payments and time for early impacts to be observed. Household, youth and community surveys were administered from the end of November 2014 through late January 2015. Additional youth surveys were conducted in February to capture data on those who were away during the earlier data collection. Qualitative interviews were done in February and March 2015. Endline data collection is currently scheduled to begin in October 2015. Table 2.2.1 below describes activities to date.

Table 2.2.1: Timeline for Key Events for Malawi SCTP Impact Evaluation

Event	Stakeholders	Timeframe
Planning		
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
Baseline		
Enumerator Training	UNC, CSR, FAO	June 2013
Quantitative Data Collection	UNC, CSR	July – September 2013
Research Assistant Training (Qual)	UNC, CSR, FAO	November 2013
Qualitative Data Collection	UNC, CSR	November 2013
Data Entry and Cleaning	CSR, UNC	July – October 2013
Data Analysis	UNC	November 2013 – January 2014
Results Workshop	UNC, CSR, FAO, GoM, KfW, Irish Aid, UNICEF, Ayala, ILO, USAID	February 2013
1 st Payments	GoM, Ayala, Beneficiaries	March – April 2014
Midline Follow-up		
Enumerator Training	UNC, CSR, FAO	November 2014
Quantitative Data Collection	UNC, CSR	November 2014 – February 2015
Research Assistant Training (Qual)	UNC, CSR, FAO	February 2013
Qualitative Data Collection	UNC, CSR	February – March 2015
Data Entry and Cleaning	CSR, UNC	November 2014 – February 2015
Data Analysis	UNC	March – April 2015
Results Workshop	UNC, CSR, FAO, GoM, KfW, Irish Aid, UNICEF, Ayala, ILO, USAID	May 2015

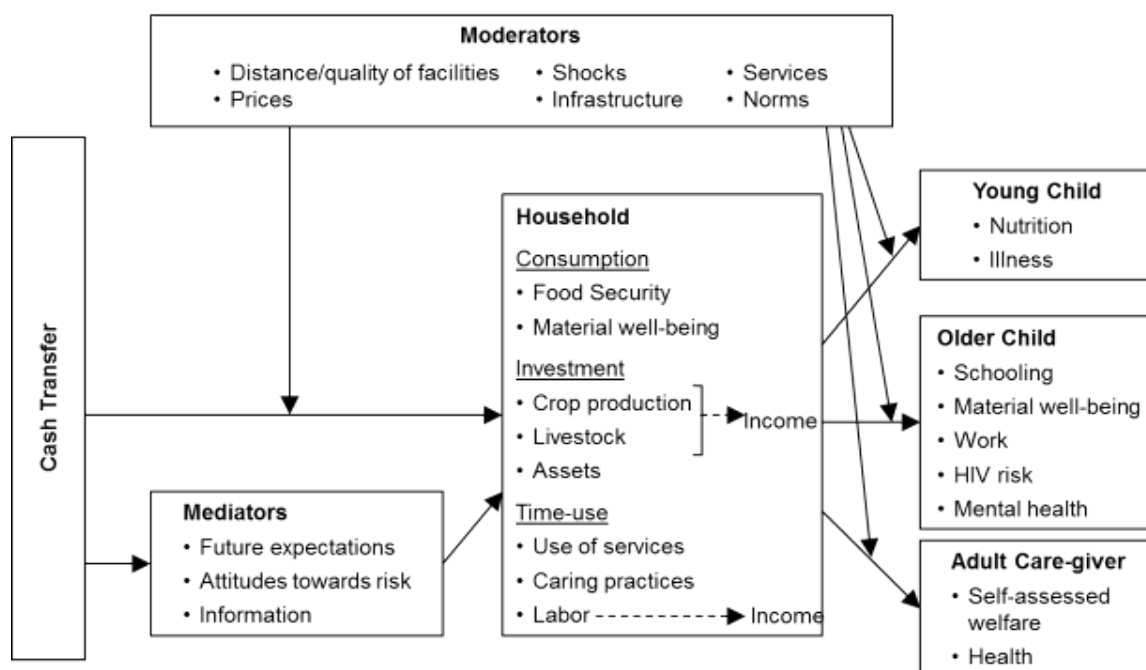
⁴ See the Malawi SCTP Baseline Report (2014) available at: http://www.cpc.unc.edu/projects/transfer/countries/malawi/copy_of_MalawiSCTPBaselineReportrev2014July8.pdf

3. Conceptual Framework⁵

The conceptual framework for the Malawi SCTP is based upon research and observed patterns and experiences from several national SCT programmes. The SCTP provides an *unconditional* cash transfer to households that are labour-constrained and ultra-poor. These households, even at very low levels of consumption, will spend almost all of their income each month. We therefore expect that, among the beneficiary population, virtually all of the cash transfer will be spent at the initial stages of the programme, and the spending will be directed to 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 3.1.1 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 (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 behaviour 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.

Figure 3.1.1: Conceptual Framework for the Impact Evaluation of the Malawi SCTP



⁵ This section is adapted from the Malawi SCTP Baseline Evaluation Report.

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 programme 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 3.1.1, we list some of the key indicators along the causal chain that we will analyse 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)⁶ and the Third Integrated Household Survey (IHS3).⁷

A key requirement for a cash transfer programme 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. Based on experience from around the world, including several major African cash transfer programmes, a ‘rule of thumb’ is that the transfer should deliver at least 20 per cent of pre-programme consumption in order to generate widespread impacts. Table 3.1.1 shows that during the period of this evaluation, the average transfer share was 18 per cent of pre-programme consumption; 70 per cent of beneficiaries had a transfer share that was below this threshold (20 per cent) and half of beneficiaries had a transfer share that was below 15 per cent. The new transfer size is a significant improvement (column 2 of Table 3.1.1); when this is implemented only 40 per cent of recipients will have a transfer that is below 20 per cent of their original consumption level and the median share will be 23 per cent.

Table 3.1.1: Transfer Size as Share of Baseline Consumption

	Original transfer level	Post-May 2015 transfer level
Mean share	0.18	0.28
Median share	0.15	0.23
Proportion below 20 per cent	0.70	0.40

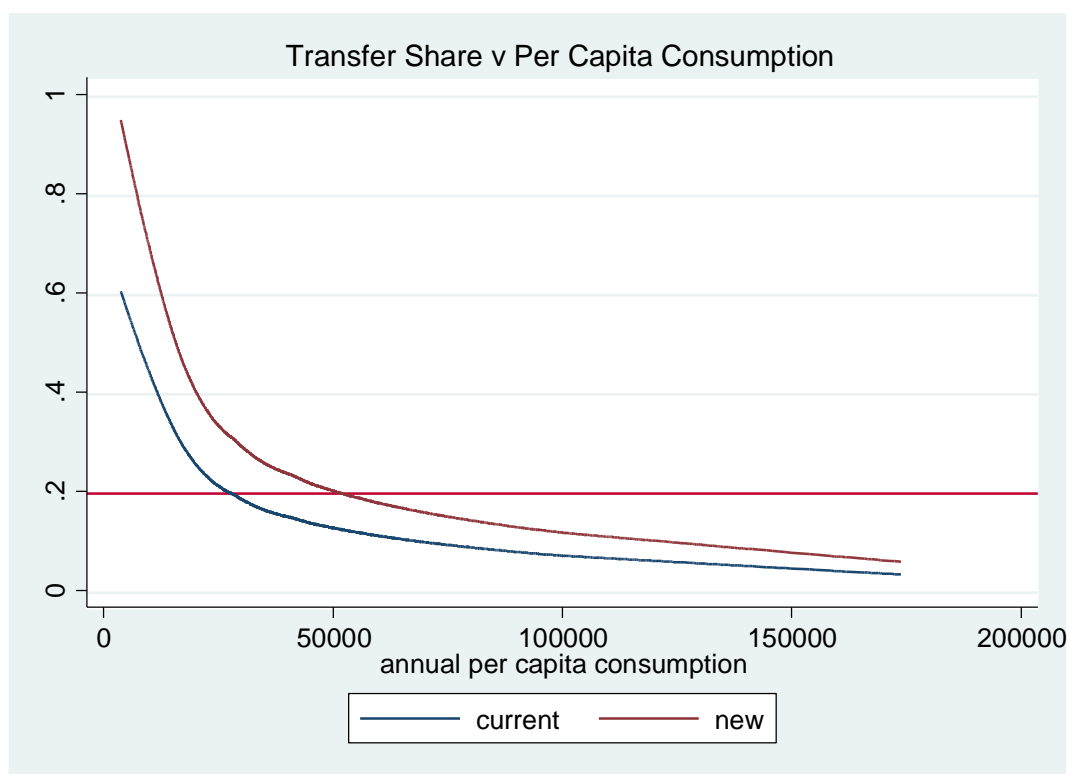
Baseline consumption inflated to December 2014 value. Transfer size and structure reported in Table 2.1.1.

Figure 3.1.2 shows the simulated transfer size share for the original and new transfer levels according to baseline level of consumption. Clearly, the transfer share is larger for poorer households, and the new transfer levels move many more recipients above the critical 20 per cent threshold. This analysis has important implications for the impacts we might expect to find now and in the future. First, given the relatively low transfer size among a significant proportion of recipients, and the fact that the midline was conducted only 12 months after programme initiation, the ‘intensity of treatment’ is relatively weak and results should be interpreted within that context. Second, we are likely to see larger impacts among poorer households simply because the relative size of the transfer is much greater for those households. Third, the endline survey, to the extent that it incorporates the new transfer level and allows for a longer period of time for the programme to affect behaviour, is likely to show much different impacts than the midline. *From a policy perspective, the analysis of the transfer size and the experience on the relationship between the size and impacts suggests that GoM must be vigilant in maintaining the real value of the transfer, or run the risk of maintaining a complex delivery system for a programme that delivers little benefit.*

⁶ National Statistical Office (NSO) and ICF Macro. 2011. Malawi Demographic and Health Survey 2010. Zomba, Malawi, and Calverton, Maryland, USA: NSO and ICF Macro.

⁷ National Statistics Office, Republic of Malawi. Integrated Household Survey 2010-2011: Household Socio-Economic Characteristics Report. September 2012.

Figure 3.1.2: Transfer Size as a Share of Pre-Programme Consumption (in MWK)



4. Study Design, Sampling, Data Collection and Analysis

4.1 Study Design

The impact evaluation for Malawi’s SCTP uses a mixed methods, longitudinal, experimental study design, combining quantitative surveys, qualitative interviews and group discussions, and simulation models to demonstrate wider community economic impacts.⁸ The quantitative survey design consists of a cluster-randomized longitudinal study with baseline surveys (household, community and business) which began in July 2013 and two follow -up surveys (household and community) – the midline survey was conducted starting in November 2014 and endline is scheduled for October 2015.

The qualitative survey is an embedded longitudinal study of 16 treatment households, which includes three main components: in-depth interviews (IDIs) with the caregiver and a young person (aged 13-19 at baseline) from each household at baseline and follow-up; key informant interviews (KIIs) with community members at follow-up; and focus group discussions (FGDs) in each study TA at baseline and follow-up. Insights from these qualitative interviews and discussions with community members provide complementary data to that obtained through the surveys 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 programme.

Baseline data collection was conducted to allow the study team to accurately describe characteristics of beneficiary households before receiving any cash transfers. Midline data has been compared to data collected at baseline using a difference-in-differences (DD) approach to assess the full impacts of the

⁸ The FAO, with direct funding from the Department for International Development-United Kingdom (DFID-UK), built a simulation model to predict the potential of the SCTP to generate local economy-wide effects. Those results are reported separately in: Thome, K., Taylor, J.E., Tsoka, M., Mvula, P., Davis, B. and Handa, S., Local Economy-wide Impact Evaluation (LEWIE) of Malawi’s Social Cash Transfer (SCT) Programme, PtoP project report, FAO - March 2015.

SCTP. 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 changes experienced by beneficiaries and subtracting the changes also experienced by control households. The difference in these two are attributed to the programme and considered programme impacts.

4.2 Sampling

Quantitative sample

The longitudinal impact evaluation includes 3,531 SCTP-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 (T) group and 15 VCs (1,853 households) in the control (C) – or delayed-entry— group. Data on the non-eligible households were collected to enable FAO to build the local economy simulation model.⁶

The study districts, Salima and Mangochi, were selected for the study in order to integrate with GoM's SCTP expansion plans. The study design uses both random selection (for the selection of study areas at the TA and VC level) and random assignment (to determine T and C VCs), the most rigorous approach available according to evaluation literature.⁹ This randomization was done in cooperation with GoM, and was a transparent process open to the public, and the assignment to T-C status was public and attended by local community leaders.

Qualitative sample

After treatment and control VCs were assigned, the qualitative sample of 16 households was selected from treatment VCs for 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 four TAs (Salima – Maganga and Ndindi TAs; Mangochi – Jalasi and M'bwana Nyambi TAs). 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 (at the time of baseline) who had completed the Young Person's Module in the quantitative survey. This allows for a richer analysis of the youth IDIs, as the qualitative interview could be linked to information on behaviour 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) at midline were held with two separate groups (beneficiaries and non-beneficiaries) in each of the four TAs, for a total of 10 FGDs.¹⁰ The groups were divided into programme beneficiaries and community members not receiving the transfer in order to allow participants to speak freely, without stigma or judgement from the other group. FGD participants were community members aged 18 and above who have detailed knowledge of the community and were invited by the local village heads. 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 impacts, perceptions, and operations of the SCTP. The specific locations within the TAs were 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.

⁹ Shadish WR, Cook TD, Campbell DT. *Experimental and Quasi-Experimental Designs for Generalized Causal Inference*. Boston: Houghton-Mifflin. 2002.

¹⁰ An additional set of FGDs was conducted in Mangochi since time permitted the team to do so.

4.3 Data Collection

While the first follow-up was originally scheduled to begin in July 2014 (12 months after baseline), payments had not begun in T areas until March 2014. The research team recommended that data collection occur after a minimum of 10 months' worth of transfers (or five payment cycles). Therefore, survey teams began field work on 29 November 2014. Data collection continued through 23 January 2015, and additional youth modules were administered in February to capture data on the youth who were away for holiday or seasonal work during the main survey period. Qualitative IDIs, KIIs and FGDs were conducted from 23 February to 12 March 2015.

Survey instruments

The midline consists of six major components:

1. Household Survey administered to the main respondent for the household;
2. Young Person's Module for up to three youth ages 14-21 in the household (age at midline);
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;
5. IDIs for caregiver and one youth from 16 treatment households;
6. KIIs and FGDs with knowledgeable community members to discuss impacts, perceptions, and operations of the SCTP. Beneficiary and non-beneficiary FGDs were held separately.

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. 14-1933; Malawi NCST Study No. RTT/2/20). Instrument topics are described in Annex B, Figure B.1.1). Instruments are available online at <http://www.cpc.unc.edu/projects/transfer/countries/malawi>.

Training

Training of supervisors and enumerators for the Midline quantitative data collection took place in Zomba from 18 – 26 November 2014. Trainers from UNC-CH, CSR UNIMA, and UNICEF's Office of Research-Innocenti led the training. The training focused on reviewing each question in the household and youth surveys, module by module, and translating the materials into Chichewa and Chiyao as they went. The team was also trained on using the tablet computers for data collection, and ethics of human subject research and associated field protocols. Field piloting of the survey instruments was done as part of the training, from November 22-25. Enumerators and supervisors participated in two days of piloting on both paper instruments and tablets, with debriefing sessions after each pilot.

Qualitative research assistants were trained in Zomba from 18 – 21 February 2015. UNC-CH and CSR UNIMA lead qualitative researchers led the training. Four research assistants and one alternate were trained in qualitative methods, interview techniques, reviewing the semi-structured interview guides, and human subjects research protocols. Research assistants translated the guides and prepared household summaries to aid them in the fieldwork.

Data capture

The data collection was carried out by CSR UNIMA. Peter Mvula and Maxton Tsoka organized the field work and oversaw field teams. Support was provided by researchers and support staff from UNC-CH and UNICEF's Office of Research. Quantitative data was captured on tablet computers during the interviews. Qualitative interviews were all recorded and research assistants took notes throughout.

Selection of enumerators and research assistants

CSR UNIMA selected the survey enumerators from a pool of applicants that were experienced in household and community surveys. There were six field teams, each consisting of a supervisor, five enumerators and a driver, for a total local field team of 42 people, led by two key investigators (Drs. Mvula and Tsoka). Each enumerator was assigned to interview two to three households per day. They were also responsible for administering the Young Person's module for households that had youth ages of 14 to 21. Supervisors organized the team's work and conducted community interviews. Interviews were conducted orally in the local language (Chichewa or Chiyao) to be culturally sensitive and provide clearer communications. All enumerators spoke fluent Chichewa, and each team had at least one Chiyao speaker when interviewing in predominantly Yao areas.

For the qualitative interviews, two supervisors and an enumerator who had participated in the midline surveys were selected, along with a qualitative interviewer from the baseline study. There were four research assistants – two male and two female.

Fieldwork

Quantitative data collection was done from 29 November 2014 – 23 January 2015. Additional youth surveys were conducted in February to capture data on those who were away during midline data collection. Qualitative interviews were done from 23 February – 11 March 2015.

General conditions: Field conditions varied greatly. Field work commenced as the rainy season was beginning, and was not complete until late-January, when the rains were in full swing. 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. In many areas in Mangochi especially, there was no mobile network reception, and many households in these TAs were several kilometres from a passable road, making organizing team logistics and sharing anthropometric equipment between enumerators on the same team a difficult task.

The rain challenges and locating households continued to be difficult during qualitative data collection in February, but field teams were highly experienced and persevered.

Youth interviews: Locating youth that were interviewed at baseline also proved challenging at times. School vacation was from 12 December 2014 to 5 January 2015, right in the middle of the survey period, and many young people were away visiting relatives or looking for work during this time. Additionally, it was prime weeding season, and many youth had gone to Mozambique to work during this period. While supervisors made several call backs, they were not always able to locate the youth. In order to re-interview the maximum number of youth from the baseline sample, the decision was taken to return to the field in late-February with the qualitative team to attempt to track the youth who were missed during the main survey period. For youth that were unable to be located, enumerators recorded the reason the youth was not interviewed.

To compensate for the expected attrition in the baseline youth sample, the protocol was that up to three youth, ages 14-21 (as youth at baseline were 13-19), should be interviewed in each household. While some of these youth were not interviewed at baseline, they could serve to provide information on the conditions of youth living in the household at follow-up.

4.4 Data Processing and Analysis

Survey data

As data entry was conducted using computer tablets in the field, data entry occurred in real time during the household visits using the CSPro data entry program. Tablets were programmed with data transfer software that allowed supervisors to upload the data from their team to a secure server housed at UNC-CH at the end of each day. CSR UNIMA employed a data manager, Nick Shawa, who

worked alongside UNC-CH's data manager, Frank Otchere, to track the uploaded data, perform quality control, and to export the data into the analysis software. Shawa also circulated in the field to give technical support to supervisors and troubleshoot problems with data entry, uploading, or with the tablets themselves.

To ensure data quality, several measures were employed: 1) the data entry program itself had quality control and logic measures embedded to prevent enumerators from making certain common errors; 2) at the end of each day, supervisors reviewed the questionnaires from all team members before uploading; 3) once data was uploaded to the server, Shawa did basic checks for completeness and other obvious errors; 4) UNC-CH analysts produced error reports for commonly noted errors, which were sent back to the supervisors for corrections; and 5) once the full data set was received, a final round of quality and completeness review was conducted, and responses which contradicted baseline data were investigated and cleaned.

The evaluation team at UNC-CH conducted the main impact analysis from February – April 2015, in cooperation with UNICEF's Office of Research-Innocenti, in Florence, Italy.

Interview data

For the qualitative exercise, all IDIs, KIIs and FGDs were recorded and detailed summaries were written while in the field. Recordings were then transcribed verbatim and translated by the research assistant who conducted the interview. This method allowed for the research assistants to provide contextual information necessary for interpretation, as well as keeping the translated meaning as close as possible to the original meaning. Transcriptions of recordings and translations were overseen and verified by Maxton Tsoka and Peter Mvula of CSR UNIMA. Summaries were received by the UNC-CH research team while research assistants were in the field in February and March. Transcriptions and translations were completed and received in April 2015.

For the purpose of this report, the 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 participants' experiences.¹¹ We also systematically coded the IDI summaries to identify salient themes of education, health, food security and subjective well-being from the point of view of young people and their caregivers. FGD summaries were separated by community and analysed from beneficiary and non-beneficiary standpoints and coded for impacts and operational issues.

5. Attrition

Attrition within a sample occurs when households from the baseline sample are missing in the follow-up sample. Migration, death, separation, or the dissolution of households can cause attrition and make it difficult to locate a household for a second data collection. Attrition can cause problems in conducting an evaluation because it not only decreases the sample size (leading to less precise estimates of programme impact), but it could also introduce bias into the sample. If attrition is *selective*, it could lead to incorrect programme impact estimates, or it could change the characteristics of the sample and affect its representativeness.

There are two types of attrition: differential and overall. *Differential* attrition occurs when the treatment and control samples differ in the types of households or individuals who leave the sample. Differential attrition can create biased samples by reducing or eliminating the balance between the T and C groups achieved at baseline. *Overall* attrition is the total share of observations missing at follow-up from the original baseline sample. Overall attrition can change the characteristics of the remaining sample and render it non-representative of the population from which it was obtained.

¹¹ Miles MB and Huberman AM. (1994). *Qualitative Data Analysis* (2nd Edition). Thousand Oaks: Sage

Overall attrition can affect the ability of the study’s findings to be generalized to the population of interest. Ideally, both types of attrition should be null or small.

We investigated attrition at midline by testing for similarities at baseline between (1) T and C groups for all households included in both the baseline and follow-up surveys (differential attrition) and, (2) all remaining households at the midline follow-up and the households who were missing in the follow-up survey (overall attrition).

Fortunately, *we do not find evidence of differential or overall attrition at the midline follow-up*, meaning that we preserve the balance between the T and C groups found in the baseline survey as well as the representativeness of the sample.

5.1 Differential or Selective Attrition

Table 5.1.1 shows the household response rates at the midline follow-up by evaluation group and by T-C status within each district. The response rates between T and C groups are balanced in the overall sample as well as in each district. To further explore differential attrition, we test 162 individual and household outcome measures and background variables for statistical differences at baseline between the T and C groups that remain in the Midline follow-up, and found that less than one per cent of the 162 indicators are statistically different at five per cent significance. These results demonstrate that, on average, households that remained in the midline follow-up sample looked similar at baseline regardless of whether they were from the T or C group. The balance in the follow-up sample between treatment statuses allays the concern that attrition introduced selection bias.¹² See Annex C.1 for the results of the tests’ mean differences on the 162 indicators.

Table 5.1.1: Household Response Rates by T -C and District – Midline

		Response Rate (Per Cent)	N
Total sample		95.4	3,531
Treatment group		95.8	1,678
Control group		95.0	1,853
<u>District</u>	<u>Status</u>		
Salima	Treatment	96.2	800
Salima	Control	94.9	975
Mangochi	Treatment	95.4	878
Mangochi	Control	95.2	878

5.2 Overall Attrition

About 95 per cent of the households from baseline remain in the midline follow-up sample. Table 5.2.1 indicates that there is no particular pattern of missing households being located in particular TAs or districts. We further explore overall attrition by testing 160 outcome and background variables for differences at baseline between the group of households that remained to the follow-up and the households who were missing in the follow-up. We found statistical differences only in about six per cent which indicate that overall attrition is not a problem in the study. See Annex C.2 for the results of the mean comparisons between groups for overall attrition.

¹² Even in experimental design studies where randomization generated balance between the groups, it is typically expected to find around five per cent of indicators with differences between the groups. The results presented here are in line with accepted norms.

Table 5.2.1: Overall Attrition by TA – Midline

District/TA	Households at baseline		Missing households at follow-up	
	N	Per Cent	N	Per Cent
Salima/Maganga	869	24.6	36	22.2
Salima/Ndindi	906	25.7	44	27.2
Mangochi/Jalasi	753	21.3	36	22.2
Mangochi/M'bwana Nyambi	1,003	28.4	46	28.4
<i>N</i>	3,531	100.0	162	100.0

5.3 Attrition in the Qualitative Sample

Caregivers and one youth, aged 13-19 from 16 households were interviewed at baseline, for a total of 32 participants. At midline, three female youth had left their homes for marriage, and one went to live with relatives. One male youth left home to attend secondary school in another district. While these five youth were no longer in the SCTP households at follow-up, the research team was able to trace all of them for the follow-up interviews. One caregiver, a grandmother, had passed away shortly before follow-up interviews. The youth had gone to live at his aunt's house. Both the youth and the aunt were interviewed. Therefore, 32 interviews were conducted, and 31 of those were with the same baseline participants, the only exception being the deceased participant. This is higher than the usual levels of retention for similar SCT studies in the region.

6. Impacts on Consumption, Poverty and Food Security

6.1 Welfare

The primary goal of the SCTP is to increase welfare by increasing consumption, and decreasing poverty and hunger. This section covers the impacts of the programme on self-reported monetary and food consumption, as well as perceptions of well-being.

Measurement of welfare

To measure welfare and analyse the impacts of the SCTP on poverty, we use the total annual per capita consumption reported by a household. We follow the same method used to construct annual consumption at baseline¹³, which was adjusted slightly from the methods used by IHS3 in the construction of consumption and poverty figures. A detailed explanation of construction of annual consumption can be found in Annex D.

Our estimates of poverty use the national poverty and ultra-poverty lines provided by the National Statistics Office (NSO). Data from the Integrated Household Panel Survey (IHPS) conducted in 2010/2011 and 2013 developed new poverty lines for 2013 that corresponded to internal estimation of inflation between these periods. The IHPS report "Methodology for poverty analysis in Malawi 2010-2013" explains that changes are due to updates in prices and unit conversions. Therefore, we use these updated poverty lines in this report instead of those used in the baseline report that were derived from the 2010 IHS3 poverty figures. The poverty line used in this report is MWK 85,852 (baseline was MWK 54,392) and the ultra-poverty line is MWK 53,262 (baseline was MWK 33,746). We use these 2013 lines for analysis of both baseline and follow-up poverty figures, and have deflated consumption at follow-up to make poverty figures comparable to the baseline. To do so, we use temporal and regional price deflators reported by the NSO in the IHPS report. Between August 2013 and November 2014 the average overall inflation rate was 23 per cent in the rural areas of Salima and Mangochi. We

¹³ Malawi SCTP Baseline Report, Appendix E. 2014.

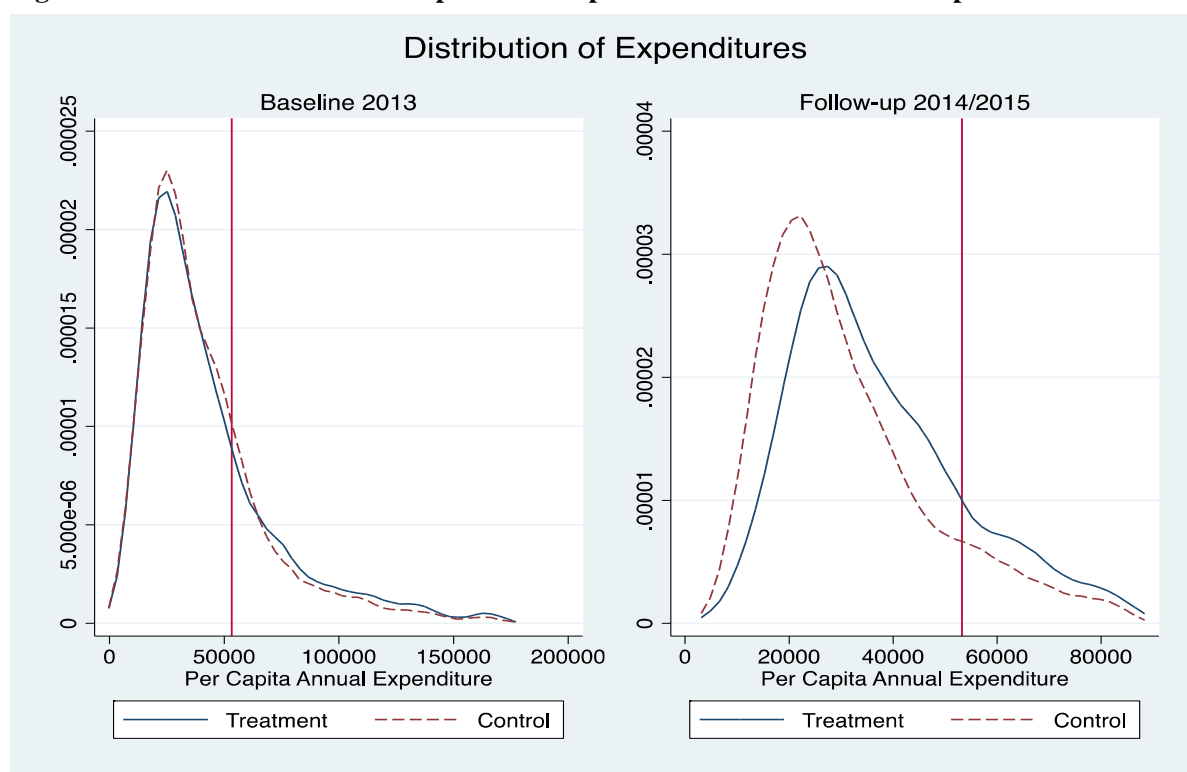
note that annual consumption excludes the use-value of durable goods, as these were not collected at baseline and represents less than one per cent of total consumption of SCTP households.

6.2 Poverty and Consumption

Table 6.2.1 displays per capita total and individual expenditures categories. Overall, per capita consumption has declined by 25 per cent between baseline and follow-up because the *follow-up data was collected during the lean season while the baseline was collected just after the harvest* in 2013. This decline is consistent with a 15 per cent decline in consumption between August and December reported in IHS3 for households in the rural South and Central regions—note that poorer households, those eligible for the SCTP, would likely experience greater seasonal fluctuation in consumption. The SCTP has been able to reduce the negative impact of seasonality among eligible households evidenced by the fact that average consumption is clearly greater for beneficiary households over control households in many categories, including items targeted by the programme, such as food, clothing and education. The average total per capita consumption at midline for treatment households is MWK 36,876 (US\$ 0.31 per person per day), higher than the average of MWK 31,302 (US\$ 0.26 per person per day) for control households.

Figure 6.2.1 shows the distribution of per capita consumption at baseline and follow-up with the inflation adjusted ultra-poverty line (vertical line). This graphical display shows how the cash transfer has produced a positive right shift in per capita consumption for treatment households in comparison to control households.

Figure 6.2.1: Distribution of Per Capita Consumption at Baseline and Follow-up



Note: The dividing line is set at the ultra-poverty line of MWK 53,262 (August 2013 prices).

While per capita total and food consumption means are greater for T households at follow-up, programme impacts found in Table 6.2.1 are not statistically significant. The programme impact of MWK 5,019 on total per capita consumption is 11 per cent of baseline consumption, while the MWK 2,450 food consumption impact is 7 per cent of baseline food consumption. We do find significant impacts on certain sub-components of overall consumption, notably clothing, furnishings, education, and miscellaneous goods and services. The two largest areas of programme impacts are for clothing (MWK 724) and furnishings (MWK 622), which includes interior furnishings, tools, and home

maintenance expenditures. We also see an education impact of MWK 222, and find that the average education expenditures for T households are one of the only categories that is higher at midline compared to baseline. These results suggest that households are using the cash to improve material well-being and invest in their children's education.

The bottom panel of Table 6.2.1 shows impacts on consumption shares, which provides an indication of how the composition of household spending has changed, an indicator of household preferences. The budget share of food/beverages and housing have declined by two and three pp, respectively, and are offset by significant increases consumption in clothing, education and miscellaneous goods and services categories.

Table 6.2.1: Per Capita Consumption Expenditures (MWK) and Shares

Dependent Variable	Programme Impact (1)	Baseline Treated Mean (2)	Midline Treated Mean (3)	Midline Control Mean (4)
Total per capita expenditure	5,019.13 (1.75)	43,907.00	36,876.48	31,302.36
Expenditure categories				
Food/ Beverage expenditures	2,450.53 (1.40)	34,338.77	27,017.37	23,781.40
Alcohol/ Tobacco expenditures	625.73 (0.89)	792.95	393.37	239.75
Clothing/ Footwear expenditures	724.64** (5.20)	374.22	1,044.05	233.19
Housing/Utilities expenditures	-207.29 (-1.16)	3,771.77	3,740.31	3,953.12
Furnishing expenditures	622.37** (4.88)	1,240.50	1,748.37	1,071.77
Health expenditures	353.81** (3.13)	1,472.22	1,009.27	640.25
Transport expenditures	-28.80 (-0.12)	514.07	291.24	237.95
Communication expenditures	16.44 (0.55)	54.82	87.52	92.78
Recreation expenditures	-4.01 (-0.78)	4.63	1.63	2.58
Education expenditures	222.32** (6.22)	336.66	464.27	283.55
Hotels/ Restaurant expenditures	-41.65 (-1.47)	295.76	150.44	113.44
Misc. goods & services expenditures	285.05** (3.37)	710.65	928.64	652.57

Table 6.2.1: Per Capita Consumption Expenditures (MWK) and Shares (Continued)

Dependent Variable	Programme Impact (1)	Baseline Treated Mean (2)	Midline Treated Mean (3)	Midline Control Mean (4)
Expenditure Shares				
Food/Beverage share	-0.03* (-2.35)	0.78	0.73	0.76
Alcohol/Tobacco share	0.01 (0.84)	0.02	0.01	0.01
Clothing/Footwear share	0.02** (7.13)	0.01	0.03	0.01
Housing/Utilities share	-0.02** (-3.16)	0.10	0.11	0.13
Furnishings share	0.01** (5.89)	0.03	0.05	0.03
Health share	0.00 (1.70)	0.03	0.02	0.02
Transport share	0.00 (0.09)	0.01	0.01	0.01
Communication share	0.00 (0.75)	0.00	0.00	0.00
Recreation share	-0.00 (-0.48)	0.00	0.00	0.00
Education share	0.01** (8.56)	0.01	0.01	0.01
Hotels/Restaurants share	-0.00 (-1.83)	0.01	0.00	0.00
Misc. goods & services share	0.00** (2.85)	0.02	0.03	0.02
<i>N</i>	6,529	1,590	1,495	1,699

Notes: Estimations use difference-in-differences modelling among panel households and coefficients for binary outcomes are reported as marginal effects. All estimations control for baseline head of household's characteristics (age in years, sex, indicator of any schooling, indicator of literacy, marital status), household demographic composition and size, indicators for new household members and household member outmigration, and a vector of contemporaneous cluster level prices. Robust t-statistics were obtained clustering at the different levels of the sampling design and are shown in parenthesis. * 5% significance; ** 1% significance.

We also ran additional analysis on consumption for subsamples of interest such as female-headed households, households with fewer than five members, and the poorest households at baseline. We find strong programme impacts on per capita total and food expenditures for the poorest households at baseline. We define the poorest as those households in the bottom 50 per cent of per capita consumption at baseline (below MWK 34,050). Evidence reported in Table 6.2.2 shows that the SCTP is most protective for these households that were worst off at baseline. Results show an impact of MWK 6,592 (US\$19.98) on annual total per capita expenditure (30 per cent of baseline consumption) and MWK 3,761 (US\$ 11.40) on food expenditures (22 per cent of baseline food consumption). Moreover, we find stronger impacts on those same expenditure categories of clothing,

furnishings, and education and an additional significant impact on health expenditures. A key reason for these strong impacts among the poorest households as mentioned earlier is that the value of the transfer is significantly higher for them—the median value of the transfer is 23 per cent of total consumption among the poorest, compared to only 15 per cent among all recipients. Experience from around the world suggests that maintaining a transfer share that is at least 20 per cent of the pre-programme consumption of beneficiaries is key to ensuring programme impacts. At the time of the midline follow-up survey, the transfer share provided by the SCTP is lower than this threshold, which likely explains why the overall impact on consumption, though positive, is not statistically significant.

Table 6.2.2: Per Capita Consumption Expenditures (MWK) and Shares – Poorest 50 Per Cent at Baseline

Dependent Variable	Programme Impact (1)	Baseline Treated Mean (2)	Midline Treated Mean (3)	Midline Control Mean (4)
Per capita expenditure	6,592.25** (3.42)	22,326.25	32,693.27	25,991.85
<i>Expenditure categories</i>				
Food/Beverage expenditures	3,760.81** (2.88)	17,368.39	24,070.67	20,108.64
Alcohol/ Tobacco expenditures	306.08 (1.15)	241.62	370.37	194.70
Clothing/Footwear expenditures	820.51** (17.92)	130.33	1,032.70	184.49
Housing/ Utilities expenditures	-138.49 (-1.93)	2,398.21	2,854.00	2,934.29
Furnishings expenditures	759.70** (9.50)	725.40	1,587.80	885.07
Health expenditures	478.39* (2.28)	573.82	1,034.36	597.65
Transport expenditures	43.03 (0.83)	70.53	236.20	158.69
Communication expenditures	-11.25 (-0.89)	28.51	38.52	49.30
Recreation expenditures	4.38 (1.91)	0.54	3.03	0.29
Education expenditures	278.01** (6.59)	275.11	489.16	265.40
Hotels/ Restaurants expenditures	18.73 (0.91)	66.40	127.93	91.16
Miscellaneous goods & services expenditures	272.35* (2.14)	447.39	848.53	522.19

Table 6.2.2: Per Capita Consumption Expenditures (MWK) and Shares – Poorest 50 Per Cent at Baseline (Continued)

Dependent Variable	Programme Impact (1)	Baseline Treated Mean (2)	Midline Treated Mean (3)	Midline Control Mean (4)
<i>Expenditure Shares</i>				
Food/Beverage share	-0.04** (-2.98)	0.77	0.73	0.77
Alcohol/Tobacco share	0.01 (0.92)	0.01	0.01	0.01
Clothing/Footwear share	0.02** (21.46)	0.01	0.03	0.01
Housing/Utilities share	-0.03** (-4.17)	0.12	0.10	0.12
Furnishings share	0.02** (9.02)	0.03	0.05	0.03
Health share	0.01 (1.42)	0.02	0.03	0.02
Transport share	0.00 (0.56)	0.00	0.01	0.00
Communication share	-0.00 (-0.61)	0.00	0.00	0.00
Recreation share	0.00 (1.91)	0.00	0.00	0.00
Education share	0.01** (6.68)	0.01	0.02	0.01
Hotel/ Restaurant share	-0.00 (-0.23)	0.00	0.00	0.00
Misc. goods & services share	0.01 (1.21)	0.02	0.03	0.02
<i>N</i>	6,702	801	784	885

Notes: Estimations use difference-in-differences modelling among panel households and estimates for binary outcomes are reported as marginal effects. See Table 6.2.1 for additional explanatory notes on model specification, including a list of control variables utilized. * 5% significance; ** 1% significance.

The new transfer levels that are scheduled to begin in May 2015 would take the mean transfer share to 23 per cent of pre-programme consumption, an important change to ensure the SCTP is effective.

In addition to analysing expenditures by category we also looked at food consumption by food categories. Table 6.2.3 shows that among the whole sample there were two significant increases in per capita spending on vegetables (MWK 493) and spices (MWK 97). In accordance with the stronger consumption impacts found among the poorest 50 per cent of households, we also find the strongest food consumption impacts among this group. In addition to a significant impact on vegetables (MWK 809), Table 6.2.4 shows an impact on cereals (MWK 1,248) and roots and tubers (MWK 353). These results provide important evidence that the cash is providing critical support for the poorest households to not only enhance food security by consuming more staple cereals but also improve nutritional quality by consuming more vegetables and roots/tubers.

Table 6.2.3: Food Expenditures (Annual Per Capita) by Food Group (MWK)

Dependent Variable	Program Impact (1)	Baseline Treated Mean (2)	Midline Treated Mean (3)	Midline Control Mean (4)
Cereals	866.40 (1.70)	20,138.62	10,960.13	10,138.54
Roots and Tubers	304.95 (1.01)	2,029.96	339.50	340.23
Nuts and Pulses	-402.69 (-1.53)	4,911.61	2,005.67	1,496.81
Vegetables	493.53* (2.16)	5,062.78	4,213.68	3,666.21
Meat	742.87 (0.68)	2,832.87	3,024.67	2,466.57
Fruits	122.51 (0.35)	977.75	1,895.87	1,837.82
Vendor foods	-45.07 (-1.29)	297.07	133.51	100.89
Dairy	26.21 (1.53)	23.72	4.73	5.36
Sugar and Fats	281.51 (1.54)	1,315.97	591.21	408.14
Beverages	778.72 (0.95)	929.41	488.00	315.70
Alcohol	5.95 (0.18)	37.93	9.59	14.65
Spices	96.92* (2.28)	912.91	626.52	571.75
<i>N</i>	6,359	1,481	1,495	1,699

Notes: Estimations use difference-in-differences modelling among panel households and estimates for binary outcomes are reported as marginal effects. See Table 6.2.1 for additional explanatory notes on model specification, including a list of control variables utilized. * 5% significance; ** 1% significance.

Table 6.2.4: Food Expenditures (Annual Per Capita) by Food Group–Poorest 50 Per Cent at Baseline (MWK)

Dependent Variable	Program Impact (1)	Baseline Treated Mean (2)	Midline Treated Mean (3)	Midline Control Mean (4)
Cereals	1,169.53* (2.62)	11,642.78	9,718.80	8,614.46
Roots and Tubers	330.10 (1.88)	801.40	339.00	289.10
Nuts and Pulses	118.90 (0.76)	2,203.70	1,742.43	1,183.09
Vegetables	761.49** (3.99)	3,394.54	3,873.64	3,216.10
Meat	641.37 (1.53)	467.13	2,717.40	1,954.65
Fruits	-120.77 (-0.45)	650.99	1,760.60	1,846.27
Vendor foods	19.04 (0.73)	75.54	114.66	81.73
Dairy	2.28 (1.98)	1.99	2.75	1.07
Sugar and Fats	204.13 (1.15)	352.33	516.37	251.98
Beverages	433.41 (1.34)	282.08	466.91	220.05
Alcohol	0.12 (0.03)	6.75	5.74	9.44
Spices	71.59 (1.96)	659.97	555.62	500.27
<i>N</i>	6,359	780	784	885

Notes: Estimations use difference-in-differences modelling among panel households and estimates for binary outcomes are reported as marginal effects. See Table 6.2.1 for additional explanatory notes on model specification, including a list of control variables utilized. * 5% significance; ** 1% significance.

Table 6.2.5 reports programme impacts on individual poverty figures including headcount, poverty gap, and poverty gap squared. Individuals are poor if their household per capita consumption is lower than the poverty line. The ultra-poor are identified as those households whose per capita consumption is lower than the food poverty line. In line with the evidence of lower total consumption for all households, mean poverty and ultra-poverty rates have risen since the baseline due to seasonality. However, the programme has had a strong protective impact on recipient households, and therefore, individuals in T households are less likely to be considered poor or ultra-poor. Additionally, we find that the cash transfer is preventing households from falling deeper into poverty in the lean season. The poverty gap represents the average consumption shortfall relative to the poverty line and the squared poverty gap measures the severity of poverty by giving more weight to individuals farther away from the line. The programme has significant impacts on the poverty gap, by seven pp. Both the squared poverty and ultra-poverty gaps are also significantly lower, both around nine pp.

Table 6.2.5: Individual Poverty Figures

Dependent Variable	Programme Impact (1)	Baseline Treated Mean (2)	Midline Treated Mean (3)	Midline Control Mean (4)
Ultra-poor	-6.0** (-3.94)	83.0	90.0	93.0
Poverty gap poor	-6.91** (-2.92)	61.69	61.56	68.13
Poverty gap ultra-poor	-9.81* (-2.67)	47.58	44.73	53.59
Squared poverty gap (Severity poor)	-8.80** (-2.92)	41.95	40.82	49.09
Squared ultra-poverty gap (Severity ultra-poor)	-9.32* (-2.59)	27.31	23.72	32.25
<i>N</i>	3,813	788	889	1,251

Notes: In column (1), figures represent the percentage point change in the indicator. Units in columns (2) to (4) are per cent. Estimations use difference-in-differences modelling among individuals in panel households and coefficients for binary outcomes are reported as marginal effects. All estimations control for baseline head of household's characteristics (age in years, sex, indicator of any schooling, indicator of literacy, marital status), household demographic composition and size, indicators for new household members and household member outmigration, and a vector of contemporaneous cluster level prices. Robust t-statistics were obtained clustering at the different levels of the sampling design and are shown in parenthesis. * 5% significance; ** 1% significance.

6.3 Food Security

In addition to the programme impacts on measures of poverty and consumption, we also analysed household welfare in terms of food security and these impacts are shown in Table 6.3.1. We asked households whether they worried they would not have enough food in the previous seven days. At baseline, 84 per cent of households felt food insecure in the previous week which declined to 75 per cent at follow-up, while in the control group, the percentage of respondents that worried about having enough food in the last week actually increased – though the net impact is just outside conventional levels of statistical significance. Table 6.3.2 shows that the cash transfer is having an important impact on objective measures of food security. For one, there is a significant programme impact on the likelihood that maize stores lasted at least three months (possibly due to improved crop production). Also, we find a significant programme impact on the average number of meals eaten per day (0.17) and the proportion eating more than one meal per day is now larger among treatment households (94 per cent) relative to control households (87 per cent), though the difference is not quite significant. The bottom panel of the table shows the results for the poorest households. In addition to eating more meals per day, these households are significantly less likely (9 pp) to worry about having enough food over the past 7 days than they were at baseline.

Table 6.3.1: Food Security – Enough Food and Meals per Day

Dependent Variable	Programme Impact (1)	Baseline Treated Mean (2)	Midline Treated Mean (3)	Midline Control Mean (4)
All Households				
Worried about having enough food for the past 7 days	-0.11 (-1.78)	0.84	0.75	0.87
Number of meals eaten per day	0.17* (2.31)	1.91	2.13	1.98
Eats more than 1 meal per day	0.10 (1.82)	0.80	0.94	0.87
<i>N</i>	6,895	1,678	1,605	1,759
Poorest Households				
Worried about having enough food for the past 7 days	-0.09** (-3.72)	0.86	0.80	0.90
Number of meals eaten per day	0.17* (2.23)	1.80	2.10	1.92
Eats more than 1 meal per day	0.08 (1.17)	0.72	0.92	0.85
<i>N</i>	6,842	740	741	829

Notes: Estimations use difference-in-differences modelling among panel households and coefficients for binary outcomes are reported as marginal effects. All estimations control for baseline head of household's characteristics (age in years, sex, indicator of any schooling, indicator of literacy, marital status), household demographic composition and size, indicators for new household members and household member outmigration, and a vector of contemporaneous cluster level prices. Robust t-statistics were obtained clustering at the different levels of the sampling design and are shown in parenthesis. * 5% significance; ** 1% significance.

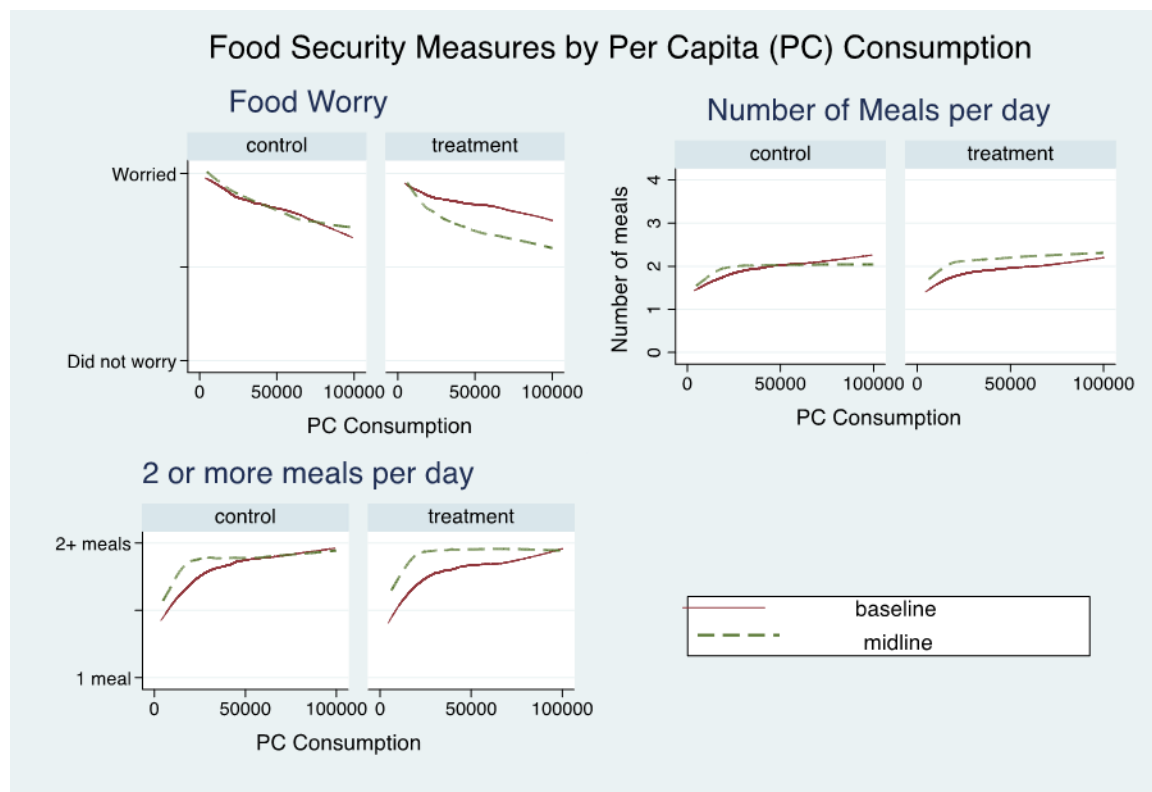
Table 6.3.2: Food Security – Impacts on Maize Stores

Dependent Variable	Programme Impact (1)	Baseline Treated Mean (2)	Midline Treated Mean (3)	Midline Control Mean (4)
Number of months maize in granary will last	0.20 (1.53)	1.20	2.15	1.99
Maize will last at least 3 months	0.01 (0.39)	0.09	0.02	0.02
Number of months maize in granary lasted	0.05 (0.37)	3.94	4.73	4.46
Maize lasted at least 3 months	0.03 (1.27)	0.49	0.57	0.53
<i>N</i>	6,733	1,607	1,605	1,760

Notes: Estimations use difference-in-differences modelling among panel households and estimates for binary outcomes are reported as marginal effects. See Table 6.3.1 for additional explanatory notes on model specification, including a list of control variables utilized. * 5% significance; ** 1% significance.

Figure 6.3.1 shows how these food security measures align with different levels of consumption. Households with higher per capita consumption are less likely to worry about having enough food, and at midline we see that treatment households are trending towards being less worried about food

Figure 6.3.1: Food Security Measures by Per Capita (PC) Consumption



even at lower consumption levels. Additionally, the other graphs show that treatment households are eating slightly more meals per day on average at midline, and they are more likely than at baseline to be eating two or more meals per day, even at lower levels of consumption.

Food was a central component of many discussions of the positive impacts of the SCTP in the qualitative interviews. There was a very clear pattern of responses related to an improved sense of food security since receiving the transfer. Participants consistently mentioned that they were eating more food and, in a few cases, had more diverse diets. A few specifically mentioned that they had been able to eat fish once they started receiving the transfer. We did not assess the quality of the diet, but most participants perceived that their consumption had improved with the transfer. Several discussed that they had frequently gone to bed and/or school hungry in the past, and that this had improved. Both youth and caregivers linked the improved consumption to improved performance in school and experiencing less stress related to food. Even among those who did not feel the programme had a major impact on their lives, there was frequently some mention of improved food consumption. Aisha, a very entrepreneurial caregiver, said that both the quality and quantity of the food consumed in her house had improved. She had also started raising goats since she received the transfer. Another caregiver, Jamila, explained that she had a very difficult year and didn't harvest any food and had used most of the transfer to buy food. Both Aisha and Jamila, and several other female caregivers, linked the transfer to reducing their stress about food. Another male caregiver, Daudi, specified that in his house they had gone from having one meal to three meals a day, with "preferred" foods, since receiving the transfer. The increase from one to three meals was echoed by several participants. Youth participants also linked the improved diet to improved physical health, as described by Jafar,

We were eating wild vegetables and when we had a little money we could buy beans and boil them, just that, with no cooking oil, salt or tomatoes, but now we are able to eat balanced food and we used to get sick a lot, malaria, and our bodies were weak because of lack of proper food, but not anymore since the programme started.

6.4 Children's Material Needs

Material well-being of children is measured using a set of three indicators recommended by the United National General Assembly Special Session (UNGASS) on monitoring and evaluation of orphans and other vulnerable children.¹⁴ The indicators are whether or not a child has access to a blanket, whether a child has a pair of shoes and a change of clothes. We assess the impact of the SCTP on each of these dimensions individually, and on whether a child has all three of these. The bottom row of Table 6.4.1 shows that the SCTP has a strong impact on ensuring a child has all three of these material needs, with an impact of 16 pp, from a baseline percentage of only 12. This change is driven by shoes (19 pp impact) and blanket (15 pp impact) whereas there is no impact of the SCTP on a change of clothes, in part because this was already quite high at baseline (74 per cent). The subsample analysis on the poorest 50 per cent of the overall sample produce impact estimates of the same pattern and magnitude (no impact on clothes, large impacts on shoes and blanket) and baseline means are notably lower among the poorer households, indicating the strong correlation between overall consumption and children's material needs. For example, at baseline only 7 per cent of children had all three material needs filled, and only 30 per cent had a blanket.

Table 6.4.1: Material Needs of Children 5 – 17 Years Old

Dependent Variable	Programme Impact (1)	Baseline Treated Mean (2)	Midline Treated Mean (3)	Midline Control Mean (4)
Owens a blanket	0.15** (5.07)	0.36	0.61	0.43
Owens shoes	0.19 (3.40)	0.21	0.52	0.32
Has change of clothes	0.00 (0.00)	0.74	0.93	0.86
All 3 material needs	0.16 (3.85)	0.12	0.40	0.22
<i>N</i>	15,954	3,831	3,750	3,989

Notes: * 5% significance; ** 1% significance.

7. Impacts on Subjective Welfare

One unique aspect about our household survey is the inclusion of questions on individual subjective well-being to complement the more objective measures on material well-being. We also explored this topic qualitatively. In both the survey with the main respondent and in IDIs with the caregiver, we asked about their individual expectations and preferences to understand the psychological dimension of programme impacts.

7.1 Perceptions of Future Well-being

To assess caregivers' perceptions of their future well-being, we asked caregivers whether they thought their lives would be better in one, two, and three years. Additionally, we asked them the likelihood that their household would need financial assistance in the next year, and the likelihood that they would have a food shortage in the next year. Table 7.1.1 shows that caregivers in treatment households have a more positive outlook on their future well-being in the longer term; they are significantly more likely to think that life will be better in two and three years (17 pp), and 14 pp more likely to think life will be better in the next year, though the latter difference is only significant at a 10 per cent confidence level. On the other hand, caregivers do not report a significantly lower likelihood of needing financial assistance or having a food shortage in the next year than they reported at baseline.

¹⁴ UNICEF (2005). *Guide to monitoring and evaluation of the national response for children orphaned and made vulnerable by HIV/AIDS*. New York, NY: Author.

Table 7.1.1: Caregiver Perceptions of Future Well-being

Dependent Variable	Programme Impact (1)	Baseline Treated Mean (2)	Midline Treated Mean (3)	Midline Control Mean (4)
Life will be better in a year	0.14 (1.87)	0.52	0.72	0.59
Life will be better in 2 years	0.17* (2.45)	0.44	0.68	0.52
Life will be better in 3 years	0.17* (2.33)	0.41	0.64	0.48
Will likely need financial assistance	-0.03 (-0.74)	0.61	0.44	0.51
Will likely have food shortage	-0.08 (-1.81)	0.76	0.50	0.60
N	6,733	1,607	1,605	1,760

Notes: Estimations use difference-in-differences modelling among panel households and coefficients for binary outcomes are reported as marginal effects. All estimations control for baseline head of household's characteristics (age in years, sex, indicator of any schooling, indicator of literacy, marital status), household demographic composition and size, indicators for new household members and household member outmigration, and a vector of contemporaneous cluster level prices. Robust t-statistics were obtained clustering at the different levels of the sampling design and are shown in parenthesis. * 5% significance; ** 1% significance.

Echoing this improved sense that life will get better, in the qualitative interviews both youth and caregivers indicated that they had an increased sense of hope. For caregivers, it was usually hope for the well-being and success of their children. For youth, it was hope about their future and ability to stay in school and thrive, as articulated by Shadrek, age 14).

I hope that I will continue with school...I had no hope of continuing school the last time we talked because of what was happening to me.

Lukia, a 17-year-old youth participant, had stayed in school with the money from the cash transfer, and the revenue from her mother's investments of the transfer money into several entrepreneurial endeavours. She said she hoped to stay in school to become a nurse.

There is an increase [in my future plans] as we can actually see that things are happening here...if things are working out like this, one can be able to reach his or her full potential.

Other youth participants specified hopes to become doctors, accountants and other professions. In contrast, Karim, a 15-year-old out-of-school youth, did not convey a sense of increased hope related to the programme as he did not feel the SCTP had directly impacted his life.

7.2 Stress and Quality of Life

Additionally, we assessed caregivers' perceptions of their well-being by asking questions concerning their quality of life and stress. A quality of life scale was constructed from respondents' answers to how much they agreed to a series of eight positive statements about their lives, 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, with higher numbers indicating greater agreement, resulting in a scale with scores ranging from 8-40. Results in Table 7.1.2 show that the cash transfer has had an important impact on caregivers' quality of life. At baseline, the average score among treatment households was 17, which increased to 22 at midline. The overall programme impact is thus strongly significant for quality of life; there is a total impact increase of three points for caregivers receiving cash transfers over those in the control group.

Table 7.2.1: Caregiver Stress and Quality of Life

Dependent Variable	Programme Impact (1)	Baseline Treated Mean (2)	Midline Treated Mean (3)	Midline Control Mean (4)
Quality of life scale	2.70** (4.79)	17.30	22.09	19.85
Stress scale	-0.89 (-1.47)	14.77	13.11	14.19
<i>N</i>	6,733	1,607	1,605	1,760

Notes: Estimations use difference-in-differences modelling among panel households and estimates for binary outcomes are reported as marginal effects. See Table 7.1.1 for additional explanatory notes on model specification, including a list of control variables utilized. * 5% significance; ** 1% significance.

Figure 7.1.1 shows quality of life scores modelled against per capita consumption. Overall, there is not much of a relationship between per capita consumption and quality of life scores. However, these graphs clearly show how caregivers in T households have a higher jump in their scores between baseline and midline compared to caregivers in C households across all consumption levels.

Figure 7.1.1: Quality of Life Scores by Per Capita Consumption

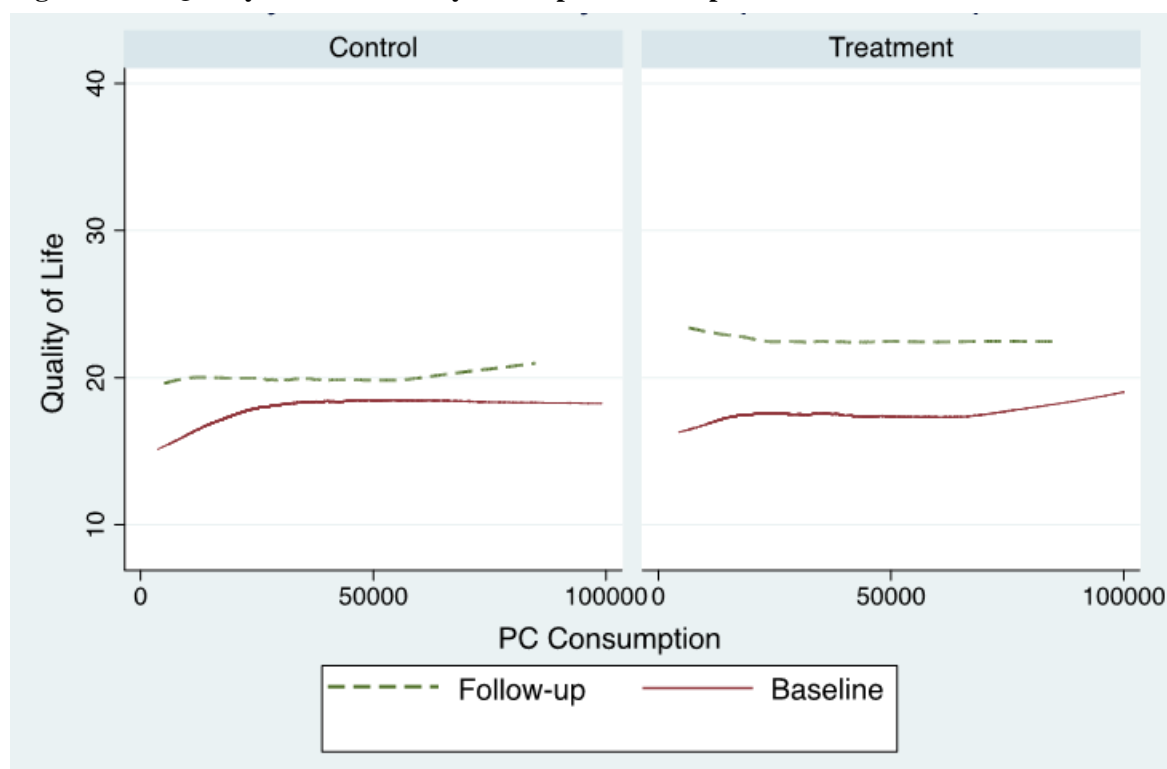


Table 7.1.2 also reports the impact of the programme on the stress scale. To assess a caregiver’s level of stress, questions were asked about difficulties, anxieties and control issues respondents felt in their lives. All questions were asked about the last month and given a rank of 1-5 (scores on the stress scale, thus, ranged from 4-20) with higher numbers representing higher frequency that they felt the issues applied to them. Issues included being “unable to control the important things in life” and having “difficulties piling up”. The average stress score in the T households decreased slightly from 15 to 13, and while this decline is larger among respondents in T households, the difference from C households is not statistically significant. While it is possible that caregivers in T households are feeling slightly less stressed since receiving the cash transfer, the high scores indicate that subsistence living is a chronically stressful existence.

The qualitative responses also reflected the parallel process of ongoing stress, along with a clear sense of relief that certain basic needs were met. While the SCTP is not filling all of their needs and solving all of their problems, caregivers spoke of how having the transfer helped provide for food, their children’s education, and basic needs like sleeping mats and soap. Several mentioned their stress and worry led to sleepless nights, which had been reduced since receiving the transfer. Aisha, a 48-year-old caregiver, described becoming less stressed after receiving the transfer because she could “take care of responsibilities” and no longer did *ganyu*,

There has been an improvement in my health and also my heart condition. I used to be very worried and stressed in the past because I had too much responsibility, yet there wasn’t enough money to take care of all those responsibilities. But since we started receiving money from the cash transfer programme, I have been able to take care of some responsibilities that I couldn’t then. As a result I worry less and am usually happy, which also has contributed to the improvements in my health and heart condition... I think now I have a good chance to stay alive for a while longer. Just like I said, my health has greatly improved and I am happy, therefore my heart condition is also much better.

Aisha also speaks about being happy, which she relates to her overall well-being. In addition to stress, participants also discussed changes in their feelings of depression. Ndini, a caregiver, talked of having mild depression in her first qualitative interview related to problems in her household. At midline, she said her mental health had improved now that she had less stress related to these problems.

Shadrek, the hopeful youth participant mentioned above, experienced the extremes of vulnerability and resilience when his family’s house was destroyed by rain,

The house we were living in got destroyed by the heavy rains and when it was destroyed my grandmother bought a plastic sheet with some of the money she receives from the cash transfer program. That plastic sheet was used to maintain this house where we live now. Apart from that she also bought grass which was used to maintain the roof of this house and she used the money from the cash transfer program.

This experience of being able to respond to challenges and adversity contributed to Shadrek’s overall mental well-being and hope for the future, even as his family negotiated a difficult situation. Another youth, Said, experienced a lot of stress prior to receiving the transfer because his elderly caregivers relied on him for *ganyu* to provide food. This stress had been relieved with the transfer and he no longer had to do *ganyu* for food.

7.3 Self-perceived Relative Welfare

We also asked the main respondents about self-perceived relative welfare. Table 7.1.3 shows that respondents from households receiving transfers are less likely to describe themselves as worse off than both their neighbours and friends at midline compared to baseline, though we find no significant programme impact.

Table 7.3.1: Perceptions of Wealth Relative to Neighbours and Friends

Dependent Variable	Programme Impact (1)	Baseline Treated Mean (2)	Midline Treated Mean (3)	Midline Control Mean (4)
Household believes it is worse off than neighbours	-0.13 (-1.82)	0.57	0.51	0.56
Household believes it is worse off than friends	-0.03 (-0.57)	0.52	0.45	0.46
<i>N</i>	6,733	1,607	1,605	1,760

Notes: Estimations use difference-in-differences modelling among panel households and estimates for binary outcomes are reported as marginal effects. See Table 7.1.1 for additional explanatory notes on model specification, including a list of control variables utilized. * 5% significance; ** 1% significance.

7.4 Heterogeneity Analysis

Additional analysis by subpopulations reveals few differences. However, there is a slightly stronger impact of the programme on the quality of life scale score for all subgroups, including female-headed households (score of 3.32), households with four or fewer members (3.11), households with five or more members (3.41), and the poorest households at baseline (3.42). Additionally, female-headed households and those with five or more members are even more likely to think that life will be better in two and three years. Finally, in households with five or more members we find the only programme impact on relative well-being; caregivers are significantly less likely to think that they are worse off than their neighbours (programme impact is 19 pp).

8. Impacts on Health

This chapter presents information about the impact of the SCTP on key individual- and household-level health indicators. Information about health and well-being was collected at both baseline and midline. Health status, morbidity, and treatment-seeking behaviour data were collected for all household members, and data on chronic illness and disability status were collected for individuals ages 10 and older.

Programme impacts for self-reported health status, chronic illness, disability, morbidity, and the incidence and level of health service use were estimated at the individual level for a balanced panel of households. Programme impacts at the household level were also estimated among the balanced household panel.

8.1 Self-Reported Health Status, Chronic Illness and Disability

Main respondents were asked to rate the general health of each household member on a five-point Likert scale, to report if household members aged 10 and older suffered from a chronic illness, and to report if household members aged 10 and older had difficulties seeing, hearing, walking or climbing steps, remembering or concentrating, or communicating – even with assistance such as glasses or hearing aids. Household members were considered to have a disability if they had a lot of difficulty with, or could not perform, at least one task.

Table 8.1.1 presents programme impacts on self-reported health status, chronic illness, and disability. The prevalence of poor self-reported health status was low in both survey rounds; at baseline only five per cent of beneficiary household members reported poor-health, compared to four per cent in both the T and C groups at midline. We did not find significant programme impacts on the proportion of individuals in poor health for the full sample or in further sub-analyses by sex of the household head, baseline poverty level, and baseline household size. There was no change in the prevalence of any type of disability between treatment baseline levels and follow-up levels for either T or C households. The prevalence of chronic illness decreased from 26 per cent at baseline to 22 per cent among individuals in T households and 23 per cent among individuals in C households. We did find a significant programme impact of -0.04 ($p=0.01$) on the per cent of individuals reporting a chronic illness, indicating that beneficiaries were significantly less likely than control individuals to report a chronic illness.

While chronic conditions were not necessarily “cured” among the participants in the qualitative interviews, most spoke of these conditions improving and having less of a negative impact on their well-being and productivity. One of the potential mechanisms through which chronic health conditions may have improved is through reduced stress and worry related to poverty, food shortage, and meeting basic needs. As articulated by Aisha, a 48-year-old caregiver (noted also in Chapter 7),

There has been an improvement in my health and also my heart condition. I used to be very worried and stressed in the past because I had too much responsibility yet there wasn't enough money to take care of all those responsibilities. But since we started receiving money from the cash transfer programme I have been able to take care of some responsibilities that I couldn't then. As a result I worry less and am usually happy which also has contributed to the

improvements in my health and heart condition... I think now I have a good chance to stay alive for a while longer. Just like I said my health has greatly improved and I am happy therefore my heart condition is also much better.

Several other caregivers echoed this experience of having chronic conditions (i.e. heart conditions, blood pressure, rheumatism) that improved as they had reduced their stress and become “happier” after receiving the transfer. For example, Jamila said that she feels happy since she is in the programme and is not getting sick often because most of her stress and worries have been resolved.

Table 8.1.1: Impacts on Self-Reported Health Status, Chronic Illness and Disability

Dependent Variable	Program Impact	Baseline Treated Mean	Midline Treated Mean	Midline Control Mean
	(1)	(2)	(3)	(4)
Poor health status ($N = 30,867$)	0.01 (0.71)	0.05	0.04	0.04
Chronic illness ($N = 21,226$)	-0.04** (-3.70)	0.26	0.22	0.23
Disability ($N = 21,226$)				
Any	0.00 (0.20)	0.06	0.06	0.06
Seeing	0.00 (0.46)	0.02	0.02	0.02
Hearing	-0.00 (-0.95)	0.01	0.01	0.01
Walking/climbing steps	-0.00 (-0.34)	0.04	0.04	0.04
Remembering/concentrating	0.00 (0.20)	0.01	0.01	0.01
Communicating	-0.00 (-0.08)	0.01	0.01	0.01

Notes: Estimations use difference-in-differences modelling among individuals in panel households and coefficients for binary outcomes are reported as marginal effects. All estimations control for individual age and sex, as well as baseline head of household’s characteristics (age in years, sex, indicator of any schooling, indicator of literacy, marital status), household demographic composition and size, indicators for new household members and household member outmigration, and a vector of contemporaneous cluster-level prices. Robust t-statistics were obtained by clustering at different levels of the sampling design and are shown in parentheses. * 5% significance; ** 1% significance. Annex E, Tables E.1.1-3 present results from sub-analyses of health status, chronic illness, and disability.

8.2 Morbidity, Treatment-Seeking Behaviour and Health Expenditures

The occurrence of any illness or injury during the past two weeks declined in both T and C groups between baseline and follow-up surveys (Table 8.2.1), with only 19 per cent of T individuals and 23 per cent of C individuals reporting an illness or injury at follow-up. We find that the SCTP is associated with a seven pp ($p = 0.01$) decrease in the occurrence of illness or injury for the full sample and a nine pp ($p = 0.01$) increase in the probability of seeking treatment at a public or private health facility among those individuals with an illness/injury. These results seem to be driven by improvements in treatment-seeking behaviours among the poorest households; beneficiaries from the poorest 50 per cent of households were 12 pp ($p = 0.01$) more likely than individuals from control households to seek treatment for a recent illness or injury. (Annex E, Table E.1.5)

Respondents also reported their total expenditures for each individual in the household over the past four weeks for medical care, for medical care not related to an illness (e.g., prenatal care), and for non-prescription medicines. Among the full sample we find significant programme impacts on total expenditure for illness and injury, the probability of having any non-illness related medical care, and the expenditure levels for both non-illness medical care and for non-prescription drugs. Among those individuals with any expenditures for illness or injury, beneficiary individuals spent MWK 189 more than control individuals ($p= 0.01$). The programme was associated with a one pp ($p= 0.01$) increase in the probability of having any non-illness/injury-related medical expenditures, with beneficiary households spending MWK 52 ($p= 0.01$) more than control individuals on average. Beneficiaries spent on average MWK 76 ($p= 0.01$) more than non-beneficiaries on non-prescription medicines.

Annex E, Tables E.1.4-6 show results for female-headed households, by baseline poverty level, and by baseline household size. Programme participants from the poorest 50 per cent of households were 12 pp ($p= 0.01$) more likely than the poorest control households to seek treatment at a health facility for illness or injury, and spent on average MWK 243 more than controls for illness and injury ($p= 0.05$), more than two times as much as the programme impact for households that were above the median consumption level at baseline. Individuals from T households with more than four members were 11 pp ($p= 0.01$) more likely to seek treatment, and, on average, had expenditures for illness and injury that were MWK 246 higher than similar expenditures from large C households ($p= 0.05$).

Table 8.2.1: Impacts on Morbidity, Service Use and Health Expenditures

Dependent Variable	Program Impact (1)	Baseline Treated Mean (2)	Midline Treated Mean (3)	Midline Control Mean (4)
Any illness or injury ($N = 30,763$; past two weeks)	-0.07** (-5.58)	0.30	0.19	0.23
Sought treatment at public or private health facility ($N = 7,930$; past two weeks)	0.09** (5.29)	0.51	0.54	0.55
Health Expenditures (past 4 weeks, MWK)				
Any expenditure for illness/ injury ($N = 30,727$)	0.00 (0.72)	0.05	0.07	0.06
Expenditure for illness/ injury ($N = 7,820$)	189.44** (3.12)	161.14	320.43	136.32
Any expenditure for medical care not related to an illness ($N = 30,737$)	0.01** (3.02)	0.01	0.01	0.01
Expenditure for medical care not related to an illness (MWK) ($N = 7,824$)	51.99** (7.15)	22.40	52.03	14.29
Any expenditure for non-prescription medicines ($N = 30,732$)	0.00 (0.49)	0.17	0.12	0.10
Expenditure for non-prescription medicines ($N = 7,820$)	75.70** (3.64)	92.91	133.51	64.24

Notes: Estimations use difference-in-differences modelling among individuals in panel households and estimates for binary outcomes are reported as marginal effects. See Table 8.1.1 for additional explanatory notes on model specification, including a list of control variables used. *5% significance; ** 1 % significance.

8.3 Household-Level Health Indicators

In Table 8.3.1, we show programme impacts on health indicators at the household level. We do not find any statistically significant impacts on self-reported poor health, chronic illness, or incidence of any medical expenditures during the past four weeks at the household level. However, we do find that the programme is associated with a one pp increase in the percentage of households that have at least one member with a disability ($p= 0.01$) and a 12 pp reduction in the percentage of households with at least one incidence of illness or injury in the past two weeks ($p= 0.05$).

Table 8.3.1: Household-Level Health Indicators

Dependent Variable	Program Impact (1)	Baseline Treated Mean (2)	Midline Treated Mean (3)	Midline Control Mean (4)
At least one household member . . .				
Self-reported poor health	-0.03 (-1.77)	0.26	0.26	0.28
With a chronic illness	-0.01 (-1.19)	0.76	0.76	0.72
With a disability	0.01* (2.42)	0.29	0.29	0.27
With illness/injury (past 2 weeks)	-0.12* (-2.68)	0.52	0.32	0.37
With any medical expenditures (past 4 months)	-0.02 (-0.92)	0.74	0.74	0.70
<i>N</i>	6,733	1,607	1,605	1,760

Notes: Estimations use difference-in-differences modelling among panel households and estimates for binary outcomes are reported as marginal effects. See Table 8.1.1 for additional explanatory notes on model specification, including a list of control variables used. *5% significance; **1% significance.

8.4 Summary

We find, on average, significant impacts of the SCTP on chronic illness, occurrence of illness or injury in the past two weeks, seeking treatment at a health facility for illness/injury, and both the incidence and amount of medical expenditure in the four-week period before the survey. Programme impacts on treatment-seeking behaviours and expenditure levels for illness/injury are particularly strong for the poorest 50 per cent of beneficiary households, suggesting that baseline poverty intensity is an important moderator of programme impact on health service use.

9. Impacts on Young Child Health

Child health and anthropometric data were collected at both baseline and midline. Information about preventive health programme participation, recent morbidity, health service use, feeding practices, and delivery conditions were collected for all household children age 0-5 at each survey round, and anthropometric measurements were taken for all children ages 6-71 months in both survey rounds.

Programme impacts were calculated for a balanced panel of households with at least one young child (as opposed to a panel of children). Based on the Malawi SCTP conceptual framework, the cash transfer is hypothesized to improve child health and anthropometric outcomes through improved nutrition and health service utilization.

9.1 Anthropometry

Group means and estimates of programme impacts on anthropometric outcomes for children age 6-59 months are presented in Table 9.1.1. At baseline, the average weight-for-age z-score (WAZ) for children ages 6-59 months residing in T households was -0.97. At follow-up, children were slightly worse off, with children in T households demonstrating more negative z-scores on average than children in C households. Thus, we found a significant negative impact on the WAZ, with children in T households having, on average, WAZ scores that were -0.07 ($p=0.05$) standard deviations (SDs) below the average WAZ scores among C children. This result seems to be largely driven by larger households and children 6-23 months (see Tables E.2.3-4 in Annex E). The programme impact for children in households with four or more members at baseline was -0.13 ($p=0.01$).

Table 9.1.1: Impacts on Anthropometry among Children Ages 6 – 59 Months

Dependent Variable	Program Impact (1)	Baseline Treated Mean (2)	Midline Treated Mean (3)	Midline Control Mean (4)
Weight-for-age ($N = 3,158$)				
WAZ	-0.07* (-2.34)	-0.97	-1.07	-1.02
Underweight	0.02 (0.84)	0.18	0.18	0.17
Height-for-age ($N = 3,116$)				
HAZ	0.02 (0.30)	-1.90	-1.84	-1.79
Stunted	0.00 (0.01)	0.50	0.45	0.43
Weight-for-height ($N = 3,129$)				
WHZ	-0.10* (-2.06)	0.18	0.01	0.02
Wasted	-0.02** (-3.61)	0.04	0.03	0.03

Notes: Estimations use difference-in-differences modelling among individual children from panel households and coefficients are reported as marginal effects. All estimations control for sex and age in months of the child, baseline head of household's characteristics (age in years, sex, indicator of any schooling, indicator of literacy, marital status), household demographic composition and size, indicators for new household members and household member outmigration, and a vector of contemporaneous cluster level prices. Robust t-statistics were obtained clustering at the different levels of the sampling design and are shown in parenthesis. * 5% significance; ** 1% significance.

While no overall programme impacts were found for HAZ or prevalence of stunting in the full sample, the programme *reduced stunting in households with four or fewer members by 16 pp* (see Tables E.2.2-4 in Annex E).

The programme appears to have decreased the prevalence of wasting among beneficiary children by two pp. Weight-for-height results should be interpreted with caution, however, given the low prevalence of wasting at both baseline and follow-up among all study children.

Annex E, Tables E.2.1-4 present programme impacts for anthropometric outcomes by the sex of the household head, baseline poverty level, household size at baseline, and 6-23 month and 24-59 month child age subgroups.

9.2 Feeding Practices

Table 9.2.1 presents results of programme impact on young child feeding. Less than 40 per cent of children under-five in T households were fed solid foods three or more times per day at baseline, but at midline, over half of these children were receiving more solid meals, compared to only 36 per cent of children in C households. Likewise, the per cent of children living in beneficiary households that consumed vitamin A-rich foods in the past day increased from 71 per cent at baseline to 93 per cent at midline, compared to 87 per cent of children in C households at midline. Improvements in child

feeding practices cannot, however, be attributed to the SCTP, as we do not find any statistically significant impacts on child-level feeding indicators for the overall sample.

We do, however, find a significant programme impact on receiving three or more solid meals per day by baseline household size. Beneficiary children from larger households were 10 pp ($p= 0.05$) more likely than their peers in the C group to receive solid foods at least three times per day. We also find that children from small beneficiary households were 19 pp ($p= 0.05$) more likely than children from small C households to have consumed vitamin A-rich foods in the past day. These patterns suggest that the transfer may be working in larger households to improve caloric *quantity*, and working through smaller households to improve caloric *quality*.

Table 9.2.1: Impacts on Young Child Feeding Practices

Dependent Variable	Program Impact (1)	Baseline Treated Mean (2)	Midline Treated Mean (3)	Midline Control Mean (4)
Fed solid foods ≥ 3 times/day ($N = 3,343$)	0.08 (1.58)	0.38	0.51	0.36
Consumed vitamin-A rich foods in past day ($N = 3,339$)	0.03 (0.41)	0.71	0.93	0.87

Notes: Estimations use difference-in-differences modelling among individual children in panel households and estimates for binary outcomes are reported as marginal effects. See Table 9.1.1 for additional explanatory notes on model specification, including a list of control variables used. * 5% significance; ** 1% significance.

Annex E, Tables E.2.5 -7 present programme impacts disaggregated by the sex of the household head, household baseline poverty level, and household size.

9.3 Morbidity and Use of Curative Care

Incidence of diarrhoea, fever, and cough in the two weeks prior to interview declined from baseline to midline for both T and C groups (Table 9.3.1). We did not find evidence of significant programme impact on child morbidity during the past two weeks in either the full sample or subsamples of children ages 0-5. However, significant gains in treatment-seeking behaviours can be attributed to the programme. At baseline, most caretakers for the majority of children in T households sought curative care at either a public or private health facility. At follow-up, 84 per cent of children with diarrhoea during the past two weeks and 85 per cent of children with a cough received treatment in beneficiary households, compared to 80 per cent and 78 per cent, respectively, in the C group. Nearly all beneficiary children with a fever at follow-up sought treatment (96 per cent) compared to 86 per cent of C children. Significant programme impacts were found for treatment-seeking behaviour among beneficiary children with diarrhoea and fever. Compared to children from C households, beneficiary children were nine pp ($p= 0.05$) more likely to have sought curative care for diarrhoea and 22 pp ($p= 0.01$) more likely to have sought treatment for fever.

Programme impacts on care-seeking behaviours for sick children were even more pronounced among children from the poorest 50 per cent of households; beneficiary children from the poorest households were 12 pp ($p= 0.01$) more likely to have sought treatment for diarrhoea, 23 pp ($p= 0.01$) more likely to have sought care for fever, and 11 pp ($p= 0.05$) more likely to have sought treatment for a cough than children from the poorest 50 per cent of C households. Annex E, Tables E.2.8-10 show programme impacts on child morbidity and use of curative care by the sex of the household head, baseline poverty level, and household size.

Table 9.3.1: Impacts on Young Child Morbidity and Use of Curative Care (Past Two Weeks)

Dependent Variable	Program Impact	Baseline Treated Mean	Midline Treated Mean	Midline Control Mean
	(1)	(2)	(3)	(4)
Any illness (<i>N</i> = 3,343)	0.01 (0.14)	0.42	0.31	0.34
Diarrhoea	0.02 (0.88)	0.16	0.13	0.12
Fever	0.02 (0.55)	0.24	0.19	0.21
Cough	0.02 (0.52)	0.26	0.12	0.11
Sought treatment at public or private health facility				
Diarrhoea (<i>N</i> = 500)	0.09* (2.14)	0.71	0.84	0.80
Fever (<i>N</i> = 813)	0.22** (3.49)	0.68	0.96	0.86
Cough (<i>N</i> = 660)	0.04 (1.10)	0.72	0.85	0.78

Notes: Estimations use difference-in-differences modelling among individual children in panel households and estimates for binary outcomes are reported as marginal effects. See Table 9.1.1 for additional explanatory notes on model specification, including a list of control variables used. * 5% significance; ** 1% significance.

9.4 Preventive Health Care Practices

Baseline and midline means and programme impacts on young child preventive care practices are presented in Table 9.4.1. The percentage of children ages 0-5 participating in nutrition programmes, under-five clinics, and receiving well-baby/under-five check-ups declined from baseline to midline among beneficiary households. At baseline, only four per cent of T households were participating in a nutrition programme, but this dropped to three per cent at midline (compared to seven per cent among C households at midline). At baseline, nearly three-quarters of children participated in an under-five clinic, but this declined to 65 per cent for the T group at midline. Attendance at a well-baby or under-five check-up in the past six months also declined from baseline to midline. The majority of children were reported to have a child passport in both survey rounds.

Table 9.4.1: Impacts on Young Child Preventive Care

Dependent Variable	Program Impact	Baseline Treated Mean	Midline Treated Mean	Midline Control Mean
	(1)	(2)	(3)	(4)
Participation in nutrition programme (<i>N</i> = 3,343)	-0.03** (-5.77)	0.04	0.03	0.07
Participation in under-five clinic (<i>N</i> = 3,343)	0.00 (0.04)	0.72	0.65	0.67
Check-up at well-baby/under-five clinic in last six months (<i>N</i> = 3,343)	0.03 (0.31)	0.48	0.42	0.43
Possession of a child health passport (<i>N</i> = 3,336)	0.01 (0.56)	0.85	0.89	0.92

Notes: Estimations use difference-in-differences modelling among individual children in panel households and estimates for binary outcomes are reported as marginal effects. See Table 9.1.1 for additional explanatory notes on model specification, including a list of control variables used. * 5% significance; ** 1% significance.

We find a negative programme impact of -0.03 ($p= 0.01$) on the participation of beneficiary children in a nutrition programme. This negative result may be due in part to beneficiaries' perceptions that they would be removed from other support programmes if people knew they received the SCTP (for more info, see Chapter 13: Operational Performance). It may also be the case that T households with young children are better able to meet food consumption needs, and thus no longer need or qualify for additional nutrition support.

Annex E, Tables E.2.11-13 report programme impacts on preventive care by sex of the household head, baseline poverty level, and household size.

9.5 Delivery Location and Assistance, and Birth Registration

Lastly, we investigated whether the programme had any significant impacts on delivery practices and birth registration during the period between baseline and midline. At baseline, three-fourths of deliveries from beneficiary households were at a health facility and were attended by a skilled provider. These percentages were higher for both T and C households at follow-up. We found no significant programme impact on facility deliveries or use of skilled birth attendants.

Table 9.5.1: Impacts on Delivery Location and Attendance for Births since Baseline

Dependent Variable	Program Impact (1)	Baseline Treated Mean (2)	Midline Treated Mean (3)	Midline Control Mean (4)
Delivery at a health facility	-0.01 (-0.09)	0.76	0.89	0.90
Delivered by a skilled attendant	0.00 (0.00)	0.75	0.89	0.90
<i>N</i>	889	230	188	220

Notes: Health facility includes hospital, health facility, and village health post. Skilled birth attendant includes doctor, nurse, midwife, and clinical officer. Estimations use difference-in-differences modelling among individual births within the past 17 months in panel households and estimates for binary outcomes are reported as marginal effects. See Table 9.1.1 for additional explanatory notes on model specification, including a list of control variables used. * 5% significance; ** 1% significance.

Only three per cent of children in the 0-5 and 6-10 age categories from beneficiary households had been registered at baseline. These percentages were higher for both T and C households at follow-up. While we found no significant programme impact on birth registration for young children ages 0-5 years, we did find a significant positive programme impact of 0.07 ($p= 0.05$) on children ages 6-10 years. It is possible that these results are driven in part by programme impacts on schooling, as households may retroactively register children when enrolling them in school. As reported in section 10.1 Education, we find significant positive impacts on primary school enrolment (which begins at age six), but did not find impacts on enrolment in early child education programs (ages 3-5 years).

Table 9.5.2: Impacts on Birth Registration, Children Ages 0 to 10

Dependent Variable	Program Impact (1)	Baseline Treated Mean (2)	Midline Treated Mean (3)	Midline Control Mean (4)
Child has been registered				
Age 0-5 years ($N = 4,356$)	0.06 (2.88)	0.03	0.12	0.10
Age 6-10 years ($N = 6,643$)	0.07* (4.83)	0.03	0.09	0.06

Notes: Estimations use difference-in-differences modelling among individual children in panel households. See Table 9.1.1 for additional explanatory notes on model specification, including a list of control variables used. * 5% significance; ** 1% significance.

9.6 Summary

On average, we find negative programme impacts on weight-for-age z-scores (WAZ) and positive programme impacts on prevalence of wasting among children ages 6-59 months. We did not find overall programme impacts for the percentage of children that are fed solid foods at least three times per day or who had consumed vitamin A-rich foods in the past day, but we did see some significant treatment effects for subpopulations by baseline household poverty status and household size. While we found no programme impact on the incidence of child illness during the two weeks prior to the survey, there were significant programme impacts on treatment-seeking behaviours for beneficiary children with diarrhoea and fever. Children from T households were slightly less likely than children from C households to participate in a nutrition programme, and we found no programme impacts for delivery location or assistance among births in the period between baseline and midline.

10. Impacts on Education and Child Work

10.1 Education

The educational system in Malawi operates on an 8-4-4 system divided into eight years of primary school, four years of secondary, and four years of university.¹⁵ Preschool is for children between the ages of three and five. The official entry age for primary school (Standard 1-8) in Malawi is age six, and primary school age children are defined as being between the ages of six and 13. Secondary school (Form 1-4) children are between the ages of 14 and 17. This section describes the programme impact on educational outcomes for children and youth ages three and above. However, most educational indicators are calculated for children and youth age 6-17, corresponding to official ages for primary and secondary school.

One of the goals of the Malawi SCTP is to increase school enrolment. Table 10.1.1 reports the impacts of the SCTP on enrolment rates. Net enrolment is the percentage of children in the age group that officially corresponds to a particular schooling level who are attending that level of schooling. Table 10.1.1 shows that net enrolment rates for all school ages have risen significantly for T households since baseline. During the 2012-13 academic year, 69 per cent of children in the T sample (ages 6-17) were attending school, but during midline (2014-15 school year), enrolment increased to 87 per cent for children in T households, compared to 77 per cent of children from C households. This indicates a strongly significant programme impact of 12 pp for children aged 6-17. Focusing on the net enrolment rate separately for primary and secondary age children, we find a slightly stronger programme impact of 13 pp for primary school-aged children (six to 13 years old) and the strongest impacts are for secondary school ages (14 to 17 years old) – a 15 pp increase. Treatment group enrolment means have risen from 62 to 78 per cent for secondary school-aged children. Figure 10.1.1 graphically displays these results. Both graphs show that net enrolment rates peak at age 10 (Standard 5) but the right hand graph of children in T households clearly shows how the programme has increased enrolment rates across all ages, compared to the left hand graph of children in C households.

Results in Table 10.1.1 also show that the programme is having a positive impact on gross school enrolment for both primary and secondary school. Gross enrolment rates are calculated by dividing the number of children enrolled in a particular level of school (i.e., primary or secondary) by the population of children from the official age group that corresponds to that level of school. The mean gross school attendance for primary school among treatment households was 74 per cent at baseline but has increased to 91 per cent at follow-up, corresponding to a significant programme impact of 11 pp. Secondary gross enrolment, on the other hand, is low because the majority of secondary school-aged children attend primary school, and thus they are not at the correct grade to be counted for gross school enrolment. We find that among secondary school aged-children in treatment households, there is an increase from 10 to 16 per cent in gross school enrolment, but an insignificant two pp increase.

¹⁵ National Statistics Office, Republic of Malawi. Integrated Household Survey 2010-2011: Household Socio-Economic Characteristics Report. September 2012.

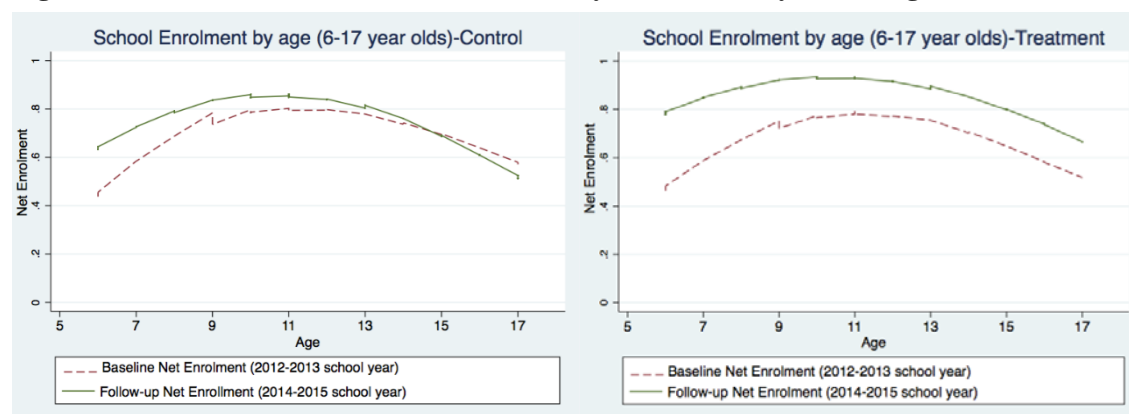
Overall, school enrolment results indicate that the cash transfer is playing crucial role in meeting the goal of increasing school enrolment rates.

Table 10.1.1: School Enrolment- Primary, Secondary and Early Childhood (Net and Gross)

Dependent Variable	Programme Impact (1)	Baseline Treated Mean (2)	Midline Treated Mean (3)	Midline Control Mean (4)
Net Enrolment ages 6-17	0.12** (8.68)	0.69	0.87	0.77
<i>N</i>	14,403	3,398	3,493	3,688
Net Enrolment ages 6-13	0.13** (6.67)	0.71	0.90	0.81
<i>N</i>	10,934	2,559	2,610	2,838
Net Enrolment ages 14-17	0.15** (10.31)	0.62	0.78	0.66
<i>N</i>	3,472	839	883	853
Gross enrolment-primary school	0.11** (4.73)	0.74	0.91	0.83
<i>N</i>	13,757	3,188	3,425	3,497
Gross enrolment-secondary school	0.02 (1.19)	0.10	0.16	0.13
<i>N</i>	3,786	907	980	940
<u>Early Childhood Education</u>				
Net Enrolment ages 3-5	0.04 (0.77)	0.23	0.34	0.31
<i>N</i>	2,486	600	588	616
Gross enrolment: pre-school	0.01 (0.18)	0.28	0.29	0.29
<i>N</i>	2,727	677	635	669

Notes: Estimations use difference-in-differences modelling among panel households and coefficients for binary outcomes are reported as marginal effects. All estimations control for baseline head of household’s characteristics (age in years, sex, indicator of any schooling, indicator of literacy, marital status), individual child’s sex, household demographic composition and size, indicators for new household members and household member outmigration, and a vector of contemporaneous cluster level prices. Robust t-statistics were obtained clustering at the different levels of the sampling design and are shown in parenthesis. * 5% significance; ** 1% significance.

Figure 10.1.1: Net School Enrolment for Primary and Secondary School Ages (6 to 17)



In addition to enrolment rates, our analysis also indicates that the programme is having a significant, positive impact on other education outcomes for primary- and secondary-aged school children. Table 10.1.2 shows that school children (age 6-17) in T households were significantly less likely to have temporarily withdrawn from school for any reason at midline. *Temporary withdraw* is defined as missing more than two consecutive weeks of instruction at any time in the past 12 months. At baseline, the majority of students who had to temporarily withdraw did so because they did not have the money for school-related expenses and about a quarter did so because of illness. We find that there is no programme impact on the likelihood of students withdrawing for either of these reasons.

Table 10.1.2: School Related Expenditures, Temporary Withdrawal, and Dropout from School

Dependent Variable	Programme Impact (1)	Baseline Treated Mean (2)	Midline Treated Mean (3)	Midline Control Mean (4)
Expenditures				
Any school expenditures	0.03 (0.91)	0.91	0.98	0.94
Any uniform expenditures	0.15** (7.02)	0.17	0.29	0.12
Uniform expenditures (MWK)	179.60** (4.97)	171.55	336.53	155.36
<i>N</i>	12,521	2,688	3,483	3,269
Temporary Withdrawal				
Temporary withdrawal	-0.05** (-4.03)	0.14	0.04	0.08
<i>N</i>	12,554	2,698	3,490	3,274
Withdrawal due to lack of funds	-0.16 (-1.75)	0.61	0.55	0.64
<i>N</i>	1,669	370	143	241
Withdrawal due to illness	0.06 (1.85)	0.23	0.21	0.17
<i>N</i>	1,169	370	143	241
Dropout				
Dropout-primary	-0.04* (-2.36)	0.06	0.02	0.04
<i>N</i>	6,315	1,390	1,658	1,694
Dropout-secondary	-0.03 (-1.45)	0.08	0.04	0.06
<i>N</i>	3,334	700	1,004	882

Notes: Estimations use difference-in-differences modelling among panel households and estimates for binary outcomes are reported as marginal effects. See Table 10.1.1 for additional explanatory notes on model specification, including a list of control variables utilized. * 5% significance; ** 1% significance.

As reported in Section 6.2: Poverty and Consumption, treatment households are spending more on education at midline. When we examined education expenditures at the child-level, though we do not find that treatment households are more likely to have spent money on education related items for their enrolled children (Table 10.1.2). However, when we separate education items we find that treatment households are significantly more likely (15 pp) to purchase uniforms for their enrolled children and there is a programme impact of MWK 180 on uniform expenditures. This suggests that uniforms are the primary education purchase for T households, since this impact is 80 per cent of the overall education impact found in Section 6.2.

We also looked at dropout rates among all school-age children. The *dropout rate* is defined as the per cent of students in a given grade in the previous school year who are not currently attending school in the current school year. We see in Table 10.1.2 that there is a significant programme impact on primary school dropout rates but not for secondary dropout rates. The baseline dropout rate among children in T households was six per cent but has decreased to two per cent at follow-up—a programme impact of four pp.

The most commonly cited impact of the transfer on school attendance in the qualitative interviews was enabling the family to buy uniforms, soap, and school supplies. Some caregivers also mentioned that the youth no longer had to do *ganyu* (or informal day-labour) or did less *ganyu*, which positively impacted both attendance and performance. Some caregivers also noted that, now that they receive the transfer, there are “no more excuses” for missing school, which serves as a motivation for young people to stay enrolled and do well.

Caregivers consistently discussed the importance of their children going to school with clean uniforms, supplies, and food in their stomach, which enhanced their social experience as well as their academic experience at school. Jamila commented that she had seen a major change in the academic experience of her son Yusuf, who she felt was not very serious about school during the baseline interview. In the follow-up interview she said that now that he has food and the basic necessities for school, he is motivated and attending consistently, finishing all terms in the school year for the first time. Aisha, a mother of four, also described a change in her child’s performance in school,

We use the money to buy washing soap so that the children should put on clean clothes when they are going to school. I also use the money to buy learning materials like notebooks and pencils, sometimes the school demands a small amount of fee in which case we also use the money from the cash transfer programme...[Child’s name] was not working hard in class because we didn’t have enough money to help her with her education. But she now works hard because we started receiving money from the cash transfer programme.

Youth also discussed changes in their school experiences. Said, a youth participant whose grandmother had passed away during the time between the baseline and follow-up interviews, attended all of his classes during the last year and felt motivated to work hard so that he could go to secondary school in the following year. He also discussed facing uncertainty, however, following his grandmother’s death, and worried that he might have to resume his *ganyu*, reflecting the ongoing vulnerability experienced by youth. Shadrek, an orphan, used to miss a lot of school, wore rags when he did go, and performed poorly due to his worry about his family’s situation. In the baseline interview, he lacked hope for the future with regard to his education, something he described as changing after his family started to receive the transfer,

In the past I used to miss a lot of classes because I had no clothes. But now I have enough clothes, including a school uniform. I hope that I will continue with school...I had no hope of continuing school the last time we talked because of what was happening to me.

Several participants echoed this notion of increased hope in their interviews. Allan, a youth participant, greatly improved his attendance since receiving the transfer and reducing his time spent on *ganyu*. He hopes to study medicine.

In addition to improved attendance, participants also proudly discussed their improved performance in school. Shadrek had previously struggled due to his absences and stress. This year, he had placed 12th out of 90 pupils in his class on the final exams, which was an achievement he directly connected to the cash transfer. Additionally, Shadrek had previously relied on one of his teachers as a source of material support but in the follow-up interview he explained that he had his own supplies and did not have to ask the teacher anymore. Similarly, Jafar had placed 15th out of 104 students on his final exams, which he attributed to the fact that he had been working hard once he had less stress about meeting his family’s basic needs.

Isaak was one of the few youth in the qualitative sample to transition from primary to secondary school between baseline and midline. His caregiver focused most of the transfer on covering educational expenses for her four children. With his fees paid in full, he excelled in his classes and was 5th out of 38 students in his class. While his mother was able to cover most of his secondary school fees with the transfer, Isaak did have to engage in *ganyu* to cover remaining fees and soap.

This survey also looked at child specific educational expenses. Table 10.1.2 reports whether the household spent any money on educational expenses for individual children who are currently attending school. *Educational expenses* were determined by whether the household reported any spending on a number of specific items for children and youth attending school. These items include any money spent on tuition and fees; expenditures on after school programmes 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 that were spent by the household, family and friends. The vast majority of households with students ages 6-17 years report educational expenditures at baseline and midline. While there is an increase in the per cent of children from T households that report educational expenses (from 91 per cent to 98 per cent), the programme impact is not statistically significant.

One of the educational challenges identified in the qualitative interviews was returning to school after having dropped out, especially among female participants. In the case of youth who had left school early in their primary education, years before receiving the cash transfer, the transfer was not enough to overcome the economic, as well as the social barriers to re-engaging in school. A female youth participant explained that she had left school in Standard 2 and that the money her grandmother received from the programme was for food. Other youth who were not in school echoed this, indicating that the money their household received was simply not enough to support them to return to school. Karim articulated this in the following exchange,

Participant: If I had all the necessary things to go back to school I would...sometimes I admire some of my friends who are still in school right now and that makes me want to go back to school.

Interviewer: What would you need in your life to go back to school?

Participant: Money...[it] would help me to get some of the necessary things required for school [like] school uniform, notebooks and pencils.

In Karim's case, the money from the cash transfer, which was managed by his grandmother who also cared for his disabled mother, was not enough to overcome other barriers to his attendance at school. The only impact he indicated feeling from the transfer was some diversity in the food consumed in the household.

Competing demands also created challenges to returning to school. A female participant had considered returning to school when her household started receiving the money but she did not have anyone to take care of her young child. Nevertheless, this participant had discussed with her child's father the option of returning to school once her child is older, and he was supportive.

Another challenge was the transition from primary to secondary school, which participants described as meaning a significant increase in school related expenses, especially fees. George had performed well in primary school and was selected to go to a secondary school in the area. He attended classes for two weeks, but was sent home when he failed to pay the fees, which was roughly equivalent to the amount of his household's transfer. Rather than dropping out, George returned to primary school and was repeating Standard 8 with the hope of returning to secondary school in the next year. In this case, the transfer had not yet impacted the family enough to handle the substantial increase in school fees. However, George's caregiver *was* able to provide uniforms and school supplies for all four of the children in her household who were going to school.

Another education outcome we looked at was grade-for-age. *At grade-for-age* is defined as children attending the grade-level that corresponds to their age, such that a seven-year-old would attend Standard 2, or a 15-year-old would be in Form 2. In Table 10.1.3, we see that the programme has increased the likelihood that primary school-aged children are in the correct grade for their age by four pp. Six year-olds are also much more likely to be at the correct grade (Standard 1). At baseline, all of the enrolled six year-old children who should have been in Standard 1 were in pre-school (i.e., below grade-for-age), so the programme is having an impact on moving six year-olds into primary school. There is no programme impact for secondary school children on being at grade-for-age, but at baseline, results showed that on average, they are behind more grades than primary school children (e.g. students that should be in Form 4 are nearly six grades behind, but children in Standard 5 are an average of three grades behind) and thus it would be unlikely to see significant change in one year.

Table 10.1.3: At or Below Grade-for-Age (Primary and Secondary)

Dependent Variable	Programme Impact (1)	Baseline Treated Mean (2)	Midline Treated Mean (3)	Midline Control Mean (4)
At grade-for-age primary	0.05** (3.04)	0.07	0.11	0.08
<i>N</i>	9,863	2,072	2,610	2,835
At grade-for-age secondary	-0.00 (-0.95)	0.01	0.01	0.00
<i>N</i>	3,352	793	883	853
6 year-old at correct grade	0.17* (2.35)	0.19	0.58	0.43
<i>N</i>	1,230	328	238	247
Education gap- Standard 5	-0.01 (-0.29)	2.88	2.66	2.63
<i>N</i>	1,225	297	303	302
Education gap- Standard 8	0.12 (0.80)	4.07	4.03	4.07
<i>N</i>	1,101	193	368	353
Education gap- Form 1	0.19 (1.41)	4.25	4.16	4.13
<i>N</i>	768	185	204	184
Education gap- Form 2	0.09 (0.45)	4.75	4.37	4.46
<i>N</i>	714	165	212	160
Education gap-Form 3	0.43* (2.59)	4.88	4.71	4.80
<i>N</i>	516	90	171	125
Education gap-Form 4	0.05 (0.21)	5.57	4.96	5.06
<i>N</i>	373	80	102	94

Notes: Estimations use difference-in-differences modelling among panel households and estimates for binary outcomes are reported as marginal effects. See Table 10.1.1 for additional explanatory notes on model specification, including a list of control variables utilized. * 5% significance; ** 1% significance.

We also found that at baseline, the majority of primary, and nearly all secondary school-aged children currently enrolled in school were below grade-for-age during the 2012-2013 school year. Thus, we also report the education gaps for those children ages 6 -17 years who are below-grade for grades of interest (key primary levels, and all secondary levels) in Table 10.1.3. The education gap is calculated as the average number of grades students are behind who are below grade-for-age. We find no programme impact on the primary school education gaps (Standards 5 and 8) and for most of the secondary school education gaps. However, there is a significant impact on the education gap for

Form 3, but it is in the opposite expected direction. We find that the Form 3 education gap has increased 0.43 years. The interpretation is that Form 3 school-aged children (16-year-olds) in T households are now about half a year more behind in school. Since we saw net enrolment means increase for secondary school-aged children in T households, *one possible conclusion is that more 16-year-olds from beneficiary households are returning to school* but are further behind since being out of school for some time—this deserves further analysis.

Heterogeneity analysis

Additional analysis by subsamples reveals few differences except that smaller households with fewer than five members experience an even stronger impact on net enrolment for 14- to 17-year-olds, a 19pp increase. Moreover, there is a significant impact on the likelihood of having any school expenditures for children in these households (6 pp) and the education gaps for Standard 8 and Form 1 are significant, but positive. Again the speculation is that with the increase in net enrolment for these ages, children in T households are returning to school after being out of school for a while, and are therefore more behind in school than children who were continuously in school. There were also few differences in impacts between males and females expect for net enrolment among 14-17 year-olds. Impacts are significant for both male and female, but the program impact increased net enrolment by 20 pp for males, and only 10 pp for females.

10.2 Child Work¹⁶ and Time Use

We examined the impact of the SCTP on labour and time use for children and youth 10-17 years old, including time spent completing domestic chores, farming, fishing, productive household activities, and participation in wage and *ganyu* labour. 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 seven days (separately) since the intensity and type of *ganyu* varies with the season.

In Table 10.2.1 we report the number of hours children ages 10-17 spent during the previous day performing domestic chores including collecting water, collecting firewood/fuel materials, taking care of children, cooking, or cleaning. Compared to baseline, on average, children in T households spent slightly more time collecting water and taking care of children, cooking, or cleaning per day, but *less* time collecting firewood. However, we see that there are negative trends for the amount of time children spent in all daily domestic chores (although we find no significant programme impacts). A few more significant programme impacts are found when examining impacts by subsamples. Children from female-headed households and children from households with five or more members are spending slightly less time collecting water and they are spending fewer total hours doing any domestic work, but these are not large – programme impacts show less than half an hour reduction.

In addition to domestic work, we analyse the impact of the programme on time spent doing both unpaid productive work and labour for the household. The survey's reference period for unpaid or paid work is the number of days in the past rainy season. Unpaid household work includes land preparation or planting, weeding, fertilizing, and other non-harvest work, and harvesting. In Table 10.2.1 we find that the average number of hours children spent doing unpaid household work has

¹⁶ Note that for the purposes of this report, “child work” is used to describe any level of unpaid productive work for the household, unpaid productive labour for the household, and paid productive labour outside of the household, including wage work or *ganyu* labour. While we do provide estimates for children ages 10 – 13 years, our casual usage of the term differs from the official definition of child labour provided in the Child Labour 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 Labour, Government of Malawi. *Child Labour: National Action Plan on Child Labour for Malawi 2010 – 2016*. April 2010.)

increased for children in T households from approximately 18 hours to 23 hours, but there is no significant programme impact. Unpaid productive labour 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, unpaid productive household labour has slightly increased at follow-up for children in beneficiary households from 0.6 hours to 1 hour in the last rainy season, but again, we find no significant programme impact.

Table 10.2.1: Child Time Use –Unpaid Domestic or Productive Work for the Household

Dependent Variable	Programme Impact (1)	Baseline Treated Mean (2)	Midline Treated Mean (3)	Midline Control Mean (4)
Hours spent yesterday collecting water	-0.09 (-1.76)	0.81	0.89	0.88
Hours spent yesterday collecting firewood	-0.17 (-1.53)	0.46	0.26	0.29
Hours spent yesterday in childcare, cooking, cleaning	-0.09 (-0.99)	1.00	1.04	1.03
Sum of Hours spent doing domestic work	-0.34 (-1.97)	2.27	2.18	2.19
Hours spent doing unpaid household work	0.20 (0.12)	18.27	23.05	21.39
Hours spent doing unpaid productive labour for household	0.35 (1.57)	0.67	1.02	0.83
<i>N</i>	9,170	2,162	2,304	2,343

Notes: Estimations use DD modelling among panel households and coefficients for binary outcomes are reported as marginal effects. All estimations control for baseline head of household's characteristics (age in years, sex, indicator of any schooling, indicator of literacy, marital status), individual child's sex, household demographic composition and size, indicators for new household members and household member outmigration, and a vector of contemporaneous cluster level prices. Robust t-statistics were obtained clustering at the different levels of the sampling design and are shown in parenthesis. * 5% significance; ** 1% significance.

The last category of time use and labour that we analysed was paid productive labour outside of the household, which includes any casual, part-time, or *ganyu* labour, as well as wage, salary, commission, or any payment-in-kind labour done for anyone who is not a household member. The reference period is the previous seven days. Table 10.2.2 shows that there is no significant change in the likelihood that children 10 to 17 were engaging in wage or *ganyu* labour during the past 12 months. Analysis by subsamples, however, reveals that children from the poorest households at baseline are significantly less likely to be engaging in *ganyu* (16 pp) in the last 12 months. On the other hand, children from smaller households (less than four members) have a two pp greater likelihood of engaging in any type of wage labour. Overall findings in Table 10.2.2 do show one significant programme impact—the number of total hours per week spent doing paid productive labour outside the house has declined. The average decreased by 0.6 hours per week, from 1.8 hours at baseline to 1.2 hours spent on paid productive labour outside the household at midline, and there is a significant programme impact of almost one hour.

Table 10.2.2: Paid Child Work Outside of Household (Wage and *Ganyu*)

Dependent Variable	Programme Impact (1)	Baseline Treated Mean (2)	Midline Treated Mean (3)	Midline Control Mean (4)
Hours spent doing paid labour outside household	-0.98** (-5.82)	1.88	1.28	2.15
Any wage employment - last 12 months	0.00 (0.41)	0.01	0.01	0.01
Any <i>ganyu</i> labour - last 12 months	-0.12 (-1.96)	0.42	0.44	0.49
<i>N</i>	9,170	2,162	2,304	2,343

Notes: Estimations use difference-in-differences modelling among panel households and estimates for binary outcomes are reported as marginal effects. See Table 10.2.1 for additional explanatory notes on model specification, including a list of control variables utilized. * 5% significance; ** 1% significance.

Echoing the quantitative findings, the overall theme we identified in the qualitative interviews was that both youth and caregivers were doing less *ganyu* since receiving the transfer. Youth who were not in school at baseline or midline maintained their same level of *ganyu*. Karim, an out-of-school youth, continued to do *ganyu* as he did not have control over the resources from the transfer and he still had financial needs,

I have always been doing ganyu; like I said I don't have access to the money my grandmother receives. The money is not enough to buy some of my personal needs therefore I cannot stop doing ganyu.

Karim even mentioned that during the last year he had increased opportunities for *ganyu*, which had helped him to make more money for his personal needs, though this was an exception in the qualitative sample. A small number of youth had stopped doing *ganyu* altogether, especially those who were in school. Most frequently, youth described becoming more selective about when they did *ganyu* and that the money they made was for their personal use, rather than to provide food for the household as they had done before. For example, Silvia described that at the time of the follow-up interview she was doing less *ganyu* than before and she used the money for her personal expenses, such as clothes. Shadrek, also explained that he now did *ganyu* on occasion to cover his personal needs, rather than to provide food for his house,

Things have really changed. The only reason I was doing ganyu was to get money for food. Right now it's not even necessary to do ganyu because we have enough food which we buy when we receive the money from the cash transfer programme... I sometimes do [ganyu] but not like before. I only do it to get some of my personal needs; you know, kids, we sometimes need some things. I cannot always rely on the cash transfer money; I need some of my own money to buy soap.

At the time of the follow-up qualitative interview, Shadrek was thriving in school and while he still did *ganyu*, he was selective about it and it was not driven by a need to cover basic needs.

11. Transitions to Adulthood among Youth

A key question of the evaluation is whether or not the SCTP affects the safe transition into adulthood among youth. Globally, there is increasing evidence to suggest a protective effect of SCTs, however the topic remains an understudied area, particularly in relation to unconditional SCTs and in sub-Saharan Africa. Conceptually, there are a number of pathways through which the SCTP may influence youth outcomes, including decreases in household poverty, increases in household spending and changes in household time-allocation decisions—which may in turn decrease stress, increase

overall investment in youth (including investment in education) and decrease exposure of the youth to risky environments. Characteristics such as household size, gender of the SCTP recipient, aspirations of the youth themselves, and environmental factors such as distance to schools and health facilities may moderate programme impacts. We examine impacts on six broad categories of youth outcomes, namely: 1) sexual debut, marriage, and pregnancy, 2) risky sexual behaviours among youth who had ever had sex, including experience of forced sex, 3) mental health and well-being (including future aspirations and expectations), 4) HIV risk perceptions, 5) alcohol and tobacco use, and 6) social support. This section complements findings on education and child labour reported in earlier sections. Impacts on education and child labour may be situated more proximally on the casual impact chain, which may, over time, affect outcomes examined here, such as sexual debut or marriage transitions.

To assess these outcomes, interviews with youth were administered during baseline (when adolescents were aged 13 to 19 years) and during the midline data collection (when adolescents were approximately aged 14 to 21 years). Additionally, information on marriage and pregnancy was obtained from the main household questionnaire, which was administered to the main household respondent who provided information on all household members. Up to three youth per household were interviewed, prioritizing the youngest three youth when possible. Due to the sensitive nature of the questions, youth interviews were conducted in private by enumerators of the same sex as the youth. Interviews were not conducted if privacy could not be assured. Informed consent was obtained from parents of youth aged 17 and under, and assent was also obtained from these youth. For youth aged 18 and above, informed consent was obtained directly from the youth. We also conducted qualitative IDIs at baseline and midline (15 months later) with a subsample of 16 youth and their caregivers.

The sample for analysis included youth residing in households interviewed at both waves (though youth may have been interviewed at only one wave). Impacts were estimated using DD modelling for current or time variant measures (e.g., mental health, self-assessment of HIV risk, or those with 12-month recall periods). Further, for outcomes that were lifetime measures or only collected at the midline follow-up (e.g., ever had sex, ever experienced forced sex, parental support indicators), we analysed a sample of youth who had not reported experiencing the outcome at baseline. For these outcomes, we performed cross-sectional analyses at follow-up comparing T and C groups. The rationale is that youths who have already sexually debuted (or experienced other lifetime outcomes) had no likelihood of being influenced by the programme with respect to this outcome. Thus, there would be no variation in their outcomes over the panel period. Standard errors were adjusted for complex survey design and for youth-specific probability of selection. Controls used were the same as in the household-level models, however we also controlled for contemporaneous sex and age in years of the adolescent. In addition to overall impacts, we explore findings stratified by: 1) sex of the youth; 2) age of the youth (13 to 15 years versus 16 to 19 years); 3) household size (small indicating four or fewer members and large indicating over four members); and if the youth resides in a household 4) in the poorest 50% of the sample, 5) a female-headed household and 6) is present in the full panel (both baseline and midline follow-up). As shown in the Baseline Report, and confirmed here, there is good baseline balance between T and C groups. Assessing all outcome and control variables utilized in the sample, none are statistically significantly different. When assessing interview rates, we find that in the baseline, approximately 75.6 per cent of the total possible youth within the target age range were interviewed, while this percentage was approximately 75.9 at midline. Since this represents a select sample within the total household, we re-weight the sample to account for the probability of being interviewed in the youth module during each wave.

11.1 Sexual Debut, Pregnancy and Marriage

Poverty and early sexual debut, pregnancy, and marriage are intertwined in a cycle that heightens vulnerability to each condition, decreasing future potential productivity and well-being. Evidence from some existing SCTs (including two in Africa—in Malawi and Kenya) has demonstrated the

programmes' abilities to delay sexual debut^{17,18}, childbearing^{16,19}, and marriage^{16,18} among youth and young adults. However, another study from Zambia found no significant programme impacts on childbearing or sexual debut among youth (aged 13 to 19 at programme initiation) after two years of programme participation.²⁰

We first present results of impact on sexual debut. For this analysis we drop 34 per cent of the baseline sample who reported already debuting at baseline, and conduct a cross-sectional analysis with the remaining sample at midline (n=1,684). Table 11.1.1 shows that among this sample, approximately 27 per cent and 32 per cent of the T and C samples, respectively, report sexual debut. In addition, the programme has a five pp impact on decreasing the probability of sexual debut. When we split the sample between males (middle panel) and females (bottom panel) we see that this impact is concentrated among males. Among males, the programme results in a nine pp decrease in sexual debut, whereas the magnitude for females is three pp and is insignificant. This may be due in part to the fact that males are more likely to report sexual debut regardless of treatment status over the panel period. There are fewer notable differences between other examined subgroups: overall impact results hold and are similar for older and younger youth, youth in poorest and female-headed households, and among the panel.

Table 11.1.1: Impacts on Sexual Debut among Youth Aged 13 to 19 at Baseline

Dependent Variable	Programme Impact (1)	Midline Treated Mean (2)	Midline Control Mean (3)
Ever had sex (full sample)	-0.05** (-6.09)	0.27	0.32
<i>N</i>	1,684	833	851
Ever had sex (male sample)	-0.09** (-8.59)	0.29	0.36
<i>N</i>	807	428	399
Ever had sex (female sample)	-0.03 (-1.41)	0.26	0.28
<i>N</i>	876	405	452

Notes: Estimations use cross-sectional modelling at the Midline follow-up among panel households and estimates for binary outcomes are reported as marginal effects. All estimations control for sex (except those stratified by sex) and age in years of the youth, baseline head of household's characteristics (age in years, sex, indicator of any schooling, indicator of literacy), household demographic composition and size, indicators for new household members and household member outmigration, and a vector of contemporaneous cluster level prices. Robust t-statistics were obtained clustering at the different levels of the sampling design are shown in parenthesis and the analysis is re-weighted according to the probability of youth being selected for interview. We exclude youth who report having sexually debuted at baseline. * 5% significance; ** 1% significance.

Next we examine the SCTP impacts on first pregnancy of females, utilizing both the sample of youth (aged 13 to 19 at baseline), as well as an expanded sample from the household questionnaire of young adult women ages 15 to 23. Similar to sexual debut, we limit the sample to those females who report never having been pregnant at baseline (dropping 11 per cent of the sample aged 13 to 19 and 30 per cent of the sample aged 15 to 23). We are unable to analyse impacts on current pregnancy, as it is a relatively rare event. Our resulting sample sizes for the youth module sample is 915 and for the older sample (young women aged 15 to 23), 922. Table 11.1.2 shows that nine per cent of female youth in T households and 11 per cent of female youth in C households had experienced a first pregnancy by the

¹⁷ Baird, S., et al., "The short-term impacts of a schooling conditional cash transfer programme on the sexual behavior of young women. *Health Economics*, 2010. **19**(S1): p. 55-68.

¹⁸ Handa, S., et al., *The Government of Kenya's Cash Transfer Programme Reduces the Risk of Sexual Debut among Young People Age 15-25*. *PloS one*, 2014. **9**(1): p. e85473.

¹⁹ Gulemetova-Swan, M., *Evaluating the impact of conditional cash transfer programs on adolescent decisions about marriage and fertility: the case of oportunidades*. 2009.

²⁰ American Institutes for Research (AIR), *Zambia's Multiple Category Program: 24-Month Impact Report*. August 2014, AIR: Washington, DC

midline follow up. In addition, although the coefficient is in the expected direction, we do not find an overall impact on the probability of delaying first pregnancy due to the programme. Among subgroups, we find one significant impact among females in small households. Females in small households receiving the SCTP are six pp less likely to experience a first pregnancy, as compared to females in small households not receiving the programme (Table 11.1.2). Among the older sample of young adult women, we find similar results, whereby there are no overall programme impacts. We do, however, find impacts among the poorest households, where females are four pp less likely to experience a first pregnancy (Table 11.1.2, bottom panel).

Table 11.1.2: Impacts on Pregnancy among Female Youth

Dependent Variable	Programme Impact (1)	Midline Treated Mean (2)	Midline Control Mean (3)
Ever been pregnant (full sample, aged 13 to 19 at baseline)	-0.02 (-1.41)	0.09	0.11
<i>N</i>	915	443	472
Ever been pregnant (small households, 4 members or less, aged 13 to 19 at baseline)	-0.06** (-2.95)	0.06	0.10
<i>N</i>	297	154	143
Ever been pregnant (poorest 50 per cent of households, aged 15 to 23 at baseline)	-0.04* (-2.54)	0.13	0.19
<i>N</i>	514	247	267

Notes: Estimations use cross-sectional modelling at the Midline follow-up among panel households and estimates for binary outcomes are reported as marginal effects. See Table 11.1.1 for additional explanatory notes on model specification, including a list of control variables utilized. Robust *t*-statistics were obtained clustering at the different levels of the sampling design are shown in parenthesis and the analysis is re-weighted according to the probability of youth being selected for interview. We exclude youth who report ever having a pregnancy baseline. * 5% significance; ** 1% significance.

Finally, we turn to impacts on early marriage and co-habitation. Here we exclude three per cent of the sample who reported being married or co-habiting at baseline, resulting in a sample size of 2,078 individuals. By follow-up, approximately three per cent of the T sample and four per cent of the C sample report being married or co-habiting (Table 11.1.3). There are no overall or subgroup impacts of the programme on early marriage, both for the youth sample cohort as well as for older youth in households (aged 15 to 23, results not shown). However, it should be noted that the data tracking protocol of the quantitative survey may not be set up to capture dynamics around marriage for young people—particularly for females who typically move to reside with their new partners or in partner’s households. As a robustness check, we add to the sample approximately 225 youth outcomes for those who were not interviewed in the midline, yet were identified in the household listing as having moved for marriage reasons. These results (not presented) indicate the programme had a two pp impact (significant at the 1 per cent level) on decreasing the likelihood of marriage among youth aged 13 to 19 at baseline. Thus this is an area to explore further in conjunction with qualitative findings.

Table 11.1.3: Impacts on Marriage or Co-Habitation among Youth Aged 13 to 19 at Baseline

Dependent Variable	Programme Impact (1)	Midline Treated Mean (2)	Midline Control Mean (3)
Ever married or co-habited	-0.00 (-0.68)	0.03	0.04
<i>N</i>	2,078	1,045	1,033

Notes: Estimations use cross-sectional modelling at the Midline follow-up among panel households and estimates for binary outcomes are reported as marginal effects. See Table 11.1.1 for additional explanatory notes on model specification, including a list of control variables utilized. Robust *t*-statistics were obtained clustering at the different levels of the sampling design are shown in parenthesis and the analysis is re-weighted according to the probability of youth being selected for interview. We exclude youth who report ever being married at baseline. * 5% significance; ** 1% significance.

In the qualitative interviews, several youth directly connected their plans regarding marriage to the cash transfer. It is important to acknowledge that participants perceived that getting married could

lead to their exclusion from the programme, or a reduction in the amount provided to their household, which could influence both survey and IDI responses. The most common response regarding how the transfer impacted sexual debut, pregnancy and marriage was that youth said they could wait, now that their household was receiving the transfer. Among girls, this was framed around the transfer reducing their need to find a husband who could provide for them now that their household had more income. For example, Patuma said she would delay getting married because her goal with marriage was to find a good husband who would provide for her, but now that her family was receiving the transfer, she could wait because her household's basic needs are fulfilled. Among boys, they framed their thinking and decision making around their desire to stay in school and delay becoming a head of household, in addition to the reduced need to provide financially to their household.

Of note, both male and female youth framed their responses around specific ages when they planned to get married. For example, Said, a 15-year-old in-school youth, stated that he wanted to get married when he was 25 and have four children. He said if he got married now, his family would live in poverty since he currently has no way to provide for them and therefore, he wants to wait and stay in school. He believed that without the transfer he most likely would have dropped out of school to do *ganyu* and would have married earlier. Jafar (age 18) planned to marry by 30, after finishing secondary school, because his family now had basic needs covered. Several young women explained their interest in delaying marriage around their understanding that they would lose the benefit of the transfer if they married. Flora said that, before the programme, she had planned to marry by age 20 but now she wants to get married by 25 so that she can still benefit from the transfer that goes to her grandmother. Silvia, similarly, worried that she would lose the benefit if she married and wanted to wait, as she had hopes of moving to the city to open a grocery store.

11.2 Risky Sexual Behaviours

In addition to sexual debut, we examined various indicators of risky sexual behaviours among the sample reporting having engaged in sex, including: 1) characteristics surrounding first sex (own age, partner's age, condom use, and forced nature of sexual experience), 2) characteristics of recent sexual activity (transactional sex—defined as ever giving or receiving money, gifts or favours for sex, number of partners, concurrency of recent sexual experiences, condom use, and most recent partner's age) and 3) lifetime measures of forced and transactional sexual experiences. Incidence of sexual violence may decrease among youth in beneficiary households if the programme lowers incentives to engage in risky sexual behaviours (e.g., transactional sex or engaging in relationships with unequal power dynamics).

The sample size of sexually experienced youth, excluding those who had previously debuted at baseline, was relatively small (n=509), so we were somewhat limited in our ability to draw conclusions about programme impacts on these outcomes. In particular, for this sample we only examine overall impacts, as the sample sizes do not allow further stratification. Table 11.2.1 shows that among youth experiencing debut in the panel period, the average age at debut was approximately 15.3 years old for both T and C samples—whereas average partner age was 16.4 years old for the T sample and 15.9 years old for the C sample. On average, approximately half of the sample used a condom and 13 to 21 per cent characterized their first sex as forced. There are no measurable programme impacts on any of these outcomes.

Table 11.2.1: Impacts on First Sexual Experience among Youth Aged 13 to 19 at Baseline, among Those Reporting Debut

Dependent Variable	Programme Impact (1)	Midline Treated Mean (2)	Midline Control Mean (3)
Age at sexual debut	0.07 (0.52)	15.30	15.27
Partner age at first sex	0.42 (1.48)	16.35	15.93
Condom used at first sex	0.01 (0.15)	0.47	0.51
First sex forced	0.03 (1.27)	0.21	0.13
<i>N</i>	509	238	271

Notes: Estimations use cross-sectional modelling at the Midline follow-up among panel households and estimates for binary outcomes are reported as marginal effects. See Table 11.1.1 for additional explanatory notes on model specification, including a list of control variables utilized. Robust t-statistics were obtained clustering at the different levels of the sampling design are shown in parenthesis and the analysis is re-weighted according to the probability of youth being selected for interview. We exclude youth who report having sexually debuted at baseline. * 5% significance; ** 1% significance.

Turning to recent sexual experiences (within the last 12 months), the sample is further reduced, and varies by indicator (see Table 11.2.2). We find that approximately 35 per cent and 41 per cent of the T and C samples report having given or received money for sex; 57 per cent and 50 per cent of the T and C samples report using a condom at last sex; both samples report just over one sexual partner; approximately 17 per cent of the T and 20 per cent of the C samples report having at least one concurrent partner during the previous 12 months; average partner age was 18.2 years old within the T sample, and 17.4 years old within the C sample. We find impacts on transactional sex, where youth in the programme have a seven pp decrease as compared to control youth. In addition, we find that youth in the treatment group are more likely to have older partners as compared to youth in the control group. We do not view the findings on age as a negative outcome, since the sample is made of both males and females—and having older partners for males is not an undesirable outcome.

Finally, we examined whether youth had ever engaged in transactional sex or ever experienced forced sex. At the midline follow-up, approximately 48 per cent and 52 per cent of the T and C groups (respectively) report engaging in transactional sex. In addition, 29 per cent and 22 per cent of the T and C groups (respectively) report ever experiencing forced sex. We find no measureable programme impacts on either of these outcomes—however, this may be due partially to the limited sample sizes available for detecting effects. In addition, it is possible that there are selection effects driven from the programme delaying sexual debut. For example, those who have debuted may have different levels of risk in T and C groups respectively.

Table 11.2.2: Impacts on Recent Sexual Experience among Youth Aged 13 to 19 at Baseline, among Those Reporting Debut and Recent Partnership

Dependent Variable	Programme Impact (1)	Midline Treated Mean (2)	Midline Control Mean (3)
Gave or received money, gifts or favours for sex with most recent partner (within 12 months)	-0.07* (-2.15)	0.35	0.41
<i>N</i>	452	214	238
Condom used at last sex (within 12 months)	0.06 (1.17)	0.57	0.50
<i>N</i>	364	169	195

Table 11.2.2: Impacts on Recent Sexual Experience among Youth Aged 13 to 19 at Baseline, among Those Reporting Debut and Recent Partnership (Continued)

Dependent Variable	Programme Impact (1)	Midline Treated Mean (2)	Midline Control Mean (3)
Number of sexual partners (last 12 months)	0.11 (1.84)	1.08	1.13
<i>N</i>	509	238	271
Had multiple, concurrent partners (within 12 months)	-0.01 (-0.34)	0.17	0.20
<i>N</i>	359	166	193
Partner age, most recent partner (within 12 months)	1.06** (5.64.)	18.17	17.40
<i>N</i>	347	160	187

Notes: Estimations use cross-sectional modelling at the Midline follow-up among panel households and estimates for binary outcomes are reported as marginal effects. See Table 11.1.1 for additional explanatory notes on model specification, including a list of control variables utilized. Robust t-statistics were obtained clustering at the different levels of the sampling design are shown in parenthesis and the analysis is re-weighted according to the probability of youth being selected for interview. We exclude youth who report having sexually debuted at baseline. * 5% significance; ** 1% significance.

Table 11.2.3: Impacts on Lifetime Experience of Forced or Transactional Sex among Youth Aged 13 to 19 at Baseline, among Those Reporting Debut

Dependent Variable	Programme Impact (1)	Midline Treated Mean (2)	Midline Control Mean (3)
Ever gave or received money, gifts or favours for sex	-0.06 (-1.47)	0.48	0.52
Ever forced to have sex	0.06 (1.20)	0.29	0.22
<i>N</i>	509	238	271

Notes: Estimations use cross-sectional modelling at the Midline follow-up among panel households and estimates for binary outcomes are reported as marginal effects. See Table 11.1.1 for additional explanatory notes on model specification, including a list of control variables utilized. Robust t-statistics were obtained clustering at the different levels of the sampling design are shown in parenthesis and the analysis is re-weighted according to the probability of youth being selected for interview. We exclude youth who report having sexually debuted at baseline. * 5% significance; ** 1% significance.

Regarding transactional sex, in the qualitative interviews, one female youth participant, Lukia, specifically addressed the connection between the transfer and their engagement in transactional sex in the following exchange,

Interviewer: How has *Mtukula Pakhomo* helped you to avoid having sexual intercourse or to want to have sexual intercourse? This money that you have received, has it affected your decisions concerning sex?

Respondent: Yes.

Interviewer: In what way?

Respondent: In the way that everything is readily available so you cannot go out to search for things that you already have.

Lukia was in school and her mother had been very entrepreneurial with the cash transfer, which had elevated the financial, material and overall well-being of her household. She also spoke about the transfer helping her to have more of a long-term plan and vision for her life and more hope for the future, which also could have contributed to her attitudes about engaging in transactional sex.

11.3 Mental Health and Well-being

Mental health is a key component of the World Health Organization's (WHO's) definition of health²¹ and is important for enabling youth to reach their full potential in terms of education and productivity. A study from Malawi in Zomba demonstrated the ability of a SCT to improve female adolescent mental health outcomes, and the authors concluded these impacts were mediated through physical health, increased schooling and family support for education, as well as higher levels of individual consumption and leisure.²² The Kenyan Government's Cash Transfer for Orphans and Vulnerable Children (CT-OVC) programme was found to have positive impacts on mental health (both Hope scale and not experiencing depressive symptoms), but impacts were largely found among males and not females.²³ In addition to being an important component of health and well-being, mental health may be an important mediator—the Kenyan CT-OVC has also shown mental health to be strongly protective among girls in relation to sexual debut.²⁴

We measured mental health using the Centre for Epidemiological Studies-Depression (CES-D) scale.²⁵ We used a 10-item short-form of the CES-D scale, based on a longer 20-item scale and has been validated internationally^{26,27,28} and implemented in Africa.²⁹ The CES-D scale has high internal consistency and reliability in household surveys across a variety of demographic characteristics.³⁰ Questions were asked on a Likert scale regarding feelings and behaviours in the past seven days. To calculate the scale, scores are summed for all 10 questions and can range from 0 to 30, with higher scores reflecting more depressive symptoms. We further constructed a binary outcome variable indicating whether the respondent scored above a validated threshold for depressive symptoms (score > 20). In addition to the CES-D score, we report on indicators of the belief that life will improve in the next year and the next five years. Finally we include measures of future aspirations (ideals) and expectations across four different domains: 1) level of educational attainment, 2) monthly earnings, 3) age at first marriage and 4) number of lifetime children. The Cronbach's alpha, a measure of inter-item reliability for the CES-D at baseline is 0.72 and for the midline is 0.74, indicating a good consistency between indicators (where the rule of thumb is above 0.70). In addition, the correlation between having depressive symptoms and belief that life will improve in the next year are negative for both rounds, indicating relationships in the expected direction among mental health outcomes.

Table 11.3.1 shows that at baseline, we find that the sample of youth in beneficiary households had a CES-D score of 19.6 and 44 per cent qualified as showing depressive symptoms. At the midline follow-up, the same percentage of youth in these household showed depressive symptoms, while an increased per cent (53) of the C youth showed depressive symptoms. Approximately 52 per cent of

²¹ World Health Organization. [cited 2014 5 December]; Available from: <http://www.who.int/about/definition/en/print.html>.

²² Baird, S., J. De Hoop, and B. Özler, *Income shocks and adolescent mental health*. Journal of Human Resources, 2013. **48**(2): p. 370-403.

²³ Kilburn, K., et al. (2014). Effects of a large-scale unconditional cash transfer program on mental health outcomes of young people in Kenya: a cluster randomized trial, University of North Carolina at Chapel Hill.

²⁴ Handa S, Palermo T, Rosenberg M, Pettifor A, Tucker Halpern C, Thirumurthy H. "How does a national poverty program influence sexual debut among Kenyan adolescents?" University of North Carolina.

²⁵ Radloff, L.S., *The CES-D scale a self-report depression scale for research in the general population*. Applied Psychological Measurement, 1977. **1**(3): p. 385-401.

²⁶ Boey, K.W., *Cross K. Widation of a short form of the CES-D in Chinese elderly*. International Journal of Geriatric Psychiatry, 1999. **14**(8): p. 608-617.

²⁷ Bojorquez Chapela, I. and N. Salgado de Snyder, *Psychometric characteristics of the Center for Epidemiological Studies-depression Scale (CES-D), 20-and 10-item versions, in women from a Mexican rural area*. Salud Mental, 2009. **32**(4): p. 299-307.

²⁸ Cheung, Y.B., K.Y. Liu, and P.S. Yip, *Performance of the CESu, and P.S. Yip, ter for Epidemiological Srom: ced abuse, anness in the Community*. Suicide and Life-Threatening Behavior, 2007. **37**(1): p. 79-88.

²⁹ Onuoha, F.N., et al., *Negative mental health factors in children orphaned by AIDS: natural mentoring as a palliative care*. AIDS and Behavior, 2009. **13**(5): p. 980-988.

³⁰ Andresen, E.M., et al., *Screening for depression in well older adults: Evaluation of a short form of the CES-D*. American Journal of Preventive Medicine, 1994.

the youth in the treatment household baseline sample felt that their life would be better in one year, and 72 per cent felt it would be better in five years. Despite trends in the expected direction (in most cases), there are no significant measurable programme impacts on mental health. Subsample analysis shows that there are no protective impacts of the SCTP in any of the subsamples, including by sex, age, household size, poverty status, sex of household head of panel youth status.

Table 11.3.1: Impacts on Mental Health and Affect among Youth Aged 13 to 19 at Baseline

Dependent Variable	Programme Impact (1)	Baseline Treated Mean (2)	Midline Treated Mean (3)	Midline Control Mean (4)
CES-D score	-0.28 (-0.26)	19.59	19.28	20.41
Depressive symptoms (CES-D \geq 20)	-0.00 (-0.05)	0.44,	0.44	0.53
Believes life will be better in 1 year	-0.04 (-1.45)	0.52	0.60	0.58
Believes life will be better in 5 years	-0.07 (-1.90)	0.72	0.70	0.67
<i>N</i>	4,185	1,023	1,075	1,061

Notes: Estimations use difference-in-differences modelling among panel households and estimates for binary outcomes are reported as marginal effects. See Table 11.1.1 for additional explanatory notes on model specification, including a list of control variables utilized. Robust t-statistics were obtained clustering at the different levels of the sampling design are shown in parenthesis and the analysis is re-weighted according to the probability of youth being selected for interview. * 5% significance; ** 1% significance.

We present results of the analysis showing programme impacts on future ideals or aspirations in Table 11.3.2. Because these measures were only collected at midline, we conduct a cross-sectional analysis using youth appearing in wave 2. In addition, because the results for future expectations are very similar in both means and impacts, we do not present them here (available upon request). Overall, youths' ideal level of education attainment is 12 to 13 years, their ideal age at first marriage is 25 to 26 years, and their ideal number of children is approximately four. Despite coefficients in the expected direction, there are no programmatic impacts on aspirations from the cross-sectional analysis comparing T to C youth. We do, however, find a few subgroup impacts: programme youth in small households and in baseline bottom 50 per cent of households have higher ideal earnings, programme youth in in the poorest 50 per cent of households also have higher education aspirations, and younger youth have significantly higher age at marriage aspirations (not shown).

Table 11.3.2: Impacts on Future Aspirations among Youth Aged 14 to 21 at Midline

Dependent Variable	Programme Impact (1)	Midline Treated Mean (2)	Midline Control Mean (3)
Ideal formal education level	0.06 (0.55)	12.81	12.62
Ideal one month earnings (logged MWK)	0.00 (0.13)	10.41	10.32
Ideal age at first marriage	0.13 (0.68)	26.19	25.76
Ideal number of children in lifetime	-0.04 (-0.34)	3.97	4.04
<i>N</i>	2,119	1,067	1,052

Notes: Estimations use cross-sectional modelling at the Midline follow-up among panel households and estimates for binary outcomes are reported as marginal effects. See Table 11.1.1 for additional explanatory notes on model specification, including a list of control variables utilized. Robust t-statistics were obtained clustering at the different levels of the sampling design are shown in parenthesis and the analysis is re-weighted according to the probability of youth being selected for interview. * 5% significance; ** 1% significance.

11.4 HIV Risk

Evidence is largely lacking on SCTs' abilities to prevent the transmission of HIV³¹, despite the aforementioned growing body of evidence on intermediate outcomes (i.e., those related to sexual behaviours). One evaluation in the Zomba district of Malawi found that the programme reduced the odds of contracting HIV³², though there were very few HIV-positive individuals in the sample and the weighted results may have driven the statistically significant findings.³³ We did not collect biomarkers in this study to test actual HIV prevalence— however, we ask youth to assess their own risk of contracting HIV and report a self-assessment measure. For this analysis we exclude youth who respond that they have never heard of HIV/AIDS (11 per cent at baseline and three per cent at the midline follow-up).

At baseline, 18 per cent of youth consider themselves at moderate or high risk for HIV. At the midline follow-up, 16 per cent of the treatment youth and 19 per cent of the control youth consider themselves at moderate or high risk of HIV. Although the coefficient is in the expected direction, we find no measureable impacts on self-assessed HIV risk. In addition, subsample analysis shows that there are no measurable protective impacts of the SCTP in any of the subsamples, including by sex, age, household size, poverty status, and sex of household head of panel youth status.

Table 11.4.1: Impacts on Self-Assessed Risk of HIV among Youth Aged 13 to 19 at Baseline, among Those Who Report Knowing of HIV/AIDS

Dependent Variable	Programme Impact (1)	Baseline Treated Mean (2)	Midline Treated Mean (3)	Midline Control Mean (4)
Self-assessed HIV risk moderate or high	-0.04 (-0.93)	0.18	0.16	0.19
<i>N</i>	3,873	903	1,035	1,019

Notes: Estimations use cross-sectional modelling at the Midline follow-up among panel households and estimates for binary outcomes are reported as marginal effects. See Table 11.1.1 for additional explanatory notes on model specification, including a list of control variables utilized. Robust t-statistics were obtained clustering at the different levels of the sampling design are shown in parenthesis and the analysis is re-weighted according to the probability of youth being selected for interview. We exclude youth who report not knowing about HIV/AIDS. * 5% significance; ** 1% significance.

11.5 Substance Use

The potential for increased expenditures on alcohol and tobacco is often cited as an argument against unconditional SCTs. However, studies to date from these programmes have found little evidence that they increase spending on alcohol and tobacco.^{34,35} For the youth specific analysis, we analyse self-reports of ever having drunk alcohol (more than just a few sips) and ever having smoked. In addition, we collect frequency measures of number of drinks and cigarettes in the past 30 days, however these sample sizes are too small to confidently analyse.

Approximately three per cent of the baseline T sample report having ever having drunk alcohol, and approximately one per cent reported ever smoking a cigarette. Means increase over the panel period by approximately one per cent, with the exception of smoking in the T sample—which stays constant. We find no meaningful impacts on alcohol consumption, and find that the programme significantly

³¹ Pettifor, A., et al., *Can money prevent the spread of HIV? A review of cash payments for HIV prevention*. AIDS and Behavior, 2012. **16**(7): p. 1729-1738.

³² Baird, S.J., et al., *Effect of a cash transfer programme for schooling on prevalence of HIV and herpes simplex type 2 in Malawi: a cluster randomised trial*. The Lancet, 2012. **379**(9823): p. 1320-1329.

³³ Webb, E.L., R.J. Hayes, and J.R. Glynn, *Cash transfer scheme for reducing HIV and herpes simplex type 2*. The Lancet, 2012. **380**(9844): p. 802.

³⁴ The Kenya CT-OVC Evaluation Team, *The impact of the Kenya Cash Transfer Programme for Orphans and Vulnerable Children on household spending*. Journal of Development Effectiveness, 2012. **4**(1): p. 9-37.

³⁵ Evans, D.K. and A. Popova, *Cash Transfers and Temptation Goods: A Review of Global Evidence*. World Bank Policy Research Working Paper, 2014. **6886**.

decreased the cigarette smoking by one pp. However, since the sample of youth who ever report this activity is so small, these results should be taken as suggestive. The outcome means are too small to conduct meaningful subsample analyses, thus these are not reported here.

Table 11.5.1: Impacts on Use of Substances among Youth Aged 13 to 19 at Baseline

Dependent Variable	Programme Impact (1)	Baseline Treated Mean (2)	Midline Treated Mean (3)	Midline Control Mean (4)
Ever smoked cigarettes	-0.01** (-3.20)	0.01	0.01	0.02
Ever drank alcohol, more than a few sips	0.01 (0.43)	0.03	0.04	0.04
<i>N</i>	4,174	1,023	1,070	1,055

Notes: Estimations use difference-in-differences modelling among panel households and estimates for binary outcomes are reported as marginal effects. See Table 11.1.1 for additional explanatory notes on model specification, including a list of control variables utilized. Robust t-statistics were obtained clustering at the different levels of the sampling design are shown in parenthesis and the analysis is re-weighted according to the probability of youth being selected for interview. * 5% significance; ** 1% significance.

11.6 Social Support

Social support, or perceptions of social support, can be a key factor in young peoples’ transitions to adulthood. Social support may provide resources to cope with stress, increase mental health and provide youth with positive role models. There is a possibility that the SCTP could have an impact on social support, if we think that overall cohesion of the household increases and stress decreases with receipt of the transfer. However, the main role of social support may be in moderating programme impacts—that is, youth who perceive higher social support may be better able to translate increases in material resources to favourable outcomes. We investigate perceived social support using the Multidimensional Scale of Perceived Social Support.³⁶ The measures investigate two aspects of perceived support: 1) the number of people in peer and family networks, and 2) the perceived level of social support among friends and family. The level of social support is assessed through an eight-item positively worded scale, and operationalized using an index created through principal component analysis (PCA) (alpha = 0.80). For example, questions regarding level of support include statements such as: “*I can talk about my problems with my friends*” or “*I get the help and support I need from my family.*” Responses vary from one (strongly disagree) to five (strongly agree) for each item. In addition to the index, we operationalize a measure of “high support” indicating a ranking in the top third (tercile) of the index. Since these measures were only collected at the midline follow-up, we report results on the cross-sectional analysis comparing T and C youth.

Table 11.6.1 shows that youth identify just over five friends and just over six family members in their support network. The individual scores on levels of support across the eight questions ranged from 3.3 to 4 (not shown), indicating that, on average, youth either were neutral or agreed to positive statements about their peer or family networks. There were no overall programme impacts on any of the indicators of social support. In addition, we find no positive programme impacts across any of the subgroups.

³⁶ Zimet, G. D., Dahlem, N. W., Zimet, S. G., & Farley, G. K. (1988). The multidimensional scale of perceived social support. *Journal of personality assessment*, 52(1), 30-41.

Table 11.6.1: Impacts on Social Support among Youth aged 14 to 21 at Midline

Dependent Variable	Programme Impact (1)	Midline Treated Mean (2)	Midline Control Mean (3)
Number of friends	-0.37 (-1.45)	5.19	5.14
Number of family members (regular contact)	-0.59 (-1.92)	6.10	6.46
Perceived Social Support scale (PCA)	0.07 (0.74)	-0.09	-0.21
Highest tercile of Perceived Social Support scale (PCA)	-0.01 (-0.67)	0.35	0.38
<i>N</i>	2,126	1,072	1,054

Notes: Estimations use cross-sectional modelling at the Midline follow-up among panel households and estimates for binary outcomes are reported as marginal effects. See Table 11.1.1 for additional explanatory notes on model specification, including a list of control variables utilized. Robust t-statistics were obtained clustering at the different levels of the sampling design are shown in parenthesis and the analysis is re-weighted according to the probability of youth being selected for interview. Perceived Social Support scale (PCA) constructed by aggregating eight questions using principal component analysis. * 5% significance; ** 1% significance.

11.7 Summary

We examine a range of youth-specific outcomes using a unique survey module administered to youth ages 13 to 19 at baseline (14 to 21 at midline). Overall, we find that the SCTP has potential to positively impact the transition to adulthood, particularly related to sexual debut, ever having smoked, current transactional sex, and age of most recent sexual partner. When we look at subgroups, we see a larger number of impacts, particularly for small and poorer households (delay of first pregnancy and impacts on future aspirations). The impacts we do see are largely in line with the magnitude we would expect, and consistent with other studies. The lack of impact on broader outcomes such as mental health, future aspirations, perceived HIV risk, social support, and sexual behaviours (other than debut and transactional sex) may have to do partially with the relatively short length of time between baseline and midline. Since we see impacts on some of the more proximate determinants—for example schooling—of many of these outcomes, impacts may take more time to be realized. In addition, since our sample sizes in some cases are small (for example characteristics of sexual experiences), we may be limited in our ability to detect affects until a larger percentage of the sample reports on these measures.

12. Impacts on Household Resiliency: Assets, Production, Safety Nets, Credit, Shocks and Coping

Resilience has become a key focus of the international development community recently, due to the increasing disruption in food supplies and agricultural productivity caused by climate change, as well as the rising incidence of civil unrest and armed conflict. By providing a steady and predictable source of income, particularly one that is unconditional, the SCTP can potentially strengthen households' ability to respond to and cope with exogenous shocks, and allow them to diversify and strengthen their livelihoods to prevent future fluctuations in consumption. Consequently, this section of the report presents some preliminary findings on the impact of the SCT on resiliency, keeping in mind that at the time of this study, the programme had been operating for only about a year among the study sample, and so the likelihood of observing truly transformative impacts is low.

The definition of resilience is still a matter of some discussion since it is a relatively new concept in economic development. Definitions differ mainly in terms of scope and emphasis on the types of threats to livelihoods that have to be taken into consideration. The Resilience Alliance defines the concept as “The capacity of a system to absorb disturbance and reorganise while undergoing change.”

DFID defines it as “...the ability of countries, communities and households to manage change, by maintaining or transforming living standards in the face of shocks or stresses—such as earthquakes, drought or violent conflict—without compromising their long-term prospects,” while the FAO’s Resilience Measurement Technical Working Group defines it as “...the capacity that ensures adverse stressors and shocks do not have long-lasting adverse development consequences.”³⁷ The common thread through these and other definitions is the notion that resiliency reflects an ability to successfully manage or withstand a shock or stress. Efforts to measure resilience are still very much in their infancy, but Alinov et al.’s (2010) Resilience Index Measurement and Analysis Model (RIMA) is perhaps the most sophisticated measure currently available.³⁸ The dimensions of this index include income and food access, agricultural and non-agricultural assets, access to basic services and safety nets, as well as “adaptive capacity” dimensions, such as human capital.

While the SCTP evaluation survey instruments were not explicitly designed with the objective of measuring resiliency, our survey collected data on many of the indicators that are now commonly used to measure the concept. This gives us the opportunity to provide an initial assessment of the programme’s impact on resiliency. Additionally, the types of households targeted by the SCTP are those that grapple with living conditions that necessitate round-the-clock resiliency to succeed. SCTP households are extremely poor, headed by widows or seniors caring for orphans, and/or containing people with disabilities. Many households do not have sufficient able-bodied adults to generate adequate resources to support children, especially when living in a subsistence farming community. Informed by the notion that resiliency involves being able to manage or withstand a shock, and motivated by the conceptual framework of RIMA, we investigated four domains that were covered by our survey instrument and capture resiliency: 1) agricultural and non-agricultural assets; 2) livelihood diversification and strengthening sources of income; 3) access to transfers, safety nets and credit position; and 4) exposure to shocks and use of non-detrimental coping strategies. We look at each of these in turn and then provide some concluding remarks at the end of this section.

12.1 Agricultural and Non-Agricultural Assets

Agriculture remains the primary economic activity for most of the rural poor, and about 96 per cent of our sample households owned or cultivated land in the 12 months preceding the baseline survey. The inability to own and use basic productivity enhancing implements for farming affects the productive efficiency of these households, or forces them to spend part of their already scarce resources on the rental of implements. Our survey instrument therefore sought information on the use, ownership and expenditure on implements over the last 12 months. The results show that for five primary agricultural implements, the SCTP has not had any effect on the use of agricultural implements (Table 12.1.1). However, ownership of these assets has generally increased among T households, although the increase is only significant for sickles, for which ownership has increased by about six pp. An index of household ‘wealth’, which is calculated using principal components derived from ownership of these five agricultural implements, is also not significant.

We also analysed the actual number of each implement owned, and again found a statistically significant increase in the number of sickles owned (Table 12.1.3). Thus, the sickle ownership has increased both at the extensive and the intensive margins. Finally, when we aggregate all purchases we see that the SCTP has led to a six pp increase in the likelihood that a household has purchased at least one of these implements in the last 12 months, though there does not appear to be an effect on the intensive margin in terms of total expenditure on implements in the last 12 months (Table 12.1.3).

³⁷ Resilience Alliance. 2002. *Key concepts* (available at http://www.resalliance.org/index.php/key_concepts). DFID. 2011. *Defining disaster resilience: a DFID approach paper*. London (available at <https://www.gov.uk/government/publications/defining-disaster-resilience-a-dfidapproach-paper>). Food Security Information Network (FSIN) 2014 “Resilience Measurement Principles”, FSIN Technical Series No.1, January 2014.

³⁸ Alinovi L., D’Errico M., Main E. and Romano D. (2010), *Livelihoods strategies and households resilience to food security: An empirical analysis to Kenya*.

Table 12.1.1: Impacts on Use of Agricultural Implements

Dependent Variable	Program Impact (1)	Baseline Treated Mean (2)	Midline Treated Mean (3)	Midline Control Mean (4)
Asset Index	0.21 (1.73)	-0.14	0.36	0.04
Hand hoe	-0.01 (-0.68)	0.93	0.96	0.96
Axe	0.02 (0.91)	0.22	0.36	0.33
Panga knife	0.02 (0.29)	0.34	0.44	0.43
Sickle	0.07 (1.67)	0.27	0.37	0.34
Watering can	0.00 (0.76)	0.01	0.02	0.02
<i>N</i>	6,733	1,607	1,605	1,760

Notes: Estimations use difference-in-differences modelling among panel households and coefficients for binary outcomes are reported as marginal effects. All estimations control for baseline head of household's characteristics (age in years, sex, indicator of any schooling, indicator of literacy, marital status), household demographic composition and size, indicators for new household members and household member outmigration, and a vector of contemporaneous cluster level prices. Robust t-statistics were obtained clustering at the different levels of the sampling design and are shown in parenthesis. * 5% significance; ** 1% significance.

Table 12.1.2: Impacts on Ownership of Agricultural Implements (share)

Dependent Variable	Program Impact (1)	Baseline Treated Mean (2)	Midline Treated Mean (3)	Midline Control Mean (4)
Hand hoe	0.01 (0.32)	0.87	0.95	0.93
Axe	0.04 (0.87)	0.14	0.24	0.16
Panga knife	0.02 (0.48)	0.24	0.28	0.24
Sickle	0.06** (2.82)	0.18	0.26	0.17
Watering can	0.00 (0.41)	0.01	0.02	0.02
<i>N</i>	6,733	1,607	1,605	1,760

Notes: Estimations use difference-in-differences modelling among panel households and estimates for binary outcomes are reported as marginal effects. See Table 12.1.1 for additional explanatory notes on model specification, including a list of control variables utilized. * 5% significance; ** 1% significance.

We next examine household ownership and purchases of non-agricultural (durable) goods. In times of crises, durable goods could come in handy as collateral to secure a loan from money lenders or other members of the community, or at worst be pawned to deal with the crisis. Our midline survey instrument had questions on the ownership of certain durable goods. Our analysis shows that SCTP beneficiary households were more likely to own a radio/wireless as well as mortar/pestle. We also find that T households spent significantly more on durable goods over the past 12 months than the C households (Table 12.1.4).

Table 12.1.3: Number of Agricultural Implements Owned

Dependent Variable	Program Impact (1)	Baseline Treated Mean (2)	Midline Treated Mean (3)	Midline Control Mean (4)
Hand hoe	0.18 (1.75)	1.80	2.40	2.18
Axe	0.05 (1.33)	0.15	0.25	0.17
Panga knife	0.05 (1.22)	0.25	0.31	0.25
Sickle	0.10** (3.30)	0.19	0.30	0.19
Watering can	-0.00 (-0.35)	0.01	0.02	0.03
Any asset purchase	0.06** (2.85)	0.08	0.20	0.08
Total expenditure on implements	10.34 (1.16)	8.21	20.68	13.46
<i>N</i>	6,733	1,607	1,605	1,760

Notes: Estimations use difference-in-differences modelling among panel households and estimates for binary outcomes are reported as marginal effects. See Table 12.1.1 for additional explanatory notes on model specification, including a list of control variables utilized. * 5% significance; ** 1% significance.

Table 12.1.4: Ownership of Durable Goods

Dependent Variable	Single Difference (1)	Midline Treated Mean (2)	Midline Control Mean (3)
Mobile phone	-0.02 (-1.75)	0.09	0.10
Mortar/pestle	0.12** (6.53)	0.40	0.34
Bed	0.07 (1.21)	0.24	0.17
Table	-0.02 (-1.81)	0.05	0.05
Chair	-0.00 (-0.39)	0.07	0.07
Radio/wireless	0.02* (2.20)	0.08	0.07
Bicycle	0.02 (0.95)	0.12	0.11
Lantern	0.01 (0.66)	0.03	0.02
Expenditure on goods in last 12 months (MWK)	443.61** (5.40)	464.84	142.16
<i>N</i>	3,364	1,604	1,760

Notes: Estimations use difference-in-differences modelling among panel households and estimates for binary outcomes are reported as marginal effects. See Table 12.1.1 for additional explanatory notes on model specification, including a list of control variables utilized. * 5% significance; ** 1% significance.

12.2 Livelihood Diversification and Income Strengthening

A key dimension of resilience is diversifying sources of income in order to reduce the risk associated with relying on a sole income source, as well as strengthening existing income-generating activities to allow for increased savings, which can be used when there is a negative shock to the primary source of income. The primary source of income for SCTP households is agriculture, so we investigated whether the programme has stimulated a move to either a more diverse set of crops or more non-farm enterprise operations, and whether the quantity of each crop produced has increased.

Our analysis shows that, except for pigeon peas (which treatment households appear to have moved away from producing), the SCTP has not had any effect on crop diversification (Table 12.2.1). That said, the SCTP does appear to have had an effect on crop diversification among the households that were the poorest at baseline (i.e. those in the bottom half of the baseline distribution of consumption). At the extensive margin, the baseline bottom 50 per cent of households have intensified the production of groundnuts and cowpeas while reducing the production sorghum and pigeon peas (Table 12.2.2).

Table 12.2.1: Share of Households Harvesting Each Crop

Dependent Variable	Program Impact (1)	Baseline Treated Mean (2)	Midline Treated Mean (3)	Midline Control Mean (4)
Maize	-0.01 (-0.45)	0.91	0.95	0.94
Groundnut	0.08 (1.86)	0.18	0.29	0.20
Rice	-0.01 (-0.90)	0.03	0.04	0.06
Sorghum	-0.02 (-1.55)	0.04	0.02	0.03
Beans	-0.01 (-0.96)	0.03	0.05	0.02
Pigeon pea	-0.07* (-2.03)	0.16	0.19	0.20
Cowpea	0.01 (1.26)	0.02	0.04	0.04
Nkhwani	-0.04 (-1.02)	0.06	0.12	0.13
<i>N</i>	6,733	1,607	1,605	1,760

Notes: Estimations use difference-in-differences modelling among panel households and estimates for binary outcomes are reported as marginal effects. See Table 12.1.1 for additional explanatory notes on model specification, including a list of control variables utilized. * 5% significance; ** 1% significance.

We conducted additional analysis on the quantity of each crop harvested in the last 12 months and found that the SCTP has had a significant positive effect on the quantity of maize and groundnuts harvested. Quantity of maize harvested has increased by about 54 kilograms while the quantity of groundnuts harvested has increased by about 14 kilograms. Total quantity of harvest for the top eight crops (maize, groundnuts, rice, sorghum, beans, pigeon peas, cowpeas and nkhwani) has increased by about 62 kilograms (Table 12.2.3) in T households. The total value of crops produced has also increased by MWK 2,843, and this is statistically significant at the five per cent level. The increase in value of total produce is mainly driven by the increase in value of maize produced, which saw a statistically significant increase of MWK 2,879 (Table 12.2.4).

Table 12.2.2: Share of Households Harvesting Each Crop – Baseline Bottom 50 per cent

Dependent Variable	Program Impact (1)	Baseline Treated Mean (2)	Midline Treated Mean (3)	Midline Control Mean (4)
Maize	-0.02 (-0.80)	0.92	0.96	0.96
Groundnut	0.10* (2.46)	0.13	0.26	0.16
Rice	-0.00 (-0.11)	0.03	0.04	0.05
Sorghum	-0.03** (-3.46)	0.04	0.02	0.03
Beans	-0.01 (-0.41)	0.02	0.05	0.02
Pigeon pea	-0.08* (-2.11)	0.17	0.18	0.18
Cowpea	0.02** (3.11)	0.02	0.05	0.05
Nkhwani	-0.04 (-0.65)	0.06	0.12	0.14
<i>N</i>	6,737	804	805	894

Notes: Estimations use difference-in-differences modelling among panel households and estimates for binary outcomes are reported as marginal effects. See Table 12.1.1 for additional explanatory notes on model specification, including a list of control variables utilized. * 5% significance; ** 1% significance.

Table 12.2.3: Quantity of Crops Produced (Kilograms)

Dependent Variable	Program Impact (1)	Baseline Treated Mean (2)	Midline Treated Mean (3)	Midline Control Mean (4)
Total Harvest	62.03* (2.14)	247.95	424.19	350.47
Maize	54.31* (2.06)	220.88	368.57	303.76
Groundnut	13.97* (2.22)	14.24	32.02	19.84
Rice	-3.10 (-0.86)	0.79	2.89	5.62
Sorghum	-0.06 (-1.38)	0.06	0.00	0.00
Beans	-0.44 (-0.29)	1.64	2.61	1.18
Pigeon pea	-2.68 (-0.37)	7.72	12.95	16.36
Cowpea	0.04 (1.45)	0.06	0.06	0.07
Nkhwani	-0.91 (-0.97)	0.84	2.56	2.55
<i>N</i>	6,733	1,607	1,605	1,760

Notes: Estimations use difference-in-differences modelling among panel households and estimates for binary outcomes are reported as marginal effects. See Table 12.1.1 for additional explanatory notes on model specification, including a list of control variables utilized. * 5% significance; ** 1% significance.

Table 12.2.4: Value of Crops Produced (MWK)

Dependent Variable	Program Impact (1)	Baseline Treated Mean (2)	Midline Treated Mean (3)	Midline Control Mean (4)
Total value of all harvest	2,843.63* (2.58)	15,052.51	20,010.17	15,488.38
Maize	2,879.67* (2.62)	15,039.85	20,007.25	15,453.40
Groundnut	-10.25 (-1.00)	10.68	2.92	5.16
Rice	-25.78 (-1.94)	1.98	0.00	29.82
Pigeon pea	0.00	0.00	0.00	0.00
<i>N</i>	6,733	1,607	1,605	1,760

Notes: Estimations use difference-in-differences modelling among panel households and estimates for binary outcomes are reported as marginal effects. See Table 12.1.1 for additional explanatory notes on model specification, including a list of control variables utilized. * 5% significance; ** 1% significance.

Analysis on crop sales shows a positive significant effect of the SCTP on the proportion of households selling at least one type of crop (an increase of 10 pp). The proportion of households that sold groundnuts increased by five pp in SCTP households (Table 12.2.5). However, the value of actual sales did not record any significant changes (Table 12.2.6).

Table 12.2.5: Share of Households Selling Each Crop

Dependent Variable	Program Impact (1)	Baseline Treated Mean (2)	Midline Treated Mean (3)	Midline Control Mean (4)
Sold at least one type of crop	0.10* (1.99)	0.18	0.36	0.26
Maize	0.01 (0.89)	0.04	0.10	0.09
Groundnut	0.05* (2.11)	0.06	0.16	0.10
Rice	-0.01 (-1.01)	0.00	0.01	0.02
Pigeon pea	0.06 (1.06)	0.06	0.10	0.07
<i>N</i>	6,738	1,608	1,608	1,761

Notes: Estimations use difference-in-differences modelling among panel households and estimates for binary outcomes are reported as marginal effects. See Table 12.1.1 for additional explanatory notes on model specification, including a list of control variables utilized. * 5% significance; ** 1% significance.

Table 12.2.6: Total Sales, by Crop (MWK)

Dependent Variable	Program Impact (1)	Baseline Treated Mean (2)	Midline Treated Mean (3)	Midline Control Mean (4)
Total sales (MWK)	1,147.89 (1.40)	1,123.44	3,682.74	2,533.90
Maize	162.11 (0.45)	196.03	894.94	744.56
Groundnut	632.11 (2.08)	309.45	1,336.46	865.88
Rice	-278.32 (-1.02)	43.45	104.80	370.61
Pigeon pea	303.83 (0.89)	214.59	588.98	349.25
<i>N</i>	6,738	1,608	1,608	1,761

Notes: Estimations use difference-in-differences modelling among panel households and estimates for binary outcomes are reported as marginal effects. See Table 12.1.1 for additional explanatory notes on model specification, including a list of control variables utilized. * 5% significance; ** 1% significance.

Similar to the crop production, the SCTP appears to have had a significant impact on livestock production in many ways. This is an indication of diversification of income sources, as well as a source of food for the households. A household 'wealth' index generated from principal component analysis (PCA) of livestock ownership (goat/sheep, chicken and pig) is positive and statistically significant. The proportion of households that raised goat/sheep increased by about nine pp, while the number of goats/sheep available at the household increased by 0.27 units on average. Both of these were statistically significant. Similarly, the number of households that raised chicken increased by about eight pp, while the number of chickens available at the household increased by 0.45 units. The SCTP impact on the production of these livestock is further re-enforced by the fact that the proportion of households that reported buying each of these livestock in the last 12 months is consistent with the increases in the proportion of households that are raising each type of livestock (Table 12.2.7).

Analysis of the livestock production by baseline consumption status shows that intensification in livestock rising and the increase in number of livestock available is particularly strong among the baseline bottom 50 per cent of households. As can be seen from Table 12.2.8, raising goat/sheep and chicken increased by eight and 13 pp respectively in the baseline bottom 50 per cent of households, compared to the full sample. The livestock asset index is also 0.63 compared to 0.41 for the full sample. We also investigated the ownership of livestock assets (chicken house, poultry kraal, granary, etc.) and found that the SCTP led to a two pp increase in the proportion of households with a chicken house.

One possible driver for this increase in livestock ownership, especially after only five to six transfers, is that in multiple beneficiary FGDs, the participants noted that CSSC representatives regularly encouraged participants to invest in small livestock, so that there would be 'evidence of lasting impact'. This advice seemed to influence how participants spent the transfers, as buying livestock and agricultural inputs were the most common ways beneficiaries noted spending the transfer, after food, clothing, education, and shelter/ rent (in that order). (See Chapter 13.2 for detailed tables).

Table 12.2.7: Livestock Production

Dependent Variable	Program Impact (1)	Baseline Treated Mean (2)	Midline Treated Mean (3)	Midline Control Mean (4)
Livestock Index	0.41** (3.80)	-0.05	0.41	-0.03
Raised goat and/or sheep	0.09** (4.26)	0.11	0.26	0.14
Raised chickens	0.08* (2.00)	0.20	0.32	0.18
Bought goat/sheep in last 12 months	0.09** (13.48)	0.01	0.15	0.02
Bought chickens in last 12 months	0.08** (4.50)	0.04	0.18	0.03
Number of goat and/ or sheep	0.27** (7.78)	0.26	0.63	0.39
Number of chickens	0.45** (4.18)	0.65	1.27	0.59
<i>N</i>	6,733	1,607	1,605	1,760

Notes: Estimations use difference-in-differences modelling among panel households and estimates for binary outcomes are reported as marginal effects. See Table 12.1.1 for additional explanatory notes on model specification, including a list of control variables utilized. * 5% significance; ** 1% significance.

Table 12.2.8: Livestock Production – Baseline Bottom 50 per cent

Dependent Variable	Program Impact (1)	Baseline Treated Mean (2)	Midline Treated Mean (3)	Midline Control Mean (4)
Livestock Index	0.61** (7.91)	-0.19	0.45	-0.14
Raised Goat and or sheep	0.12** (4.19)	0.08	0.27	0.11
Raised Chickens	0.09* (2.32)	0.18	0.33	0.18
Bought Goat in last 12 months	0.13** (10.12)	0.01	0.19	0.02
Bought Chickens in last 12 months	0.08** (5.75)	0.04	0.21	0.04
Number of goat and or sheep	0.27** (3.94)	0.19	0.60	0.28
Number of Chickens	0.60** (4.96)	0.51	1.33	0.50
<i>N</i>	6,733	804	805	894

Notes: Estimations use difference-in-differences modelling among panel households and estimates for binary outcomes are reported as marginal effects. See Table 12.1.1 for additional explanatory notes on model specification, including a list of control variables utilized. * 5% significance; ** 1% significance.

Another avenue for income diversification and strengthening is in the area of non-farm enterprise (NFE) operations. The analysis on the ownership/operation of NFE shows that there was a general decline in the proportion of households which owned/operated a NFE in both SCTP beneficiary and control households over this period. The SCTP does not appear to have had any effect on the ownership of NFE (Table 12.2.9). There is, however, an interesting twist to this. SCTP households are seven pp more likely to have opened a NFE in the last 12 months (Table 12.2.9). This suggest that SCTP households appear to have abandoned more pre-baseline NFEs and reopened new ones to still keep the balance of the proportion of NFEs. Additionally, although SCTP beneficiary households were more likely to have purchased a NFE asset in the last 12 months (more likely for the new NFEs opened), there is no difference in the proportions of households that own assets, nor the value of assets (Table 12.2.9). The question of what types of new enterprises were opened, and which old types were abandoned was interrogated, and as shown in Table 12.2.10, there is a significant shift towards petty trade.

Table 12.2.9: Enterprise Ownership and Operations

Dependent Variable	Program Impact (1)	Baseline Treated Mean (2)	Midline Treated Mean (3)	Midline Control Mean (4)
Enterprise ownership	-0.04 (-1.41)	0.24	0.19	0.16
<i>N</i>	6,731	1,607	1,605	1,758
Ent opened in last 12 months	0.07* (2.56)	0.19	0.23	0.14
Enterprise owns asset	0.09 (1.55)	0.32	0.39	0.37
Asset purchase in last 12 months	0.07** (3.46)	2.00	0.14	0.06
Main decision maker-Female	0.02 (0.78)	0.69	0.71	0.67
Log of profit in last operating month (MWK)	0.03 (0.28)	7.06	7.70	7.57
<i>N</i>	1,521	449	351	297

Notes: Estimations use difference-in-differences modelling among panel households and estimates for binary outcomes are reported as marginal effects. See Table 12.1.1 for additional explanatory notes on model specification, including a list of control variables utilized. * 5% significance; ** 1% significance. Assets purchased in last 12 months are only asked in the follow-up survey so the effect is reported as a single difference between treatment and control households.

Table 12.2.10: Enterprise Type Composition

Dependent Variable	Program Impact (1)	Baseline Treated Mean (2)	Midline Treated Mean (3)	Midline Control Mean (4)
Petty trade	0.32** (5.27)	0.49	0.68	0.46
Charcoal/Firewood	-0.14 (-1.97)	0.32	0.14	0.23
Taxi/Transportation	-0.04** (-3.48)	0.03	0.02	0.03
Home brewery	-0.01 (-0.66)	0.03	0.04	0.01
Crafts and baskets	-0.04 (-0.97)	0.17	0.14	0.16
Fish monger	0.03 (1.57)	0.01	0.04	0.03
<i>N</i>	1,615	472	370	325

Notes: Estimations use difference-in-differences modelling among panel households and estimates for binary outcomes are reported as marginal effects. See Table 12.1.1 for additional explanatory notes on model specification, including a list of control variables utilized. * 5% significance; ** 1% significance.

12.3 Transfers, Safety Nets and Credit

A key component of resilience is having access to networks, whether formal or informal, in the event of an emergency. Our survey instrument gathered information on the receipt of cash transfers from both government and non-government sources (organizations, as well as private individuals), as well as remittances sent to other individuals outside the household. To derive the most benefit from the SCTP, it is essential that the cash transfers act as a complement to these networks and social safety nets, not as a substitute. Our survey instrument sought to find out about access of households to such transfers and social safety nets, and here we examine whether there has been any ‘crowding-out’ effect of the SCTP.

Our analysis on transfers made to, or received by, the household (from family, friends or neighbours who do not live in the household) shows that the SCTP appears not to have had any effect on the transfers made or received by the household, including cash, food or other consumables, labour or time and agricultural implements (Table 12.3.1). Analysis of these responses by baseline consumption status shows that there are no heterogeneous effects level of poverty, except for the fact that the baseline bottom 50 per cent of households were even less likely to give out an agricultural implement or input (Table 12.3.2). Further analysis on the actual amount of cash given out or received shows that the SCTP has not had any impacts on these as well (Table 12.3.3). Thus, as far as transfers to and from the households are concerned, the SCTP does not appear to have had any effect on either the intensive or extensive margins.

Table 12.3.1: Transfers Made and Received

Dependent Variable	Program Impact (1)	Baseline Treated Mean (2)	Midline Treated Mean (3)	Midline Control Mean (4)
Received cash transfer	0.04 (0.80)	0.40	0.48	0.51
Received food or other consumables	-0.05 (-0.95)	0.70	0.70	0.75
Received labour or time	-0.00 (-0.03)	0.32	0.30	0.33
Received agricultural implements or inputs	-0.03 (-0.82)	0.21	0.13	0.15
Gave out cash transfer	0.00 (0.27)	0.05	0.08	0.07
Gave out food or other consumables	0.04 (0.50)	0.22	0.32	0.31
Gave out labour or time	0.00 (0.08)	0.12	0.12	0.14
Gave out agricultural implements or inputs	-0.02 (-1.60)	0.03	0.02	0.03
<i>N</i>	6,729	1,607	1,605	1,756

Notes: Estimations use difference-in-differences modelling among panel households and estimates for binary outcomes are reported as marginal effects. See Table 12.1.1 for additional explanatory notes on model specification, including a list of control variables utilized. * 5% significance; ** 1% significance.

Table 12.3.2: Transfers Made and Received – Baseline Bottom 50 per cent

Dependent Variable	Program Impact (1)	Baseline Treated Mean (2)	Midline Treated Mean (3)	Midline Control Mean (4)
Received cash transfer	0.04 (0.98)	0.31	0.43	0.46
Received food or other consumables	0.00 (0.04)	0.67	0.70	0.77
Received labour or time	0.05 (0.68)	0.24	0.27	0.27
Received agricultural implements or inputs	0.01 (0.20)	0.18	0.12	0.15
Gave out cash transfer	0.02* (2.26)	0.03	0.09	0.07
Gave out food or other consumables	0.07 (1.48)	0.19	0.36	0.34
Gave out labour or time	0.02 (0.55)	0.12	0.14	0.16
Gave out agricultural implements or inputs	-0.01* (-2.43)	0.02	0.02	0.02
<i>N</i>	6,729	804	805	893

Notes: Estimations use difference-in-differences modelling among panel households and estimates for binary outcomes are reported as marginal effects. See Table 12.1.1 for additional explanatory notes on model specification, including a list of control variables utilized. * 5% significance; ** 1% significance.

Table 12.3.3: Amount of In- and Out- Transfers (MWK)

Dependent Variable	Program Impact (1)	Baseline Treated Mean (2)	Midline Treated Mean (3)	Midline Control Mean (4)
Log of cash received	-0.00 (-0.01)	8.03	8.37	8.31
<i>N</i>	3,082	645	760	902
Log of cash given out	-0.03 (-0.14)	6.81	7.06	6.93
<i>N</i>	474	80	157	141

Notes: Estimations use difference-in-differences modelling among panel households and estimates for binary outcomes are reported as marginal effects. See Table 12.1 for additional explanatory notes on model specification, including a list of control variables utilized. * 5% significance; ** 1% significance.

Apart from individuals, the GoM and other non-governmental organizations also provide various social safety nets to which poor households have access. Ideally, there will also not be any ‘crowding-out’ effect of the SCTP on the access to these social safety nets. Table 12.3.4 provides a summary of findings on household benefits from various social safety net programs. We find a significant decline (about four pp) in the proportion of households who benefit from the free maize program, and a very small but statistically significant decline in the households that benefit from the targeted nutrition for children program. It is possible that some SCTP beneficiary households may no longer be eligible for the free maize programme, and this is worth exploring further. Nonetheless, it is encouraging to also see that SCTP households are not systematically being excluded from other social safety net programs.

Table 12.3.4: Benefits Received by Households from Social Safety Net Sources

Dependent Variable	Program Impact (1)	Baseline Treated Mean (2)	Midline Treated Mean (3)	Midline Control Mean (4)
Free maize	-0.04* (-2.19)	0.23	0.23	0.24
Other free food	-0.00 (-0.13)	0.21	0.21	0.19
Food/cash for work	-0.00 (-0.31)	0.10	0.10	0.14
School feeding	0.02 (0.18)	0.23	0.23	0.21
Targeted nutrition for children	-0.00* (-2.36)	0.01	0.01	0.01
Supplemental feeding	0.00 (0.04)	0.01	0.01	0.01
Scholarships/bursaries for secondary school	0.00 (0.11)	0.02	0.02	0.01
Community -based childcare	0.01 (0.59)	0.06	0.06	0.05
Direct cash from others	-0.00 (-1.46)	0.01	0.01	0.00
Voucher for fertilizer (FISP)	-0.08 (-1.62)	0.71	0.71	0.68
<i>N</i>	6,732	1,607	1,605	1,759

Notes: Estimations use difference-in-differences modelling among panel households and estimates for binary outcomes are reported as marginal effects. See Table 12.1.1 for additional explanatory notes on model specification, including a list of control variables utilized. * 5% significance; ** 1% significance.

Participants in beneficiary FGDs tell a slightly different story. In both districts, beneficiaries state that they are less likely to receive support from their community networks in the form of cash or food, as neighbours, family and friends who used to help them would say that they have the SCTP transfer now, and so should not need outside help anymore. Beneficiaries also note that, in several cases, they feel excluded from formal safety net programs, most notably the Fertilizer Input Subsidy Programme (FISP). SCTP beneficiaries cited that they were unable to receive fertilizer coupons for which they had formerly qualified, and some had even taken the matter to the local village heads. While the data demonstrates a slight decline in T household receiving FISP, this impact is not statistically significant. These variances in the qualitative and quantitative data merit further analysis and exploration.

The final domain of interest here is credit behaviour. Without a personal network of friends and relatives, or other public programmes to turn to, poor rural households typically have to borrow money or seek to make purchases on credit in times of crises. Borrowing and purchases on credit are regressive forms of coping that often saddle households with high-interest payments and perpetuate the cycle of dependence. The midline survey asked households about borrowing and purchases on credit. The analysis shows that the SCTP has led to a significant reduction in purchases on credit, and when SCTP households *have* purchased on credit, it was less likely to have been purchases for consumption (Table 12.3.5). The SCTP does not appear to have had any effects on borrowing. The proportion of SCTP beneficiary households who still owe money borrowed before 2013 (prior to programme commencement) has declined in comparison to control households by about two pp, but this difference in decline is not significant. There are also no apparent SCTP impacts on the log of amount still owed and whether households borrowed in the last 12 months.

Analysis of the borrowing and credit purchase behaviour among the baseline bottom 50 per cent of households shows that the impacts on reductions in credit purchase, and credit purchase for consumption are more substantial among this subsample of households, and that baseline bottom 50 per cent of households were also significantly less likely to have applied for a loan and been denied (see Annex E, Table E.3.1)

Table 12.3.5: Borrowing and Credit Purchase Behaviour

Dependent Variable	Program Impact (1)	Baseline Treated Mean (2)	Midline Treated Mean (3)	Midline Control Mean (4)
Still owe money borrowed before 2013	-0.02 (-1.74)	0.07	0.03	0.05
Log of amount still owed	-0.37	7.70	7.79	7.78
Borrowed in last 12 months	-0.03 (-1.76)	0.24	0.22	0.27
Log outstanding on loan in last 12 months	0.08 (0.47)	7.46	7.69	7.59
Applied but refused loan	-0.01 (-1.21)	0.05	0.03	0.03
Purchase on credit	-0.06* (-2.03)	0.30	0.23	0.27
Credit used for consumption	-0.07* (-2.46)	0.27	0.19	0.24
<i>N</i>	6,733	1,607	1,605	1,760

Notes: Estimations use difference-in-differences modelling among panel households and estimates for binary outcomes are reported as marginal effects. See Table 12.1.1 for additional explanatory notes on model specification, including a list of control variables utilized. * 5% significance; ** 1% significance.

12.4 Shocks and Coping Mechanisms

Perhaps more directly related to the issue of resilience is the actual experience of shocks and how the households cope when they experience such shocks. Respondents were asked about a series of negative shocks that could have affected their households over the last 12 months. These shocks are categorized as *covariate shocks* (which typically affect the entire community – such as droughts, floods/landslides) and *idiosyncratic shocks*, which are more household-level specific (such as death of a household member, theft of money, etc.). In Table 12.4.1, we summarize the impacts of the SCTP on the experience of the aggregate shocks as well as some specific shocks.

We find no impacts of the SCTP on the experience of any negative shock, on either covariate or idiosyncratic shocks. We find a significant effect on the proportion of households with a death of a member as well as household breakups.

Table 12.4.1: Experience of Shocks – Last 12 Months

Dependent Variable	Program Impact (1)	Baseline Treated Mean (2)	Midline Treated Mean (3)	Midline Control Mean (4)
Any negative shock	0.02 (0.38)	0.95	0.81	0.78
Any covariate shock	0.01 (0.41)	0.63	0.18	0.14
Any idiosyncratic shock	0.02 (0.37)	0.91	0.78	0.76
End of regular outside assistance	0.01 (0.57)	0.03	0.02	0.03
Illness/Accident shock	0.02 (1.76)	0.18	0.11	0.11
Death of household member	-0.00 (-0.68)	0.04	0.03	0.03
<i>N</i>	6,733	1,607	1,605	1,760

Notes: Estimations use difference-in-differences modelling among panel households and estimates for binary outcomes are reported as marginal effects. See Table 12.1.1 for additional explanatory notes on model specification, including a list of control variables utilized. * 5% significance; ** 1% significance.

We do find impacts of the SCTP on how households respond to the shocks. Among SCTP beneficiary households, use of the cash transfers emerges as the primary coping mechanism for about a quarter of the negative shocks experienced, and we see declines in labour intensification (e.g., *ganyu*) or the use of own savings as coping mechanisms in the face of negative shocks (Figure 12.4.1 and Table 12.4.3). These impacts on negative coping strategies are particularly pronounced among the poorest households. For example, among this group, the SCTP reduces the likelihood of changing eating patterns as a shock response by 16 pp and engaging in *ganyu* by 24 pp (Table 12.4.4). Note that *ganyu* work is typically the labour of ‘last resort’ in rural areas. The ability of the SCTP to reduce the need for the use of this income source is thus, an important finding.

Figure 12.4.1: Mechanisms for Coping with Negative Shocks – Last 12 Months

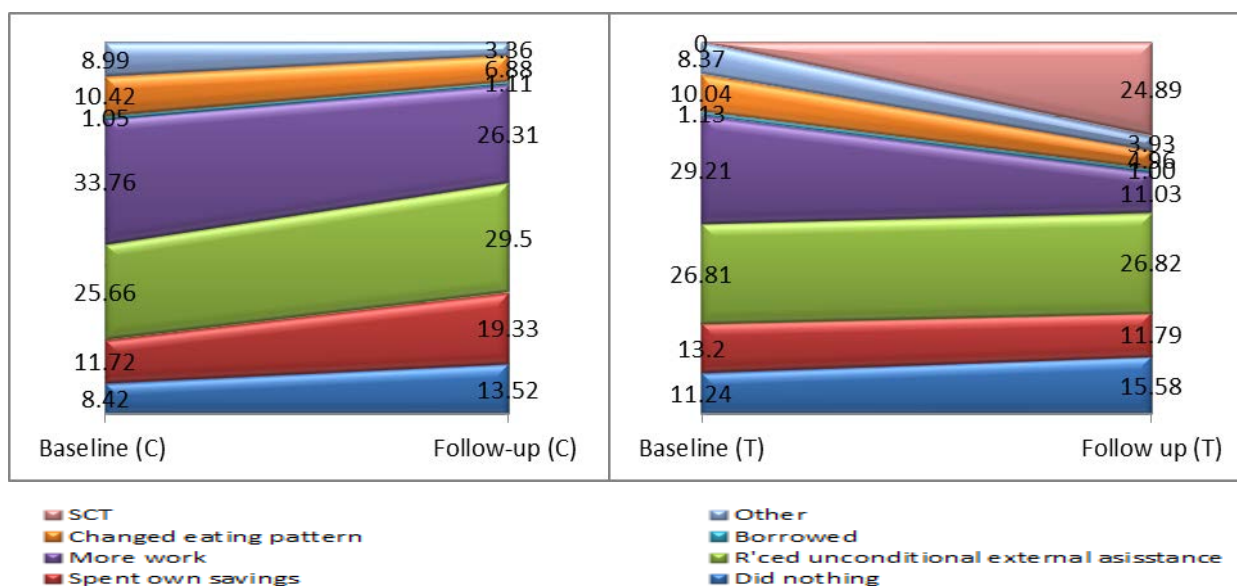


Table 12.4.2: Mechanisms for Coping with Shocks– Last 12 Months (Per Cent)

Coping Mechanism	Baseline Control (1)	Baseline Treatment (2)	Midline Control (3)	Midline Treatment (4)
Did nothing	8.42	11.24	13.52	15.58
Spent own savings	11.72	13.2	19.33	11.79
Received unconditional external assistance	25.66	26.81	29.5	26.82
More work (including <i>ganyu</i>)	33.76	29.21	26.31	11.03
Borrowed	1.05	1.13	1.11	1.00
Changed eating pattern	10.42	10.04	6.88	4.96
Other	8.99	8.37	3.36	3.93
Relied on SCTP transfer				24.89
Total	100.00	100.00	100.00	100.00
<i>N</i>	4,396	4,084	2,980	2,901

Table 12.4.3: Mechanisms for Coping with Negative Shocks – Last 12 Months

Dependent Variable	Program Impact (1)	Baseline Treated Mean (2)	Midline Treated Mean (3)	Midline Control Mean (4)
Did nothing	-0.03 (-0.29)	0.22	0.22	0.21
Own savings	-0.06* (-2.04)	0.19	0.17	0.27
Received external assistance	-0.06 (-0.77)	0.49	0.47	0.47
More work	-0.20** (-4.21)	0.47	0.20	0.41
Borrowed	-0.01 (-0.60)	0.03	0.02	0.02
Changed eating pattern	-0.10 (-1.59)	0.22	0.09	0.13
<i>N</i>	5,818	1,523	1,274	1,366

Notes: Estimations use difference-in-differences modelling among panel households and estimates for binary outcomes are reported as marginal effects. See Table 12.1.1 for additional explanatory notes on model specification, including a list of control variables utilized. * 5% significance; ** 1% significance.

Table 12.4.4: Coping Mechanisms for Negative Shocks – Baseline Bottom 50 per cent

Dependent Variable	Program Impact (1)	Baseline Treated Mean (2)	Midline Treated Mean (3)	Midline Control Mean (4)
Did nothing	0.01 (0.07)	0.21	0.21	0.21
Own savings	-0.07* (-2.16)	0.17	0.19	0.27
Received external assistance	0.05 (0.91)	0.42	0.48	0.42
More work	-0.23** (-3.55)	0.56	0.21	0.48
Borrowed	-0.01 (-1.22)	0.03	0.03	0.03
Changed eating pattern	-0.15** (-3.74)	0.26	0.10	0.14
<i>N</i>	5,818	767	643	691

Notes: Estimations use difference-in-differences modelling among panel households and estimates for binary outcomes are reported as marginal effects. See Table 12.1.1 for additional explanatory notes on model specification, including a list of control variables utilized. * 5% significance; ** 1% significance.

12.5 Summary

Our analysis shows that after a mere 10 to 12 months of receiving an unconditional cash transfer, the resiliency of these poor, labour-constrained households has improved in almost all of the general accepted dimensions of the term. The programme has led to increases in crop production (maize, groundnuts), ownership of livestock (goats/sheep, chicken), ownership of agricultural assets (sickles) and non-agricultural assets (radios), and appears to be diversifying income sources by influencing the establishment of new NFEs. Moreover, enrolment into the programme does not seem to have had a significant negative ‘crowding-out’ effect on private transfers, though it has crowded out the receipt of free maize. Perhaps most interestingly, the transfer has led to a decline in some important negative coping strategies, such as changing eating patterns, purchasing on credit, and engaging in *ganyu* labour; many of these impacts are larger among the baseline bottom 50 per cent households.

13.SCTP Operational Performance

Operational performance was examined through both quantitative surveys, as well as through FGDs with beneficiaries and non-beneficiaries. All study households – both T and C– were asked about child and adult service referrals over the past year to gain insight into the local service environment and understand successes and opportunities for programme linkages. Specifics on knowledge of the SCTP targeting and eligibility requirements were examined quantitatively and qualitatively with both beneficiaries and non-beneficiaries.

Survey questions and guided group discussions regarding programme operations were administered only to beneficiaries, since they were the only ones likely to have direct experience with programme administration. Beneficiary (T) households answered survey questions about their interactions with programme staff, transfer amounts received, experiences collecting their payments, understanding of the targeting process, and how the transfer funds are used. Beneficiary FGDs examined how participants felt about potential social stigma from being in the programme, as well as perceptions of conditionalities.

13.1 Programme Administration: Linkages, Payment Procedures, Transportation and Time Costs, and Reporting Problems

Linkages with other services

All households were asked a series of questions regarding knowledge on availability of social support services in their communities, and whether adults or children in their households had received referrals to, and subsequently used, any social support services in the last 12 months. Just over one-third of households were able to list *any* child support or protection service available in their community. Only 1.7 per cent of all households (1.8 per cent of T households and 1.5 per cent of C households, $p= 0.820$) reported that a child was referred for child protection/support services (e.g., disability, nutrition, etc.). Of those households reporting a child referral, most were referred by a community health worker (38.9 per cent) or a community leader (36.3 per cent) and these children were referred to health (44.8 per cent), school (37.6 per cent), and food (41.8 per cent) services. Only one per cent of households reported that an adult had been referred for support services and received those services in the last 12 months prior to midline.

Payment procedures

Payment Amounts, Frequency and Expected Duration

Table 13.1.1 shows the amount households reported receiving for their last payment and expectations about future payments. The majority of households had received their most recent payment during the month of the midline interview (88.3 per cent). Approximately 56 per cent of households received between MWK 6,000 and 9,999, and 39 per cent reported receiving MWK 2,000 to 5,999. Households reporting very large amounts for their most recent transfer may have been collecting back payments because of missing a previous transfer disbursement.

Participants seemed to understand that the payments are meant to be bimonthly, as 90 per cent of respondents expected to receive their next payment within two months. However, beneficiaries had somewhat mixed expectations about how long into the future they would continue to receive payments, with 40 per cent expecting support to continue for the next two to five years, 18 per cent for longer or the rest of their life, and 34 per cent did not know.

Table 13.1.1: Payment Amounts and Expectations of Frequency and Duration

	N	Per Cent
Amount of last payment (nominal, MWK)	1,561	
0 - 1,999		1.9
2,000 - 5,999		39.2
6,000 - 9,999		55.9
10,000 - 51,000		3.0
When next payment is expected	1,560	
Don't know		4.8
Next 2 months		89.8
Next 2-6 months		5.3
How long in future beneficiaries expect to receive payments	1,555	
0-6 months		2.4
6 months - 1 year		1.2
1 - 2 years		4.0
2-5 years		39.9
Longer/for the rest of their life		18.0
Don't know		34.5

Notes: Payment amounts represent a bimonthly distribution of transfers, and in some cases include the payment of arrears for payments not picked up on previous payment dates.

Transfers Received and Transfer as Share of Baseline Consumption

Table 13.1.2 presents the total transfer amount households received from all six payments between baseline and follow-up. On average, the total annual transfer amount received by households was 22,310.44 MWK, and the average monthly per capita value of the transfer was 520.04 MWK. The transfer share is expressed as the transfer amount divided by baseline consumption (see Annex G for an explanation of how transfer amounts and the transfer share were derived). The transfer represented 18 per cent of baseline consumption among all beneficiary households, with 68 per cent of households having a transfer share less than 20 per cent. The transfer share was highest among the poorest 50 per cent of households; the average transfer share was 25 per cent among the poorest households and over half of these households had a share value greater than 20 per cent of baseline consumption, which may help to explain why midline programme impacts are more likely to be found among the poorest households.

Table 13.1.2: Average Transfer Payment and Transfer Share

	Total	Poorest 50 per cent	Small Hhld	Large Hhld	Female Head
Household Size	4.47	5.49	2.68	6.39	4.49
Real hhld total annual transfer	22,310.44	24,300.44	19,016.44	25,854.96	22,485.93
Real pc total monthly transfer	520.04	412.99	678.39	349.66	520.87
Real Transfer Share	0.18	0.25	0.19	0.17	0.19
Proportion of hhlds with TS<20 per cent	0.68	0.45	0.65	0.71	0.67
N	1,649	818	843	806	1,361

Notes: Transfer values expressed in real August 2013 national prices, MWK. Small households contain four or fewer members. Descriptive statistics are corrected for multi-stage survey design.

Figure 13.1.1 displays the distribution of the transfer share by whether the household was consuming above or below (poorest 50 per cent) the median baseline consumption level. Figure 13.2 separates this distribution by baseline household size and adds information about the sex of the household head. As summarized in Table 13.1.2, the majority of all households had transfer share values below 20 per cent, and the transfer payments represented a larger proportion of consumption for the poorest 50 per cent of households. As shown in Figure 13.1.2, the only beneficiary subpopulation with an average transfer share above 20 per cent is the poorest 50 per cent; this holds across all household sizes.

Figure 13.1.1: Distribution of Transfer Share by Baseline Consumption

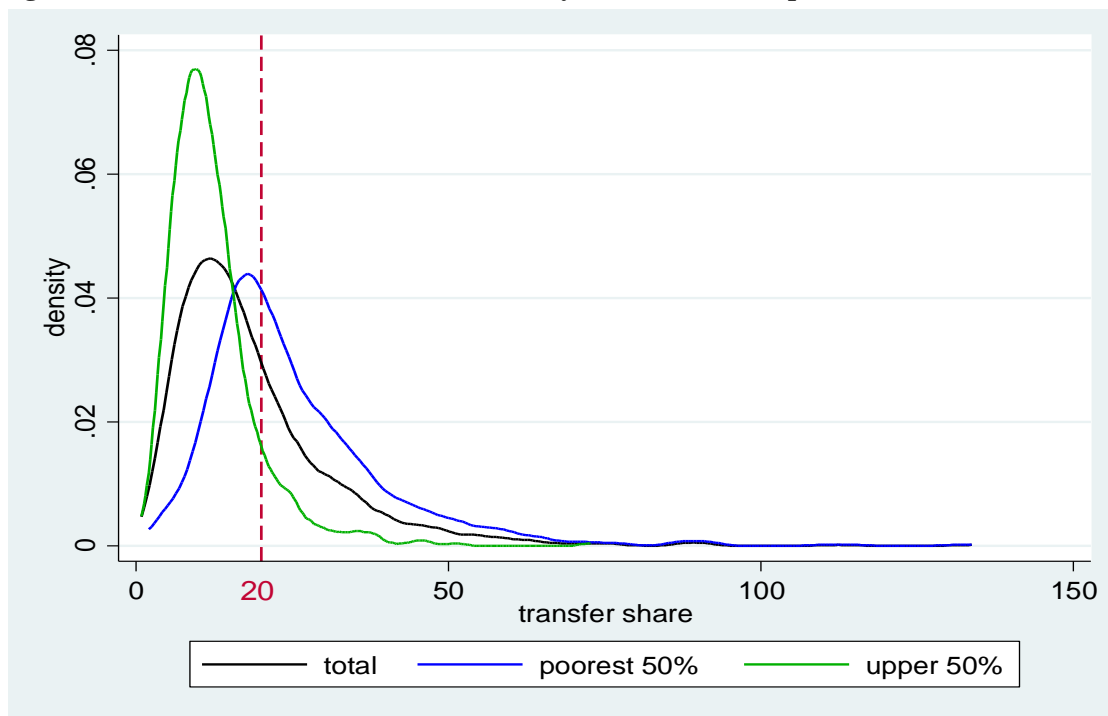
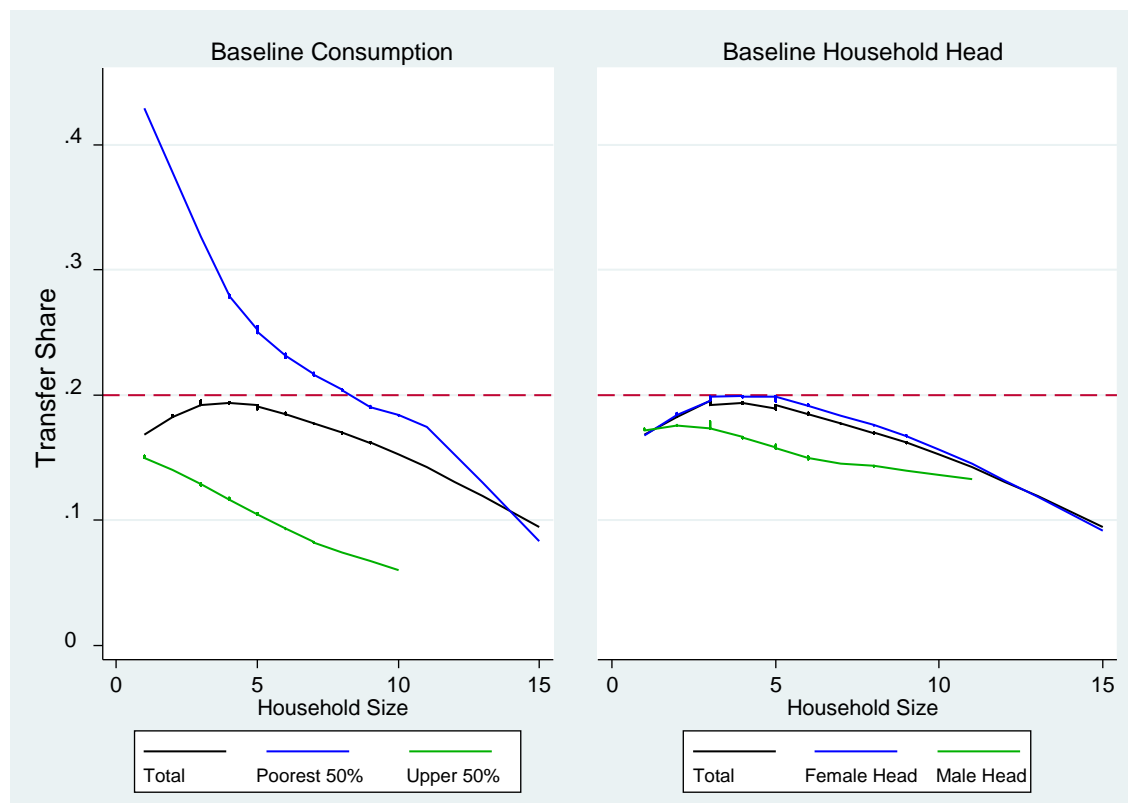


Figure 13.1.2: Transfer as Share of Baseline Consumption



Designating Representatives

About 80 per cent of households had identified someone to represent them at the payment point in the case that the main beneficiary was unable to collect the payment themselves (Table 13.1.3), and nearly 40 per cent reported having ever sent their representative to collect a payment. Under programme rules, if a beneficiary misses picking up their payment at the specified payment date, they are either able to go to the DC’s office to collect the payment, or to receive it along with the next payment. Fewer than three-quarters of beneficiaries understood this, with 12 per cent believing that the payment would be lost and 16 per cent were unsure of how to collect missed payments. Understanding of missed payments differed widely between the two districts – *less than half of the sample of beneficiaries in Salima knew for certain that they could recoup the payment* (45 per cent), and over a quarter were not sure, whereas in Mangochi over 90 per cent knew that the missed payment would be carried over to the next payment period.

Table 13.1.3: Designation of Representative and Knowledge of Procedures for Collecting Missed Payment

	<i>N</i>	Per Cent
Has a representative	1,562	78.9
Ever sent representative to collect payment	1,251	38.1
Think that they can receive missed payments in the future	1,250	
Yes		72.7
No		11.6
Don't know		15.8
Salima district	643	
Yes		44.7
No		28.1
Don't know		27.2
Mangochi district	607	
Yes		90.8
No		0.9
Don't know		8.3

Methods of Informing Beneficiaries of Payment Dates

Programme participants were asked about how they were informed when their last payment was ready for collection. Over half of beneficiary households (54 per cent) were informed by a CSSC member, just under 15 per cent were told by a non-governmental community leader, and 15 per cent were informed by a village chief or government representative. Nearly all respondents were informed in private (96.5 per cent) and felt that the way in which they were told that their payment was available for collection was appropriate (96.9 per cent). Beneficiary FGDs indicated that, in those communities in which people were informed in public, beneficiaries often had uncomfortable encounters with community members and would prefer to be informed in private, whereas in those communities where people are informed privately, beneficiaries seemed content with the way in which they are informed.

In one FGD, beneficiaries reported that *the timing of when they are informed can affect whether or not they are able to receive their payments on time* (critical to achieving many impacts). In this village, participants noted they are sometimes informed late about the payment dates and times, making it challenging to get to the payment point to collect payment.

Social Stigma

Only eight per cent of respondents indicated that it would be a problem for them if others in the community knew they were receiving payments from the SCTP. This may be due to the fact that the beneficiary selection process involves community participation and public meetings, and as such, community members are already aware of their beneficiary status. Those that reported it would be a problem noted that potential problems included jealousy (94 per cent) and having others ask them for money or to care for other family members (36 per cent and 33 per cent, respectively). Respondents also worried that if their SCTP participation status was known, they would be removed from other support programmes (8 per cent) or may not get additional help in times of need (25 per cent). Stories shared by beneficiaries in the FGDs support these findings – uniformly across all TAs, jealousy was cited as a major issue. Some FGD participants noted that they were excluded from FISP, and that community members could be particularly rude, or children particularly demanding of money on and around payment dates.

Corruption and Security Concerns Are Limited

Very few participants reported knowing anyone who 1) paid money to staff at the payment point when collecting a payment (under two per cent), 2) being asked for a monetary gift (less than one per cent), 3) hearing of anyone having to pay money or give a gift to a community chief or village elder when receiving a payment (3 per cent), or 4) having to pay money to anyone in the community when collecting a payment (one per cent). In two TAs, community members cited having been advised by local village heads that *under no circumstances* should they give money to CSSC members either during targeting or payment cycles. It appears that the programme is successfully controlling local corruption.

Nearly all respondents reported feeling safe while collecting their money at a payment point (94 per cent), being generally happy with the way they are treated by programme staff at the collection point (96 per cent), and being happy with their treatment by SCTP representatives (97 per cent).

Transportation and time costs

Table 13.1.4 presents information on the mode and cost of transportation, travel and wait time, and difficulties receiving payments. Very few respondents used a form of motorized transport or a bicycle to reach the payment point – 90 per cent walked, and most beneficiaries did not incur any transportation expenditures (96 per cent). Respondents reported spending between less than one hour to more than a day travelling to and from the payment point, with most only having to travel less than one hour round trip (43 per cent) and just over a quarter reported spending one to two hours. Reported wait times at the SCTP payment point were lengthy; over half of beneficiaries waited between four and nine hours to collect their most recent payment. In FGDs, beneficiaries described arriving at the payment point at 10am and the payment staff would arrive around 2pm. Only 10 per cent of beneficiaries ever had to make multiple trips to collect the same payment, and only three per cent reported losing a transfer disbursement for missing the payment period.

Table 13.1.4: Transportation and Time Costs of Collecting Most Recent SCTP Payment

	N	Per Cent
Transport method for last payment	1,602	
Motorized transport		2.0
Bicycle		5.4
Walk		89.9
Transportation expenditures for last payment	1,562	
Nothing		95.7
50 - 1,200 MWK		2.6
Don't know		1.6
Total travel time to payment point and back	1,563	
Less than 1 hour		42.8
1 to 2 hours		26.4
2 to 3 hours		16.7
3 to 10 hours		11.3
10 to 20 hours		0.3
One day or more		2.6
Wait time at payment point	1,412	
Less than 1 hour		10.2
2 hours		13.9
3 hours		21.5
4 to 9 hours		52.0
One day or more		2.4
Multiple trips to receive the same payment	1,536	9.9
Lost payment because missed payment period	1,558	3.1

Notes: Multiple responses were permitted for transport method for last payment; 'Motorized transport' includes car, taxi, bus, minibus, and motorbike.

Reporting of problems

Programme participants were also asked about their awareness of who to contact in the case of a payment problem (Table 13.1.5). Only 59 per cent knew of someone to contact if they had problems with payment or any other part of the SCTP, and most of those respondents identified payment point staff (38 per cent), a village chief or government representative (35 per cent), or a non-governmental community leader or elder (32 per cent). Less than 14 per cent of beneficiaries said they could contact a CSSC member in case of a problem – in fact, slightly more sample beneficiaries (nearly 15 per cent) indicated that they would contact another beneficiary. Only 10 per cent had ever actually contacted someone with a problem. This combined evidence indicates a clear need for the grievance system that is currently being enhanced and integrated into the SCTP Monitoring Information System (MIS).

Table 13.1.5: SCTP Contacts for Reporting Problems

	N	Per Cent
Aware of someone to contact in case of problems	1,561	
Yes		59.0
No		29.3
Don't know		11.7
Contacts in case of problems	1,602	
Community leader/Non-government/Elder		31.5
Chief/ Government representative		34.5
Another beneficiary		14.8
CSSC member		13.2
Family member		6.6
SSO/SCT desk officer		37.5
Have contacted anyone with a problem	957	10.0

Notes: Multiple responses were permitted for who to contact in case of problems

13.2 Programme Understanding: Eligibility Criteria, Beneficiary Responsibilities, and Perceptions of Conditionality

Eligibility

Both T and C households were asked about their awareness of the SCTP and who they thought was eligible to receive the transfer. Nearly all C sample households were aware of the SCTP and most T and C respondents felt that the programme eligibility criteria were clear (Table 13.2.1). The majority of both groups believed that very poor households and the elderly were eligible. In FGDs, caregivers of OVCs were also mentioned frequently as being eligible, as were households with children in school.

Slightly more than half of T households thought that caring for orphans was an eligibility requirement (52 per cent). Despite the fact that the programme is targeted to ultra-poor households that are labour-constrained, with considerations for disability, old age, chronic illness, and not being able to work, fewer than 10 per cent of T households in the sample mentioned that having few able bodied members was an eligibility requirement. However, 23 per cent identified chronic illness and 22 per cent identified handicaps as criteria for programme eligibility.

When beneficiaries in the sample were asked about why they believed their own household to be eligible for the SCTP, 81 per cent responded that it is because they are very poor, 37 per cent responded it is because there were elderly household members, and 20 per cent responded it is because they are caring for orphans. Only four per cent thought they met eligibility requirements specifically because household members were unable to work, but as stated above, eight per cent cited chronic illness and seven per cent cited disability as reasons for their selection into the programme. FGD participants had a wide range of stories of how or why they thought they had been identified as potential beneficiaries, from the physical conditions of their households, to having many children in the household. In both beneficiary and non-beneficiary FGDs, participants seemed to feel that the appropriate households were receiving the SCTP, however, in all cases they noted that the programme needed to expand to cover more households, as some who were not receiving the program were perceived to have an equal level of need.

Table 13.2.1: Understanding of SCTP Eligibility Criteria

	<u>Total</u>		<u>Treatment</u>		<u>Control</u>	
	N	Per Cent	N	Per Cent	N	Per Cent
Aware of SCTP	3,357	97.3	1,602	100.0	1,755	94.8
Perceived eligibility criteria	3,357		1,602		1,755	
Caring for orphans		45.6		52.4		39.0
Caring for many children		11.6		13.1		10.0
Chronically ill		22.0		23.4		20.7
Widowed		14.3		18.0		10.8
Unable to work		7.6		9.7		5.7
Handicapped		20.1		21.8		18.5
Elderly		58.0		62.8		53.3
Very poor		83.6		88.1		79.4
Not enough to eat		8.5		11.0		6.1
Think eligibility criteria are clear	3,255		1,599		1,656	
Strongly disagree		9.4		9.3		9.5
Disagree		4.8		2.0		7.6
Neutral		11.9		3.9		20.0
Agree		25.2		25.9		24.5
Strongly agree		48.8		58.9		38.4
Beneficiary perception about why they were selected			1602			
Caring for orphans				20.0		
Caring for many children				8.0		
Chronically ill				8.1		
Widowed				9.7		
Unable to work				3.8		
Handicapped				7.0		
Elderly				37.3		
Very poor				81.0		
Not enough to eat				8.3		

Perceptions of beneficiary responsibilities and programme rules

Treatment households were asked about their perceptions of beneficiary responsibilities and programme rules (Table 13.2.2). Eighty per cent of beneficiary households thought that they must follow certain rules in order to continue receiving payments. Of those households that believed there were programme conditionalities, most believed that they were required to use funds to purchase school supplies (70 per cent), invest in farm or non-farm business (59 per cent), or provide adequate food and nutrition for children (57 per cent). Half of these households reported being informed about specific rules of the SCTP by a SCTP programme representative (i.e., at a community awareness session), and one-third by staff at the payment point. FGDs echoed this, as all but one beneficiary FGD mentioned that the beneficiaries are advised on how to spend the money by programme representatives (e.g., CSSC members or SCTP staff), and in two FGDs, they cited that these announcements would take place before each payment. Over two-thirds of households who thought there were programme rules believed that they would be kicked out of the SCTP for failing to comply with rules, but only 26 per cent reported thinking that anyone was checking to see if cash transfer families are following the rules. Beneficiaries in the FGDs described households being encouraged to buy livestock as a symbol of the lasting impacts of *Mtukula Pakhomo*, so that when the programme is finished, there would be evidence of its impact. They also noted being encouraged to buy clothing for children, school fees and/or supplies, and adequate food for their children.

Table 13.2.2: Perceptions of SCTP Conditionality

	N	Per Cent
Believe that SCTP households must follow rules	1,562	80.9
Rules	1,270	
Enrolment/attendance in primary school		27.2
Enrolment/attendance in secondary school		8.7
Purchase of school supplies		70.2
Immunization/obtain under-five health card		3.2
Growth monitoring		8.7
Adequate food and nutrition for children		57.4
Clean and appropriate clothing for children		34.5
Invest in farm or non-farm business		59.4
Pay off debt		5.0
Who informed you of rules (if anyone)	1,270	
SCTP representative		52.2
Payment point staff		33.3
Consequences for not following rules	1,270	
Nothing		31.6
Kicked out of programme		64.8
Other		1.9
Believe adherence to SCTP rules is monitored	1,270	26.4

Notes: Respondents were allowed to list up to three rules; 'Other' includes go to jail and penalty fine

Use of transfer funds

Lastly, households were asked about their use of the transfer. The main respondents were generally reported to be the main decision maker for how the transfer payment is used (87 per cent; 83 per cent of households in which the head is not widowed), and most make these decisions alone (61 per cent; 56 per cent of households with a non-widowed head), but transfer funds were reported to benefit all household members in nine out of 10 households. Most households used transfer funds to purchase food (87 per cent); other common uses included clothing and shoes (45 per cent), pay formal government education fees (43 per cent), and paying for rent or shelter (40 per cent). Just over one-fifth of households used transfer funds to purchase livestock and other agricultural inputs (See Chapter 12.1). Very few households reported saving transfer funds (one per cent). The use of funds for clothing, shoes, and schooling align with the high percentage of households who believed purchasing school supplies and clean clothing for children was a requirement for continuation in the programme. Male-headed households were less likely to use the funds for government education, housing, or clothing (40 per cent, 35 per cent, and 38 per cent, respectively), but were more likely to use the funds to purchase agricultural inputs (22 per cent). In all FGDs, participants reported being advised on what they should spend the money on, mainly by CSSC members and village headmen. When asked about community impacts, non-beneficiaries were also knowledgeable about what beneficiaries were advised to spend the transfers on.

Table 13.2.3: Beneficiary Use of SCTP Funds

	N	per cent
Household head is main decision maker	1,602	87.2
Who is consulted about transfer use	1,562	
Head decides alone		61.4
Spouse		17.0
Other adult family member		15.1
Children		2.6
All family members		2.5
Someone else in community		1.8
Transfer funds benefit all household members	1,602	92.9
Main things transfer payment is used for		
Food		87.3
Meat/fish/poultry		7.8
Buying food prepared outside of household		2.7
Cell phone/airtime		1.3
Livestock		23.9
Agricultural inputs		20.7
Formal government education		43.4
Other education		9.2
Health care		20.1
Shelter/rent		39.8
Clothing/shoes		44.5
Investment/small business		6.6
Savings/Village savings		1.1

Notes: Multiple responses allowed for use of transfer funds

13.3 Summary

The analysis of the operations module has revealed that, by and large, the programme is operating successfully and beneficiaries are satisfied with the services received. A few areas of improvement, however, are noted in the analysis. First among these is the wait time at payment points, which routinely exceeded four hours, a major cost for participants. There are also some informational issues that the programme may need to address. In Salima, for example, nearly half of respondents did not know that they could receive a payment in arrears if they missed a payment date.

The fact that over 80 per cent of respondents believed there are conditions associated with the programme is also a concern; this (false) perception may make household feel forced to spend the transfer in a sub-optimal manner. For example, the expenditure results show significant impacts on clothing and education, precisely the areas where there are perceived conditions, yet there are no significant impacts on food expenditure.

14. Conclusion

As is evidenced throughout this report, the Midline Impact Evaluation demonstrates that the SCTP is having important impacts on a number of key focus areas targeted by the programme. However, as these impacts reflect 12 month results, it may be too early to detect statistically significant impacts on a number of desired outcomes. Nevertheless, in many cases, the transfer had stronger effects on the baseline bottom 50 per cent in terms of consumption, given that the relative size of the transfer is much greater for those households (23 per cent of their baseline consumption).

Significant impacts were found on consumption, notably clothing, furnishings, education, and miscellaneous goods and services, suggesting that households are using the cash to improve material well-being and invest in their children's education. These results are in line with where expected investment would occur, given the qualitative data collected at baseline on community perceptions of the stages of progress that occur when households are moving out of poverty.³⁹

With regard to health, we find significant impacts on chronic illness, occurrence of illness or injury in the past two weeks, seeking treatment at a health facility for illness/injury, and both the incidence and amount of medical expenditure in the four weeks before the survey. Programme impacts on treatment-seeking behaviours and expenditure levels for illness/injury are particularly strong for beneficiary households that were in the poorest 50 per cent at baseline, suggesting that baseline poverty intensity is an important moderator of programme impact on health service use.

Of particular note is the large impact on school enrolment, in the range of 13-15 percentage points—these are some of the largest schooling impacts produced for any cash transfer programme anywhere in the world, exceeding even those reported for conditional cash transfers in Mexico and Colombia where school enrolment is actually a requirement to receive cash. These results point to the strong demand on the part of households for schooling, and is consistent with strong positive impacts on educational spending, and on shoes, a key barrier to school attendance for young people, particularly secondary aged children. Indeed the programme has had an important impact (16 percentage points) on ensuring that children age 5-17 have a change of clothes, a blanket and a pair of shoes.

For youth ages 13 to 19 at baseline, the SCTP shows potential protective effects on outcomes related to the safe transition to adulthood, in particular, delaying sexual debut, reducing the likelihood of ever having smoked, and of reducing risky behaviours with current partners, such as engaging in transactional sex. For small household and those that were in the poorest 50 per cent at baseline, there are also significant impacts on delaying the age of first pregnancy and on increasing youths' future aspirations. As noted above, the lack of overall impact on outcomes such as mental health, future aspirations, perceived HIV risk, social support, and sexual behaviours (other than debut and transactional sex) may be related to the relatively short time over which we have observed midline impacts. Another explanation is that for some indicators, sample sizes are quite small, limiting our ability to detect impacts at this time.

Measures of resiliency for treatment households also show that the SCTP has protective effects, enabling households to withstand common shocks experienced by rural agricultural households. Beneficiary households have invested in small livestock (goats/ sheep and chickens), and increased ownership of agricultural assets (in particular sickles) and of non-farm enterprises. Impacts are most notable in the poorest 50 per cent of households here as well, where the cash transfer is found to be a critical safety net, allowing households to avoid resorting to negative coping strategies, such as reducing quantity and quality of food, purchasing on credit, and engaging in *ganyu* labour.

³⁹ Malawi SCTP Baseline Report (2014), available at: http://www.cpc.unc.edu/projects/transfer/countries/malawi/copy_of_MalawiSCTPBaselineReportrev2014July8.pdf

Overall, programme operations are running relatively smoothly and communities are satisfied that the programme identifies household that are among the most vulnerable, although FGD participants in all four TAs unanimously agreed that they believe the number of household that are in need of the programme is greater than that being reached at present. Beneficiaries are also satisfied with their treatment by programme staff. Payments have been administered on a regular basis since they began in March 2014, although wait times at the pay points often exceed four hours. Other evidence points to the fact that programme communications at the central and local levels could be improved. Programme administrators, particularly in Salima, should focus on clarifying how and when missed payments can be received. More importantly, it was found that 80 per cent of respondents believed there are conditions associated with the programme. This false perception may influence households to spend the transfer in a sub-optimal manner, prioritizing consumption of other items (livestock, clothing and schooling) over basic needs, such as food, even when such needs are still unfulfilled.

While the impacts at midline on several indicators of interest were not found to be significant, this should be evaluated in the context that 1) these are early (12-month) impact results, and 2) at the time of midline data collection, over 70 per cent of sample beneficiaries were receiving transfer sizes that were less than 20 per cent of their baseline consumption, a critical threshold for achieving widespread impacts.⁴⁰ These factors may have weakened the overall ‘intensity of treatment’ during this evaluation period, limiting the impacts we find at midline.

However, endline data collection is currently planned for October 2015. New transfer levels have been approved and are expected to go into effect in May 2015. These significantly higher amounts will have been in effect for at least six months when endline data is collected. The transfer will also have had ample time to affect longer-term behaviours, and achieve impacts on a number of outcomes of interest. The midline results in combination with endline results will give GoM a more complete picture of how the real value of the transfer impacts outcomes, in order to make effective, evidence-based policy decisions that have tangible impacts on the lives of Malawi’s most vulnerable households.

⁴⁰ David, Benjamin & Handa, Sudhanshu. 2015. *How much do programmes pay? Transfer size in selected national cash transfer programmes in Africa*. The Transfer Project Research Brief 2015-09. Chapel Hill, NC: Carolina Population Center, UNC-Chapel Hill. Available at: http://www.cpc.unc.edu/projects/transfer/publications/briefs/TransferProjectBrief_201509_TransferSize.pdf

Annex A: Summary of Malawi SCTP Study Design

A.1 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 Annex A for details.) The names of all TAs in a district were put into a hat⁴¹ and two TAs were selected at random for each TA. In Salima, Maganga and Ndindi TAs⁴² were selected and in Mangochi, Jalasi and M'bwana Nyambi TAs were selected. Once the TAs were selected for the study, MoGCDSW 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. The 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 A.3.

Table A.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

A.2 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 interviewed⁴³ 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

⁴¹ TAs that already had the programme were excluded from the random selection process. For this reason three TAs in Salima and four in Mangochi were excluded from the randomization exercise.

⁴² 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.

⁴³ 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.

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-eligible households from the two districts. Non-eligible households were selected randomly, and as such, include both poor and wealthier households.

Table A.2.1 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

A.3 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 programme 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.

Annex B: Data Collection Instruments

Figure B.1.1: Midline Follow-up Survey and Interview Guide Topics

QUANTITATIVE

Household Survey

Mortality and Changes in Household Membership
 Roster and Orphan Status
 Education — 3+ years
 Health — All
 Disability— 10+ years
 Child Health and Anthropometry— 0-5 years
 Child Health Knowledge*
 Fertility— women ages 12-49
 Time-Use (chores, agriculture, other)— ages 6+
 Labour (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
 Access to Educational and Health Facilities and Programmes*
 Shocks and Coping Strategies
 Expenditures
 Land-Use
 Crop Production and Sales
 Agriculture and Livestock
 Hired Labour
 Sustainable Land Management
 Housing Conditions
 Durable Goods*
 Operations*

Young Person's Module— ages 14-22

Future Aspirations and Expectations
 Expectations for Future Quality of Life and Health
 Social Support and Attitudes*
 Raven's Test for Logical Reasoning
 Mental Health
 Sexual Activity
 Risk Taking Behaviours
 Time Preference

Community Survey

Access to Educational and Health*
 Facilities and Services
 Agricultural Resources
 Agricultural Prices
 Ganyu Wage Rates
 External Shocks
 Community Services and Benefits
 Community Norms and Culture (Alcohol and Violence)*
 Prices of Food and Non-Food Items

QUALITATIVE

Caretaker In-Depth Interview

Personal Background
 Household Makeup
 Household Economy
 SCTP Experience & Impacts*
 Aspirations and Expectations for Children*
 Social Networks
 Health and Family Well-Being

Youth In-Depth Interview

Personal Background
 Household Economy
 SCTP Experience & Impacts*
 Education and School Experience
 Child Labour and Time Use *
 Personal Network Inventory
 Family Support Systems
 Well-Being
 Sexual Behaviour

Key Informant Interviews*

SCTP Impacts on the Community

Focus Group Discussions

Knowledge of SCTP*
 Social Stigma*
 Community Impacts*
 Programme Challenges, Recommendations, and Potential Linkages*

* Modules added to instruments at midline.

Annex C: Mean Differences at Baseline for Attrition Analysis

C.1 Selective Attrition

Table C.1.1: Individual-Level Characteristics Comparisons (Control versus Treatment for Households in both the Baseline and Follow-Up Surveys)

Variables	Control		Treatment		Mean Diff	Diff SE	p-value
	Mean	N1	Mean	N2			
Age (in years)	25.02	8,123	25.88	7,357	0.86	0.46	0.20
Child under-five	0.15	8,123	0.15	7,357	0.00	0.01	0.99
Child ages 5 – 17	0.50	8,123	0.48	7,357	-0.01	0.02	0.56
Adult (18 – 64)	0.25	8,123	0.25	7,357	-0.00	0.02	0.86
Elderly (65 and older)	0.13	8,123	0.15	7,357	0.02	0.01	0.21
Orphan	0.20	8,123	0.22	7,357	0.02	0.02	0.48
Female	0.57	8,123	0.57	7,357	-0.00	0.01	0.94
Chronic illness	0.15	8,123	0.18	7,357	0.02	0.01	0.05
Any disability	0.04	8,123	0.04	7,357	-0.00	0.01	0.99
Currently in school	0.37	8,123	0.36	7,357	-0.01	0.01	0.19

Notes: Orphan includes both single and double orphans. Weighted results; standard errors obtained considering multi-stage sampling design.

Table C.1.2: Household's Main Respondent Characteristics Comparisons (Control versus Treatment for Households in both the Baseline and Follow-Up Surveys)

Variables	Control		Treatment		Mean Diff	Diff SE	p-value
	Mean	N1	Mean	N2			
Female	0.85	1,761	0.83	1,608	-0.02	0.01	0.31
Age (in years)	57.02	1,761	58.96	1,608	1.95	1.35	0.29
Widowed	0.42	1,761	0.44	1,608	0.02	0.03	0.56
Divorced/separated	0.26	1,761	0.23	1,608	-0.03	0.02	0.19
Currently in school	0.01	1,761	0.01	1,608	0.00	0.00	0.29
Ever attended school	0.30	1,761	0.30	1,608	-0.00	0.02	0.95
Highest grade completed							
Less than primary	0.70	1,761	0.71	1,608	0.00	0.02	0.93
Primary	0.02	1,761	0.02	1,608	-0.00	0.01	0.64
Secondary or more	0.00	1,761	0.00	1,608	0.00	0.00	0.51

Notes: Weighted results; standard errors obtained considering multi-stage sampling design.

Table C.1.3: Household Demographic Characteristics Comparisons (Control versus Treatment for Households in both the Baseline and Follow-Up Surveys)

Variables	Control		Treatment		Mean Diff	Diff SE	p-value
	Mean	N1	Mean	N2			
Household size	4.55	1,761	4.52	1,608	-0.02	0.11	0.84
Number of children 0 – 5	0.67	1,761	0.67	1,608	-0.00	0.04	0.94
Number of children 5 – 17	2.26	1,761	2.19	1,608	-0.07	0.13	0.63
Number of adults	1.13	1,761	1.11	1,608	-0.02	0.07	0.78
Number of elderly	0.60	1,761	0.68	1,608	0.07	0.05	0.24
Number or orphans	0.89	1,761	0.98	1,608	0.09	0.12	0.53
Household with disabled people	0.11	1,761	0.11	1,608	0.00	0.02	0.89

Notes: Weighted results; standard errors obtained considering multi-stage sampling design.

Table C.1.4: Household Welfare Variables Comparisons (Control versus Treatment for Households in both the Baseline and Follow-Up Surveys)

Variables	Control		Treatment		Mean Diff	Diff SE	p-value
	Mean	N1	Mean	N2			
Per capita expenditure	48,071.46	1,746	50,470.52	1,586	2,399.05	4,379.37	0.64
Per capita food expenditure	37,296.73	1,746	39,425.37	1,586	2,128.64	2,814.25	0.53
Poor	0.69	1,761	0.66	1,608	-0.02	0.06	0.72
Ultra poor	0.40	1,761	0.38	1,608	-0.02	0.06	0.76
Gap poor	41.56	1,223	41.46	1,092	-0.10	2.53	0.97
Gap ultra-poor	31.05	724	31.43	639	0.38	2.23	0.88
Severity poor	22.18	1,223	21.94	1,092	-0.24	2.23	0.92
Severity ultra-poor	14.03	724	13.86	639	-0.18	1.55	0.92
Compared to neighbours, households feels that they are worse off	0.51	1,761	0.57	1,608	0.06	0.05	0.35
Compared to friends, households feels that they are worse off	0.48	1,761	0.52	1,608	0.03	0.03	0.39
On which step are you today 1(poor) to 6 (rich)	1.20	1,761	1.20	1,608	-0.00	0.03	0.94
On which step are most of your neighbours today 1(poor) to 6 (rich)	1.86	1,761	1.91	1,608	0.06	0.06	0.48
On which step are most of your friends today 1(poor) to 6 (rich)	1.88	1,761	1.94	1,608	0.06	0.06	0.44
Worried that household did not have enough food in the past 7 days	0.82	1,761	0.84	1,608	0.01	0.03	0.71
Number of meals taken per day	1.95	1,761	1.91	1,608	-0.04	0.06	0.61
Ate over one meal per day	0.82	1,761	0.80	1,608	-0.02	0.02	0.45
Number of months maize lasted from harvest	3.92	1,760	3.94	1,608	0.02	0.14	0.88
Maize lasted at least 3 months	0.50	1,761	0.49	1,608	-0.01	0.03	0.74
Number of months maize in the grainery will last	1.20	1,740	1.20	1,597	-0.00	0.16	0.99
Maize will last at least 3 months	0.10	1,761	0.10	1,608	0.00	0.02	0.94

Notes: Weighted results; standard errors obtained considering multi-stage sampling design.

Table C.1.5: Household Productivity Variables Comparisons (Control versus Treatment for Households in both the Baseline and Follow-Up Surveys)

Variables	Control		Treatment		Mean Diff	Diff SE	p-value
	Mean	N1	Mean	N2			
Owned any enterprise	0.23	1,761	0.24	1,608	0.01	0.02	0.58
Earnings from enterprise in the past month	2,243.10	413	2,640.18	419	397.08	232.45	0.23
Hired any help for enterprise	0.01	415	0.00	423	-0.00	0.00	0.54
Households with adult(s) working in the formal wage sector	0.06	1,761	0.05	1,608	-0.01	0.01	0.47
Households with adult(s) working ganyu labour	0.59	1,761	0.56	1,608	-0.03	0.05	0.57
Average number of days ganyu for household	89.92	1,057	89.97	933	0.05	9.23	1.00
Average ganyu wage per day per household	509.57	1,056	574.92	933	65.35	13.33	0.04
Agricultural household	0.96	1,761	0.96	1,608	-0.00	0.01	0.51
Agricultural inputs							
Irrigation	0.05	1,761	0.05	1,608	-0.00	0.01	0.89
Fertilizer	0.66	1,761	0.67	1,608	0.01	0.05	0.86
Organic fertilizer	0.26	1,761	0.23	1,608	-0.02	0.04	0.60
Pesticides	0.02	1,761	0.03	1,608	0.01	0.01	0.37
Number of acres cultivated (mean)	1.49	1,684	1.41	1,542	-0.07	0.11	0.58
Cultivated							
Under one acre	0.24	1,684	0.26	1,542	0.01	0.02	0.50
One to two acres	0.52	1,684	0.49	1,542	-0.03	0.02	0.25
Two to four acres	0.20	1,684	0.22	1,542	0.02	0.02	0.52
Over four acres	0.03	1,684	0.03	1,542	0.00	0.01	0.86
Hired any farm help	0.04	1,761	0.04	1,608	0.01	0.00	0.35
Sold any crops	0.24	1,598	0.22	1,477	-0.02	0.02	0.39
Crops Sold							
Maize	1.00	337	0.98	324	-0.02	0.01	0.25
Groundnuts	0.36	337	0.37	324	0.01	0.10	0.92
Soya beans	0.44	337	0.31	324	-0.13	0.08	0.24
Rice	0.07	1,639	0.05	1,505	-0.02	0.04	0.67
Tanaposi	0.05	1,639	0.07	1,505	0.03	0.02	0.29
Agricultural assets owned							
Hand hoe	0.29	1,761	0.31	1,608	0.02	0.02	0.56
Slasher	0.01	1,761	0.01	1,608	-0.01	0.00	0.06
Axe	0.13	1,761	0.14	1,608	0.01	0.02	0.72
Panga Knife	0.21	1,761	0.23	1,608	0.02	0.04	0.66
Sickle	0.18	1,761	0.18	1,608	-0.00	0.02	0.96
Purchased Hand hoe	0.06	1,539	0.08	1,403	0.02	0.01	0.20
Purchased Slasher	0.03	33	0.00	15	-0.03	0.00	
Purchased Axe	0.02	222	0.02	215	0.01	0.01	0.68
Purchased Panga Knife	0.03	399	0.02	403	-0.00	0.01	0.94
Purchased Sickle	0.04	324	0.05	293	0.01	0.01	0.54
Livestock owned							
Calf	0.00	1,761	0.00	1,608	-0.00	0.00	0.80
Cow	0.00	1,761	0.00	1,608	0.00	0.00	0.91
Bull/Ox	0.00	1,761	0.00	1,608	-0.00	0.00	0.44
Donkey or mule/horse	0.00	1,761	0.00	1,608	-0.00	0.00	0.39
Goat and/or sheep	0.10	1,761	0.10	1,608	0.01	0.02	0.72
Pig	0.00	1,761	0.00	1,608	0.00	0.00	0.48
Chickens	0.15	1,761	0.16	1,608	0.01	0.01	0.45
Other livestock	0.03	1,761	0.03	1,608	0.00	0.01	0.66
Purchased Goat and/or	0.15	174	0.09	170	-0.06	0.02	0.11
Sheep							
Purchased Chickens	0.19	327	0.19	326	0.00	0.03	0.92
Purchased other livestock	0.21	57	0.16	52	-0.05	0.00	
Fishing Household	0.01	1,761	0.01	1,608	-0.00	0.00	0.22
Household sells fish	0.33	26	0.19	11	-0.14	0.00	
Hired fishing help	0.00	1,761	0.00	1,608	-0.00	0.00	0.39

Notes: Weighted results; standard errors obtained considering multi-stage sampling design.

Table C.1.6: Household Other Income and Shocks Variables Comparisons (Control versus Treatment for Households in both the Baseline and Follow-Up Surveys)

Variables	Control		Treatment		Mean Diff	Diff SE	p-value
	Mean	N1	Mean	N2			
Any transfers made out of household	0.33	1,761	0.29	1,608	-0.05	0.03	0.30
Any transfers received	0.85	1,761	0.80	1,608	-0.05	0.02	0.12
Value of transfers received	49,362.93	1,761	42,257.14	1,608	-7,105.80	4,128.93	0.23
Value of transfers made out of household	3,800.82	1,761	3,978.21	1,608	177.39	620.91	0.80
Total maize received	1.25	1,761	1.41	1,608	0.16	0.37	0.70
Credit Constrained-has loan but wants to borrow more	0.43	493	0.48	410	0.06	0.06	0.44
Credit constrained-does not have loans	0.44	1,761	0.47	1,608	0.03	0.06	0.69
Credit constrained-purchases on credit	0.70	1,676	0.68	1,527	-0.02	0.05	0.71
Any safety net programme assistance	1.12	1,761	1.14	1,608	0.02	0.11	0.86
Safety Net Programme							
Free Maize	0.16	1,761	0.16	1,608	0.00	0.04	1.00
Free Food (other than Maize)	0.13	1,761	0.16	1,608	0.02	0.05	0.69
Food/Cash-for-Work Programme	0.09	1,761	0.07	1,608	-0.02	0.01	0.26
School Feeding Programme	0.13	1,761	0.16	1,608	0.03	0.04	0.51
Free Distribution of Likuni Phala to Children and Mothers (Targeted Nutrition Programme [TNP])	0.01	1,761	0.01	1,608	-0.00	0.00	0.74
Vouchers or coupons to buy fertilizers or seeds (FISP)	0.54	1,761	0.54	1,608	-0.00	0.05	0.93
Community Based Childcare (CBCC)	0.02	1,761	0.03	1,608	0.00	0.01	0.81
Total shocks household experienced	2.46	1,761	2.53	1,608	0.07	0.18	0.72
Shocks							
Drought/Irregular Rains	0.64	1,761	0.60	1,608	-0.04	0.03	0.40
Floods/Landslides	0.06	1,761	0.09	1,608	0.03	0.04	0.56
Unusually High Costs of Agricultural Inputs	0.42	1,761	0.47	1,608	0.04	0.08	0.65
Unusually High Prices for Food	0.82	1,761	0.84	1,608	0.02	0.04	0.66
Serious Illness or Accident of Household Member(s)	0.17	1,761	0.18	1,608	0.01	0.01	0.60

Notes: Weighted results; standard errors obtained considering multi-stage sampling design.

Table C.1.7: Youth Outcome Indicators Comparisons (Control versus Treatment for Households in both the Baseline and Follow-Up Surveys)

Variables	Control		Treatment		Mean Diff	Diff SE	p-value
	Mean	N1	Mean	N2			
Ever been married	0.02	1,026	0.03	1,020	0.01	0.01	0.25
Ever been pregnant	0.07	514	0.11	478	0.04	0.04	0.45
Currently pregnant	0.02	514	0.03	478	0.01	0.02	0.55
Ever had sex	0.30	1,023	0.34	1,019	0.04	0.03	0.33
Age at sexual debut	13.82	303	14.19	335	0.36	0.13	0.10
Partner age at first sex	14.35	302	15.17	335	0.82	0.28	0.10
Condom used at first sex	0.36	305	0.34	336	-0.02	0.04	0.70
Forced, tricked or pressured into first sex	0.22	307	0.26	337	0.05	0.02	0.18
Given or received money for sex with most recent partner (last 12 months)	0.58	203	0.49	228	-0.09	0.03	0.11
Condom used at last sex (last 12 months)	0.44	204	0.39	226	-0.05	0.06	0.50
Number of sex acts in the last 3 months	1.68	202	1.96	225	0.27	0.41	0.58
Unprotected sex (last 3 months)	0.43	123	0.36	133	-0.07	0.09	0.50
Partner age, most recent partner (last 12 months)	15.94	195	16.86	222	0.92	0.49	0.20
Ever given or received money for sex	0.52	307	0.48	336	-0.05	0.06	0.48
Ever forced, tricked or pressured into sex in lifetime	0.24	307	0.41	336	0.17	0.06	0.10
CES-D	20.27	1,023	19.59	1,022	-0.67	0.79	0.48
Depressive symptoms (CES-D \geq 20)	0.50	1,023	0.44	1,022	-0.06	0.06	0.43
Believes life will be better in 1 year	0.49	1,023	0.52	1,022	0.04	0.02	0.22
Believes life will be better in 5 years	0.67	1,021	0.72	1,020	0.06	0.02	0.10
Ravens test score (8 items)	1.64	1,026	1.60	1,024	-0.03	0.07	0.69
Self-assessed risk of HIV is moderate or high	0.16	916	0.18	904	0.02	0.05	0.78
Ever smoked cigarettes	0.01	1,026	0.01	1,024	0.00	0.00	0.76
Ever drank alcohol, more than a few sips	0.03	1,026	0.03	1,024	0.01	0.00	0.42

Notes: Weighted results; standard errors obtained considering multi-stage sampling design.

Table C.1.8: Youth Background Indicators Comparisons (Control versus Treatment for Households in both the Baseline and Follow-Up Surveys)

Variables	Control		Treatment		Mean Diff	Diff SE	p-value
	Mean	N1	Mean	N2			
Age (years)	15.34	1,026	15.40	1,024	0.06	0.11	0.62
Male	0.49	1,026	0.53	1,024	0.04	0.01	0.10
Head ever attended school	0.35	1,026	0.34	1,024	-0.01	0.03	0.80
Head literate	0.24	1,026	0.20	1,024	-0.04	0.02	0.20
Head female	0.87	1,026	0.86	1,024	-0.00	0.02	0.90
Head age	53.27	1,026	55.34	1,024	2.07	1.68	0.34
Head widow	0.37	1,026	0.40	1,024	0.03	0.05	0.56
Head never married	0.04	1,026	0.05	1,024	0.00	0.03	0.95
Household members 6-11 years	1.31	1,026	1.26	1,024	-0.05	0.08	0.61
Household members 12-17 years	1.87	1,026	1.86	1,024	-0.01	0.09	0.90
Household members 18-65 years	1.61	1,026	1.59	1,024	-0.02	0.11	0.87
Household members 65 and over	0.45	1,026	0.48	1,024	0.03	0.04	0.57
Numbers of persons in household	5.99	1,026	5.92	1,024	-0.07	0.16	0.71
Household members per sleeping room	5.61	1,026	5.66	1,023	0.05	0.21	0.84
HH member moved away past 12 months	0.15	1,026	0.11	1,024	-0.03	0.03	0.38
at least 1 person joined hh since Aug2013	0.29	1,026	0.32	1,024	0.04	0.02	0.15
District indicator (Salima)	0.48	1,026	0.44	1,024	-0.04	0.07	0.65
Price of maize grain per Kilo	177.32	1,026	163.97	1,024	-13.35	24.31	0.64
Price of rice per Kilo	341.94	1,026	330.85	1,024	-11.08	22.62	0.67
Price of beans per Kilo	444.13	1,026	445.59	1,024	1.47	44.10	0.98
Price of tomatoes per Heap	44.46	1,026	68.52	1,024	24.06	9.18	0.12
Price of beef per Kilo	1,102.39	1,026	1,191.80	1,024	89.42	98.51	0.46
Price of salt per Sachet/Tube	32.20	1,026	24.11	1,024	-8.08	3.49	0.15
Price of sugar per Kilo	348.52	1,026	410.43	1,024	61.91	64.36	0.44
Price of cooking oil per Sachet/Tube	50.48	1,026	42.68	1,024	-7.81	15.12	0.66
Price of bar soap per Piece	74.78	1,026	71.98	1,024	-2.81	4.91	0.63
Price of panadol per Piece	16.28	1,026	19.95	1,024	3.67	3.05	0.35

Notes: Weighted results; standard errors obtained considering multi-stage sampling design.

C.2 Overall Attrition

Table C.2.1: Individual-Level Characteristics Comparisons (Remaining Sample versus Drop-Out Households)

Variables	Left		Remaining		Mean Diff	Diff SE	p-value
	Mean	N1	Mean	N2			
Age (in years)	27.15	598	25.44	15,480	-1.70	0.63	0.11
Child under-five	0.17	598	0.15	15,480	-0.02	0.01	0.19
Child ages 5 – 17	0.44	598	0.49	15,480	0.05	0.03	0.21
Adult (18 – 64)	0.24	598	0.25	15,480	0.01	0.01	0.60
Elderly (65 and older)	0.17	598	0.14	15,480	-0.03	0.01	0.09
Orphan	0.17	598	0.21	15,480	0.04	0.03	0.35
Female	0.60	598	0.57	15,480	-0.02	0.01	0.17
Chronic illness	0.19	598	0.16	15,480	-0.03	0.01	0.08
Any disability	0.06	598	0.04	15,480	-0.02	0.01	0.21
Currently in school	0.32	598	0.36	15,480	0.05	0.04	0.35

Notes: Orphan includes both single and double orphans. Weighted results; standard errors obtained considering multi-stage sampling design.

Table C.2.2: Household’s Main Respondent Characteristics Comparisons (Remaining Sample versus Drop-Out Households)

Variables	Left		Remaining		Mean Diff	Diff SE	p-value
	Mean	N1	Mean	N2			
Female	0.75	162	0.84	3,369	0.09	0.02	0.04
Age (in years)	59.08	162	57.98	3,369	-1.10	1.81	0.61
Widowed	0.48	162	0.43	3,369	-0.05	0.05	0.39
Divorced/separated	0.25	162	0.25	3,369	-0.01	0.03	0.87
Currently in school	0.01	162	0.01	3,369	-0.01	0.00	0.35
Ever attended school	0.29	162	0.30	3,369	0.01	0.02	0.71
Highest grade completed							
Less than primary	0.71	162	0.70	3,369	-0.01	0.02	0.73
Primary	0.02	162	0.02	3,369	-0.00	0.01	0.84
Secondary or more	0.00	162	0.00	3,369	0.00	0.00	0.13

Notes: Weighted results; standard errors obtained considering multi-stage sampling design.

Table C.2.3: Household Demographic Characteristics Comparisons (Remaining Sample versus Drop-Out Households)

Variables	Left		Remaining		Mean Diff	Diff SE	p-value
	Mean	N1	Mean	N2			
Household size	3.55	162	4.54	3,369	0.98	0.09	0.01
Number of children 0 – 5	0.61	162	0.67	3,369	0.06	0.05	0.34
Number of children 5 – 17	1.58	162	2.22	3,369	0.64	0.10	0.02
Number of adults	0.85	162	1.12	3,369	0.27	0.05	0.04
Number of elderly	0.62	162	0.64	3,369	0.02	0.02	0.47
Number or orphans	0.60	162	0.93	3,369	0.33	0.11	0.10
Household with disabled people	0.21	162	0.11	3,369	-0.10	0.06	0.23

Notes: Weighted results; standard errors obtained considering multi-stage sampling design.

Table C.2.4: Household Total Expenditure, Poverty, Food Security and Shocks Comparisons (Remaining Sample versus Drop-Out Households)

Variables	Left		Remaining		Mean Diff	Diff SE	p-value
	Mean	N1	Mean	N2			
Per capita expenditure	54,482.80	154	49,251.48	3,332	-5,231.32	2,738.46	0.20
Per capita food expenditure	42,051.15	154	38,343.74	3,332	-3,707.41	1,947.57	0.20
Poor	0.56	162	0.67	3,369	0.11	0.03	0.08
Ultra poor	0.32	162	0.39	3,369	0.06	0.03	0.16
Gap poor	40.19	92	41.51	2,315	1.32	1.25	0.40
Gap ultra-poor	29.38	52	31.23	1,363	1.85	2.11	0.47
Severity poor	21.02	92	22.07	2,315	1.05	0.81	0.33
Severity ultra-poor	12.95	52	13.95	1,363	1.00	1.57	0.59
Compared to neighbours, households feels that they are worse off	0.53	162	0.54	3,369	0.01	0.05	0.80
Compared to friends, households feels that they are worse off	0.49	162	0.50	3,369	0.01	0.03	0.79
On which step are you today 1 (poor) to 6 (rich)	1.22	162	1.20	3,369	-0.02	0.05	0.70
On which step are most of your neighbours today 1 (poor) to 6 (rich)	1.86	162	1.88	3,369	0.02	0.06	0.73
On which step are most of your friends today 1 (poor) to 6 (rich)	1.90	162	1.91	3,369	0.00	0.04	0.96
Worried that household did not have enough food in the past 7 days	0.82	162	0.83	3,369	0.01	0.03	0.76
Number of meals taken per day	1.88	162	1.93	3,369	0.05	0.03	0.29
Ate over one meal per day	0.78	162	0.81	3,369	0.03	0.02	0.36
Number of months maize lasted from harvest	3.24	162	3.93	3,368	0.69	0.16	0.05
Maize lasted at least 3 months	0.39	162	0.49	3,369	0.11	0.02	0.04
Number of months maize in the granary will last	1.07	159	1.20	3,337	0.13	0.10	0.31
Maize will last at least 3 months	0.09	162	0.10	3,369	0.01	0.01	0.63

Notes: Weighted results; standard errors obtained considering multi-stage sampling design.

Table C.2.5: Household Productivity Variables Comparisons (Remaining Sample versus Drop-Out Households)

Variables	Left		Remaining		Mean Diff	Diff SE	p-value
	Mean	N1	Mean	N2			
Owned any enterprise	0.19	162	0.23	3,369	0.05	0.04	0.40
Earnings from enterprise in the past month	3,849.98	34	2,444.66	832	-1,405.32	741.29	0.20
Hired any help for enterprise	0.02	34	0.01	838	-0.02	0.02	0.50
Households with adult(s) working formal wage sector	0.06	162	0.05	3,369	-0.00	0.01	0.90
Households with adult(s) working ganyu labour	0.44	162	0.58	3,369	0.13	0.08	0.25
Average number of days ganyu for household	91.35	77	89.94	1,990	-1.40	10.92	0.91
Average ganyu wage per day per household	541.61	77	540.98	1,989	-0.64	37.33	0.99
Agricultural household	0.91	162	0.96	3,369	0.05	0.03	0.27
Agricultural inputs							
Irrigation	0.01	162	0.05	3,369	0.03	0.01	0.09
Fertilizer	0.56	162	0.66	3,369	0.10	0.04	0.15
Organic fertilizer	0.21	162	0.25	3,369	0.03	0.02	0.26
Pesticides	0.01	162	0.02	3,369	0.02	0.01	0.22
Number of acres cultivated (mean)	1.11	149	1.45	3,226	0.34	0.08	0.05
Cultivated							
Under one acre	0.39	149	0.25	3,226	-0.14	0.03	0.03
One to two acres	0.44	149	0.51	3,226	0.07	0.02	0.08
Two to four acres	0.17	149	0.21	3,226	0.04	0.01	0.10
Over four acres	0.00	149	0.03	3,226	0.03	0.00	0.02
Hired any farm help	0.06	162	0.04	3,369	-0.01	0.01	0.36
Sold any crops	0.21	137	0.23	3,075	0.02	0.03	0.63
Crops Sold							
Maize	0.98	30	0.99	661	0.01	0.02	0.63
Groundnuts	0.24	30	0.36	661	0.12	0.07	0.22
Soya beans	0.38	30	0.38	661	-0.00	0.09	0.96
Rice	0.08	140	0.06	3,144	-0.02	0.01	0.20
Tanaposi	0.09	140	0.06	3,144	-0.04	0.03	0.35
Agricultural assets owned							
Hand hoe	0.32	162	0.30	3,369	-0.02	0.09	0.84
Slasher	0.02	162	0.01	3,369	-0.01	0.01	0.58
Axe	0.11	162	0.13	3,369	0.02	0.03	0.54
Panga Knife	0.22	162	0.22	3,369	0.00	0.02	0.86
Sickle	0.16	162	0.18	3,369	0.02	0.04	0.60
Purchased Hand hoe	0.06	133	0.07	2,942	0.01	0.01	0.49
Purchased Axe	0.00	18	0.02	437	0.02	0.00	0.05
Purchased Panga Knife	0.00	40	0.03	802	0.03	0.01	0.09
Purchased Sickle	0.03	30	0.05	617	0.02	0.03	0.61
Livestock owned							
Calf	0.00	162	0.00	3,369	0.00	0.00	0.08
Cow	0.00	162	0.00	3,369	0.00	0.00	0.38
Bull/Ox	0.00	162	0.00	3,369	0.00	0.00	0.39
Donkey or mule/horse	0.07	162	0.10	3,369	0.03	0.01	0.10
Pig	0.09	162	0.16	3,369	0.06	0.02	0.12
Chickens	0.01	162	0.00	3,369	-0.01	0.01	0.39
Other livestock	0.02	162	0.03	3,369	0.01	0.01	0.52
Purchased Goat and/or Sheep	0.00	13	0.12	344	0.12	0.01	0.01
Purchased Chickens	0.28	25	0.19	653	-0.09	0.17	0.66
Fishing Household	0.02	162	0.01	3,369	-0.01	0.01	0.32
Hired fishing help	0.00	162	0.00	3,369	0.00	0.00	0.39

Notes: Weighted results; standard errors obtained considering multi-stage sampling design.

Table C.2.6: Household Other Income and Shocks Variables Comparisons (Remaining Sample versus Drop-Out Households)

Variables	Left		Remaining		Mean Diff	Diff SE	p-value
	Mean	N1	Mean	N2			
Any transfers made out of household	0.24	162	0.31	3,369	0.07	0.01	0.03
Any transfers received	0.84	162	0.82	3,369	-0.02	0.03	0.52
Value of transfers received	95,029.60	162	45,853.78	3,369	-49,175.81	39,390.29	0.34
Value of transfers made out of household	3,793.09	162	3,888.42	3,369	95.34	405.27	0.84
Total maize received	1.35	162	1.33	3,369	-0.02	0.11	0.88
Credit Constrained-has loan but wants to borrow more	0.46	42	0.45	903	-0.00	0.05	0.93
Credit constrained-does not have loans	0.39	162	0.45	3,369	0.06	0.04	0.26
Credit constrained- purchases on credit	0.72	149	0.69	3,203	-0.02	0.03	0.52
Any safety net programme assistance	0.87	162	1.13	3,369	0.27	0.12	0.15
Safety Net Programme							
Free Maize	0.15	162	0.16	3,369	0.01	0.02	0.47
Free Food (other than Maize)	0.11	162	0.14	3,369	0.04	0.02	0.14
Food/Cash-for-Work Programme	0.04	162	0.08	3,369	0.03	0.01	0.04
School Feeding Programme	0.10	162	0.15	3,369	0.05	0.06	0.50
Vouchers or coupons to buy fertilizers or seeds (FISP)	0.43	162	0.54	3,369	0.11	0.03	0.07
Community Based Childcare (CBCC)	0.02	162	0.02	3,369	0.01	0.01	0.39
Total shocks household experienced	2.46	162	2.49	3,369	0.03	0.11	0.84
Shocks							
Drought/Irregular Rains	0.56	162	0.62	3,369	0.06	0.04	0.24
Floods/Landslides	0.08	162	0.07	3,369	-0.01	0.01	0.38
Unusually High Costs of Agricultural Inputs	0.42	162	0.44	3,369	0.02	0.03	0.55
Unusually High Prices for Food	0.80	162	0.83	3,369	0.03	0.02	0.28
Serious Illness or Accident of Household Member(s)	0.17	162	0.17	3,369	-0.00	0.02	0.99

Notes: Weighted results; standard errors obtained considering multi-stage sampling design.

Table C.2.7: Youth Outcome Indicators at Baseline (Remaining sample versus Drop-Outs)

Variables	Remaining		Left		Mean Diff	Diff SE	p-value
	Mean	N1	Mean	N2			
Ever been married	0.02	1,332	0.05	714	0.03	0.01	0.10
Ever been pregnant	0.06	622	0.14	370	0.08	0.04	0.17
Currently pregnant	0.02	622	0.04	370	0.02	0.02	0.48
Ever had sex	0.29	1,327	0.38	715	0.08	0.03	0.08
Age at sexual debut	13.81	373	14.30	265	0.48	0.29	0.24
Partner age at first sex	14.50	373	15.20	264	0.70	0.31	0.15
Condom used at first sex	0.33	372	0.38	269	0.05	0.02	0.17
Forced, tricked or pressured into first sex	0.26	375	0.23	269	-0.03	0.04	0.55
Given or received money for sex with most recent partner (last 12 months)	0.52	249	0.53	182	0.01	0.04	0.82
Condom used at last sex (last 12 months)	0.40	250	0.42	180	0.02	0.05	0.70
Number of sex acts in the last 3 months	1.67	248	2.05	179	0.39	0.15	0.12
Unprotected sex (last 3 months)	0.37	141	0.42	115	0.05	0.09	0.63
Partner age, most recent partner (last 12 months)	16.47	243	16.42	174	-0.05	0.20	0.82
Ever given or received money for sex	0.48	375	0.53	268	0.05	0.05	0.45
Ever forced, tricked or pressured into sex in lifetime	0.34	374	0.33	269	-0.00	0.03	0.93
CES-D	19.85	1,331	20.05	714	0.20	0.22	0.46
Depressive symptoms (CES-D \geq 20)	0.46	1,331	0.49	714	0.04	0.02	0.19
Believes life will be better in 1 year	0.51	1,331	0.50	714	-0.01	0.02	0.74
Believes life will be better in 5 years	0.71	1,327	0.68	714	-0.03	0.02	0.23
Ravens test score (8 items)	1.62	1,333	1.62	717	0.01	0.08	0.94
Self-assessed risk of HIV is moderate or high	0.15	1,174	0.20	646	0.05	0.02	0.14
Ever smoked cigarettes	0.01	1,333	0.02	717	0.01	0.01	0.23
Ever drank alcohol, more than a few sips	0.03	1,333	0.04	717	0.01	0.01	0.20

Notes: Weighted results; standard errors obtained considering multi-stage sampling design.

Table C.2.8: Youth Background Indicators at Baseline (Remaining Sample versus Drop-Outs)

Variables	Remaining		Left		Mean Diff	Diff SE	p-value
	Mean	N1	Mean	N2			
Age (years)	15.25	1,333	15.58	717	0.33	0.11	0.09
Male	0.52	1,333	0.49	717	-0.04	0.01	0.13
Head ever attended school	0.35	1,333	0.35	717	0.00	0.03	0.93
Head literate	0.22	1,333	0.23	717	0.01	0.03	0.78
Head female	0.87	1,333	0.85	717	-0.02	0.02	0.48
Head age	53.75	1,333	55.34	717	1.59	0.80	0.18
Head widow	0.39	1,333	0.38	717	-0.01	0.03	0.79
Head never married	0.04	1,333	0.05	717	0.02	0.01	0.22
Household members 6-11 years	1.32	1,333	1.22	717	-0.10	0.04	0.11
Household members 12-17 years	1.84	1,333	1.91	717	0.08	0.04	0.21
Household members 18-65 years	1.56	1,333	1.67	717	0.11	0.05	0.16
Household members 65 and over	0.45	1,333	0.50	717	0.05	0.04	0.34
Numbers of persons in household	5.88	1,333	6.08	717	0.20	0.07	0.11
Household members per sleeping room	5.56	1,332	5.77	717	0.21	0.06	0.07
HH member moved away past 12 months	0.11	1,333	0.16	717	0.05	0.01	0.03
at least 1 person joined hh since Aug2013	0.30	1,333	0.31	717	0.01	0.03	0.74
District indicator (Salima)	0.46	1,333	0.45	717	-0.01	0.03	0.82
Price of maize grain per Kilo	165.08	1,333	180.08	717	15.00	11.95	0.34
Price of rice per Kilo	334.89	1,333	338.76	717	3.86	2.58	0.27
Price of beans per Kilo	442.79	1,333	448.52	717	5.73	6.59	0.48
Price of tomatoes per Heap	57.39	1,333	55.49	717	-1.91	0.65	0.10
Price of beef per Kilo	1,140.67	1,333	1,160.58	717	19.91	12.63	0.26
Price of salt per Sachet/Tube	27.38	1,333	29.32	717	1.94	1.34	0.29
Price of sugar per Kilo	377.67	1,333	384.16	717	6.49	5.76	0.38
Price of cooking oil per Sachet/Tube	46.87	1,333	45.88	717	-0.98	0.71	0.30
Price of bar soap per Piece	74.15	1,333	71.95	717	-2.20	0.83	0.12
Price of panadol per Piece	18.16	1,333	18.13	717	-0.03	0.15	0.84

Notes: Weighted results; standard errors obtained considering multi-stage sampling design.

Annex D: Construction of Consumption Aggregate

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 programme. The IHS3 program files were used to replicate the construction of the consumption aggregates with the exception of the use value of durable goods, which we were not able to replicate in the baseline. Although this component of consumption is available from the follow-up survey, it is removed from the consumption aggregate in this impact analysis for comparative purposes. However, this component only represents 1.2 per cent of the total consumption aggregate in rural South and Central Malawi, according to IHS3. All monetary units reported are for August 2013; hence midline consumption aggregates are adjusted to this period.

Baseline nominal consumption was adjusted for spatial differences, while midline nominal consumption was adjusted for both spatial and temporal cost-of-living differences since August 2013. The temporal adjustments are made monthly using the official NSO's rural CPI to deflate prices from midline data collection (November 2014 through January 2015) to baseline prices. 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 Central (0.914) and the Rural South (0.861) in accordance with the IHPS report "Methodology for poverty analysis in Malawi 2010-2013." Hence, measured consumption in the SCTP data is multiplied by 0.914 (Salima) and 0.861 (Mangochi) to arrive at comparable units to those of the poverty lines.

Annex E: Heterogeneous Impacts – Health, Under-Five, and Borrowing and Credit

E.1 Heterogeneous Impacts – Health

Table E.1.1: Heterogeneous Impacts on Self-Reported Health in Female-Headed Households

Dependent Variable	Program Impact (1)	Baseline Treated Mean (2)	Midline Treated Mean (3)	Midline Control Mean (4)
Poor health status (<i>N</i> = 26,163)	0.00 (0.30)	0.05	0.04	0.04
Chronic illness (<i>N</i> = 17,781)	-0.04** (-3.17)	0.25	0.22	0.22
Disability (<i>N</i> = 17,782)				
Any	0.01 (0.59)	0.06	0.06	0.06
Seeing	0.00 (0.34)	0.02	0.02	0.02
Hearing	-0.00 (-1.13)	0.01	0.01	0.01
Walking/climbing steps	0.00 (0.16)	0.03	0.04	0.04
Remembering/concentrating	-0.00 (-0.34)	0.01	0.01	0.01
Communicating	0.00 (0.20)	0.01	0.01	0.01

Notes: Unable to run sub-analysis for male-headed households

Table E.1.2: Heterogeneous Impacts on Self-Reported Health by Baseline Poverty Level

Dependent Variable	Baseline Poverty – Lower 50 Per Cent				Baseline Poverty – Upper 50 Per Cent			
	Program Impact (1)	Baseline Treated Mean (2)	Midline Treated Mean (3)	Midline Control Mean (4)	Program Impact (1)	Baseline Treated Mean (2)	Midline Treated Mean (3)	Midline Control Mean (4)
Poor health status ($N_L = 18,449$; $N_U = 12,418$)	0.01 (0.77)	0.04	0.03	0.03	0.01 (0.74)	0.06	0.04	0.05
Chronic illness ($N_L = 11,953$; $N_U = 9,273$)	-0.03** (-3.87)	0.21	0.19	0.19	-0.05* (-2.21)	0.31	0.27	0.27
Disability ($N_L = 11,952$; $N_U = 9,275$)								
Any	0.01 (0.47)	0.05	0.05	0.05	-0.00 (-0.26)	0.08	0.07	0.08
Seeing	0.00 (0.43)	0.02	0.01	0.01	0.00 (0.08)	0.02	0.02	0.02
Hearing	0.00 (-1.65)	0.01	0.01	0.01	0.00 (0.10)	0.01	0.01	0.01
Walking/climbing steps	0.00 (0.30)	0.03	0.03	0.03	-0.01 (-0.53)	0.05	0.05	0.05
Remembering/concentrating	0.00 (-0.09)	0.01	0.01	0.01	0.00 (0.44)	0.01	0.01	0.01
Communicating	0.00 (-0.08)	0.01	0.01	0.01	-0.00 (-0.30)	0.01	0.01	0.01

Table E.1.3: Heterogeneous Impacts on Self-Reported Health by Household Size

Dependent Variable	Households with < 4 Members				Households with < 4 Members			
	Program Impact (1)	Baseline Treated Mean (2)	Midline Treated Mean (3)	Midline Control Mean (4)	Program Impact (1)	Baseline Treated Mean (2)	Midline Treated Mean (3)	Midline Control Mean (4)
Poor health status (<i>N_S</i> = 9,281; <i>N_L</i> = 21,586)	0.02 (0.85)	0.08	0.06	0.06	0.00 (0.39)	0.03	0.03	0.03
Chronic illness (<i>N_S</i> = 7,463; <i>N_L</i> = 13,763)	-0.05** (-3.81)	0.38	0.34	0.34	-0.03** (-3.98)	0.18	0.16	0.16
Disability (<i>N_S</i> = 18,273; <i>N_L</i> = 13,764)								
Any	0.02 (1.03)	0.10	0.10	0.10	-0.00 (-0.46)	0.04	0.04	0.04
Seeing	0.01 (0.98)	0.03	0.03	0.02	0.00 (0.07)	0.01	0.01	0.01
Hearing	0.00 (0.67)	0.01	0.02	0.02	-0.00** (-3.62)	0.01	0.01	0.01
Walking/climbing steps	0.01 (0.78)	0.06	0.06	0.06	-0.01 (-1.13)	0.02	0.02	0.03
Remembering/concentrating	-0.00 (-0.49)	0.02	0.02	0.02	0.00 (0.23)	0.01	0.01	0.01
Communicating	0.01* (2.54)	0.01	0.01	0.01	-0.00** (-3.31)	0.01	0.01	0.01

Table E.1.4: Heterogeneous Impacts on Morbidity, Service Use, and Health Expenditures in Female-Headed Households

Dependent Variable	Program Impact (1)	Baseline Treated Mean (2)	Midline Treated Mean (3)	Midline Control Mean (4)
Any illness or injury (<i>N</i> = 30,763)	-0.07** (-6.02)	0.30	0.19	0.23
Sought treatment at public or private health facility (<i>N</i> = 7,930)	0.09** (3.74)	0.51	0.54	0.54
Health Expenditures (past 4 weeks, MWK)				
Any expenditure for illness and injury (<i>N</i> = 30,727)	0.00 (0.87)	0.05	0.07	0.05
Expenditure for illness and injury (<i>N</i> = 7,820)	209.78** (2.91)	149.39	327.42	122.29
Any expenditure for medical care not related to an illness (<i>N</i> = 30,737)	0.01** (3.26)	0.01	0.01	0.01
Expenditure for medical care not related to an illness (Mk) (<i>N</i> = 7,824)	36.24* (2.11)	23.42	36.70	15.29
Any expenditure for non-prescription medicines (<i>N</i> = 30,732)	0.01 (0.67)	0.17	0.12	0.10
Expenditure for non-prescription medicines (<i>N</i> = 7,820)	53.05** (4.18)	94.60	113.46	61.18
<i>N</i>	7,347	807	575	525

Notes: Unable to run sub-analysis for male-headed households

Table E.1.5: Heterogeneous Impacts on Morbidity, Service Use, and Health Expenditures among Households by Baseline Poverty Level

Dependent Variable	Baseline Poverty – Lower 50 Per Cent				Baseline Poverty – Upper 50 Per Cent			
	Program Impact (1)	Baseline Treated Mean (2)	Midline Treated Mean (3)	Midline Control Mean (4)	Program Impact (1)	Baseline Treated Mean (2)	Midline Treated Mean (3)	Midline Control Mean (4)
Any illness or injury (<i>N_{UP}</i> = 18,364; <i>N_P</i> = 12,399)	-0.07** (-4.75)	0.28	0.18	0.22	-0.08** (-4.82)	0.33	0.21	0.25
Sought treatment at public or private health facility (<i>N_{UP}</i> = 4,481; <i>N_P</i> = 3,449)	0.12** (3.72)	0.54	0.56	0.52	0.05 (1.48)	0.48	0.52	0.58
Health Expenditures (past 4 weeks, Mk)								
Any expenditure for illness and injury (<i>N_{UP}</i> = 18,346; <i>N_P</i> = 12,381)	0.00 (0.85)	0.04	0.07	0.05	0.00 (0.23)	0.08	0.06	0.06
Expenditure for illness and injury (<i>N_{UP}</i> = 4,395; <i>N_P</i> = 3,425)	243.27* (2.19)	60.75	332.58	112.70	110.10* (2.60)	277.58	306.93	165.29
Any expenditure for medical care not related to an illness (<i>N_{UP}</i> = 18,346; <i>N_P</i> = 12,391)	0.00* (2.75)	0.00	0.01	0.01	0.01* (2.14)	0.02	0.01	0.01
Expenditure for medical care not related to an illness (<i>N_{UP}</i> = 4,394; <i>N_P</i> = 3,430)	26.53** (3.92)	7.09	32.03	12.88	91.53** (6.11)	40.14	74.24	16.02
Any expenditure for non-prescription medicines (<i>N_{UP}</i> = 18,349; <i>N_P</i> = 12,383)	0.01 (1.08)	0.14	0.11	0.09	0.00 (0.19)	0.22	0.12	0.11
Expenditure for non-prescription medicines (<i>N_{UP}</i> = 4,392; <i>N_P</i> = 3,428)	81.96** (6.80)	51.46	124.00	51.63	69.92 (1.22)	140.95	144.07	79.68

Table E.1.6: Heterogeneous Impacts Morbidity, Service Use, and Health Expenditures by Household Size

Dependent Variable	Households with ≤ 4 Members				Households with > 4 Members			
	Program Impact (1)	Baseline Treated Mean (2)	Midline Treated Mean (3)	Midline Control Mean (4)	Program Impact (1)	Baseline Treated Mean (2)	Midline Treated Mean (3)	Midline Control Mean (4)
Any illness or injury (<i>N_S</i> = 9,258; <i>N_L</i> = 21,505)	-0.09** (-3.01)	0.39	0.24	0.28	-0.06** (-6.36)	0.26	0.17	0.21
Sought treatment at public or private health facility (<i>N_S</i> = 2,987; <i>N_L</i> = 4,943)	0.07** (2.79)	0.45	0.51	0.52	0.11** (6.95)	0.55	0.56	0.57
Health Expenditures (past 4 weeks, MWK)								
Any expenditure for illness and injury (<i>N_S</i> = 9,242; <i>N_L</i> = 21,485)	0.01 (1.48)	0.07	0.08	0.06	0.00 (0.78)	0.05	0.06	0.05
Expenditure for illness and injury (<i>N_S</i> = 2,964; <i>N_L</i> = 4,856)	110.98** (3.89)	146.71	239.12	164.25	246.05* (2.23)	170.69	370.46	118.88
Any expenditure for medical care not related to an illness (<i>N_S</i> = 9,250; <i>N_L</i> = 21,487)	0.01 (1.30)	0.01	0.01	0.01	0.01** (4.03)	0.01	0.01	0.01
Expenditure for medical care not related to an illness (<i>N_S</i> = 2,965; <i>N_L</i> = 4,859)	25.41 (0.95)	16.26	22.07	14.21	68.60** (4.16)	26.46	70.46	14.35
Any expenditure for non-prescription medicines (<i>N_S</i> = 9,244; <i>N_L</i> = 21,488)	0.00 (0.15)	0.22	0.14	0.12	0.00 (0.58)	0.15	0.11	0.09
Expenditure for non-prescription medicines (<i>N_S</i> = 2,964; <i>N_L</i> = 4,856)	11.53 (0.82)	117.83	97.14	68.73	113.79** (3.80)	76.42	155.92	61.44

E.2 Heterogeneous Impacts – Under-Five

Table E.2.1: Heterogeneous Impacts on Child Anthropometry by Sex of Household Head

Dependent Variable	Female-Headed Households				Male-Headed Households			
	Program Impact (1)	Baseline Treated Mean (2)	Midline Treated Mean (3)	Midline Control Mean (4)	Program Impact (1)	Baseline Treated Mean (2)	Midline Treated Mean (3)	Midline Control Mean (4)
Weight-for-age ($N_F = 2,775$; $N_M = 383$)								
WAZ	-0.06 (-1.10)	-0.97	-1.07	-1.02	0.07 (0.27)	-1.01	-1.02	-1.02
Underweight	0.01 (0.29)	0.18	0.18	0.17	0.12 (1.51)	0.15	0.24	0.13
Height-for-age ($N_F = 2,738$; $N_M = 378$)								
HAZ	0.05 (0.56)	-1.89	-1.83	-1.79	0.05 (0.29)	-1.95	-1.90	-1.84
Stunted	-0.01 (-0.14)	0.49	0.45	0.42	-0.01 (-0.12)	0.54	0.51	0.48
Weight-for-height ($N_F = 2,747$)								
WHZ	-0.16** (-3.48)	0.18	-0.02	0.02				
Wasted	-0.02** (-2.93)	0.05	0.03	0.04				

Notes: Unable to estimate weight-for-height sub-analysis for male-headed households

Table E.2.2: Heterogeneous Impacts on Child Anthropometry among Poorest 50 Per Cent of Households

Dependent Variable	<i>N</i>	Program Impact (1)	Baseline Treated Mean (2)	Midline Treated Mean (3)	Midline Control Mean (4)
Weight-for-age	2,183				
WAZ		0.00 (0.12)	-1.02	-1.07	-1.04
Underweight		-0.00 (-0.05)	0.19	0.18	0.19
Height-for-age	2,158				
HAZ		0.11 (1.81)	-1.88	-1.84	-1.82
Stunted		-0.02 (-0.42)	0.50	0.44	0.43
Weight-for-height	2,164				
WHZ		-0.07 (-1.33)	0.10	-0.02	-0.00
Wasted		-0.04** (-5.04)	0.05	0.03	0.04

Notes: Notes: Estimations use difference-in-differences modelling among panel households and coefficients are reported as marginal effects. All estimations control for sex and age in months of child, baseline head of household's characteristics (age in years, sex, indicator of any schooling, indicator of literacy), household demographic composition and size, indicators for new household members and household member outmigration, and a vector of contemporaneous cluster level prices. Robust t-statistics were obtained clustering at the different levels of the sampling design and are shown in parenthesis. * 5% significance; ** 1% significance.

Table E.2.3: Heterogeneous Impacts on Child Anthropometry by Household Size

Dependent Variable	Households with ≤ 4 Members				Households with > 4 Members			
	Program Impact (1)	Baseline Treated Mean (2)	Midline Treated Mean (3)	Midline Control Mean (4)	Program Impact (1)	Baseline Treated Mean (2)	Midline Treated Mean (3)	Midline Control Mean (4)
Weight-for-age ($N_S = 473$; $N_L = 2,685$)								
WAZ	0.32 (1.83)	-0.97	-0.94	-1.06	-0.13** (-2.96)	-0.97	-1.08	-1.01
Underweight	-0.13 (-1.45)	0.18	0.13	0.17	0.05 (1.58)	0.18	0.19	0.16
Height-for-age ($N_S = 464$; $N_L = 2,652$)								
HAZ	0.28* (2.06)	-2.00	-1.89	-1.87	0.01 (0.13)	-1.91	-1.84	-1.79
Stunted	-0.16** (-2.88)	0.52	0.39	0.42	0.01 (0.32)	0.49	0.46	0.43
Weight-for-height ($N_S = 466$; $N_L = 2,663$)								
WHZ	0.36 (1.02)	0.14	0.19	0.05	-0.17 (-1.84)	0.18	-0.02	0.02
Wasted	-0.01 (-0.17)	0.06	0.02	0.02	-0.02 (-1.89)	0.04	0.03	0.04

Table E.2.4: Heterogeneous Impacts on Child Anthropometry by Child’s Age in Months

Dependent Variable	Children 6 – 23 Months				Children 24 – 59 Months			
	Program Impact (1)	Baseline Treated Mean (2)	Midline Treated Mean (3)	Midline Control Mean (4)	Program Impact (1)	Baseline Treated Mean (2)	Midline Treated Mean (3)	Midline Control Mean (4)
Weight-for-age ($N_{6-23} = 845$; $N_{24-59} = 2,313$)								
WAZ	-0.20 (-1.68)	-0.90	-1.10	-0.94	-0.05 (-1.27)	-1.00	-1.06	-1.04
Underweight	0.10** (2.83)	0.17	0.24	0.17	0.00 (0.05)	0.18	0.16	0.17
Height-for-age ($N_{6-23} = 833$; $N_{24-59} = 2,283$)								
HAZ	-0.20 (-1.40)	-1.68	-1.79	-1.46	0.03 (0.33)	-2.00	-1.85	-1.90
Stunted	0.04 (0.49)	0.37	0.41	0.37	-0.01 (-0.15)	0.55	0.46	0.45
Weight-for-height ($N_{6-23} = 836$; $N_{24-59} = 2,293$)								
WHZ	-0.06 (-0.38)	-0.09	-0.15	-0.24	-0.06 (-0.38)	-0.09	-0.15	-0.24
Wasted	-0.07** (-2.87)	0.09	0.05	0.07	-0.07** (-2.87)	0.09	0.05	0.07

Notes: Unable to estimate severely-underweight, severely-stunted, and severely-wasted sub-analyses

Table E.2.5: Heterogeneous Impacts on Young Child Feeding Practices Sex of Household Head

Dependent Variable	Female-Headed Household				Male-Headed Households			
	Program Impact (1)	Baseline Treated Mean (2)	Midline Treated Mean (3)	Midline Control Mean (4)	Program Impact (1)	Baseline Treated Mean (2)	Midline Treated Mean (3)	Midline Control Mean (4)
Fed solid foods ≥ 3 times/day ($N_F = 2,922$; $N_M = 421$)	0.07 (1.09)	0.38	0.51	0.36	0.16 (1.76)	0.40	0.53	0.38
Consumed Vitamin-A rich foods in past day ($N_F = 2,918$; $N_M = 421$)	0.03 (0.40)	0.72	0.93	0.88	0.08 (0.42)	0.66	0.86	0.79

Table E.2.6: Heterogeneous Impacts on Young Child Feeding Practices among Poorest 50 Per Cent of Households

Dependent Variable	Program Impact (1)	Baseline Treated Mean (2)	Midline Treated Mean (3)	Midline Control Mean (4)
Fed solid foods ≥ 3 times/day ($N = 2,307$)	0.12 (2.02)	0.30	0.49	0.29
Consumed Vitamin-A rich foods in past day ($N = 2,310$)	0.05 (0.57)	0.69	0.93	0.87

Table E.2.7: Heterogeneous Impacts on Young Child Feeding Practices by Household Size

Dependent Variable	Households with ≤ 4 Members				Households with > 4 Members			
	Program Impact (1)	Baseline Treated Mean (2)	Midline Treated Mean (3)	Midline Control Mean (4)	Program Impact (1)	Baseline Treated Mean (2)	Midline Treated Mean (3)	Midline Control Mean (4)
Fed solid foods ≥ 3 times/day ($N_S = 497$; $N_L = 2,846$)	-0.01 (-0.21)	0.44	0.49	0.39	0.10* (2.21)	0.37	0.51	0.36
Consumed Vitamin-A rich foods in past day ($N_S = 496$; $N_L = 2,843$)	0.19* (2.06)	0.66	0.94	0.87	0.02 (0.22)	0.72	0.92	0.87

Table E.2.8: Heterogeneous Impacts on Young Child Morbidity and Use of Curative Care in Female-Headed Households

Dependent Variable	Program Impact (1)	Baseline Treated Mean (2)	Midline Treated Mean (3)	Midline Control Mean (4)
Any illness ($N = 2,922$)	0.01 (0.22)	0.43	0.31	0.33
Diarrhoea	0.02 (0.94)	0.17	0.12	0.11
Fever	0.02 (0.41)	0.24	0.18	0.21
Cough	0.04 (1.40)	0.26	0.12	0.10
Sought treatment at public or private health facility				
Diarrhoea ($N = 441$)	0.08 (1.42)	0.72	0.85	0.81
Fever ($N = 706$)	0.21** (2.84)	0.68	0.95	0.85
Cough ($N = 570$)	0.06 (1.03)	0.73	0.85	0.78

Notes: Unable to estimate sub-analysis for male-headed households

Table E.2.9: Heterogeneous Impacts on Young Child Morbidity and Use of Curative Care among Poorest 50 Per Cent of Households

Dependent Variable	Program Impact (1)	Baseline Treated Mean (2)	Midline Treated Mean (3)	Midline Control Mean (4)
Any illness (<i>N</i> = 2,310)	-0.00 (-0.03)	0.42	0.32	0.34
Diarrhoea	0.01 (0.16)	0.16	0.12	0.11
Fever	0.04 (0.71)	0.23	0.20	0.22
Cough	0.04 (1.22)	0.27	0.12	0.09
Sought treatment at public or private health facility				
Diarrhoea (<i>N</i> = 346)	0.12** (2.88)	0.74	0.87	0.79
Fever (<i>N</i> = 570)	0.23** (5.14)	0.71	0.95	0.82
Cough (<i>N</i> = 457)	0.11* (2.61)	0.73	0.90	0.75

Table E.2.10: Heterogeneous Impacts on Young Child Morbidity and Use of Curative Care by Household Size

Dependent Variable	Households with ≤ 4 members				Households with > 4 members			
	Program Impact (1)	Baseline Treated Mean (2)	Midline Treated Mean (3)	Midline Control Mean (4)	Program Impact (1)	Baseline Treated Mean (2)	Midline Treated Mean (3)	Midline Control Mean (4)
Any illness (<i>N_S</i> = 497; <i>N_L</i> = 2,846)	0.05 (0.34)	0.41	0.31	0.29	-0.01 (-0.11)	0.42	0.31	0.35
Diarrhoea	-0.01 (-0.39)	0.17	0.12	0.10	0.02 (1.26)	0.16	0.13	0.12
Fever	0.04 (0.45)	0.24	0.17	0.17	0.02 (0.48)	0.24	0.19	0.22
Cough	0.02 (0.35)	0.31	0.12	0.09	0.01 (0.37)	0.25	0.12	0.11

Notes: Unable to estimate treatment-seeking sub-analysis by household size

Table E.2.11: Heterogeneous Impacts on Young Child Preventive Care by Sex of Household Head

Dependent Variable	Female-Headed Households				Male-Headed Households			
	Program Impact (1)	Baseline Treated Mean (2)	Midline Treated Mean (3)	Midline Control Mean (4)	Program Impact (1)	Baseline Treated Mean (2)	Midline Treated Mean (3)	Midline Control Mean (4)
Participation in nutrition programme ($N_F = 2,922$)	-0.02** (-3.19)	0.04	0.03	0.06				
Participation in under-five clinic ($N_F = 2,922$; $N_M = 497$)	-0.00 (-0.03)	0.72	0.65	0.68	-0.01 (-0.14)	0.77	0.63	0.64
Check-up at well-baby/under-five clinic in last six months ($N_F = 2,922$; $N_M = 497$)	0.04 (0.34)	0.47	0.42	0.43	-0.01 (-0.10)	0.58	0.39	0.42
Possession of a child health passport ($N_F = 2,915$; $N_M = 497$)	0.01 (0.46)	0.84	0.89	0.92	0.04 (1.26)	0.89	0.93	0.95

Notes: Unable to estimate nutrition programme sub-analysis for male-headed households

Table E.2.12: Heterogeneous Impacts on Young Child Preventive Care by Household Baseline Poverty Level among Poorest 50 Per Cent of Households

Dependent Variable	Program Impact (1)	Baseline Treated Mean (2)	Midline Treated Mean (3)	Midline Control Mean (4)
Participation in nutrition programme ($N = 2,310$)	-0.05** (-5.94)	0.04	0.04	0.06
Participation in under-five clinic ($N = 2,310$)	0.02 (0.57)	0.71	0.63	0.65
Check-up at well-baby/under-five clinic in last six months ($N = 2,310$)	0.03 (0.20)	0.46	0.39	0.41
Possession of a child health passport ($N = 2,305$)	0.01 (0.33)	0.84	0.87	0.90

Table E.2.13: Heterogeneous Impacts on Young Child Preventive Care by Household Size

Dependent Variable	Households with ≤ 4 Members				Households with > 4 Members			
	Program Impact (1)	Baseline Treated Mean (2)	Midline Treated Mean (3)	Midline Control Mean (4)	Program Impact (1)	Baseline Treated Mean (2)	Midline Treated Mean (3)	Midline Control Mean (4)
Participation in nutrition programme ($N_S = 497$; $N_L = 2,846$)	-0.03 (-0.79)	0.04	0.04	0.08	-0.03** (-5.21)	0.04	0.03	0.06
Participation in under-five clinic ($N_S = 497$; $N_L = 2,846$)	-0.01 (-0.05)	0.73	0.66	0.71	0.00 (0.02)	0.72	0.65	0.67
Check-up at well-baby/under-five clinic in last six months ($N_S = 497$; $N_L = 2,846$)	-0.06 (-0.31)	0.53	0.36	0.39	0.04 (0.44)	0.47	0.43	0.43
Possession of a child health passport ($N_S = 495$; $N_L = 2,841$)	-0.04 (-0.88)	0.87	0.87	0.95	0.02 (0.95)	0.85	0.89	0.92

E.3 Borrowing and Credit Purchases – Baseline Bottom 50 Per Cent

Table E.3.1: Borrowing and Credit Purchase Behaviour, Baseline Bottom 50 Per Cent

Dependent Variable	Program Impact (1)	Baseline Treated Mean (2)	Midline Treated Mean (3)	Midline Control Mean (4)
Still owe money borrowed before 2013	-0.01 (-0.48)	0.07	0.05	0.05
Log of amount still owed	-0.45 (-1.33)	7.55	7.80	7.91
Borrowed in last 12 months	-0.05 (-1.87)	0.27	0.25	0.31
Log outstanding on loan in last 12 months	0.22* (2.68)	7.21	7.63	7.58
Applied but refused loan	-0.04** (-5.74)	0.06	0.02	0.04
Purchase on credit	-0.07** (-4.44)	0.33	0.23	0.29
Credit used for consumption	-0.07** (-3.63)	0.30	0.20	0.25
<i>N</i>	6,733	804	805	894

Notes: Estimations use difference-in-differences modelling among panel households and estimates for binary outcomes are reported as marginal effects.

See Table 12.1.1 for additional explanatory notes on model specification, including a list of control variables utilized. * 5% significance; ** 1% significance.

Annex F: Inflation in the SCTP Evaluation Study Sample

Differential price inflation across treatment and control VCs between baseline and follow-up can be a cause for concern. If the cash transfers induce inflation in the local economy, its overall effect would be attenuated towards zero. In order to check for this, we utilized price data on key consumption items collected through the community questionnaire that was implemented at the community level, as part of the survey fieldwork.

We checked to see if there had been any excess inflation/deflation in treatment communities compared to control communities. Table F.1.1 reports difference-in-difference estimates that compare the change in price from baseline to follow-up between treatment and comparison communities. This is similar to the programme impact estimates reported in the main text, except that this analysis is conducted at the village cluster level rather than household level, and we do not include the price controls. We find that though price for some items has in fact decreased, these differences in price are not attributable to the program. In no case was the difference-in-difference estimator significant.

Table F.1.1: SCTP Impacts on Prices

Dependent Variable	Program Impact (1)	Baseline Treated Mean (2)	Midline Treated Mean (3)	Midline Control Mean (4)
Maize grain	-24.15 (-0.51)	185.00	185.90	168.03
Rice	-37.97 (-1.33)	335.39	365.68	400.22
Beans	17.00 (0.87)	441.14	653.99	599.32
Tomatoes	0.01 (0.00)	59.68	66.59	49.70
Beef	-32.94 (-0.33)	1,152.59	1,530.65	1,483.09
Salt	7.66 (0.92)	28.25	34.51	35.82
Sugar	18.72 (0.21)	393.83	515.51	486.16
Cooking oil	4.18 (0.30)	42.59	44.36	47.32
Bar soap	3.58 (0.60)	68.63	70.72	71.89
Panadol	-3.77 (-1.73)	17.74	15.23	16.91
Firewood	22.45 (0.67)	110.71	138.72	161.72
Charcoal	-4.29 (-0.07)	880.15	1,282.30	1,303.39
Chitenji (cloth)	-100.52 (-1.30)	1,399.98	1,299.13	1,272.26
Foam Mattress	1,053.83 (0.76)	14,678.42	14,648.46	15,535.98
<i>N</i>	58	14	14	15

Notes: t stats in parentheses. * 5% significance; ** 1% significance;

Annex G: Calculation of Transfer Share

Programme data on the six 2014 Social Cash Transfer payment dates and amounts were received from Ayala Consulting Corporation.⁴⁴ To express the transfer amount as a share of the household's baseline consumption, nominal transfer values were converted to national August 2013 prices by applying temporal and spatial indices. Temporal adjustments to reflect real August 2013 prices were made using monthly rural all item consumer price index (CPI) data,⁴⁵ and spatial corrections to reflect 2013 national prices were made using the rural centre (Salima) and rural south (Mangochi) 2013 Laspeyres spatial price indices.⁴⁶

The transfer share was calculated as a per cent of baseline consumption using the real total household annual transfer amount as the numerator and real total household consumption expenditure at baseline as the denominator.

Note that the annual household transfer share, annual per capita transfer share, monthly household transfer share, and monthly per capita transfer share are all equivalent:

$$(Eq. 1) \quad \text{annual household transfer share} = \frac{\text{total annual household transfer}}{\text{total annual household expenditures}}$$

$$(Eq. 2) \quad \text{monthly household transfer share} = \frac{\text{total annual household transfer}}{\text{total annual household expenditures}} * \frac{1/12}{1/12}$$

$$(Eq. 3) \quad \text{annual per capita transfer share} = \frac{\text{total annual household transfer}}{\text{total annual household expenditures}} * \frac{1/hhsize}{1/hhsize}$$

$$(Eq. 4) \quad \text{monthly per capita transfer share} = \frac{\text{total annual household transfer}}{\text{total annual household expenditures}} * \frac{1/12}{1/12} * \frac{1/hhsize}{1/hhsize}$$

Table G.1 presents survey-weighted means and standard deviations for transfer payments and transfer shares among beneficiary households in the study sample between baseline and midline. The average households received a total of 22,310.44 MWK from the six transfer payments made in 2014. This represents an 18 per cent share of baseline consumption, and over two-thirds of beneficiary households' transfer levels were less than 20 per cent of their baseline consumption level. The actual mean share and proportion of households with shares less than 20 per cent are very similar to simulated shares reported in Table 3.1.1.

⁴⁴ Ayala: <http://ayalaconsulting.us/index.php/en/current-projects/59-malawi-social-cash-transfer-program>

⁴⁵ Malawi National Statistical Office. Consumer Price Index – Time Series 2014 Rural CPI (accessed June 19, 2015 at <http://www.nsomalawi.mw/latest-publications/consumer-price-indices/206-consumer-price-index-rural-2014.html>) and Consumer Price Index – Time Series 2013 Rural CPI (accessed June 19, 2015 at <http://www.nsomalawi.mw/latest-publications/consumer-price-indices/198-consumer-price-index-rural-2013.html>)

⁴⁶ The World Bank. LSMS. Malawi Integrated Household Survey – Methodology for Poverty Analysis in Malawi in 2013-2013. Accessed June 20, 2015 at http://siteresources.worldbank.org/INTLSMS/Resources/3358986-1233781970982/5800988-1271185595871/6964312-1404828635943/Methodology_for_Poverty_Analysis_in_Malawi_2010_2013_for_Dissemination.pdf

The transfer share was 6.5 pp higher among the poorest 50 per cent of households compared to the sample average, and more than half of the poorest 50 per cent of households had a transfer share greater than the 20 per cent threshold. While the transfer share was nearly the same in small and large households, the per capita monthly value of the transfer in households with four or fewer members was nearly twice that of large households.

Lastly, the column labelled “nominal transfer share” represents the nominal (unadjusted) value of all six 2014 transfer payments as a percentage of the household’s baseline consumption level (adjusted to national August 2013 prices). The average nominal share in the full beneficiary sample is nine pp higher than the fully-adjusted real transfer share, highlighting the importance of accounting for temporal inflation in rural Malawi during the baseline to midline follow-up surveys. The corrections also show that without accounting for inflation it (incorrectly) appears that most households are receiving transfer amounts in excess of 20 per cent of baseline consumption. As 68 per cent of households face a real transfer share of less than 20 per cent, the adjusted values also make evident the significance of maintaining the real value of the transfer in order to achieve programme impacts on multiple facets of household welfare.

Table G.1.1: Transfer Totals and Shares by Baseline Consumption, Household Size, and Household Head

	N		Household Size	Household annual transfer (MWK)	PC annual transfer (MWK)	Household monthly transfer (MWK)	PC monthly transfer (MWK)	Real Transfer Share (Per Cent)	Nominal Transfer Share (Per Cent)	Total Share Below 20% (Per Cent)
Total	1,649	Mean	4.47	22,310.44	6,240.54	1,859.20	520.04	18.07	27.06	68.20
		SD	2.28	7,855.06	4,011.98	654.59	334.33			
Baseline Consumption Level										
Upper 50%	831	Mean	3.56	20,522.01	7,395.03	1,710.17	616.25	12.20	18.37	89.33
		SD	2.07	8,092.75	4,683.66	674.40	390.31			
Lower 50%	818	Mean	5.49	24,300.44	4,955.93	2,025.04	412.99	24.60	36.74	44.69
		SD	2.07	6,993.92	2,370.29	582.83	197.52			
Baseline Household Size										
Small	843	Mean	2.68	19,016.44	8,140.67	1,584.70	678.39	18.64	27.96	65.39
		SD	1.13	7,574.10	4,670.49	631.18	389.21			
Large	806	Mean	6.39	25,854.96	4,195.90	2,154.58	349.66	17.46	26.10	71.23
		SD	1.53	6,470.20	1,253.05	539.18	104.42			
Baseline Household Head										
Male	288	Mean	4.37	21,458.84	6,192.40	1,788.24	516.03	15.83	23.64	75.96
		SD	2.42	8,157.91	3,808.94	679.83	317.41			
Female	1,361	Mean	4.49	22,485.93	6,250.46	1,873.83	520.87	18.53	27.77	66.60
		SD	2.25	7,780.87	4,051.19	648.41	337.60			

Notes: Transfer values expressed in real August 2013 national prices. Small households contain four or fewer members. Descriptive statistics are corrected for multi-stage survey design.

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