AIR®

AMERICAN INSTITUTES FOR RESEARCH®

Baseline Report for the Impact Evaluation of Zimbabwe's Harmonised Social Cash Transfer Programme

December 2013

Contributors

The evaluation of the Harmonised Social Cash Transfer (HSCT) is being conducted by American Institutes for Research (AIR) for the government of Zimbabwe, under contract to UNICEF, with funding from the Cooperating Partners—UNICEF, Department for International Development (DfID), the European Union (EU), Swiss Development Cooperation (SDC), Kingdom of the Netherlands, Embassy of Sweden/Sida. The Principal Investigators for the overall evaluation are David Seidenfeld (American Institutes for Research) and Sudhanshu Handa (University of North Carolina at Chapel Hill; UNC). The Zimbabwe-based Principal Investigator is Prosper Matondi of Ruzivo Trust. The Food and Agriculture Organization (FAO; Principal Investigator Benjamin Davis) provided funding and technical support for the analysis of the economic and spillover effects of the HSCT. The overall team leaders of this report are David Seidenfeld (AIR), Sudhanshu Handa (UNC), and Benjamin Davis (FAO), but many others made important contributions and are listed below by institutional affiliation and alphabetical order within institution:

AIR: Cassandra Jessee, Julia Lane

FAO: Silvio Daidone

UNC: Sarah Abdoulayi, Gustavo Angeles, Garima Bhalla, Mary Jane Hill, Audrey Pettifor

Ruzivo Trust: Sheila Chikulo, Charity Nyelele, Lazarus Zanamwe

The suggested citation for this report is:

American Institutes for Research. (2013). *Baseline Report for Zimbabwe's Harmonised Social Cash Transfer Programmes.* Washington, DC: Author.

Contact information:

David Seidenfeld	Sudhanshu Handa	Benjamin Davis
dseidenfeld@air.org	**shanda@email.unc.edu**	**Benjamin.davis@fao.org**

Acknowledgments

We recognise the contributions of many organisations without whom it would not have been possible to complete this study. Our thanks go to the Zimbabwe Ministry of Public Service, Labour and Social Welfare (MPSLSW); the Department for International Development (DfID); the European Union (EU); Swiss Development Cooperation (SDC); Kingdom of the Netherlands, Embassy of Sweden/Sida; the United Nations Children Fund (UNICEF); the Food and Agriculture Organization (FAO); and Ruzivo Trust for the opportunity to carry out this study and for the financial and technical support that they rendered.

Our acknowledgments would be incomplete without mentioning our team of very able research assistants in Zimbabwe. Specifically, we acknowledge the input of the team of supervisors, enumerators, and drivers from Ruzivo Trust, whose dedication during data collection ensured that the data collected were of high quality.

The patience exercised by the Zimbabwean households, community leaders, and community members during interviews is also greatly acknowledged. It is our hope that the insights from the information that they provided will translate into valuable interventions in their communities.

David Seidenfeld, Ph.D.
Sudhanshu Handa, Ph.D.

List of Acronyms

AIR	American Institutes for Research
BEAM	Basic Education Assistance Module
CES-D	Center for Epidemiological Studies Depression Scale
CPF	Child Protection Fund
CT-OVC	Kenya Cash Transfer for Orphans and Vulnerable Children Program
DfID	Department for International Development
DSSO	District Social Services Officer
FAO	Food and Agriculture Organization
FNC	Food and Nutrition Council
HSCT	Harmonised Social Cash Transfer
IDI	in-depth interview
IRB	Institutional Review Board
MCP	Multiple Category Cash Transfer Programme
MoLSS	Ministry of Labour and Social Services
MPSLSW	Ministry of Public Service, Labour and Social Welfare
MRCZ	Medical Research Council of Zimbabwe
NAP	Zimbabwe National Action Plan for Orphans and Vulnerable Children
NBSLEA	National Baseline Survey on the Life Experiences of Zimbabwean Adolescents
PICES	Poverty Income Consumption Expenditure Survey
PtoP	From Protection to Production
SCT	social cash transfer
SD	standard deviation
UNC	University of North Carolina at Chapel Hill
UNICEF	United Nations Children Fund
WHO	World Health Organisation
ZDHS	Zimbabwe Demographic and Health Survey
ZIMSTATS	Zimbabwe National Statistics Agency

Table of Contents

Executive Summary

In 2013, Zimbabwe's Ministry of Public Service, Labour and Social Welfare (MPSLSW) began implementing the Harmonised Social Cash Transfer (HSCT) programme in 10 new districts. An impact evaluation accompanied the programme to learn its effects on recipients and provide evidence to be used in deciding the future of the programme. UNICEF Zimbabwe contracted AIR and its partners the University of North Carolina at Chapel Hill (UNC), Ruzivo Trust, and the University of Zimbabwe's Geography department to conduct the evaluation of the HSCT. The Food and Agriculture Organization's (FAO's) From Protection to Production (PtoP) project provided financial support to the evaluation and served on the evaluation team.

The primary goals of this baseline report are to describe the sample developed for the evaluation and the approach to identification, check for equivalence between the treatment and comparison groups, and describe the sample of eligible households before they receive the programme.

These goals of this report are briefly summarised here and expanded in the full report.

The Programme: The HSCT targets households that are both labour constrained and food poor as defined by MPSLSW. Eligible households receive $10 to $25 a month depending on the household size. By August 2012, more than 18,000 households in 10 districts had been enrolled in the programme. It is anticipated that the programme will eventually cover the whole country, with plans to help 250,000 poor families by 2015 in all 65 districts of Zimbabwe. HSCT is jointly funded by the Zimbabwe government and donors, and UNICEF provides additional financial and technical support in addition to managing the Child Protection Fund (CPF).

The MPSLSW chose to start the Phase 2 rollout of the HSCT in three new districts: Binga, Mwenzi, and Mudzi. Households in these three districts will be compared with eligible households in three Phase 4 districts (UMP, Chiredzi, and Hwange) that will not begin receiving the transfers during the period of the study. The comparison districts were selected by the Ministry to match the treatment districts by agro-ecological characteristics (they neighbour each other), culture, and level of development.

Conceptual Framework: The evaluation is based on a conceptual framework that explains why and how the programme could change specified outcomes. Specifying the conceptual framework is the first step of the evaluation design. We have laid out a conceptual framework for understanding and evaluating the impact of the HSCT on the household. This framework posits that the direct or first-order effects of the programme will be to alter consumption patterns and time use. These effects may work directly, or they may be mediated through women's bargaining power or preferences. The first-order effects will in turn have secondary impacts on adolescent child outcomes. All these effects (first and second order) may be moderated by factors such as access to facilities and markets and maternal education. The questionnaire sought to measure not only 'final' outcomes but also intermediate outcomes that can help us understand the causal pathway through which the HSCT influences behaviour.

The Sample: After defining the conceptual framework, we collected a representative sample of beneficiary and nonbeneficiary households, which will serve as the sample to analyze for the length of

the evaluation. We collected data from a large and representative random sample. The sample contained 3,063 eligible households, with 2,029 in the treatment group and 1,034 in the comparison group. The median household size was five people, with a standard deviation of 2.68 for the average size of 4.7 persons per household. School-age children represented 43 percent of the individuals included in the sample, ensuring sufficient power to detect meaningful effects. The programme includes a large percentage of orphaned children. Almost 40 percent of children ages 0–17 in the HSCT are missing at least one parent compared with only 26 percent in the Zimbabwe Demographic and Health Survey (ZDHS) sample. The rate of maternal orphans in HSCT is more than twice that in the poorest rural households in Zimbabwe, indicating the extreme vulnerability of children targeted in the programme.

Comparability of Treatment and Comparison Groups: The sample includes eligible households that will receive the programme (the treatment group) as well as eligible households that will not receive the programme during the study (comparison group). These groups need to be similar at baseline in order to reasonably compare them throughout the study. We compared the treatment and comparison groups at baseline to assess equivalence along outcome and control indicators while accounting for the nested nature of the data. For this study, households are nested in wards within a district and we use cluster robust standard errors at ward level when testing difference between treatment and comparison groups. Replicating targeting in the comparison districts and identifying similar wards appeared to have worked because only four out of 56 indicators were statistically significantly different, and these four indicators were less than 0.2 of a standard deviation different. Among the key log-frame indicators reported here, none was significantly different across treatment and control.

Transfer Size: After comparing the sample, we assessed the transfer size as a percentage of per capital expenditure. We find that the transfer size represents 20 percent of household consumption, a percentage that places the HSCT among the more successful cash transfer programmes in Africa. The programme provides between $10 and $25 per month, which translates to $5 a month per capita for a family of five, the median size household in the sample. This study shows that median per capita expenditure in recipient households before the transfer was $26 per month. Thus, the $5 monthly per capita transfer is a 20 percent increase in the household's monthly expenditure.

The baseline survey is useful for understanding the life situation of eligible households before they start receiving the transfer, especially for indicators linked to the programme's goals (as stated in the log frame). We summarize some of topics including poverty, child protection, and human capital:

Poverty: Per capita consumption is about half the rural median ($26 versus $50) as reported by Zimbabwe National Statistics Agency (ZIMSTATS) based on the 2010–11 Poverty Income Consumption Expenditure Survey (PICES). As a result, the percentage of beneficiaries living below the food poverty line is significantly higher than for the rural population as a whole (81 percent versus 30 percent). The poverty gap is also much higher in HSCT households than in rural Zimbabwe. HSCT households below the poverty line (most of them—the poverty rate is 97 percent) have a mean consumption that is 63 percent below the poverty line, compared with a mean gap of only 43 percent among the rural poor. Thus, not only is the poverty rate much higher among the HSCT population, but the consumption of HSCT beneficiaries below the line is significantly lower than that of other poor rural households in Zimbabwe.

Child Protection: The reduction of violence against children is a goal of the HSCT. Half the children ages 13–20 living in beneficiary households reported having suffered physical violence at some time and 25 percent had experienced physical violence by a parent or relative in the last 12 month. This rate was similar to that of the 2012 National Baseline Survey on the Life Experiences of Zimbabwean Adolescents report (NBSLEA). Quantitative and qualitative data reported that sexual activity was very low among adolescents in the sample, with only 8.5 percent reporting ever having had sex.

Human Capital: Enrollment rates for primary school were quite high at over 90 percent, but dropped to 70 percent among secondary school–age children. We found similar results for attendance; 75 percent of primary school–age children attended school more than 80 percent of the time, but attendance over 80 percent of the time dropped to 56 percent for secondary school–age children. Last, we found that rates of stunting, underweight, and wasting for children under 60 months were slightly lower in the HSCT households than in the ZDHS analytical sample.

I. Introduction

This report provides the baseline results of the Harmonised Social Cash Transfer (HSCT) impact evaluation. In 2013, Zimbabwe's Ministry of Public Service, Labour and Social Welfare (MPSLSW, formerly the Ministry of Labour and Social Services (MoLSS)) began implementing the HSCT programme) in 10 new districts. An impact evaluation accompanied the programme to learn its effects on recipients and provide evidence for making decisions about the future of the programme. UNICEF Zimbabwe contracted the American Institutes for Research (AIR) and its partners, the University of North Carolina at Chapel Hill (UNC), Ruzivo Trust, and the University of Zimbabwe's Geography department, to conduct the evaluation of the HSCT. The Food and Nutrition Council's (FAO's) From Protection to Production (PtoP) project provides financial support to the evaluation and technical support to the design and implementation of the agricultural modules in the survey. 3IE is providing financial support to UNC and Ruzivo Trust to conduct the final round of data collection and analysis. The evaluation team designed and will implement a 12-month impact evaluation of the programme and will conduct the necessary data collection, analysis, and reporting.[1] This baseline report is structured to have seven sections: Introduction, Conceptual Framework, Study Design, Survey Instruments, Sample, and Limitations and Conclusion. A dedicated report on targeting performance in the HSCT is provided as a stand-alone report.

Background

The HSCT programme, which is positioned to become Zimbabwe's primary social protection programme, provides cash to the most vulnerable households across the country. The programme targets labour-constrained households that are also food poor. Eligible households receive unconditional cash payments every other month that range from US$10 to $25 per month and are based on household size. By August 2012, more than 18,000 households in 10 districts had been enrolled in the programme. It is anticipated that the programme will eventually cover the whole country, with plans to help 250,000 poor families by 2015 in all 65 districts of Zimbabwe.

HSCT is jointly funded by the Zimbabwe government and donors, and UNICEF provides additional financial and technical support in addition to managing the Child Protection Fund (CPF). The CPF is the funding mechanism for the HSCT embedded in a single sector policy and budget framework, the Zimbabwe National Action Plan for Orphans and Vulnerable Children (NAP). The Zimbabwean government, through fiscal funding to the MPSLSW, matches the donor funds on a 50-50 basis. For 2012, the government committed US$7 million, which was revised downwards to US$2 million during the mid-term budget review by the Ministry of Finance. However, according to the Ministry, it is expected that the funding will increase annually from both donors through the CPF and the government.

---

[1] Ruzivo Trust was contracted by AIR to assist with the baseline data collection.

Locations

The MPSLSW chose to start the Phase 2 rollout of the HSCT in three new districts: Binga, Mwenzi, and Mudzi[2]. Households in these three districts will be compared with eligible households in three Phase 4 districts (UMP, Chiredzi, and Hwange) that will not begin receiving the transfers during the period of the study. The comparison districts were selected by the Ministry to match the treatment districts by agro-ecological characteristics (they neighbour each other), culture, and level of development. An explanation of the study design follows in a later section.

Objectives

Cash transfers empower the beneficiary households to increase their consumption to a level which exceeds the food poverty line, reduce child labour, increase school enrolment and attendance, and access basic social services. The mechanism in the HSCT programme for improving the individual's health and human capital development, thus providing increased protection from risks and shocks, is a monthly stipend to households delivered bimonthly. Therefore, an evaluation of Zimbabwe's HSCT programming should assess short-term impacts to recipients' food and nutritional intake and use of health and education services and also assess long-term impacts to recipients' health, wealth, and educational attainment (if the recipient is of school age). In addition to an impact evaluation, an income multiplier study will be conducted to assess the impact on the local economy, as well as a targeting evaluation to assess target accuracy and an implementation evaluation to assess programme fidelity and generalisability for further scaling.

Timeline for Zimbabwe HSCT

This section outlines the key milestones and timeline associated with the baseline evaluation from the initial stakeholder meetings through the analyses of the baseline data.

Upon signing the contract, the evaluation team traveled to Zimbabwe in June 2012 to meet with the MPSLSW and UNICEF in order to agree upon the evaluation design and timeline. The evaluation team, UNICEF, and the Ministry decided to implement a quasi-experimental design in which three treatment districts from Phase 2 would be compared with three similar districts from Phase 4. The evaluation team wrote the inception report after this meeting, which was an iterative process with the MPSLSW and UNICEF; the report was approved in September 2012.

In October 2012, the MPSLSW, with oversight from UNICEF and the evaluation team, randomly selected 60 wards from the three treatment districts[3]. At the same time, the evaluation team worked with the MPSLSW to select 30 wards from the comparison districts that were similar to the selected wards from the treatment districts. After selecting the 90 study wards, the ZIMSTAT started conducting the targeting in these 90 wards to identify eligible households. The targeting process determines what households should receive benefits by collecting household level data in the selected districts. However, the process took longer than initially planned (mid-February) and was not complete until early May 2013.

---

[2] The MPSLSW has taken a phased approach to the rollout of the HSCT. Phase 1 represents the first 10 districts to receive the HSCT programme, which started prior to the commissioning of this evaluation.

[3] Zimbabwe is divided into eight provinces and two cities with provincial status. The provinces are subdivided into 59 districts and 1,200 wards. There are approximately 12-30 wards per district.

ZIMSTAT completed targeting in four of the six study districts in April, which enabled the evaluation team to randomly select the eligible and ineligible samples of households for the study.

Meanwhile, the evaluation team developed the baseline data collection instruments, drawing from existing national and international surveys. Instrument development was an iterative process. The team included the instruments in a comprehensive methodology report, which the Ministry and UNICEF approved in March 2013. The evaluation underwent two rigorous ethics reviews. The first review was conducted through AIR's Institutional Review Board (IRB), and the second ethics review was conducted through the Medical Research Council of Zimbabwe (MRCZ). Both institutions approved the HSCT evaluation and baseline data collection in March 2013.

As the targeting was nearing completion, the evaluation team conducted enumerator, supervisor, and data entry training from 15 to 26 April 2013 in Harare. See the *Baseline Data Collection Training Report for the Impact Evaluation of the Harmonized Social Cash Transfer Program in Zimbabwe* (2013) for more details about the training. Midway through the training, the team piloted and finalized the instruments and sent them for printing. Baseline data collection started immediately thereafter. The baseline data collection occurred from 28 April to 7 June 2013. These dates were determined by both the household targeting process and set to avoid the national election campaign period. See *Baseline Data Collection Field Report for the Impact Evaluation of the Harmonized Social Cash Transfer Program in Zimbabwe* (2013) for more information about the data collection.

While data collection continued, the monitoring team brought batches of data from the field to commence data entry. Data entry and cleaning continued into September 2013. As soon as data from one pair of districts were entered, the evaluation team began its analyses, which continued throughout the report-writing process. See Table 1 for a summary of the key events associated with the baseline evaluation.

Table 1. Timeline of Key Events for the Baseline Evaluation of the Zimbabwe HSCT Programme

Activity	Timeframe
Initial stakeholder meetings	June 2012
Inception report with study design approved	June–September 2012
Ward selection	October 2012
Instruments designed and approved	November–March 2013
Ethics review	January–March 2013
Targeting complete	May 2013
Household sample selection	April–May 2013

Enumerators trained	April 2013
Instruments piloted and finalized	April 2013
Data collection	April–June 2013
Data entry and cleaning	May–September 2013
Data analysis	July–November 2013

2. Conceptual Framework

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

Figure 1 brings together these ideas into a conceptual framework that shows how the HSCT 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. We expect a direct effect of the cash transfer on household consumption (food poverty, 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), including bargaining power within the household, the degree to which the household is forward looking, and the expectations the household has about the quality of life in the future (which could determine investment and other choices with longer-term implications). Similarly, the impact of the cash transfer may be smaller or larger depending on local conditions in the community. These moderators include access to markets and other services, prices, and shocks. Moderating effects are shown with lines that intersect the direct causal pathways between the cash transfer and outcomes to indicate that they can influence the strength of the direct effect.

The next step in the causal chain is the effect on young children and adolescents. Here we focus on young children under age 5 and adolescents ages 13–20 because these are important demographic groups for public policy. The key point to recognise 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. Indeed, from a theoretical perspective, some factors cited as mediators may actually be moderators. We can test for moderation

versus mediation through established statistical techniques,[4] and this information will be important to help us understand the actual impact of the programme on behaviour.[5]

In Figure 1, we list some of the key indicators along the causal chain that we will analyse in the evaluation of the HSCT. 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 ZDHS.

Figure 1. Conceptual Framework for Impact Evaluation of Zimbabwe's HSCT
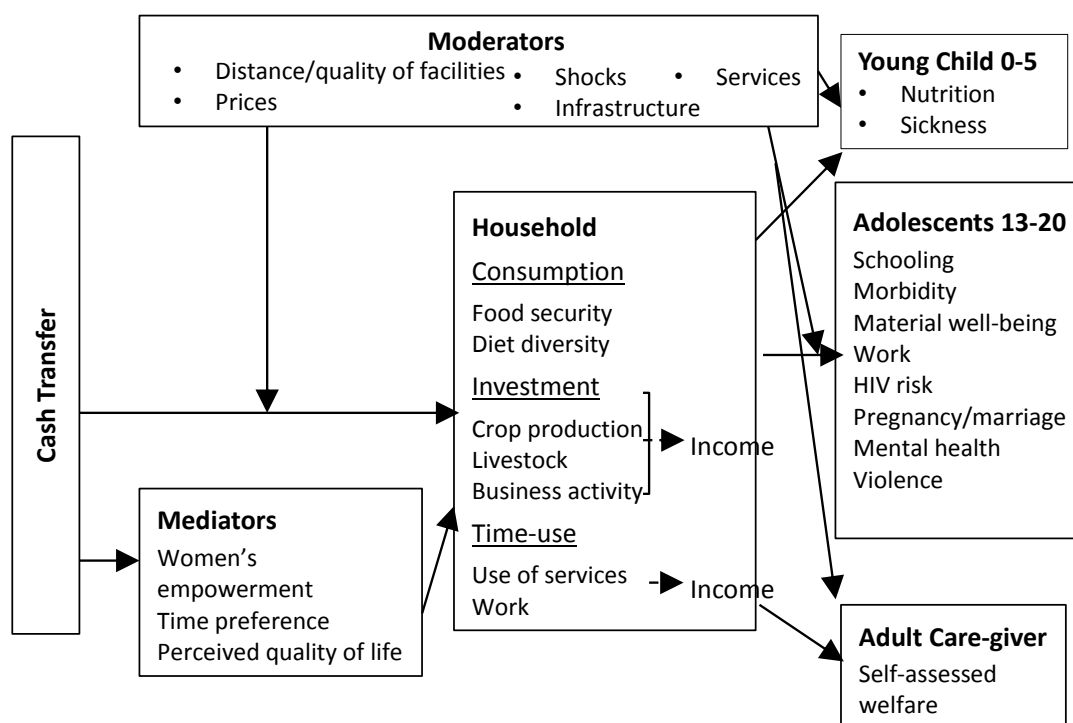
The overarching research questions that are relevant to the baseline report follow:

1. Do SCTs reduce food poverty considering both the amount of food and diet diversity?
2. Do SCTs improve the human development of children and adolescents, including improved access to health and education services, improved nutrition, reduced abuse and exploitation, and reduced HIV risk?
3. Do SCTs improve the productive capacity of the household?

---

[4] Baron, R. M., & Kenny, D. A. (1986). The moderator-mediator variable distinction in social psychological research: Conceptual, strategic and statistical considerations. *Journal of Personality and Social Psychology*, *51*(6), 1173−1182.
[5] A mediator is a factor that can be influenced by the programme and so lies directly within the causal chain. A moderator, in contrast, is not influenced by the programme. Thus, service availability is a moderator, whereas women's bargaining power may be either a moderator or a mediator depending on whether it is itself changed by the programme. Maternal literacy is a moderator and not a programme outcome, unless the programme inspires caregivers to learn to read and write.

3. Study Design

The impact evaluation of Zimbabwe's HSCT uses a 2-year,[6] mixed methods, longitudinal, *nonexperimental* design study[7]. The study will compare cash transfer recipient households from Phase 2 districts (specifically Binga, Mwenzi, and Mudzi) with eligible households in Phase 4 districts (UMP, Chiredzi, and Hwange) that will not begin receiving the transfers during the period of the study. The comparison districts were selected by the Ministry to match the treatment districts by agro-ecological characteristics (they neighbour each other), culture, and level of development.

A major factor in the choice of a nonexperimental design rather than a randomized control trial is the stated policy of the Ministry that all eligible households will be enrolled in the programme once a district enters the programme. In other words, the programme will immediately be scaled up within each district. The Ministry determined that it would be ethically and politically unfeasible to provide the programme to some households while delaying others within the same district to serve as a control group because it would conflict with this stated policy. Therefore, a randomized controlled trial design is not possible because all eligible households within a district must receive the programme at the same time. The Ministry and UNICEF are aware that the current design leaves open the possibility that observed differences between the treatment and comparison households could result from an effect other than the cash transfers owing to, for example, circumstances that occur in an early-entry district and not in a delayed-entry district (e.g., flood, crop disease). However, eligibility is not demand driven, there is no element of self-selection in the recruitment process, and take-up is thought to be 100 percent. Thus, any differences between the two groups are likely to be observable to the researcher and can be accounted for in the statistical analysis.

Sampling

The longitudinal impact evaluation includes 3,000 households in 90 wards across six districts, with 60 wards in the treatment sample and 30 wards in the comparison sample. This unbalanced design results from limited resources and time available to conduct targeting in the comparison districts. All wards receiving the HSCT in 2013 must be targeted for the programme, regardless of the study, but the comparison wards are being targeted only for the purpose of the study. Thus, the comparison wards require additional resources and time not necessitated by current programme implementation. This study will calculate the average impact estimate by using a difference-in-difference model that accounts for clustering of households in wards and wards in districts. Owing to the limited number of wards in each district, this study is unable to estimate impacts at the district level with reasonable precision (95 percent confidence) and can only estimate the impacts of the programme as a whole.

---

[6] AIR has a contract with UNICEF to conduct the baseline and 12-month follow-up rounds of data collection. UNC, with money from 3IE, will conduct the 24-month follow-up round of data collection.
[7] Nonexperimental designs to not manipulate the selection process to determine who receives the programme, while randomized control trials use a lottery process to select who will receive the programme and who will be controlled to not receive it.

Because the selected districts have more beneficiary households and wards than are needed for the sample, a subset of households and wards was identified and selected for the study. Table 2 lists the number of wards in each district.

Table 2. Study Districts by Treatment Status

District	Status	Number of Wards in Study	Wards Excluded From Study*
Mudzi	Treatment	18	0
Mwenezi	Treatment	18	0
Binga	Treatment	24	1
Hwange	Comparison	12	7
UMP	Comparison	9	6
Chiredzi	Comparison	9	15

* 60 treatment wards and 30 comparison wards

The steps for selecting the sample follow:

1. Three treatment districts from Phase 2 and three matching comparison districts from Phase 4 were selected by the MPSLSW. The comparison districts were matched by agro-ecological conditions, level of development, and culture.
2. The MPSLSW, with oversight from UNICEF and the evaluation team, randomly selected 60 wards from the three treatment districts.
3. The evaluation team then worked with the MPSLSW to select 30 wards from the comparison districts that are similar to the selected wards from the treatment districts. Wards were selected by similarity of geography, climate, overall development level, availability of services, access to other development programmes, and culture, with an emphasis on making sure that the agro-ecological environment of the treatment wards is similar to that of the comparison wards. Appendix A provides a detailed description of the matching process and the results.
4. After selecting the 90 study wards, the MPSLSW conducted targeting in these 90 wards to identify eligible households. Targeting was conducted in exactly the same way in both the treatment and the comparison wards to create equivalent and comparable groups. In this sense, households in the comparison group are precisely those that are eligible for the programme and that will enter the programme at a future date—they are thus a genuine 'delayed entry' comparison group.
5. Last, the evaluation team randomly selected 34 households that had been identified through the targeting process as eligible for the programme from each of the 90 wards. These randomly selected households make up the sample for the impact evaluation. If a ward did not have 34 eligible households, additional households were identified from larger study wards in the same district.

Data Collection

Quantitative data are collected in three rounds: baseline, 12-month follow-up, and 24-month follow-up. The baseline data collection was necessary to capture the baseline living conditions of the recipients and the comparison group before any cash transfers had been paid. In addition, these data provided a detailed description of beneficiaries and allowed the evaluation team to assess whether any systematic differences between the treatment and the comparison groups existed at baseline so that the differences can be controlled for during the analysis of programmatic impacts. It was vital that the baseline data be collected before the treatment group received payments. Because some short-term indicators, such as consumption, attitudes, and behaviour, will be impacted by the programme soon after households receive payments, we conducted the baseline survey before these impacts occurred to ensure that we properly measure the full impacts of the programme. Otherwise, benefits from the programme that take effect in the short term would be lost and not attributed to the cash transfers.

The baseline data collection occurred from 28 April to 7 June 2013. These dates were determined by both the household targeting process and the national election campaign period.

The households eligible for the HSCT programme had to be identified before data collection could begin. The MPSLSW, through ZIMSTATS, conducted the targeting of households, which it completed in early May 2013. Data collection had to be completed by the time of the national election.

The baseline survey data collection plans coincided with the announcement of the Zimbabwean national elections. Although the date for these elections was not confirmed when the baseline survey commenced, there was a possibility, given the outcome of the March 2013 constitutional referendum, that elections would be held in July. Because it is critical that there be no break in service delivery to beneficiaries (Phase 2 of the HSCT requires the baseline to be complete), our discussions with key partners—MPSLSW, UNICEF, AIR, UNC, and Ruzivo Trust—made it clear that it would be best to collect data prior to the election campaigning period to ensure community access and data quality and to avoid disruption to programming. Therefore, baseline data collection occurred prior to the election campaigning period, instead of being delayed until after July.

The field work was carried out by 6 supervisors, 70 enumerators, 9 anthropometrists, and 21 drivers, all led by the Ruzivo Trust team leader and supported by the international researchers from AIR, UNC, and FAO. Each of the six survey teams comprised 11 or 12 enumerators, 3 drivers, at least 1 Food and Nutrition Council (FNC) anthropometrist, and 1 supervisor. In addition, District Social Services Officers (DSSOs), village heads, councilors, village secretaries and assistants to councilors, ward youth officers, and other key community leaders supported and monitored the teams and helped identify villages and households.

Teams of enumerators experienced in household and community surveys and fluent in the local language where they worked were trained on the HSCT instrument and then tested in the field before moving into their assigned communities for data collection. One enumerator collected data in each household, interviewing the identified potential recipient and documenting her answers. This oral interview process was necessary because many of the recipients are illiterate. In addition to interviewing

the head of household, the enumerator interviewed up to two adolescents ages 13–20 in each household. The adolescent interviews were held in private, and enumerators could interview only adolescents of the same gender to be culturally sensitive to the private nature of the questions. In addition to the household survey, a community questionnaire was administered in every ward by two senior enumerators to a group of community leaders including teachers, village headmen, and local business owners.

The team successfully collected all expected data from the six districts. The goal was to collect 3,900 household surveys with 3,000 eligible households and 900 ineligible households. As shown in Table 3, the team collected surveys from 3,068 eligible households and 923 ineligible households. Further, the team collected 90 community surveys, 360 business enterprise surveys, and 12 in-depth interviews (IDI) with youth and caretakers.

Table 3. Summary Count of Baseline Surveys Collected

Instrument	Mudzi	UMP	Binga	Hwange	Mwenezi	Chiredzi	Total
Household — Eligible	612	311	816	417	606	306	3,068
Household — Ineligible	182	94	240	125	192	90	923
Community	18	9	24	12	18	9	90
In-Depth Interviews	0	0	6	0	6	0	12

Data Entry

Ruzivo Trust entered the data as they came in from the field. Data were verified by using double entry on separate computers, flagging inconsistent responses between the two entries, and referring to the original questionnaire to see the actual response.

Quantitative Data Collection Instruments

Indicators for the impact evaluation were selected to address the research questions and also align with the log frame.

The evaluation team, UNICEF, and the Ministry discussed the possibility of collecting data on HIV status among young people in the evaluation study. Mr. Sydney Mhishi, the director of the Ministry, ultimately decided that HIV status should not be collected because it would complicate the evaluation.

The data reported in the impact evaluation came from four quantitative instruments:
- **Household survey** for the head of every household in the treatment and comparison groups
- **Adolescent survey** for up to three young people ages 13–20 in the study sample, covering sexual activity, mental health, and child protection
- **Anthropometric measures** for all children ages 5 and under in the study sample
- **Community survey** (one survey per ward) administered to a group comprising community leaders, shop owners, and local government extension workers

Qualitative Data Collection Instruments

The impact evaluation is a mixed methods design that includes qualitative data in addition to the quantitative data. The qualitative research is used to strengthen the quantitative focused mixed method evaluation, providing a basis for in-depth analysis and insights into the impact of the HSCT. The rich contextual information obtained through the longitudinal qualitative interviews with young people and caregivers, and the semi-structured interviews and focus groups with community leaders and service providers, will help deepen our understanding of how and why the programme affects individuals and communities. The qualitative data will serve as a means of developing the instruments, triangulating the evidence collected, and extending the comprehensiveness of and generating new insights into the evaluation findings.

The first part of the qualitative work was conducted in October 2012, before the quantitative baseline survey. The primary focus of this preliminary qualitative field work was on the impacts of the HSCT on household economy, local economy, and community social networks, as well as impressions of the operational implementation of the first phase of the transfer. The two main objectives of the field work were first to provide some early insight into the impacts of the programme and second to help guide the development of the household questionnaire used in the baseline survey. This early qualitative work provided key insights into the quantitative instrumentation design and ensured that appropriate contextual information was included in the various questions and possible responses. This work was carried out under the auspices of the PtoP project led by FAO-Rome.

For the baseline, the qualitative work consisted of IDIs with 12 families in the programme at baseline, who will be followed up again 12 months after intervention (an embedded longitudinal qualitative study). IDIs were conducted for one young person in the family and the caregivers (separately). We used stratified purposeful sampling to select the 12 families on the basis of district, ward, and sex to ensure that no households came from the same ward and that male and female young people were equally represented. These interviews provided a rich picture of the life of these families prior to the programme. The IDIs augmented the household surveys by capturing interactions among complex and changing contextual factors that could influence the HSCT impact.

4. Survey Instruments

Four survey instruments were used in the impact evaluation of the HSCT—household questionnaire, adolescent questionnaire, caretaker and youth IDIs, and community questionnaire. The core instruments were the household and adolescent questionnaires. The guiding principles behind the design of the household questionnaire are described in the comprehensive methodology report[8] submitted to UNICEF and the MPSLSW. The design of the household instrument was guided by three core principles:

- The instrument must contain the key list of indicators presented in the project's log frame that will allow the programme to be assessed against its stated objectives. These core indicators include monetary poverty, food security, school enrollment and absenteeism, morbidity, and the welfare of orphans and other vulnerable children, although the final instrument contains many more relevant indicators.
- Where possible, indicators are measured using the questions and approaches that have already been field tested and approved by Government and Cooperating Partners in Zimbabwe. For almost all the key indicators measured in the study, we employ questions from the ZDHS or other national instruments, thus ensuring that they are appropriate for local conditions and that the resulting data can be compared with national data. The most notable exceptions are the mental health scale and a set of questions on future aspirations for adolescents; neither topic is covered in the ZDHS.
- The survey instrument must be a manageable length to avoid interviewer or respondent fatigue. The final instrument takes approximately 90 minutes to complete. Table 4 provides a list of topics covered in each of the four instruments.

Beyond these three principles, and consistent with international best practice in programme evaluation, the instruments collected sufficient information along the causal chain to allow us to understand *how* the programme influences behaviour. This is in contrast to more naïve evaluations that look only at *whether* a programme has had an impact by focusing exclusively on final outcomes. By looking at the entire causal chain, we are better able to understand how the programme influences behaviour, even when final outcome or impact indicators are not influenced by the programme. Because the programme provides cash, and because savings rates among this very poor population are likely to be very low, the initial and direct impact of the programme will be to influence spending and household expenditures. Expenditure, therefore, is a key *mediator* for subsequent development impacts on orphans and other vulnerable children (see Figure 1, Conceptual Framework). We have thus included a full expenditure module in our household survey, which aligns well with the expenditure module used by ZIMSTATS to compute national poverty and welfare measures. This module covers 217 separate expenditure items across both food and nonfood categories.

---

[8] American Institutes for Research. (2013). *Comprehensive Methodology Report for HSCT Evaluation* (submitted to UNICEF and MPSLSW, Harare, 2013): Washington, DC: Author.

A particularly innovative aspect of this evaluation is the battery of questions that were asked directly of adolescents age 13-19 in face-to-face interviews. This was a time-consuming exercise, but it allowed us to obtain key information on expectations, aspirations, and mental health directly from the respondent and also allowed us to probe on more sensitive and delicate topics such as sexual activity, partner characteristics, and violence. Sexual activity, mental health, and violence are especially innovative topics for a large-scale evaluation such as this and are of obvious importance in terms of child protection and exposure to risky behaviour.

Table 4. Topics in Survey Questionnaires

Household Survey	**Caretaker and Youth In-Depth Interview**
Roster and Orphan Status	**Caretaker**
Health — All	Personal Background
Education — 3+ years	Social Networks
Main Economic Activity — 5+ years	Family Support Systems
Income — 16+ years	Household Economy
Household Assets	School Attendance
Housing Conditions	Health and Family Well-Being
Household Enterprises	Experiences with HIV and AIDS
Credit	**Youth**
Access to Facilities and Services	Personal Background
Agriculture and Livestock	Personal Network Inventory
Self-Assessed Poverty and Food Security	Extended Family Network
Women's Empowerment and Expectations	Broader Social/Community Networks
Mortality	Household Economy
Child Health 0–59 months	Well-Being
Fertility — Women 12–49	Education and School Experience
Expenditure	Sexual Behaviour
	Experiences with HIV and AIDS
Adolescent Module	
	Community Survey
Future Aspirations	
Future Quality of Life and Health	Migration
Mental Health	CWAC Profile and Governance
Sexual Activity	Agricultural Prices
Time Preference	Existence of Other Programmes and Groups
Violence	External Shocks
	Wage Rates
	Prices of Food

5. Sample

The primary purpose of the baseline data collection is to measure the starting point for everyone in the sample and check that the treatment and comparison conditions are balanced before the start of the intervention. This section reports the mean differences at baseline for primary outcomes and mediating variables between the treatment group and the comparison group on the household survey. We also describe the sample for the study, breaking it into five categories: household demographics, self-reported welfare, children, adolescents, and household production. In theory, using the same targeting process in similar wards should lead to a balance for outcome and control indicators between the two conditions, but this may not always happen.[9] Therefore, we measured each group at baseline and tested for differences to determine whether the identification process led to a balanced sample.

Treatment and Comparison Groups

The identification process appeared to have worked in terms of creating equivalent groups at baseline because the mean characteristics of groups were balanced between the treatment and comparison conditions. We tested 56 primary outcome measures and control variables for statistical differences between the two groups, using OLS regression with cluster robust standard errors (to account for the nested nature of the data with households clustered in wards). Eight of the indicators were statistically significantly different at baseline. However, none of these eight indicators was meaningfully different because the observed difference was less than 0.25 standard deviation for that indicator. This evaluation included a large sample size with more than 3,000 households; the study was thus powered to detect very small differences that might not be meaningful.[10] Table 5 shows mean values for the key log frame indicators for the programme in the baseline survey broken down by treatment and control. Most of these indicators will be interpreted later in the report, but here it is important to assess the success of the study design in obtaining baseline balance in these indicators. Note the range of domains that the indicators encompass, including health, nutrition, schooling, access to services, monetary poverty, child protection, and HIV behavioural risk. This range underscores the substantial complexity involved in designing and implementing the survey instrument.

---

[9] Campbell, D. T., & Stanley, J. C. (1963). *Experimental and quasi-experimental designs for research*. Hopewell, NJ: Houghton Mifflin.

[10] See Appendix B for the complete results for all 56 indicators.

Table 5. Means of Key Log Frame Indicators at Baseline by Study Arm

Indicator	Full Sample	Treatment	Comparison
Morbidity, children ages 6–17 (%)	16.1	16.3	15.7
Morbidity, children ages 0–5 (%)	48.9	47.3	51.9
Have had sex, youth ages 13–20 (%)	8.5	8.1	9.6
Age at first sex, youth ages 13–20	15.1	15.4	14.8
Stunting, children ages 6–59 months (%)	29.9	30.1	29.5
Food poverty rate, people (%)	81.4	81.1	82.1
School attendance, all children ages 6–17 (%)	66.4	69.8	60.4
Children 6–17 receiving Basic Education Assistance Module (BEAM) (%)	15.8	15.5	16.5
Enrolled in school, children ages 6–17 (%)	83.7	84.4	82.0
Suffered physical violence last 12 months, youth ages 13–20 ((%)	47.2	46.6	48.8
Suffered physical violence last 12 months, females ages 13–20 (%)	42.7	42.6	42.9
Children ages 9–18 engaged in labour (%)	12.2	12.8	10.6
Households with chronically sick members (%)	36.6	35.4	38.9
of which receive HBC (%)	3.6	3.9	3.0
Households with disabled members (%)	25.2	24.5	26.7
of which sought care (%)	40.7	38.6	44.5

Besides checking for statistical equivalence between groups, the baseline study provided a snapshot of the lifestyle, well-being, and family characteristics of potential recipients before they started receiving the cash transfers. We present this picture by describing the entire sample with the treatment and comparison groups combined because the two groups were statistically similar and both represented eligible recipients for the programme. We describe the five characteristics of the sample that relate to the goals of the programme: demographics, self-reported welfare (monetary, food), children (anthropometrics, education), adolescents (sex, violence, mental health), and household productivity. When feasible, we present comparisons with national samples taken from the ZDHS.

Demographics

The sample contained 3,063 eligible households, with 2,029 in the treatment group and 1,034 in the comparison group. The median household size was five people, with a standard deviation of 2.68 for the average size of 4.7 persons per household. The distribution of households by size is presented in Figure 2.

Figure 2. Household Size Distribution
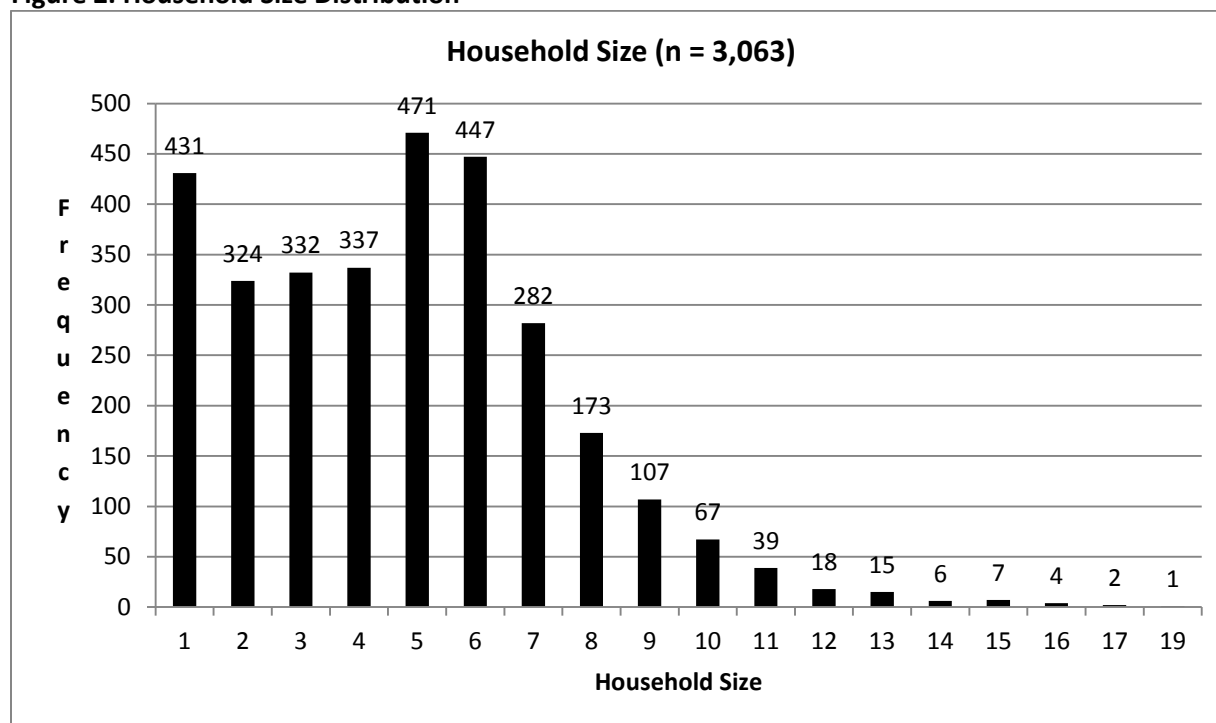
A total of 14,597 individuals were in the sample of eligible households, with slightly more females (55.4 percent) than males. Children ages 0–5 made up less than 15 percent of the sample, but children ages 6–17 represented over 43 percent of sampled individuals (Table 6).

Table 6. Age Distribution by Gender

Age	Male	Female	Total	Average Number per Household
0 to 5	16.3	13.4	14.7	0.70
6 to 17	48.6	38.8	43.2	2.01
18 to 59	19.9	27.2	23.9	1.14
60+	15.2	20.6	18.2	0.87
Total	100.0	100.0	100.0	4.72

Figure 3 shows the distribution by age and gender of the HSCT-eligible population in the evaluation sample. There are two important features to note about the demographic distribution of HSCT households. First is the U-shaped age-profile, with a large proportion of young people (especially adolescents) and few prime-age residents but another 'bulge' beyond age 60. This pattern is a direct consequence of the 'labour constrained' criterion for household eligibility. Second is the fact that there are significantly more females than males in HSCT households and this difference is concentrated among the elderly.

Figure 3. HSCT Population by Age and Gender

HSCT Population by Age and Gender (N = 14,575)
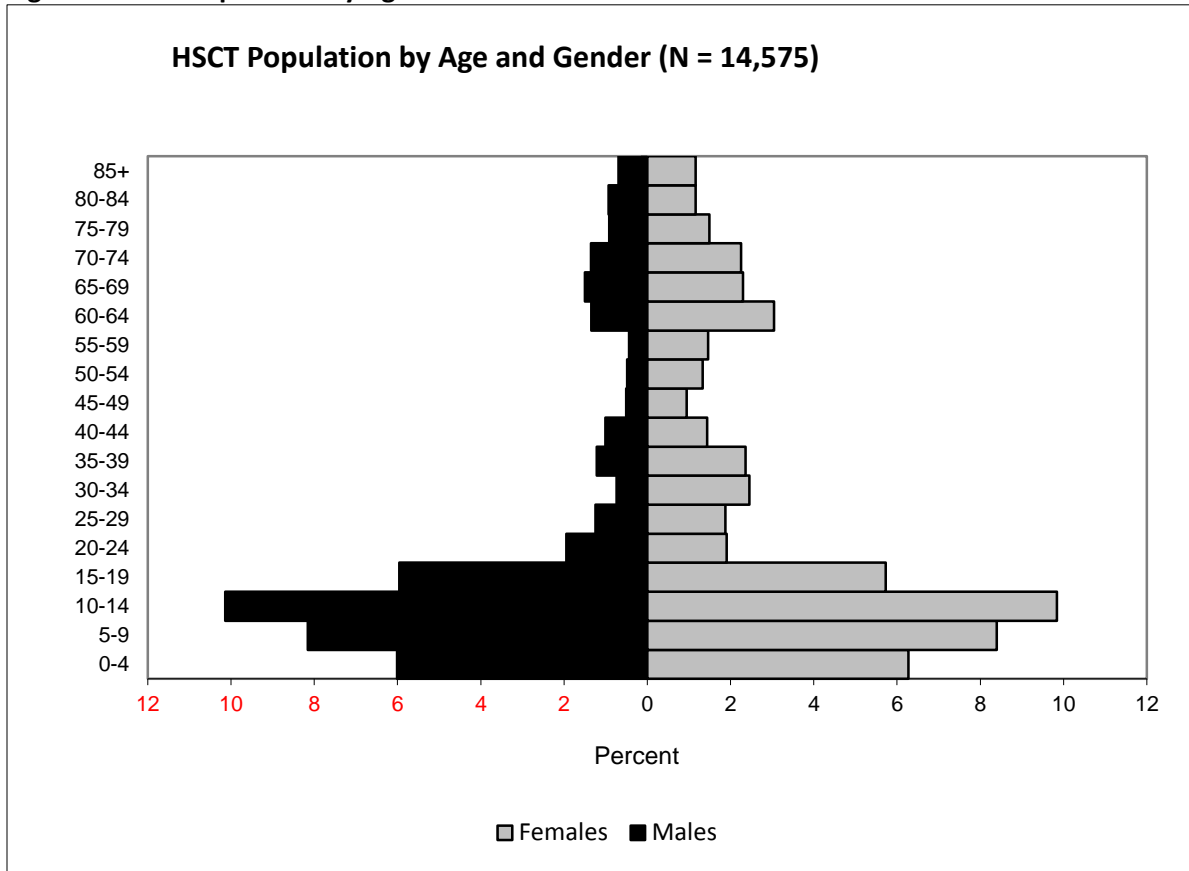
The unique demographic structure of HSCT households is further illustrated with a comparison between HSCT households and those from the poorest quintile in rural regions in the ZDHS. We did not have access to the micro-data in the PICES, thus we use the ZDHS for comparisons throughout this report when PICES would not work. In Figure 4, the top panel shows again the unique U shape of the age distribution among HSCT households, whereas the bottom panel shows a very different distribution among the poorest quintile of rural households in Zimbabwe. These households have significantly more children under age 5 and more prime-age household members. These graphs show that the HSCT-targeting criteria picked out a special group of households from among the poor, typically 'missing generation' families with older caregivers providing for adolescents.

Figure 4. Age Distribution of Household Members
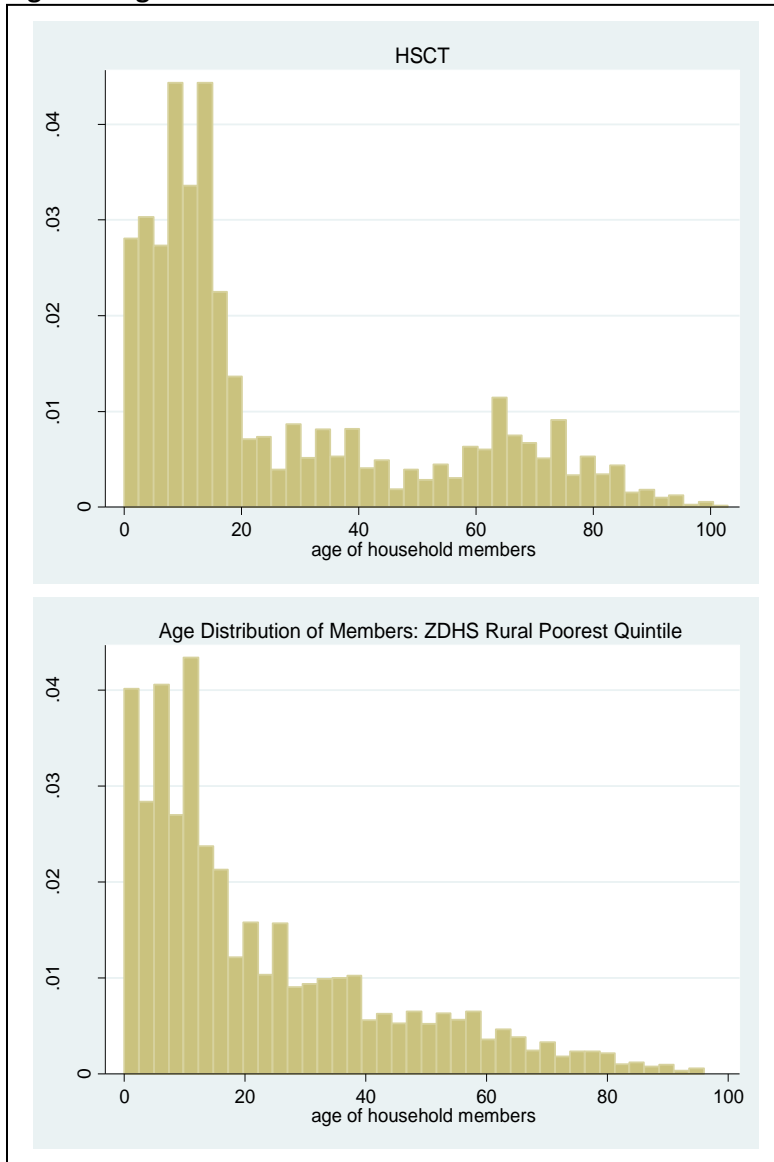
These children were consequently more likely to be orphaned as borne out by Table 7, which shows the distribution of children by status of the parent for the HSCT as well as for rural households in the poorest wealth quintile from ZDHS. Almost 40 percent of children ages 0–17 in the HSCT were missing at least one parent compared with only 26 percent in the ZDHS sample. The rate of maternal orphans in HSCT was more than twice that in the poorest rural households as a whole, indicating the extreme vulnerability of children targeted in the programme.

Table 7. Orphan Status of Children Ages 0–17

Status	HSCT	ZDHS[1]
Both parents alive (%)	61.4	73.1
Single orphan: mother dead (%)	7.5	3.1
Single orphan: father dead(%)	21.1	16.8
Both parents dead (%)	9.4	7.0

[1] ZDHS sample is poorest wealth quintile from rural regions only. There are 8,438 children ages 0–17 in HSCT and 4,938 in the ZDHS sample used in this table. We could not make comparisons with PICES because we did not have access to their micro-data.

Table 8 shows the distribution of marital status of all individuals ages 15+ in the HSCT evaluation sample as well as those 15+ in our ZDHS analytical sample (poorest wealth quintile, rural areas only). The distribution is clearly different, with many more 'never married', reflecting the larger group of adolescents in the HSCT; meanwhile, there were more widows in the HSCT, primarily heads of household.

Table 8. Marital Status, Individuals Ages 15+

Status	HSCT	ZDHS
Never married (%)	28.0	20.8
Married/cohabitating (%)	44.8	60.1
Separated/divorced (%)	7.2	5.1
Widowed (%)	20.0	14.0

[1] ZDHS sample is poorest wealth quintile in rural areas. ZDHS collects marital status only from individuals ages 15+, and accordingly we have compared with individuals ages 15+ in the HSCT sample. Sample size is 7, 471 in HSCT and 4,461 in ZDHS.

Table 9 provides additional information on household characteristics specifically related to the demographic eligibility criteria of the programme. The key characteristic of labour constrained, as defined in the operations manual and simulated in the evaluation sample, was 76 percent (last line of Table 9). This number deviated from 100 percent because the criterion 'fit for work' was ultimately self-reported in the targeting Form 1, whereas in the evaluation survey, the designation 'fit to work' was estimated using a series of variables including chronic illness (sick for at least 3 months in the last year) along with disability.

Table 9. Means of Selected Household Characteristics of HSCT Households

Characteristic	Mean
Number of household members	4.7
Number of adults	1.1
Number of adults fit to work and no schooling	0.9
Number of adults not fit to work	0.2
Number of children	2.8
Number of elderly	0.8
Number of people with disability	0.3
Number with chronic disease or disability	0.6
Households with no fit adult (%)	41.8
Households with people with disability (%)	25.2
Households with elderly (%)	66.5
Households female main respondent (head) (%)	68.3
Households widowed main respondent (head) (%)	38.4
Households divorces/separated main respondent (head) (%)	9.3
Households labour constrained (%)	75.7

sample = 3,063

We break these demographic descriptions by household's labour-constrained status. There are two components to labour constraint—fit to work status and dependency ratio. We show three categories in Table 10 to describe how household characteristics differed by their labour-constrained status. Perhaps the largest difference is that households without anyone fit to work were twice as likely to be headed by widows than households with at least one person fit to work.

Table 10. Household Demographics by Labour-Constrained Status

Demographics:	without anyone FTW	FTW>0 but dependency ratio>=3	FTW>0 & dependency ratio<3
Household size	3.1	6.5	5.9
Households with disabled members (%)	81	55	43
Households with elderly members (%)	86	51	42
Characteristics of main respondent:			
Females (%)	70	69	65
Widowed (%)	52	27	24
Divorced/ seperated (%)	9	11	7

Note: FTW stands for Fit to Work

The HSCT includes all households below the food poverty line that have a disabled member. Households with disabled members might respond differently to the cash transfer than households with only able-bodied people because disabled members are less likely to be able to use the transfer in agricultural

production. We find that 36.6 percent of households had at least one disabled member, but that disabled people made up only 6 percent of the eligible population. Disabled people were split evenly between men and women. Roughly 40 percent of the disabled people in the sample were the primary recipients of the grant, 15 percent were the primary recipient's spouse, and almost 20 percent were the biological children of the primary recipient. Table 11 shows the breakdown of disabled people by their gender and relationship to the primary recipient, also the primary respondent to the survey.

Table 11. Characteristics of Disabled Population Within Eligible Sample

	N	Percent of total
Number of disabled	876	6.02
Males	408	6.3
Females	468	5.8
Relationship to main respondent:		
Self	349	39.89
Spouse	133	15.2
Biological Child	167	19.09
Step Child	10	1.14
Adopted Child	2	0.23
Grand child	71	8.11
Brother/Sister	26	2.97
Cousin	2	0.23
Neice/Nephew	18	2.06
Brother/Sister in law	8	0.91
Child-in-law	2	0.23
Parent	57	6.51
Parent-in-law	18	2.06
Other Relative	12	1.37

Self-Reported Welfare

This section characterizes the self-reported monetary and food consumption welfare status of HSCT-eligible households.

Monetary welfare

Almost all (97 percent) of beneficiaries lived in households below the poverty line set by ZIMSTATS, and 81 percent lived below the food poverty line. Per capita consumption was $26 per month or 85 cents per person per day, which was about half the rural median ($26 versus $50) as reported by ZIMSTATS based on the 2010–11 PICES (Table 12). As a result, the percentage of beneficiaries living below the food poverty line was significantly higher than in the rural population as a whole (81 percent versus 30 percent). The poverty gap, which measures the distance between the consumption of the poor and the poverty line itself and reports the gap in the mean percent below the poverty line, was also much higher in HSCT households than in rural Zimbabwe. HSCT households below the poverty line (most of them—the poverty rate is 97 percent) had a mean consumption that was 63 percent below the poverty line,

compared with a mean gap of only 43 percent among the rural poor [11]. Thus not only was the poverty rate much higher among the HSCT population, but the consumption of HSCT beneficiaries below the line was significantly lower than that of other poor rural households in Zimbabwe.

Table 12. Consumption Expenditures and Poverty

	HSCT	PICES 2011 Rural[1]
Per capita monthly consumption expenditure (median)	25.52	50.45
Poverty line headcount (people) (%)	97.36	84.3
Food poverty line headcount (people) (%)	81.40	30.4
Poverty gap (%)	63.21	42.8

[1] Median consumption taken from Figure 2.1 (multiplied by 1.06 to bring to $2,013) and poverty counts taken from Table 2.4 of Zimbabwe Poverty Report 2011.

The evaluation sample for the HSCT was drawn from three provinces, and the relative food poverty rates and poverty gaps across the provinces are reported in Table 13. Households from Matabeleland North had the highest food poverty rates (88 percent) and the highest poverty gap (69 percent), and this pattern was also reported in the PICES data.

Table 13. Food Poverty and Poverty Gap by Province

	HSCT		PICES 2011[1]	
Province	Food Poverty %	Poverty Gap %	Food Poverty %	Poverty Gap %
Mashonaland East (%)	73.36	57.85	23.3	36.0
Matabeleland North (%)	88.47	69.22	49.0	53.3
Masvingo (%)	83.07	63.79	19.2	34.0

[1] Taken from Table 2.8 of Zimbabwe Poverty Report 2011.

Food consumption

We complement the description of monetary poverty by also reporting on food security and self-reported well-being in Table 14. All indicators were coded so that higher values represent improved welfare. Eight-seven percent of households ate more than one meal per day, but only 44 percent ate meat or fish in the previous month and only 43 percent reported that their grain stores from the previous harvest lasted for more than three months. A unique feature of our instrument is a Quality of Life Scale that we implemented for the main respondent, composed of seven statements with response codes on a 5-point Likert Scale (strongly agree, agree, neither agree nor disagree, etc.). Examples of questions are 'I am satisfied with my life', 'I feel positive about my future', and 'If I could live my life over, I would change almost nothing'. The mean score on this scale was 15, which fell in the middle of the scale. We

If you contemplate going to bed without food, one has to think about the children. It pains me, troubles me to think how they cannot fend for themselves—Caretaker

---

[11] The poverty gap measures the difference between a household's consumption and the extreme poverty line. The gap represents how much below the extreme poverty line a household is situated. In other words, this measure accounts for the distribution of individuals below the poverty line.

also asked about the perceptions of adverse shocks, and only 36 percent of respondents believed that they are *not* likely to have a food shortage in the next year and 40 percent believed that they are *not* likely to seek financial assistance, thus highlighting the precarious position of beneficiary households.

Table 14. Food Security and Subjective Welfare Measures (Means or Percent)

More than one meal per day	87.35
Ate meat/fish in previous month	43.51
Grain stores from 2011–12 lasted >3 months	43.43
Quality of life scale (ranges from 7–35)	14.68
Not likely to have food shortage in next year	35.93
Not likely to seek financial help in next year	40.39

Note: All variables are coded such that higher values indicate higher welfare.

In Table 15, we compare the HSCT beneficiaries with those in two Zambian cash transfer programs also being evaluated by AIR/UNC. The proportion eating more than one meal per day was roughly comparable across these three programmes.

Table 15. Percent Eating More Than One Meal per Day Compared With Zambia Cash Transfer Programmes

Zimbabwe HSCT Baseline (%)	87
Zambia Child Grant Programme Baseline (%)	89
Zambia Multiple Categorical Programme (%)	81

Note: Figures for Zambia were taken from AIR Baseline Reports from respective evaluations, available online at www.cpc.unc.edu/projects/transfer.

The qualitative interviews support these findings about food insecurity. Many caretakers interviewed worried about how they will feed their families: *If you contemplate going to bed without food, one has to think about the children. It pains me, troubles me to think how they cannot fend for themselves, I do not think about myself, but them*.[12] At times when families are *out of food*, children *do not go to school* or they minimize effort expended for their livelihood*: I sit to rest because we rarely have breakfast due to the insufficiency of food*.[13]

Some discussed how they will go to great lengths to find food: *At times I get so desperate for food to the extent that I wake up early morning and start knocking from door to door in my village looking for food for my children. At times I walk long distances to other villages if I do not find any maricho* (casual labour) *to do in my own village and come late in the evening with food for my children. I would rather travel long distances in search of food because it is so painful to see my children hungry*.[14] As her daughters explained, that pain is shared: *What breaks my heart is the fact that at times we spend two days without eating whenever my mother fails to find piece jobs to do*.[15]

---

[12] Caretaker, Ward 13, Binga
[13] Caretaker, Ward 6, Mwenezi
[14] Caretaker, Ward 9, Mwenezi
[15] Youth, Ward 9, Mwenezi

Some caretakers worried about the consequence of restricted diet that many families face: *In terms of the family's well-being, poor diet is compromising our psycho-social and emotional wellbeing. Spending days without proper nutritious meals is weakening my children's wellbeing to a greater extent*.[16]

In areas where crop or livestock devastation is widespread, food distribution programmes provide crucial support: *Because of the drought and I was registered under the CARE food aid programme... I am concerned with our food security because these past two years have been really difficult due to the dry spells. And now just the thought of another drought drains me because I do not know what we will do if we are to go for another season without sufficient maize in our home. All I ever think about is how we will survive if the hunger persists.*[17] Food aid is particularly essential for those who are labour constrained: *I am too old to do much farming and I do not have any livestock .We normally get our food from Save the Children through their food aid programme.*[18] But food aid is often only a basic survival mechanism and available to only some households. Even with aid, families find they must supplement it with other means of sourcing food. Often families *have a garden where we grow crops*; *supplement through maricho*; or *rely mainly on our relatives and neighbours who assist us with some food*. Some even forage and *make do with eating wild roots and tubers*.

Health

The conceptual framework demonstrates how the HSCT could impact health outcomes for people of all ages, such as being sick in the last 30 days and seeking treatment. Meanwhile, some life circumstances, such as having a disability or caring for a chronically ill person, can moderate the impact of the programme on other outcomes. We investigate the health status and curative care practices of the eligible households at baseline. Over 25 percent of the eligible population were sick or injured in the last 30 days with almost three-quarters of them seeking treatment. Half the children under age 5 experienced diarrhea, fever, or cough in the last two weeks (48.9 percent) and parents of more than half of these children sought treatment for them (58.4 percent). These results indicate that parents were likely to seek treatment if their child demonstrated symptoms of illness. Having an under-5 health card can serve as a proxy for measuring a parent's effort to support the child's health. HSCT-eligible parents were likely to have taken their child to get registered at the clinic because 78.1 percent of children under age 5 had a health card. Only 16.1 percent of children ages 6-17 years old experienced a sickness in the last two weeks.

Many clinics and local hospitals offer basic treatment, free of charge to those in need: *My grandparents had no money to pay for the drugs, but I was lucky to be treated for free.*[19] Most families say they try to 'visit the clinic when a person is sick in the household'. However, more specialised or advanced treatment requires financial resources that many cannot afford: *Of course she does not pay anything at the clinic, but her condition demands money for other advanced medical examinations*.[20] An HIV positive patient described his family's situation:

---

[16] Caretaker, Ward 6, Mwenezi
[17] Caretaker Ward 1, Mwenezi
[18] Caretaker, Ward 6, Binga
[19] Youth, Ward 4, Mwenezi
[20] Caretaker, Ward 6, Mwenezi

My wife and I are HIV positive and currently receiving treatment. We visit the district hospital once a month to collect our medication, which is supposed to last two months. We have cards that exempt us from paying any consultation fees, but if we go on any other occasion outside collecting our medication, say, to be treated for an occasional headache or stomach pains, we have to pay for the medicine prescribed or x-rays if required. This means I need between $5 and $15 which may usually happen when we are low on funds in the home and pose a challenge to us. However, we always try to get medical attention whenever we can.[21]

Some families who could not afford health care turned elsewhere, particularly to the church: *I consult church elders and prophets when family members really get sick because I know I have no money to go to the clinic.*[22]

The HSCT targets labour-constrained households, which could include disabled and chronically ill people. Over one-third of the eligible households contained someone who is chronically ill (36.6 percent) of which 3.6 percent received home based care, and 25.1 percent of the households had someone disabled, of which 39.7 percent sought care. The impacts of the programme on these households might differ from the impacts on poor eligible households without a disabled or chronically ill person because we would not expect these people to be able to contribute to the productivity of the household in a farming society and instead focus on the protective aspects of the programme. Table 16 lists the mean outcomes for several health indicators by individuals and households.

When people are chronically ill, they have few options available for care. Clinics provided medicine, but generally family members and other relatives provided care for the chronically ill: *My mother took care of my late sister; this is what usually happens in most families.*[23] The church was also a source of support for those who were ill: *I do not belong to any social groups but I go to church because of my illness. The church helps by praying for me.*[24] One caretaker interviewed who openly shared his positive HIV status lamented the loss of functioning home based care and other related services:

We have Home Based Care groups that used to function effectively in this village assisting the bed-ridden and providing psycho-social support, but these programmes seem to have ceased for now. But the HBC groups helped a lot of community members come out about their status and as more people joined the group, everyone realized being HIV positive is nothing too astounding. A number of HIV and AIDS support programmes supported by the Red Cross used to take place with projects such as seed inputs for nutrition gardens, food pack distribution and input packages for the agricultural season for those strong enough to work the land.[25]

---

[21] Caretaker, Ward 5, Mwenezi
[22] Caretaker, Ward 4, Mwenezi
[23] Caretaker, Ward 19, Binga
[24] Youth, Ward 14, Binga
[25] Caretaker, Ward 5, Mwenezi

Table 16. Health Indicators

Indicator	Mean	n
Individual Level:		
Chronically ill	9.9%	14,534
Those whose normal activity has stoppped due to chronic illness	41.2%	1,436
Chronically ill people receiving Home Based Care	3.1%	1,440
Chronically ill people receiving some kind of care (sought any care if chronically ill)	75.3%	1,440
People with disability	6.0%	14,544
Disabled population receiving care	39.7%	864
Morbidity (if sick/injured in last 30 days)	25.7%	14,518
Sick/injured people who sought curative care	72.4%	3,724
Sick/injured people who spent $ for treatment	28.8%	3,724
Children 0 - 5 years of age who have had diarrhea/fever/cough in last two weeks	48.9%	1,759
Children 0 - 5 years of age who soughtcare care for diarrhea/fever/cough	58.4%	860
Children 0 - 5 years of age who have healthcard	85.8%	1,736
Household Level:		
Households with at least one chronically ill member	36.6%	3,061
Beneficiary households with chronically ill members that have been referred to Home Based Care	3.6%	1,120
Households with chronically ill members that sought some kind of care	78.1%	1,120
HSCT Househouds that have a member with any disability	25.3%	3,060
Beneficiary households with disabled members that sought care for the disability	40.7%	764

Children

Adolescents and children of school-going age make up a large part of the targeted population. The study included more than 6,300 children ages 6–18, which was 43 percent of the sample. This large sample size of adolescents enabled us to investigate effects among subgroups of the population and detect small impacts with a high degree of statistical power.

Anthropometrics

The evaluation team collected anthropometric measurements (height and weight) for children under 60 months of age. Raw heights (cm) and weights (kg) were converted to z-scores using the World Health Organisation (WHO) growth charts that were released in 2007. The distribution of z-scores captured in

field studies may shift left or right depending on the overall nutritional status of the study population, but the overall shape of the distribution, and the spread, should be the same as in the reference charts, that is, a normal distribution with a standard deviation of approximately 1. Appendix D presents the distribution of z-scores for the three nutritional indicators, and these do indeed display a normal distribution, although height-for-age and weight-for-age are noticeably shifted to the left. In addition, the spread of the distribution appears to be greater than 1, and this is confirmed in Table 17, which shows the means and standard deviations (SDs) of the actual z-scores for each indicator. Comparison with the ZDHS analytical sample indicates that HSCT children were slightly better off in terms of height-for-age but slightly worse off in the other two indicators, although overall the differences were not meaningful.

Table 17. Anthropometric Z-Scores

	HSCT			ZDHS		
	N	Mean	SD	N	Mean	SD
Height-for-age	1130	−1.20	1.53	1129	−1.45	1.49
Weight-for-height	1143	0.04	1.03	1125	0.73	1.20
Weight-for-age	1152	−0.64	1.20	1149	−0.80	1.11

Note: ZDHS sample comprised rural children in bottom wealth quintile.

The overall stunting rate (the international standard of proportion below −2 z-scores) was 28.3 percent and was equal across treatment and comparison groups. The difference in underweight is also not significantly different across the two groups. But there was a difference in the rate of wasting between treatment and comparison groups, with the former showing slightly higher rates of wasting (3.5 percent) relative to the comparison group (1.3 percent). Overall rates of stunting, underweight, and wasting are slightly lower in the HSCT than in the ZDHS analytical sample (Table 18).

Table 18. Percentage of Children Below −2 Z-Scores on Nutritional Measures

	HSCT Programme		Treatment		Comparison		ZDHS Sample	
	N	Mean (%)	N	Mean (%)	N	Mean (%)	N	Mean (%)
Stunted	1130	28.3	759	28.3	371	28.3	1129	35.8
Wasted	1143	2.8	764	**3.5**	379	**1.3**	1125	3.6
Underweight	1152	11.3	771	12.3	381	9.2	1149	13.2

Note: ZDHS sample comprised rural children in bottom wealth quintile.

Education

Our conceptual framework suggests that the HSCT might have an impact on education outcomes for youth through several pathways, including money for school fees, uniforms, and supplies; reduced need for child labour at home, thus freeing up time for school; and better health and nutrition, enabling children to attend school more often. This evaluation will investigate impacts to education, focusing on four primary outcomes: enrollment, attendance, grade progression, and Basic Education Assistance Module (BEAM) programme assistance. BEAM is a government-led financial assistance program aimed to increase access to schooling for the vulnerable children by paying school fees. The evaluation will look at heterogeneous impacts by age and gender to see whether the programme affected these categories differently.

At baseline, we observed that primary school–age children living in eligible households performed better on these outcomes than children of secondary school age. The rate of primary school–age children enrolling in school was 21 percentage points higher than the secondary school enrollment rate. We observed a similar finding for attendance rate of over 80 percent, defined by days attending school. This result follows expected trends for schooling in rural Southern Africa, where children are more likely to drop out of secondary school to work at home or start a family. Table 19 shows the results for the four primary education outcomes and breaks them down by primary/secondary school and for girls. Girls consistently outscored boys on all four indicators and at both primary and secondary ages, a surprising result given the poverty level and demographics of the households in this study. Another point to note is that the enrollment rate and grade progression for primary school–age children were quite high, at over 90 percent. Therefore, it is less likely that the programme will have an impact on these indicators for this age group due to a ceiling effect (i.e., the baseline performance is already quite high, leaving little room for the programme to improve it). However, there seems to be an opportunity for the programme to improve these outcomes for secondary school–age children, which are much lower. School attendance for all children age 6-17 (the age range specified in the log frame) is 66.4 percent, enrolment for this age group is 83.7 percent, while only 15.8 percent of children in this age range receive BEAM.

> *The reason why I stopped going to school was because every time I would attend classes, I would always be sent home because I would not have paid fees. I found it a waste of time to attend school if I am going to be sent home again. My siblings are still young and do not feel annoyed or humiliated when they are sent home for lack of school fees.—Youth*

The qualitative interviews with caretakers and youth provided insight into some of the baseline results. One explanation for the high primary school enrollment and progression rates is that many parents and guardians highly value education, especially if the child is doing well. They see education as a path to a better future and even insurance for their own care as they age: *All my children are young, what I yearn*

for them is that they may learn, excel and get jobs so that they can take care of me as their parent.[26] *I am optimistic that if my children got to school their life will be better in future.* [27]

The youth interviewed also recognized the importance placed on education and also value it: *My aunt always tells me to study first before I do my chores especially during the term. She always encourages hard work so that we can look after ourselves. … I am focused on doing what is right and make my aunt proud.*[28] They see their parents or guardians *struggling for school fees* and *trying her best*. Youth work to contribute to school fees—*I also go for maricho and use the money to contribute to my school fees because [my uncle] may not have raised enough money for all of us so that money helps at times*[29]—and seek other sources for related school materials—*I often face challenges getting enough exercise books to use at school but I find some friends or people from church to help out.*[30]

Table 19. Baseline Means for Education Indicators

Indicator	Primary	Primary Girls	Secondary	Secondary Girls
Enrollment rate	92.73%	94.14	71.13	73.49
	(3,357)	(1,671)	(2,442)	(1,211)
Attendance (over 80%)	74.70	77.39	55.73	58.71
	(2,644)	(1,331)	(2,042)	(1,022)
Grade progression	92.07	93.05	86.38	87.98
	(2762)	(1,441)	(1,894)	(973)
BEAM participation	16.02	16.29	15.45	16.38
	(3,364)	(1,676)	(2,447)	(1,215)

NOTE: Baseline percentages using entire eligible sample. Sample sizes reported in parentheses.

Although the rates of primary school–age enrollment were somewhat high, financial barriers or high costs still burden households, particularly when the child or grandchild is providing key labour or support to the family: *[Two of our seven children] had to drop out of school and look for employment.*[31] However, parents will sacrifice, do extra labour, and go without to raise funds for school fees. As one parent explained: *It is better for them to go to school whilst eating one meal a day if things become extremely tough. My husband actually insists that if things become tough, it is better to sell livestock to be able to pay school fees for the children.*[32]

Parents repeatedly shared how their inability to pay school fees in a timely manner is a barrier to attendance and performance: *Their performance has been compromised due to non-payment of school*

---

[26] Caretaker, Ward 13 Binga
[27] Caretaker, Ward 19 Binga
[28] Youth Ward 1 Mwenezi
[29] Youth Ward 5 Mwenezi
[30] Youth Ward 1 Mwenezi
[31] Caretaker, Ward 5 Mwenezi
[32] Caretaker, Ward 1 Mwenezi

fees; at times they miss classes and examinations as they are sent away for fees.[33] Similarly, late payment of school fees is also a barrier for enrollment: *My parents have no money to pay fees for me. The reason why I stopped going to school was because every time I would attend classes, I would always be sent home because I would not have paid fees. I found it a waste of time to attend school if I am going to be sent home again. My siblings are still young and do not feel annoyed or humiliated when they are sent home for lack of school fees.*[34] Some parents have found that proactive communication with the schools helps: *I also have a good relationship with the teachers and the headmaster, hence if I delay in paying fees, my children are not sent home.*[35]

The Government of Zimbabwe provides education support for the most vulnerable households through BEAM. However, few of the households interviewed reported to be benefiting from BEAM, or if they were benefiting, it was not for all their children—*[One of my five attending children] was under the BEAM programme last year*[36]—or the payments were inconsistent: *BEAM had not paid school fees for them for two months and the school kept sending them away.*[37] Despite these challenges, BEAM beneficiaries were grateful for the support provided: *I have been assisted so much by the BEAM programme in terms of school fees and UNICEF assists the children with exercise books. I only make sure that the children go to school every day.*[38]

Adolescents

We administered a short questionnaire directly to a maximum of three adolescents ages 13–20 per household at baseline, covering sexual activity, physical violence, mental health, and alcohol and cigarettes consumption.

We had a total of 3,680 potential respondents in our sample, out of which we have responses from 1,170, for an overall response rate of 32 percent. The low response rate occurred because surveys were conducted during the day when most youth were at school. Efforts were made to visit schools to interview youth whenever possible. However, geographical distances between households made this logistically difficult. Because we do not know whether a nonresponse was because the youth refused or because he or she was not at home, we compared characteristics of youth who responded with those of youth who did not to understand the potential for selection bias.

An analysis of the results presented in Tables 20 and 21 enables us to compare the two groups across some key characteristics at both the individual and the household level. We find that nonrespondents were more likely to not be in school and were more likely to be married. Both these factors indicate that nonrespondents were more likely to have risk behaviours related to being sexually active. However, other than these two differences, the two groups are comparable on other indicators such as age and sex.

---

[33] Caretaker, Ward 24 Binga
[34] Youth, Ward 9 Mwenezi
[35] Caretaker, Ward 1 Mwenezi
[36] Caretaker, Ward 5, Mwenezi
[37] Caretaker, Ward 14, Binga
[38] Caretaker, Ward 6, Mwenezi

Table 20. Characteristics of Respondents and Nonrespondents of Youth Module

	Nonrespondents	Respondents
Age	15.7	15.4
Female (%)	49.6	49.4
Not in school (%)	*40.0*	*34.8*
Highest grade attained	4.6	5.1
Number of youth in the house	2.3	2.1
HIV positive (%)	0.6	0.4
Married (%)	7.2	1.8
Sample	2,670	1,170

The total number of households with youth in our sample was 2,250 and of those, we had responses from 852 households. Table 21 compares household characteristics between those with an eligible youth who did not respond to the module and those with an eligible youth who did respond to see whether there are systematic differences between the two groups. Household characteristics were quite similar among the number of youths per a household who responded to the survey with households with a youth who did not respond to the survey, except for households with three youth respondents. Households with three youth respondents appear to be poorer, much larger in terms of size, and more likely to have a widow head of household. Note that there are only 53 observations in this group. We tentatively conclude that except for school enrollment, which was much lower among nonrespondents, the characteristics of individuals and their households were the same across respondents and nonrespondents.

Table 21. Youth Characteristics at the Household Level

	No Youth respondents in Household	One Youth response in Household	Two Youth responses in Household	Three Youth responses in Household
Household size	5.9	5.7	7.0	8.9
Per capita expenditure (household) ($)	26.4	28.9	26.0	22.4
Household head characteristics:				
Female (%)	65.3	66	71	53
Widowed (%)	28.2	29	28	33
Divorced or separated (%)	8.1	8	7	10
Attended School (%)	66.3	68.0	63.0	62.7
Those who currently attend school(%)	*1.5*	*5.3*	*2.8*	*5.9*
Highest grade attained	4.2	4.3	4.3	4.6
Age	52.0	48.9	49.4	50.8
Sample	1,403	585	216	51

For the rest of this section, we restrict our analysis to only those youth who belonged to households eligible for the HSCT programme. Our sample size was 925 youths in eligible households. The response

rate for this group was 32.7 percent, with the intervention group's response rate at 33.6 percent and the comparison group's at 30.2 percent.

Sexual debut

We include a special module on sexual debut and sexual experience in the adolescent instrument. We report both the overall rates and by gender. We find that differences by gender are slight across most sexual activity indicators, with the exception of three indicators: consensual first sexual encounter, age of partner at first sex, and ever forced to have sex. Only 62 percent of females who had ever had sex had a consensual first sexual encounter as opposed to 90 percent for males (Table 22). While we cannot find a directly comparable indicator in the NBSLEA report, this trend of females experiencing substantially higher rates of forced/pressured/tricked sex at sexual debut is also reflected in the NBSLEA report. In the HSCT-eligible sample, 3.3 percent of all females ages 13–20 reported being forced/pressured/tricked to have sex at some point in their lives, as opposed to 1.1 percent of males. Again, we do not have a directly comparable indicator in the NBSLEA report, because it references only the last 12 months, but the pattern is quite similar. About 2 percent of females reported having experienced forced/pressured sex as opposed to 0 percent of boys.

Table 22. Sexual Activity Indicators by Gender

Indicators	All Eligible Youths:		Males:		Females:	
	N	Mean	N	Mean	N	Mean
Ever had sex	925	8.5%	473	8.9%	452	8.2%
Age at First sex	79	15.2	42	15.0	37	15.3
Condom use at first sex	79	36.7%	42	36%	37	38%
First sex consensual	79	77.2%	42	90%	37	62%
Age of partner at first sex	67	17.3	34	14.8	33	19.97
# partners last 12 months	79	1.3	42	1.1	37	1.57
# of sex acts last 3 months	42	5.0	22	1.2	20	9.15
Unprotected sex acts last 3 months	20	25.0%	11	18.2%	9	33.3%
Ever forced to have sex	925	2.2%	473	1.1%	452	3.3%
Ever received/given gifts in exchange for sex	925	2.4%	473	1.5%	452	3.3%

When we compare sexual debut indicators with Zimbabwe DHS sample, we find that the age at first sex is almost similar across the two samples, especially for girls and particularly so when we compare with the ZDHS rural and poorest quintile sample. However, we get very different results for those who had ever had sex. Only 8.5 percent of boys and girls ages 13–20 in the HSCT-eligible sample had ever had sex. The corresponding statistic ranges from 30 to 54 percent in the ZDHS sample. The ZDHS sample includes only those who were 15 and above. We have, therefore, restricted the HSCT sample to 15 and above (Table 23). The average age of sexual debut for youth 13-20 years old who have had sex is 15 years old.

Table 23. Comparison of Sexual Debut Indicators With ZDHS Data

	HSCT Eligible Sample	HSCT Eligible Sample	ZDHS Rural & Poorest Quintile	ZDHS Rural	ZDHS Sample
	13-20 yrs	*15-20 yrs*	*15-20 yrs*	*15-20 yrs*	*15-20 yrs*
Boys:					
Sample size	473	296	337	1529	2156
Ever had sex	9.0%	12.8%	33.4%	29.7%	29.5%
Age at First sex	15.0	15.3	16.2	16.2	16.3
Girls:					
Sample size	452	266	414	1495	2361
Ever had sex	8.2%	12.8%	53.5%	45.2%	40.5%
Age at First sex	15.3	15.5	15.8	16.3	16.5
Note: ZDHS Indicators are calculated using weights					

Qualitative interviews with youth also indicate low sexual activity. None of the youth interviewed *had ever had a sexual encounter* and, with one exception, had *never had a boyfriend* or girlfriend. Many felt that they were *too young to have a boyfriend and even to have sexual intercourse*. Others felt that they needed to study or secure their future: *I have not yet had any boyfriend but will do so later in the future after I secure a job.*[39] Even the one youth who had a boyfriend *broke up with him this year since both of us are writing examinations this year.*[40]

Sex is not a topic that is discussed among friends. Some *never discuss about sex because it is a subject for adults.*[41] When asked, most doubted that their friends had engaged in a sexual relationship: *I am not sure if my friends have boyfriends but I don't think so. I have never heard them talking about boyfriends before.*[42] The one exception was a 19-year-old youth at a boarding school: *We normally talk about relationships during our free time, but do not discuss issues concerning sex. However I feel that all my female friends are sexually active and do not want to tell me.*[43]

Parent and guardians generally believed that their children were not having sex and most *have not heard of any issues to do with premarital sex*,[44] although a couple of caretakers in border communities had concerns: *Some of [these youth] are wayward and indulge in illicit behaviour especially with these men that drive haulage truck to South Africa.*[45]

---

[39] Youth, Ward 9, Mwenezi
[40] Youth, Ward 1, Mwenezi
[41] Youth, Ward 6, Mwenezi
[42] Youth, Ward 5, Mwenezi
[43] Youth, Ward 1, Mwenezi
[44] Caretaker Ward 19, Binga
[45] Caretaker, Ward 1, Mwenezi

Physical violence

More boys than girls reported incidences of physical violence. As shown in Table 24, about 52 percent of the boys in the HSCT-eligible sample had ever experienced one or more kinds of physical violence, as opposed to 43 percent of girls (47.2 percent combined girls and boys). This pattern is similar to what is reported in the NBSELA 2011 Report and these statistics fall within the confidence interval reported by NBSLEA for youth ages 13–17. For both groups, the most common form of violence was being slapped or pushed, followed by being beaten or hit. About 5 percent reported being threatened or attacked with a weapon.

Table 24. Percent of Youth Ever Affected by Physical Violence

	Number of youth	Slapped /pushed	Beaten/hit	Attacked/ threatened with a weapon	Experienced physical violence
Eligible households	**925**	**39.78**	**21.41**	**4.32**	**47.46**
Disaggregated by gender:					
Males(%)	473	43.76	24.10	4.65	51.80
Females (%)	452	35.62	18.58	3.98	42.92
Disaggregated by comparison group:					
Comparison(%)	281	40.57	23.49	3.20	49.11
Treatment (%)	644	39.44	20.50	4.81	46.74

We also asked a number of questions about experience with violence in the last 12 months and by whom. Peers or classmates were the most dominant perpetrators of all three types of physical violence. There are differences across genders, though. Girls experienced a much higher rate of physical violence by a parent or a relative across all three types of violence. Whereas about 18 percent of boys reported being slapped, pushed, beaten, or hit by a parent or a relative, this number increased to 38 percent for girls. However, a higher proportion of boys, 35 percent, reported being slapped or pushed by an authority figure such as a teacher or a religious or community leader, compared with 24 percent of girls.

The NBSLEA indicates that 16 percent of boys reported physical violence by a parent or an adult relative in the last 12 months, which is similar to what we report. However, we see a much higher percentage of girls reporting physical violence by a parent or a relative, about 32 percent, compared with only 16 percent in the NBSLEA report. Table 25 lists the results for youth violence by gender in the last 12 months.

Table 25. Perpetrators of Physical Violence in HSCT-Eligible Sample

	Parent or adult relative	Boyfriend/ girlfriend/ intimate partner	Authority figure (teacher, religious or community leader)	Peer/ classmate	Other (stranger)	Number of youth
% of eligible youth who said they had experienced being slapped or pushed: 368/925 = 39.8%						
Has anyone slapped or pushed you?						
Males (in %)	18.8	1.9	35.3	37.2	6.8	207
Females (in %)	32.3	6.8	24.2	32.3	4.4	161
Comparison (in %)	23.7	5.3	29.8	35.1	6.1	114
Treatment (in %)	25.2	3.5	30.7	35.0	5.5	254
Total (in %)	24.73	4.08	30.43	35.05	5.71	**368**
% of eligible youth who said they had experienced being kicked or beaten 198/925 = 21.4%						
Has anyone ever hit you with a fist, kicked you, or beat you with an object?						
Males (in %)	17.54	4.39	21.93	46.49	9.65	114
Females (in %)	38.1	8.33	23.81	23.81	5.95	84
Comparison (in %)	15.15	7.58	30.3	39.39	7.58	66
Treatment (in %)	31.82	5.3	18.94	35.61	8.33	132
Total (in %)	26.26	6.06	22.73	36.87	8.08	**198**
% of eligible youth who said they had been threatened or attacked with a weapon 40/925 = 4.3%						
Has anyone ever used or threatened to use a knife or other weapon against you?						
Males (in %)	2.27	4.55	1.36	4.45	1.36	22
Females (in %)	5.0	1.11	5.56	2.22	1.11	18
Comparison (in #)	3	0	0	4	2	9
Treatment (in #)	1.1	3	4	1.0	3	31
Total (in %)	3.5	.75	1.0	3.5	1.25	**40**

Physical violence was also reflected in qualitative interviews with youth, but they only discussed violence experienced in school. In several instances, youth talked about being abused by teachers, which ultimately pushed some of them out of school. Some attributed their various ailments, such as hearing problems or lameness, or below average performance to the abuse: *A teacher used to beat him up when*

he failed to keep up with his peers, so he quit.[46] Others were abused for their lack of school resources: *[She] stopped going to school because she was tired of being sent back home as well as being beaten for not having books for school*.[47]

Some youth tried to cope with the physical abuse: *I hate it when I get beaten up at school. If you are beaten up and become upset, he will come and beat you up again, so it is best to just remain happy*.[48] Others felt they had nowhere to gain support*: [The teacher] and the headmaster used to beat me up although the headmaster really liked me. I could not talk to the headmaster about [the teacher's] beating for fear of being hit again. I talked to my parents about these beatings but they did not do anything*.[49]

Mental health

We measured mental health by using the short form of the Center for Epidemiological Studies Depression Scale (CES-D).[50] We used a 10-item variant of the short form proposed by Andresen, Malmgren, Carter, and Patrick.[51] We coded each item from 1 (rarely) to 4 (all the time), so the scale ranged from 10 to 40. The cut-off point for depressive symptoms was 20 or above. Table 26 shows that 63 percent of adolescents in the sample did not have depressive symptoms. This scale was also administered to a similar population as part of the evaluation of the Zambia Multiple Category Cash Transfer programme (MCP) and the Kenya Cash Transfer for Orphans and Vulnerable Children (CT-OVC) programme; for comparison purposes, we show estimates from both samples as a point of reference. We separated the intervention and control groups in the Kenya sample because the scale was administered four years after intervention. The percentage of adolescents without depressive symptoms was much lower in Zimbabwe than in Zambia or Kenya. However, the median CES-D score was the same at 18. Figure 5 shows the distribution of the CES-D score for Zimbabwe, roughly centered around 18. The Cronbach alpha is a measure of internal consistency for scale measures—we obtained an alpha of 0.74, which indicates acceptably high internal validity for the scale.

---

[46] Caretaker, Ward 19, Binga
[47] Caretaker, Ward 9, Mwenezi
[48] Youth, Ward 5, Mwenezi
[49] Youth ,Ward 19, Binga
[50] Radloff, L. (1977). The CES-D scale: A self-report depression scale for research in the general population. *Applied Psychological Measurement*, *1*(3), 385–401.
[51] Andresen, E. M., Malmgren, J. A., Carter, W. B., & Patrick, D. L. (1994). Screening for depression in well older adults: Evaluation of a short form of the CES-D (Center for Epidemiologic Studies–Depression Scale). *American Journal of Preventive Medicine*, *10*, 77–84.

Table 26. Percentage of Adolescents Without Depressive Symptoms (CES-D Scale)

	Zimbabwe HSCT Ages 13–20	Zambia MCP Ages 13–17	Kenya CT-OVC Ages 15–18	
			Control Group	Treatment Group (4 years post-intervention)
All	63	75	73	77
Male	64	74	66	75
Female	61	77	81	79
Note. The cut-off score is 20 and above for depressive symptoms. Table shows percentage of respondents below this cut-off, hence those who do NOT show signs of depression.				

Figure 5. Distribution of CES-D Score in Zimbabwe HSCT and Zambia
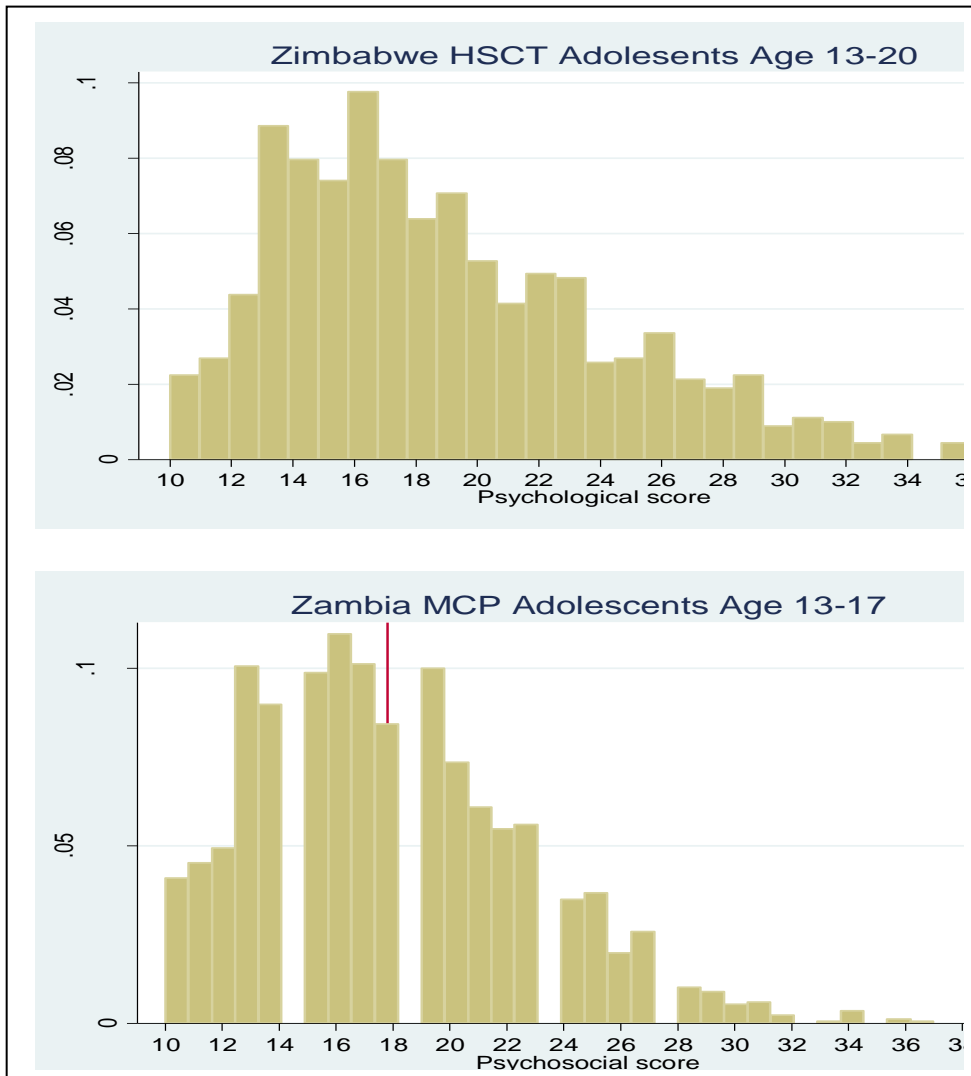
Household Productivity

In addition to investigating protective impacts of the HSCT, this evaluation looks at productive impacts through crop production, livestock production, nonfarm business, time use, and labour supply. This section summarizes these areas for the sample at baseline to see how households behaved before receiving the transfer.

Crop production

Most households in the sample engaged in agricultural, and particularly crop, production (88 percent), with a smaller proportion for severely labour constrained households (80 percent versus 93 percent for the rest of the sample).[52] The most important crop was maize, which was grown by 66 percent of crop producers, followed by sorghum (46 percent). The average number of crops in both treatment and comparison localities was about 1.5; a relatively large portion of households combined maize cultivation with other crops—about 38 percent with sorghum, 18 percent with groundnuts, and 13 percent with finger millet.

We looked at how evenly distributed land was across households producing crops (Table 26). The vast majority had small landholdings—around 58 percent with one hectare or less, an amount probably not enough to support household food self-sufficiency. Further, male-headed households owned larger plots, even though the difference was still quite small. Two-thirds of the households without able-bodied members had less than one hectare, compared with the 50 percent of labour-unconstrained households. Producers in the last land quintile had on average much larger plots compared with the rest of the sample, although in absolute terms they were still relatively modest, with farm sizes of around four hectares on average (not shown).

Table 26. Distribution of Land by Head of Household Gender and Labour Abundance

	% HH with <=1 hectare	Average land size, hectares
Head of household gender		
male	46.90	1.81
female	62.63	1.28
Labour constrained		
unconstrained	51.80	1.63
moderately	50.05	1.73
severely	66.93	1.12
Total	57.63	1.45

---

[52] We define a household severely labour constrained if there is no able-bodied member (i.e., no adult member ages 18–59 without chronic illnesses and disabilities). A household is moderately labour constrained if there is at least one able-bodied member and the ratio of members not fit to work to those fit to work is greater or equal to three. Finally a household is labour unconstrained if there is at least one able-bodied member and the dependency ratio is less than three. A person is fit to work if able bodied and not going to school.

Given the recent harvest season and the small land-cropping sizes, crop production was mainly used for household consumption. Table 27 shows that the share of households selling crops was small. This pattern of crop use does not change if we look more in details at commodity level and substantially no differences emerge for both male- versus female-headed households and labour-constrained versus labour-unconstrained households. Further, similar evidence is available if we look at the allocation of crops at both district and treatment status levels. The largest share of production was stored (around 60 percent), and more than one-third was consumed by the household (not shown). The remaining 5 percent of the harvest was distributed across the other categories.

Table 27. Use of Crop Production, by Head of Household Gender and Labour Abundance, % Households

| | Head gender | | HH labour constraint | | | |
	Male	Female	Unconstrained	Moderately	Severely	Total
Sold	3.5	4.1	4.8	3.7	3.6	3.9
Own consumed	78.5	77.3	81.8	81.7	72.2	77.7
Stored	87.0	84.1	84.5	86.3	84.3	85.0
Animal feed	1.0	0.7	0.8	0.4	1.1	0.8
By-product	1.5	1.5	2.3	1.2	1.3	1.5
Lost	2.5	3.0	1.9	3.0	3.3	2.9

Most producers used traditional production systems. Only 26 percent used any type of crop inputs (Table 28). Most of these inputs were organic fertilizers; 12 percent used chemical fertilizers and only 2.5 percent used pesticides. Purchases of inputs involved even a lower share of households (8 percent), because manure was probably mainly produced by household livestock. On average, only $4.10 was spent in the last rainy season for crop production inputs. Generally, male-headed households had slightly higher use and purchase of crop inputs and no meaningful differences appear between labour-constrained and unconstrained households.

Table 28. Crop Inputs Use, by Head of Household Gender

| | % Used | | | % Purchased | | |
	Male	Female	Total	Male	Female	Total
Any crop inputs	29.6	24.0	25.8	9.8	7.6	8.3
Chemical fertilizers	14.4	11.2	12.2	7.5	6.5	6.8
Organic fertilizers	19.1	15.8	16.8	0.8	0.6	0.7
Pesticides	4.7	1.5	2.5	3.2	1.1	1.8
Crop inputs expenditures , US$				5.5	3.5	4.1

Most households in the sample had basic agricultural implements. Almost 99 percent of crop producing households had a hoe, and 82 percent an axe. From there it drops to less than 48 percent with an ox plough, a sickle, or a yoke; 20 percent with an ox cart; and less than 20 percent with a machete. Male headed and unconstrained/moderately labour constrained households had higher use of these assets.

Livestock production

Most households in this sample were involved in livestock activities. About 75 percent of households owned any type of animal, even though the percentage decreased to two thirds for households with no able-bodied members. Of those owning, more than 82 percent had poultry, 57 percent owned goats, and more than 50 percent had cattle (ox, calf, bull, or female adult; see Table 29). There are also some gender differences in livestock holding, because male-headed households were more likely to own any type of animal, especially cattle, and for those owning livestock, the average herd size was bigger for male- than female-headed households, except for sheep. Differences appear also for severely labour constrained households, which on average were less likely to hold cattle and goats than unconstrained households, even though this difference is small in terms of herd size, except for poultry.

Stocks had decreased sharply over the previous 12 months, with two possible explanations for the strong observed reduction. The first is that our results are an artifact of data collection due to the long recall period of different livestock quantities needed to recreate the stock one year before the survey. The second is that some serious shocks had occurred, bringing about a decrease in livestock. Further, in reaction to other negative shock, some households said in both the quantitative survey and the qualitative interviews that they had to sell livestock as a coping strategy: *I had to sell five goats and 10 chickens to raise money for school fees and food.*[53]

Table 29. Livestock Holding, by Head of Household Gender and Labour Abundance

	Head gender		HH labour constraint			Total
	Male	**Female**	**Unconstrained**	**Moderately**	**Severely**	
<u>% households</u>						
cattle	63.5	47.4	57.6	57.8	45.9	52.9
goats	61.2	55.1	60.1	61.0	52.2	57.2
poultry	82.8	82.2	83.4	83.0	81.4	82.4
donkeys	10.5	6.7	9.3	9.9	5.6	8.0
sheep	4.6	2.4	3.8	4.2	1.9	3.2
pigs	5.0	3.9	4.2	4.4	4.1	4.2
<u>Herd size</u>						
cattle	5.04	4.23	4.57	4.67	4.43	4.56
goats	4.70	3.99	4.77	4.43	3.71	4.25
poultry	6.90	5.06	6.63	6.00	4.85	5.69

[53] Caretaker, Ward 5, Mwenezi

donkeys	3.00	2.65	2.67	2.90	2.79	2.81
sheep	4.22	5.57	4.67	4.59	5.78	4.90
pigs	3.18	2.63	3.83	3.00	2.13	2.85

We analyzed other aspects of the household economy related to livestock production, as reported in Table 30. With respect to input use, very few households incurred expenses for fodder, feeds, vet services, and medicines, and the annual amount spent on average was therefore very low (US$0.2). Approximately 42 percent of households with livestock produced some kind of by-product such as milk and other dairy goods, eggs, meat, and skins. However, as with crop production, the output seemed to be used for household consumption needs, because only 3.2 percent of households sold some of their products. No differences show by head of household gender and abundance of labour in the household.

Table 30. Livestock Income

	Total
Households using livestock production inputs (%)	2.6
Total household expenses for livestock production inputs, US$	0.2
Households producing livestock by-products (%)	42.2
Households selling livestock by-products (%)	3.2
Value of sales of livestock by-products, US$	3.1

Individuals: Time Use and Labour Supply

Adults

Women were more likely to participate than men in domestic chores, farming activities, nonfarm businesses, and casual labour, known locally as *maricho*.[54] The majority (80 percent) of women took part in at least one of the activities of the farming season, 20 percent worked in a household nonfarm business, and about 13 percent engaged in maricho. Men were more likely to be involved in livestock herding and wage employment than women. Women reported engaging in almost 3.5 hours of domestic chores the day before the interview took place, whereas men reported less than 1 hour. Time spent on farm activities was comparable between men and women. However, men worked five times more than women in raising livestock and three times more in wage labour.

> *I used to look for maricho, particularly brick-making, but of late I cannot continue because my body hurts—Caretaker*

Wage employment was 5 percent, and men were much more involved than women. Over a 12-month period, a quarter (27 percent) of adults engaged in maricho (Table 31).

---

[54] As shown in Appendix E, Table E-1

Table 31. Percent of Adults Participating in Wage Employment and Maricho, by Gender

	Women	Men	Total
Wage employment	2.23	9.41	4.89
agriculture	0.26	1.89	0.86
domestic services	0.49	1.36	0.81
mining / manufacturing / construction	0.23	2.02	0.90
other services	1.24	4.09	2.30
Maricho	28.53	22.42	26.27

Some of the households interviewed engaged in maricho for quick cash or in exchange for food and other basic needs. Maricho was seen as a means of raising funds for survival by assisting other villagers with common farm and household chores. Although a common practice, maricho was considered the least preferred source of livelihoods because it is labour intensive with little pay and is a strategy of last resort when there are no alternative livelihood sources.[55] A couple of the households interviewed lamented their age or health when sourcing the most common forms of maricho that are often intensive and require physically strong and healthy individuals: *I used to look for maricho, particularly brick-making, but of late I cannot continue because my body hurts*.[56]

Men reported four times more days of work in wage employment per year than women and about the same proportions of annual salaries, with minor differences at the labour sector level. There were no observed wage differentials by gender. 'Domestic services' was the sector with the lowest daily wages, and the category 'other services' reported the highest. On average, adults earned US$53 per year through maricho. There were no differences in terms of intensity of labour between men and women, with both on average engaging in 10 days of work (Appendix E, Table E.2).

Children
Child labour was quite common among the households. Both girls and boys ages 6–17 had participation patterns similar to those of the same-gender adult (Appendix E, Table E.3). Girls were more likely than boys to be involved in domestic chores, whereas boys were much more likely to contribute to the household economy by herding livestock. Interestingly, both boys and girls contributed to farming, in terms of both participation (around 55 percent of the children) and intensity of work (23 days during the last cropping season). As specified in the log frame, over 12 percent of children ages 9-18 engaged in labor.

Households interviewed discussed the important contributions and responsibilities their children made to the family. Nearly all children participated in household chores such as preparing family meals, washing laundry, sweeping, fetching water, and collecting firewood. The rare exceptions were injured or ill children, yet one of them even explained: *At times my leg also hurts when I go to fetch firewood and it*

---

[55] Oxford Policy Management. (2013). *Qualitative research and analyses of the economic impacts of cash transfer programmes in Sub Saharan Africa : Zimbabwe country case study report*. Oxford, United Kingdom: Author.
[56] Caretaker, Ward 5, Mwenezi

gets swollen but I still have to go because if I don't go then who will? No one else is around to go besides myself.[57] For children who were in school, caretakers often prioritized their studies and limited livelihood activities to the weekend: *My children catch some fish during the weekends.*[58] Youth concurred with that accommodation for their education: *During the school term... I take about 6 bundles, [of vegetables to market] which we sell at $0, 50 only on Saturdays and some Sundays.*[59] Children who had dropped out of school often became a key contributor to the household economy: *One of them, because he is at home, he now herds the family livestock.*[60] Some youth even engaged in *maricho* to supplement household income or *contribute to my school fees*.

As shown in Appendix E, Table E.4, participation and intensity of labour increased dramatically by age. A third of young children ages 6–10 participated in farming activities, and this rose to 63 percent for children ages 11–13 and to 79 percent for children ages 14–17. Similarly, we observed an increase in the amount of work in farming activities, from 10 days for young children up to 39 days for the older group. The percentage of children ages 11–13 herding livestock was substantially equal to the share of older children (20.87 percent versus 21.06 percent), even though the latter group had a higher intensity. Children under 10 years of age were very rarely employed in either maricho or wage labour (less than 1 percent).

---

[57] Youth, Ward 5, Mwenezi.
[58] Caretaker, Ward 6, Binga
[59] Youth, Ward 5, Mwenezi
[60] Caretaker, Ward 14, Binga

6. Conclusion

The HSCT provides regular and reliable cash payments to labour-constrained and food-poor households. The programme has the potential to improve beneficiaries' food security, health, nutrition, educational attainment, poverty, safety, and productivity. The immediate or direct effects of the programme will be to alter consumption patterns and time use. These effects may work directly, or they may be mediated through women's bargaining power or preferences. The first-order effects will in turn have secondary impacts on adolescent child outcomes. All these effects (first and second order) may be moderated by factors such as access to facilities and markets and maternal education. The impact evaluation will determine the programme's ability to affect these outcomes. We conducted a baseline survey to learn where beneficiary households started before receiving the cash and to check that the treatment and comparison households look similar before the programme begins.

We collected data from a large and representative sample that was randomly selected. School-age children represented 43 percent of the sample, and the programme included a large percentage of orphaned children. Almost 40 percent of children ages 0–17 in the HSCT were missing at least one parent compared with only 26 percent in the ZDHS sample. The rate of maternal orphans in HSCT was over double that in the poorest rural households as a whole, indicating the extreme vulnerability of children targeted in the programme. The demographic composition is not surprising given the nature of the programme to target labour-constrained households with large dependency ratios and headed by seniors.

We had comparable groups at baseline for the study. Replicating targeting in the comparison wards and identifying similar wards appear to have worked because none of the indicators was meaningfully different between the two groups at baseline. Moreover, among the key indicators of the programme log frame that we reported on here, none was statistically different across the study arms.

The programme has an opportunity to reduce poverty because it enrolls very poor households and offers a meaningful size transfer. Per capita consumption was about half the rural median ($26 versus $50) as reported by ZIMSTATS based on the 2010–11 PICES. As a result, the percentage of beneficiaries living below the food poverty line was significantly higher than in the rural population as a whole (81 percent versus 30 percent). The poverty gap was also much higher in HSCT households (63 percent) than in rural Zimbabwe (43 percent). Thus, not only was the poverty rate much higher among the HSCT population, but the consumption of HSCT beneficiaries below the line was significantly lower than for other poor rural households in Zimbabwe. The programme provides $25 per month to the median household, which translates to $5 a month per capita for a family of five. This study showed that median per capita expenditure in recipient households before the transfer was $26 per month. Thus, the $5 monthly per capita transfer is a 20 percent increase to the household's monthly expenditure, which is the minimum thought to be required to have an impact on consumption.

In addition to fighting poverty, another goal of the programme is to reduce violence against children. Half the children ages 13–20 living in beneficiary households reported having suffered physical violence

in the previous 12 months. This rate was similar to that of the 2012 NBSLEA. Thus, there is a lot of opportunity for the programme to improve the safety of children in beneficiary households.

The programme also has the potential to affect schooling outcomes, but most likely for secondary school–age children where the outcomes are lower at baseline. Enrollment rates for primary school were quite high at over 90 percent but dropped 20 percentage points for secondary school enrollment. We found similar results for attendance; 75 percent of primary school–age children attended school more than 80 percent of the time, but attendance over 80 percent of the time dropped to 56 percent for secondary school–age children. Only 16 percent of school-age children reported receiving BEAM. Last, we found that rates of stunting, underweight, and wasting for children under 60 months were either comparable to or slightly lower in the HSCT than in the ZDHS analytical sample. Overall, the programme is well positioned to affect some of the desired outcomes specified in the theory of change. The impact evaluation will help assess these effects over time and learn where the programme succeeds to meet its goals.

Appendix A: Process for Selecting Comparison Wards

This appendix explains the process for selecting comparison wards for the study. The study will compare 60 treatment wards from three Phase 2 districts with 30 similar comparison wards from three Phase 4 districts. Each treatment district has been assigned a neighboring comparison district (see Table A.1) The evaluation team and the Ministry selected 30 wards from the three comparison districts that most closely resemble the 60 randomly sampled wards from the treatment districts. The wards should be similar to each other by their agro-ecological characteristics, culture, and urbanicity.

Table A.1. Treatment Districts and Their Neighbouring Comparison Districts

Treatment District	Neighbouring Comparison District
Binga	Hwange
Mwenzi	Chiredzi
Mudzi	UMP

Rigorous statistical methods for matching wards, such as propensity score matching, will not work for this study because they require a large sample size at the unit of matching (wards) and data on many variables that are correlated with the outcomes of interest. Neither of these requirements is met in this study because there are only a few additional wards to be eliminated per district and very little data are available about these wards to distinguish them from one another. Instead, the evaluation used experts with local knowledge of the fertility, vulnerability to shocks, urbanicity, and culture at the ward level to rank wards and then select those that are similar to treatment wards. Ruzivo Trust and the Ministry worked together to rank each ward and then selected the comparison group. The results of this collaboration are documented here.

MINISTRY OF LABOUR AND SOCIAL SERVICES

The Harmonised Social Cash Transfer Programme

Impact evaluation

Ranking and matching of treatment and comparison wards

Meeting	Verification and Confirmation of ranking and matching process for treatment and comparison wards
Date	**15 November 2012**
Time	**1100–1200**
Location	**Compensation House, Harare, Zimbabwe**
Stakeholders	**Ministry of Labour & Social Services and Ruzivo Trust**

1.0 Introduction and Purpose

The meeting with officials of the DSS was held to present the results from the ranking and matching process for the treatment and comparison wards under the impact evaluation. The Ruzivo Trust Programmes coordinator, Sheila Chikulo, introduced the team and chaired the meeting. She indicated that the DSS officials' role was to verify and confirm the selected treatment and comparison wards. The officials were briefed on the preranking and ranking process leading to the final matching of the treatment and comparison wards. This report details the preranking and ranking process, proceedings of the verification meeting with the DSS, and next steps following the meeting. Two officials from the DSS and five Ruzivo Trust members participated in the meeting.

2.0 Background

A brief background of the evaluation context was provided where it was noted that 6 districts were selected by the Ministry for the impact evaluation for treatment and comparison, namely, Mwenezi (t)/Chiredzi(c), Binga(t)/Hwange(c), and Mudzi(t)/UMP(c). The treatment districts are those that will be included in the next phase of the HSCT, while the comparison districts will be targeted for Phase 4 of the HSCT. These districts were selected in terms of contiguity in administrative boundaries, geographical conditions, and community culture. A total of 90 wards will be evaluated, with 60 treatment wards and 30 comparison wards selected for the cash transfer impact evaluation.

3.0 Preranking and Ranking Process

The DSS officials were briefed on the preranking and ranking process. Prior to the meeting, the Ruzivo Trust team carried out the ranking process for the respective wards in the 6 districts. While the lottery for the selection of the 90 wards (45 treatment and 45 comparison) had been conducted earlier (12 October 2012), the decision to have an unbalanced sample (60 treatment and 30 comparison) was reached by UNICEF and the MPSLSW based on the resources available. Therefore, the lottery process was overridden by the ranking and matching process, which culminated in this process of matching treatment to comparison wards. The steps followed in the exercise included these:

1. *District maps:* The 1:250000 scale maps were secured from the surveyor general's office which provided finer details of the spatial characteristics considered in the ranking exercise. In the absence of 1:50000 scale maps, which show clearly defined ward boundaries, the Ruzivo team utilised district reference maps from the OCHA website. We also obtained an updated ward map from Ntengwe based in Binga to aid in the analysis of the wards.

2. *Determination of variables:* The characteristics were determined based on the relevance of the characteristics to the community's livelihoods and well-being. The variables considered were forest cover, nearness to roads, resistance to shocks, nearness to business centres, and proximity to water sources. Reasons for selecting these variables was based on the following:
   - *Forest cover*—Forest resources provide livelihoods in the form of energy (wood fuel), timber for household use, and nonforest produce (fruits, medicines, etc.) that are valuable for the household to resist shock; rated 1 (low), 2 (medium), 3 (high) forest cover.
   - *Nearness to a road*—Access to markets and services with a potential to reduce shocks; rated 1 (very close), 2 (relatively close), 3 (very far).

- **Resistance to shocks**—Analysis of agricultural potential (based on agro-ecological regions) and overlaid across all indicators; rated 1 (low), 2 (medium), 3 (high) resistance.
- **Nearness to a business centre**—Access to goods and services and therefore better management of risks; rated 1 (very close), 2 (relatively close), 3 (very far).
- **Water sources**—Access to water as a basic requirement, in addition to livelihoods derived from water bodies such as fisheries, participating in water-related economic activities such as tourism and related services; rated 1 (close), 2 (relatively close), 3 (very far).

3. *Ward-by-ward ranking and scoring:* For each ward in the six districts, the team individually ranked the ward against the variables and entered the score before calculating the total score for the ward. Because the maps could not give much information on the extent of community resilience to shocks, the team relied on existing programming knowledge within Ruzivo Trust and its partners for the areas under evaluation. For each variable, a score range of 1–3 implying low–high was set.

4. *Ward matching and pairing process:* The pairing of the wards was based on the total score for each ward. Because there are 60 treatment wards but the comparison has only 30 wards, the team first created 30 pairs in the treatment wards. The pairs were determined by matching the total scores for each ward in a respective district. Where there was not a perfect match, the variables were prioritised according to nearness to business centres, followed by resistance to shocks. For each pair created, colour coding was used to identify the pairs after which the 30 pairs were listed. These pairs were then matched with a similar comparison ward to come up with 30 wards (10 wards in each comparison district).

   For one comparison ward in UMP, wards 16 and 5 had the same scores in all variables, and it was difficult to choose one from the two using the same method applied to the other comparison wards. Therefore, three independent individuals were chosen to pick a number between the two (16 and 5) using the lottery method. From this, ward 5 was chosen by the majority.

4.0   Outcomes of Pairing and Matching Process

Tables 4.1, 4.2, and 4.3 highlight the summary of the final paired treatment wards as well as the matching comparison ward for each treatment and ward district. These were presented to the DSS officials.

Table 4.1. Binga/Hwange Matching Outcomes

Binga		Hwange
Ward	Matched With Ward	Comparison Ward
1	5	9
2	18	14
3	21	5
4	15	2
6	7	16
8	9	10
10	23	6
11	12	19
13	22	11
14	20	12
16	24	18
17	19	3
25		

Table 4.2. Mudzi/UMP Matching Outcomes

Mudzi		UMP
Ward	Matched With Ward	Comparison Ward
1	7	4
2	3	3
4	5	1
6	11	9
8	13	17
9	14	5
10	15	12
12	18	8
16	17	7

Table 4.3. Mwenezi/Chiredzi Matching Outcomes

Mwenezi		Chiredzi
Ward	Matched With Ward	Comparison Ward
1	15	8
2	5	24
3	8	13
4	13	16
6	17	14
7	16	2
9	18	28
10	14	20
11	12	7

Appendix B: Baseline Comparison Between Conditions

Table B.1: Comaprison of Treatment and Comparison Groups at Baseline

Indicator	Mean [T]	Standard Dev. [T]	n [T]	Mean [C]	Standard Dev. [C]	n [C]	Mean Difference (T-C)	p-value
Education								
School Attendance Over 80% (Primary)	0.79	0.41	1663	0.68	0.47	981	0.11	**0.04**
School Attendance Over 80% (Secondary)	0.59	0.49	1379	0.49	0.50	693	0.10	0.09
Received BEAM (Primary)	0.15	0.36	2239	0.18	0.39	1125	-0.03	0.11
Received BEAM (Secondary)	0.16	0.37	1650	0.14	0.35	797	0.02	0.33
Enrollment Rate (Primary)	0.93	0.25	2234	0.92	0.28	1123	0.01	0.17
Enrollment Rate (Secondary)	0.72	0.45	1647	0.69	0.46	795	0.03	0.23
Grade Progression (Primary)	0.92	0.27	1840	0.92	0.27	922	0.00	0.83
Grade Progression (Secondary)	0.86	0.34	1293	0.86	0.35	601	0.00	0.89
Adolescents								
Ever had sex	0.08	0.27	644	0.10	0.30	281	-0.02	0.47
Age at First sex	15.38	1.73	52	14.78	2.67	27	0.61	0.32
Condom use at first sex	0.35	0.48	52	0.41	0.50	27	-0.06	0.56
First sex consensual	0.69	0.47	52	0.93	0.27	27	-0.23	**0.00**
Age of partner at first sex	17.31	3.43	45	17.36	3.92	22	-0.05	0.95
# partners last 12 months	1.44	2.36	52	1.04	2.24	27	0.41	0.45
# of sex acts last 3 months	4.03	16.62	29	7.08	23.13	13	-3.04	0.68
Unprotected sex acts last 3 months	0.31	0.48	13	0.14	0.38	7	0.16	0.40
Ever forced to have sex	0.03	0.16	644	0.01	0.08	281	0.02	**0.01**
Ever received/given gifts in exchange for sex	0.02	0.16	644	0.02	0.14	281	0.00	0.73
Center for Epidemiological Studies Depression Index	18.88	5.46	643	18.43	5.67	280	0.45	0.41
Hope Scale (Snyder)	0.62	0.49	643	0.64	0.48	280	-0.02	
Ever experienced physical violence	0.47	0.50	644	0.49	0.50	281	-0.02	0.58
Use of alcohol	0.08	0.28	644	0.08	0.27	281	0.01	0.82
Use of cigarettes	0.02	0.14	644	0.03	0.18	281	-0.01	0.40
Expenditure								
Per Capita Expenditure	31.69	21.42	1949	31.50	20.90	966	0.19	0.91
Per Capita Food Expenditure	20.49	16.03	1949	20.11	14.83	966	0.38	0.74
Expenditure Shares								
Food	0.63	0.12	966	0.63	0.13	1949	0.00	0.22
Education	0.04	0.05	966	0.04	0.07	1949	0.00	0.27
Health, Hygiene	0.05	0.04	966	0.04	0.04	1949	0.01	**0.00**
Clothing	0.01	0.02	966	0.01	0.02	1949	0.00	0.17
Household items	0.25	0.11	966	0.26	0.11	1949	-0.01	0.84
Transport/Comm	0.02	0.05	966	0.02	0.05	1949	0.00	0.06
Diet Diversity & Quality of Life								
(Higher the better)								
More than one meal per day	0.88	0.33	2026	0.87	0.34	1034	0.01	0.50
Ate meat/fish last month	0.42	0.49	2026	0.47	0.50	1033	-0.05	0.05
Grain stores lasted >3 months	0.41	0.49	2025	0.48	0.50	1033	-0.07	0.02
Quality of life Scale (7-35)	14.52	5.29	2024	15.00	5.14	1031	-0.47	0.06
Not like to have food shortage	0.36	0.48	2021	0.35	0.48	1032	0.01	0.78
Not likely to seek financial help	0.42	0.49	2019	0.38	0.48	1031	0.04	0.16
Individual & Household Characteristics								
Age (in years)	26.31	24.94	9643	27.27	25.46	4932	-0.97	0.32
Female	0.56	0.50	9653	0.54	0.50	4944	0.02	**0.04**
Disabled	0.06	0.24	9614	0.06	0.24	4930	0.00	0.44
Household Size	4.76	2.78	2029	4.78	2.70	1034	-0.02	0.90
Household is labor constrained	0.75	0.43	2029	0.77	0.42	1034	-0.01	0.52
Food Security Scale	23.22	6.09	2025	22.56	6.21	1034	0.66	**0.06**
Yes/No whether household was affected by any shocks	0.88	0.32	2026	0.85	0.35	1034	0.03	0.14
Yes/No whether household was affected by flood	0.04	0.21	2026	0.02	0.14	1034	0.03	**0.04**
Yes/No whether household was affected by drought	0.42	0.49	2026	0.37	0.48	1034	0.05	0.18

| Indicator	Mean [T]	Standard Dev. [T]	n [T]	Mean [C]	Standard Dev. [C]	n [C]	Mean Difference (T-C)	p-value
HH own or cultivate any land in the past 12 months	0.928	0.258	2,029	0.924	0.266	1,034	0.004	0.790
operated land, ha	1.37	1.72	1,883	1.37	1.54	955	0.00	0.980
irrigated operated land, ha	0.05	0.35	1,883	0.07	0.47	955	-0.01	0.514
operated land under erosion, ha	0.87	1.51	1,883	0.86	1.41	955	0.02	0.864
operated land in slight/steep slope, ha	0.62	1.22	1,883	0.61	1.19	955	0.00	0.956
operated land for maize, ha	0.53	0.86	1,883	0.55	0.79	955	-0.02	0.810
operated land for sorghum, ha	0.35	0.74	1,883	0.46	0.85	955	-0.10	0.266
operated land for groundnut, ha	0.09	0.40	1,883	0.09	0.31	955	0.00	0.886
HH planted crops in the last rainy season	0.880	0.325	2,029	0.873	0.333	1,034	0.006	0.738
HH completed harvest	0.821	0.384	1,785	0.748	0.435	903	0.073	0.121
HH harvested maize	0.635	0.481	1,785	0.715	0.451	903	-0.080	0.130
HH harvested sorghum	0.448	0.497	1,785	0.498	0.500	903	-0.051	0.389
HH harvested groundnut	0.146	0.353	1,785	0.175	0.380	903	-0.029	0.555
maize harvest, kg	124.93	447.72	1,465	126.39	946.50	675	-1.46	0.972
sorghum harvest, kg	58.34	165.97	1,465	70.48	247.46	675	-12.14	0.432
groundnut harvest, kg	24.93	156.09	1,465	28.55	112.53	675	-3.62	0.745
crop has been harvested	0.86	0.35	1,785	0.81	0.39	903	0.04	0.277
HH sold harvest	0.05	0.21	1,530	0.02	0.15	735	0.03	0.024
HH consumed harvest at home	0.76	0.43	1,530	0.81	0.39	735	-0.05	0.086
HH stored harvest	0.86	0.35	1,530	0.83	0.37	735	0.02	0.307
HH used crop production inputs	0.24	0.43	1,785	0.29	0.45	903	-0.04	0.336
HH used chemical fertilizers	0.10	0.30	1,785	0.17	0.37	903	-0.07	0.097
HH used organic fertilizers	0.17	0.38	1,785	0.16	0.36	903	0.02	0.487
HH used pesticides	0.03	0.16	1,785	0.02	0.14	903	0.01	0.426
HH purchased crop production inputs	0.07	0.26	1,785	0.10	0.30	903	-0.03	0.299
HH purchased chemical fertilizers	0.05	0.23	1,785	0.10	0.30	903	-0.04	0.131
HH purchased organic fertilizers	0.01	0.09	1,785	0.00	0.07	903	0.00	0.392
HH purchased pesticides	0.02	0.14	1,785	0.01	0.11	903	0.01	0.264
total hh expenses for crop production	2.97	13.09	1,785	6.40	27.28	903	-3.43	0.077
hhld owns livestock	0.74	0.44	2,029	0.79	0.41	1,034	-0.05	0.028
hhld owns cattle	0.52	0.50	1,497	0.54	0.50	814	-0.02	0.454
hhld owns goats	0.56	0.50	1,497	0.59	0.49	814	-0.03	0.418
hhld owns chickens	0.82	0.38	1,497	0.83	0.38	814	-0.01	0.633
hhld owns sheep	0.03	0.18	1,497	0.03	0.17	814	0.00	0.881
hhld owns pigs	0.05	0.21	1,497	0.03	0.18	814	0.01	0.272
# cattle	2.28	3.35	1,497	2.66	3.88	814	-0.39	0.050
# goats	2.33	3.39	1,497	2.61	3.78	814	-0.27	0.159
# chickens	4.59	4.83	1,497	4.88	4.87	814	-0.30	0.288
# sheep	0.15	1.11	1,497	0.16	1.50	814	-0.01	0.857
# pigs	0.13	0.69	1,497	0.11	0.75	814	0.02	0.663
total hh expenses for livestock production inputs	0.14	1.51	1,497	0.28	3.50	814	-0.14	0.278
HH operates non-farm business	0.12	0.32	2,029	0.13	0.33	1,034	-0.01	0.633
# businesses operated by HH	1.06	0.23	242	1.11	0.33	131	-0.05	0.178
months in operation last year (all businesses)	6.69	4.74	239	7.02	5.02	127	-0.33	0.520
HH reports asset ownership for enterprise	0.26	0.44	242	0.26	0.44	131	0.00	0.954
value of business owned assets, US$	1543.20	10258.63	242	5278.63	37809.04	131	-3735.42	0.288
individual was engaged in domestic chores yesterday	0.50	0.50	8,244	0.50	0.50	4,215	0.00	0.950
individual involved in any farming activities last rainy	0.66	0.47	8,244	0.65	0.48	4,215	0.01	0.604
days worked in farming activities last rainy season	54.92	43.50	5,456	55.91	43.29	2,747	-0.99	0.723
individual worked in hhld non-farm business last wee	0.13	0.34	8,244	0.16	0.37	4,215	-0.03	0.206
hours worked in hhld non-farm business last week	12.16	13.60	1,090	10.70	10.99	672	1.46	0.115
individual involved in livestock activities last week	0.16	0.36	8,244	0.14	0.35	4,215	0.01	0.308
hours worked in livestock activities last week	21.02	17.70	1,292	21.55	18.01	605	-0.53	0.776
individual engaged in maricho/casual labour last wee	0.07	0.26	8,244	0.06	0.24	4,215	0.01	0.326
hours worked in maricho/casual labour last week	19.71	20.17	615	20.46	14.51	267	-0.75	0.732
individual in wage employment last week	0.02	0.13	8,244	0.02	0.13	4,215	0.00	0.865
hours worked in wage employment last week	32.26	22.25	144	32.51	20.15	71	-0.25	0.956
individual in wage employment last year	0.03	0.18	6,850	0.03	0.18	3,544	0.00	0.928
days of work in wage employment last year	152.83	105.03	233	143.90	105.94	122	8.93	0.470
total annual salary including inkind payments, USD	1166.77	1555.31	233	970.00	1339.34	122	196.76	0.301
individual in wage employment, agriculture	0.01	0.08	6,850	0.01	0.08	3,544	0.00	0.616
days of work in wage employment last year, agricultu	156.29	104.71	48	169.71	114.74	21	-13.42	0.657
individual in wage employment last year	0.21	0.40	6,850	0.19	0.39	3,544	0.01	0.481
days of work in maricho last year	34.00	45.37	1,410	36.01	43.57	677	-2.01	0.465
wages for maricho labour	186.76	366.48	1,410	187.40	395.66	677	-0.65	0.978

Appendix C: Distribution of Per Capita Total and Food Consumption Expenditure Across Study Arms
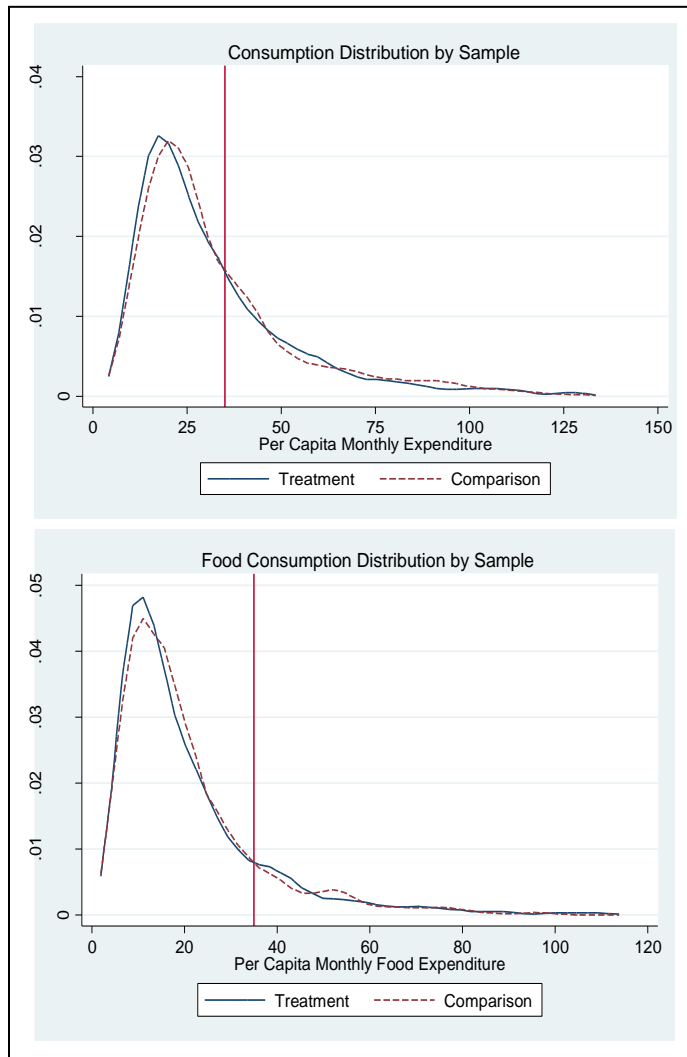
The figures on the left depict the distribution of per capita total (above) and food (below) consumption for households in each arm of the study—the vertical line is the Zimbabwe food poverty line. The figures exclude the top 1 percent of the distribution as well as households reporting food consumption below $4 per person per month. The distributions across the study arms are very similar. For total consumption, the distribution in the comparison group is slightly to the right, but the proportion below the food line is the same for both groups. The same pattern exists with respect to the food consumption distribution (bottom figure) where the distribution is slightly to the right for comparison households. Note that significance tests indicate no difference in means or medians between the two distributions, and there are no differences in the proportion below the total or food poverty lines.

Appendix D: Nutrition

The three figures below show the distribution of z-scores for height for age, weight for height, and weight for age. These distributions are all normally distributed as we would expect and are centered below 0. That is, the distributions are shifted to the left, indicating greater rates of malnutrition in the study population relative to the reference.
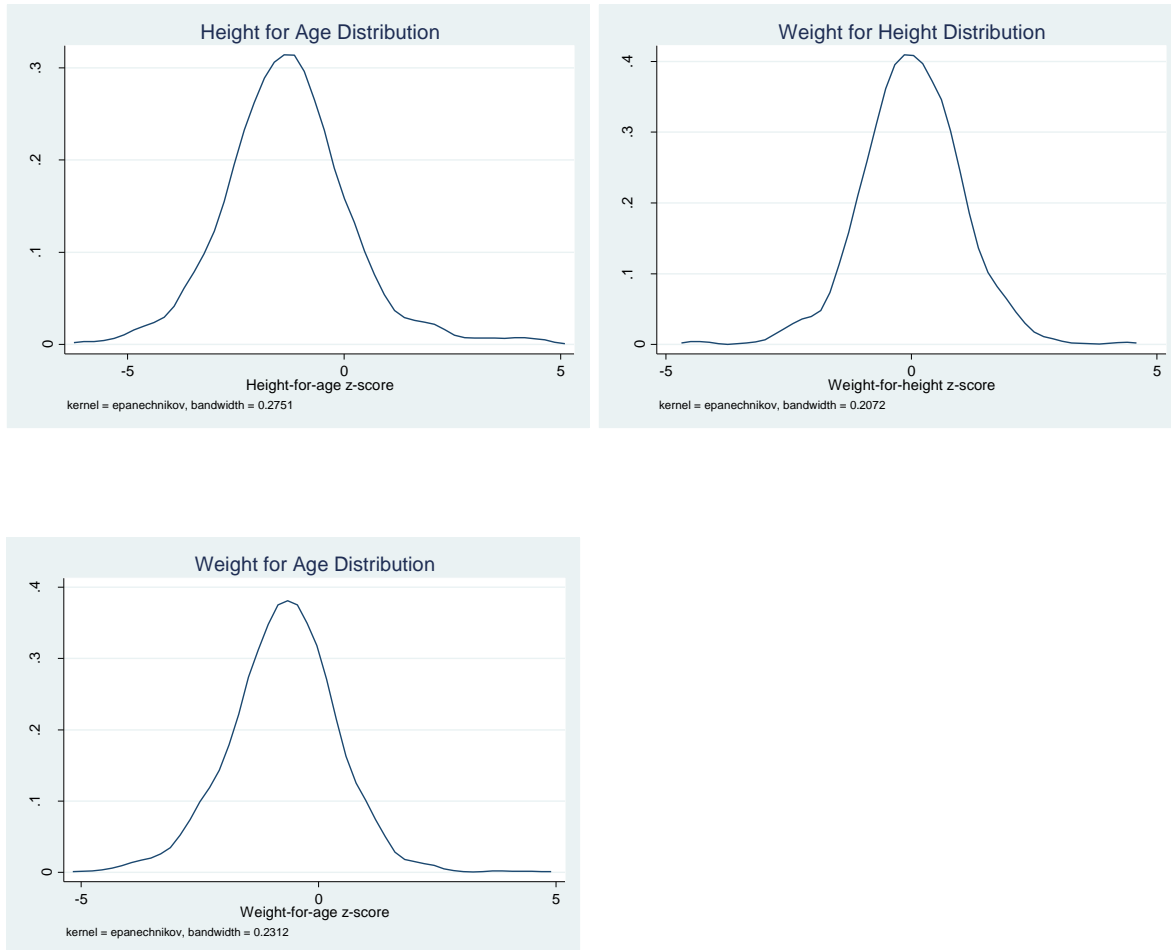

In Table D.1, we compare ZDHS data in the specific three provinces where the HSCT programme evaluation is being carried out (we do not limit the ZDHS sample to poorest wealth quintile because of sample size). The percentage differences reported in the main text persist, and in Figure D.1, we examine these curves by age.

Table D.1. Comparison of HSCT Sample With ZDHS Sample

HSCT Eligible Sample:						
	Mashonaland East		**Masvingo**		**Matabeleland North**	
	N	Mean	N	Mean	N	Mean
Zha	302	−1.47	371	−0.94	457	−1.23
Stunted	302	37.40%	371	20.80%	457	28.40%
Zwh	303	−0.14	376	0.18	464	0.04
Wasted	303	6.30%	376	2.10%	464	1.10%
Zwa	307	−0.91	380	−0.4	465	−0.66
Under	307	16.60%	380	7.90%	465	10.50%
ZDHS Data:						
	Mashonaland East		**Masvingo**		**Matabeleland North**	
	N	Mean	N	Mean	N	Mean
Zha	469	−1.45	442	−1.32	376	−1.4
Stunted	469	36.00%	442	31.40%	376	35.90%
Zwh	463	0.14	440	0.36	374	−0.13
Wasted	463	4.30%	440	2.30%	374	7.00%
Zwa	473	−0.77	450	−0.51	383	−0.88
Under	473	11.40%	450	7.60%	383	16.40%

The age distribution of all three indicators is similar in both HSCT and ZDHS samples. For the indicators of wasting and underweight, the ZDHS and HSCT estimates are comparable. However, stunting is higher in the ZDHS sample, starting from 5 months of age and continuing to 4 years (<48 months). In both samples, however, the stunting rate rises sharply at around 11 months of age, peaks at 35 months, and then starts declining.

Figure D.1. Stunting, Wasting, and Underweight Rates, by Age
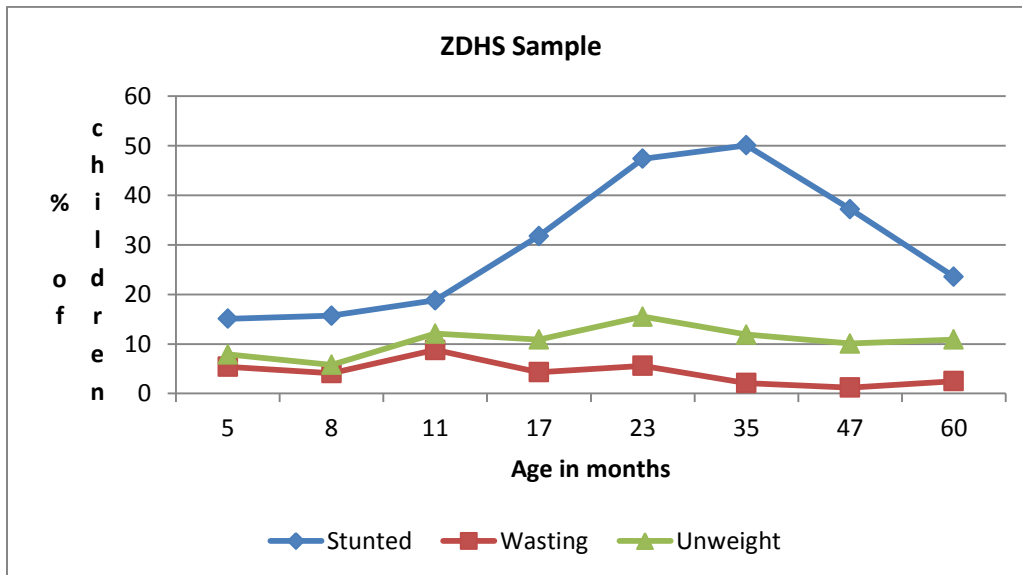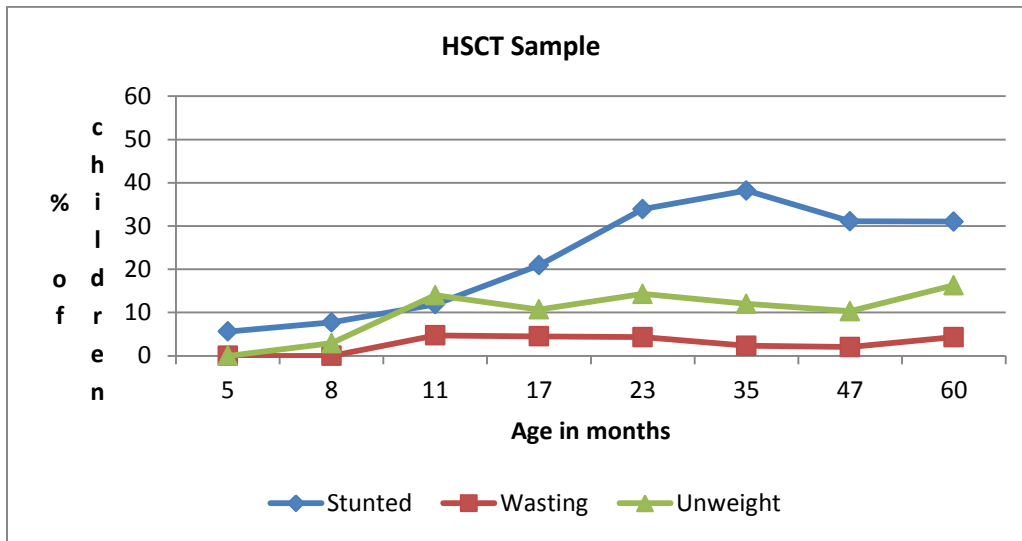
Appendix E: Productivity Tables

Table E.1. Adult Time Use, by Gender

	Women	Men
% individuals participating		
domestic chores	74.74	32.01
farming	79.76	74.09
livestock herding	6.91	23.43
nonfarm business	20.19	15.30
maricho	12.89	8.89
wage employment	1.59	4.73
Intensity of participation		
domestic chores, hours yesterday	3.22	0.82
farming, days last rainy season	51.41	48.38
livestock herding, hours last week	1.20	6.00
nonfarm business, hours last week	3.07	1.80
maricho, hours last week	2.73	1.97
wage employment, hours last week	0.49	1.74
Observations	3,862	2,275

Table E.2. Intensity of Adult Wage Employment and Maricho, by Gender

	Female	Male	Total
Overall			
days of work last year	3.4	14.7	7.5
annual income, US$	30.7	113.7	61.4
Agriculture			
days of work last year	0.3	3.0	1.3
annual income, US$	1.8	22.0	9.3
Domestic services			
days of work last year	0.6	2.5	1.3
annual income, US$	2.6	8.1	4.6
Mining / manufacturing / construction			
days of work last year	0.2	2.2	0.9
annual income, US$	1.2	22.5	9.1
Other services			
days of work last year	2.2	6.9	3.9
annual income, US$	25.1	60.9	38.4
Maricho			
days of work last year	10.1	9.3	9.8
wages earned last year, US$	52.4	54.9	53.3

Table E.3. Children Time Use, by Gender

	Girls	Boys
% individuals participating		
domestic chores	52.69	32.59
farming	55.58	55.79
livestock herding	7.66	27.73
nonfarm business	10.64	10.01
maricho	3.37	2.61
wage employment	0.55	0.97
Intensity of participation		
domestic chores, hours yesterday	1.41	0.60
farming, days last rainy season	23.14	23.81
livestock herding, hours last week	0.98	6.08
nonfarm business, hours last week	0.88	0.60
maricho, hours last week	0.49	0.36
wage employment, hours last week	0.07	0.29
Observations	3,136	3,164

Table E.4. Children Time Use, by Age Groups

	6–10	11–13	14–17	Total
% individuals participating				
domestic chores	28.55	48.65	56.17	42.60
farming	33.66	62.99	79.16	55.69
livestock herding	13.12	20.87	21.06	17.74
nonfarm business	7.42	11.86	12.84	10.32
maricho	0.75	3.84	5.27	2.99
wage employment	0.31	0.60	1.54	0.76
Intensity of participation				
domestic chores, hours yesterday	0.53	1.08	1.59	1.01
farming, days last rainy season	10.48	25.46	39.64	23.47
livestock herding, hours last week	2.26	3.88	4.99	3.54
nonfarm business, hours last week	0.34	0.88	1.16	0.74
maricho, hours last week	0.07	0.53	0.81	0.43
wage employment, hours last week	0.03	0.13	0.45	0.18
Observations	2,624	1,835	1,841	6,300