GOVERNMENT OF MALAWI

COVID-19 URBAN CASH INTERVENTION IMPACT EVALUATION REPORT

Table of Contents

Acronyms and Abbreviations

ATET	:	Average Treatment Effect on the Treated
ATT	:	Average Treatment on the Treated
COMSIP	:	Community Savings and Investment Promotion
CSO	:	Civil Society Organisations
CUCI	:	COVID-19 Urban Cash Intervention
EP&D	:	Economic Planning and Development
FCS	:	Food Consumption Score
FDG	:	Focus Group Discussions
GRM	:	Grievance Redress Mechanism
KIIs	:	Key Informant Interviews
KYC	:	Know Your Customer
MIS	:	Management Information systems
MNOs	:	Mobile Network Operators
MNSSP	:	Malawi National Social Support Policy
MNSSP II	:	Malawi National Social Support Programme II
MSCE	:	Malawi School Certificate of Education
NLGFC	:	National Local Government Finance Committee
NRB	:	National Registration Bureau
PPS	:	Probability Proportional to Size
PSLCE	:	Primary School Leaving Certificate of Education
PSM	:	Propensity Score Matching
rCSI	:	Reducing Coping Strategy Index
SCTP	:	Social Cash Transfer Program
SDGs	:	Sustainable Development Goals
SLGs	:	Savings and Loans Groups
SMEs	:	Small Medium Enterprises
SOPs	:	Standard Operating Procedures
UBR	:	Unified Beneficiary Registry
VSLs	:	Village Savings and Loans

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The COVID-19 Urban Cash Intervention (CUCI) Impact Evaluation report was prepared by the Monitoring and Evaluation (M&E) within the Department of Economic Planning and Development after an extensive study of the impact areas in the four cities of Blantyre, Lilongwe, Mzuzu and Zomba. This was possible with technical support from the Poverty Reduction and Social Protection (PRSP) Division and Ministry of Gender, Community Development and Social Welfare.

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Executive Summary

This report presents the Impact Evaluation of the COVID-19 Urban Cash Intervention (CUCI) conducted by the Monitoring and Evaluation Division in the Department of Economic Planning and Development (EP&D). The CUCI was implemented in four cities of Malawi namely Lilongwe, Blantyre, Zomba and Mzuzu. The implementation was spearheaded by the Ministry of Gender, Community Development and Social Welfare in line with decentralised structures which was coordinated by Poverty Reduction and Social Welfare (PRSP) in EP&D. The development partners including the World Bank, European Union, the German Government through KfW and GIZ, UNICEF, International Labour Organization, World Food Programme, and Irish Embassy provided technical and financial support.

The Government of Malawi (GoM) financed the evaluation processes to assess the impact of the CUCI on beneficiary households' coping strategies, food consumption, uptake of nutritious meals, and health seeking behaviours. Additionally, the evaluation sought to understand how the beneficiaries used the cash received under CUCI.

The intervention targeted poverty hotspots identified through the cities' social-economic profile and household vulnerability assessment. A total of 199,413 households met the intervention's eligibility criteria and were entitled to a uniform benefit of MK35,000 per month, an amount that was aligned to the country's minimum wage. The beneficiaries were to receive this amount for three months. The cash was delivered using mobile money platforms provided by Mobile Network Operators namely Airtel and TNM.

The evaluation primarily employed the quantitative methodological approach that was complemented by qualitative approaches. With respect to the quantitative approach, household data was collected from a survey administered on 1,273 households, which were sampled across the cities. Households that received cash in the intervention were selected as the treated group (606 out of 147,098) and those that did not receive cash were the control group or counterfactual (667 out of 52,315). With respect to the qualitative approach, over 20 key informant interviews and 20 focus group discussions were conducted.

The analysis of this data adopted both quantitative and qualitative techniques. While the quantitative approach allowed establishing the impacts of the CUCI, the qualitative approach allowed an in-depth understanding of the mechanisms through which CUCI induced the impact. The outcomes of interest that the evaluation considered were Household Dietary Diversity Score (HDDS), Food Consumption Score (FCS), and the Reduced Coping Strategy Index (rCSI).

The results of the CUCI impact evaluation show that 70 percent of the CUCI beneficiary households spent part of the money received from the programme on food purchases, with average cash spent on food amounting to MK33,206. This was seconded by expenditure on business

resuscitation (45.2 percent). The high percentage of cash received spent on food purchases and business resuscitation could be an indication that the communities were financially stressed prior to the intervention.

With respect to participation in COMSIP Savings and Loans Groups (SLGs), the study found that only 8 percent of beneficiaries that received money saved their money in the SLGs. On average, households saved slightly above MK16, 000 out of the total money received amounting to MK105,000. Savings and Loan Groups enabled CUCI impact to be sustained beyond the three months that the programme covered. Also, the savings and loan groups ensured that CUCI benefits reach non-beneficiaries. The study found that low savings with the SLGs resulted from inadequate programme sensitization at community level. Most people learnt that they were expected to save part of the money after they had already spent all the funds. This limited CUCI's spillovers through SLGs.

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Further, the survey reveals that three percent of the beneficiaries spent their transfers on loan repayment thereby reducing their debt burden, with the expenditure averaging MK22, 645.

Regarding transferring money to the beneficiaries, the study found that the Fund Managers disbursed money to the Mobile Network Operators on time. The study also found that beneficiaries were able to collect money from the Mobile Money Agents once the transfers were made. Super-Agents played a role of backstopping the Mobile Money Agents, considering that there was an increased demand for cash because of the CUCI programme. Consequently, there were no incidences of failure to access cash at pay points by the beneficiaries.

Regarding the effect of cash injection on commodity prices, the study found that the cash receipts did not have significant impact on prices of food and other commodities. There were however only temporal price spikes on the day of cash receipt, which eventually normalize within a short period.

In terms of food security, the study found that beneficiaries consumed nutritious foods unlike the non-cash recipients. Programme beneficiaries had high dietary diversity (73 percent) compared to non-beneficiaries (66 percent). Similarly, there was a small proportion of beneficiary households in the low dietary diversity category (5.9 percent) compared to non-beneficiary households (9.4 percent). This could suggest that CUCI economically empowered the beneficiaries. They could afford a variety of food.

The results showed that the intervention improved overall quality and quantity of food consumed among cash beneficiaries compared to the non- beneficiaries. A comparison of food consumption using the Food Consumption Score, between the Treated and Control Group showed that 77 percent of beneficiary households were falling under the acceptable consumption category compared to 74.9 percent of non-beneficiary households.

On coping, the study established that beneficiary households exhibited less severe coping measures than non-beneficiaries. This implies that the cash injection had a significant impact on the severity of coping. This is seen from the reduced levels of coping among households that were on the programme compared to those that were not. Particularly, the level of coping was reduced by 1.56 units for cash beneficiaries.

While targeting and registration were an integral part of process in ensuring that deserving people are identified and their details recorded for use in the electronic cash transfers, the process faced several challenges. The survey established that beneficiary data collected during registration was not consistent with data in the National Registry (National IDs) and Mobile Money Operator database. Names of some beneficiaries registered were not corresponding with either the names used when registering the phone number provided or the name on the National Identity Cards.

Despite Airtel Malawi Limited and TNM Malawi Limited implementing Know Your Customer (KYC) exercises for three months to address the inconsistencies, 19 percent of beneficiaries under Airtel Malawi Limited did not receive as their details could not be authenticated whilst TNM Malawi Limited did not cover up to 40 percent of the total targeted beneficiaries. Only 36 percent of the beneficiaries had matching data at the start of the Programme. It was revealed during the study that the KYC exercise was not part of the Contract under the CUCI Programme but that the two companies carried out the activity as a way of ensuring that the targeted people only should benefit from the programme.

Regarding sensitization of the programme, findings from the City Councils KIIs and FGDs with communities revealed that time allocated for sensitization was not adequate as some deserving heads of households were not aware and did not avail themselves during the targeting and registration processes. Even more so for some of the registered households, there were information gaps that hindered from benefiting from the CUCI.

Chapter 1: Introduction

1.0 Introduction

Cash transfers are increasingly being used as tools for delivery of Social Safety Programmes and pro-poor economic growth. However, discussions around the impact, efficiency and effectiveness of *cash based interventions* continue to persist in safety nets programming. While proponents of cash based interventions argue that cash is efficient, cost effective and offers choice to the beneficiaries, critics contend that cash is inflationary, more prone to diversion, and in the context of food consumption, it cannot substitute food (Farrington, Harvey, & Slater, 2006). This paper presents the Impact Evaluation of the COVID-19 Urban Cash Intervention (CUCI) implemented in Lilongwe, Blantyre, Zomba and Mzuzu cities.

1.1 Background

Covid-19 pandemic hit the country in April 2020 affecting livelihoods of low-income Malawians living in peri-urban areas. The disease burden and associated preventive measures slowed down the economy leading to loss of employment, reduced casual labour opportunities, and loss of survival means. Notably, urban livelihoods rely on income earning activities in contrast to agro-based livelihoods in rural areas. The urban populations were hence vulnerable to food insecurity, malnutrition, pneumonia and other forms of health related shocks.

1.1.1 Intervention Policy Space

Like most government programmes, the CUCI, is anchored in Pillar 3 of the 2018 Malawi National Social Support Programme II (MNSSPII) that operationalises the Malawi National Social Support Policy (MNSSP). Because COVID-19 led to income losses the CUCI targeted 35 percent of the urban population in line with Pillar 3. This Pillar aims to develop shock-sensitive social protection system that meets seasonal needs, prepares for and responds to - unpredictable shocks in cooperation with the humanitarian sector. The pillar also supports recovery and the return to regular programming. Unlike the regular Social Cash Transfer Programme, which targets the poor and labour-constrained rural households, the CUCI targeted low-income urban households who mainly depend on petty trade and informal labour (ganyu). Because most social protection programmes target rural areas, CUCI's focus on urban areas was unprecedented.

1.1.2 CUCI Overview

The intervention was funded by the World Bank, European Union, the German Government through KfW and GIZ, UNICEF, International Labour Organization, World Food Programme and Irish Embassy. The Programme registered 270, 277 households out of which 199,413 met the programme eligibility criteria. A total of MK20. 9 billion was expected to be disbursed to the eligible households, with each household entitled to a uniform amount of MK35, 000 per month for three months. The amount was aligned to the country's minimum wage. Within the four cities, the intervention was implemented in geographically targeted poverty hotspots based on the cities' social-economic profile and household vulnerability assessment. As of at the end of implementation period, August 2021, out of the 199,413 enrolled households, a total of 147,098 households had received their transfers in the four cities. The remaining 52,315 households were yet to fulfil their Know Your Customer (KYC) requirements.

1.2 Intervention Objectives

The overall objective of the intervention was to smoothen the consumption of the urban low-income population during the pandemic. Specifically, the interventions sought to:

a) Prevent the poor and vulnerable from sinking further into poverty and assist them to cover their basic needs including food security;

b) Support the continuous uptake of nutritious meals to help prevent the outbreak of opportunistic diseases during the pandemic;

c) Protect the poor and vulnerable from engaging in negative coping mechanisms and selling off of productive assets as a result of loss of livelihood sources due to strict preventive measures;

d) Promote health-seeking behaviours of the poor and vulnerable during the COVID-19 outbreak in Malawi; and

e) Assist the poor and vulnerable reconstruct their livelihoods post the COVID-19 outbreak.

1.2.1 Programme Targeting

Beneficiaries of the intervention were identified through a geographic targeting approach. Urban poverty hotspots were identified and ranked according to the Cities' socio-economic profiles. The initial registration of households collected key information[1] about the households using a rapid data collection tool by the field enumerators. The second part of data collection was done through

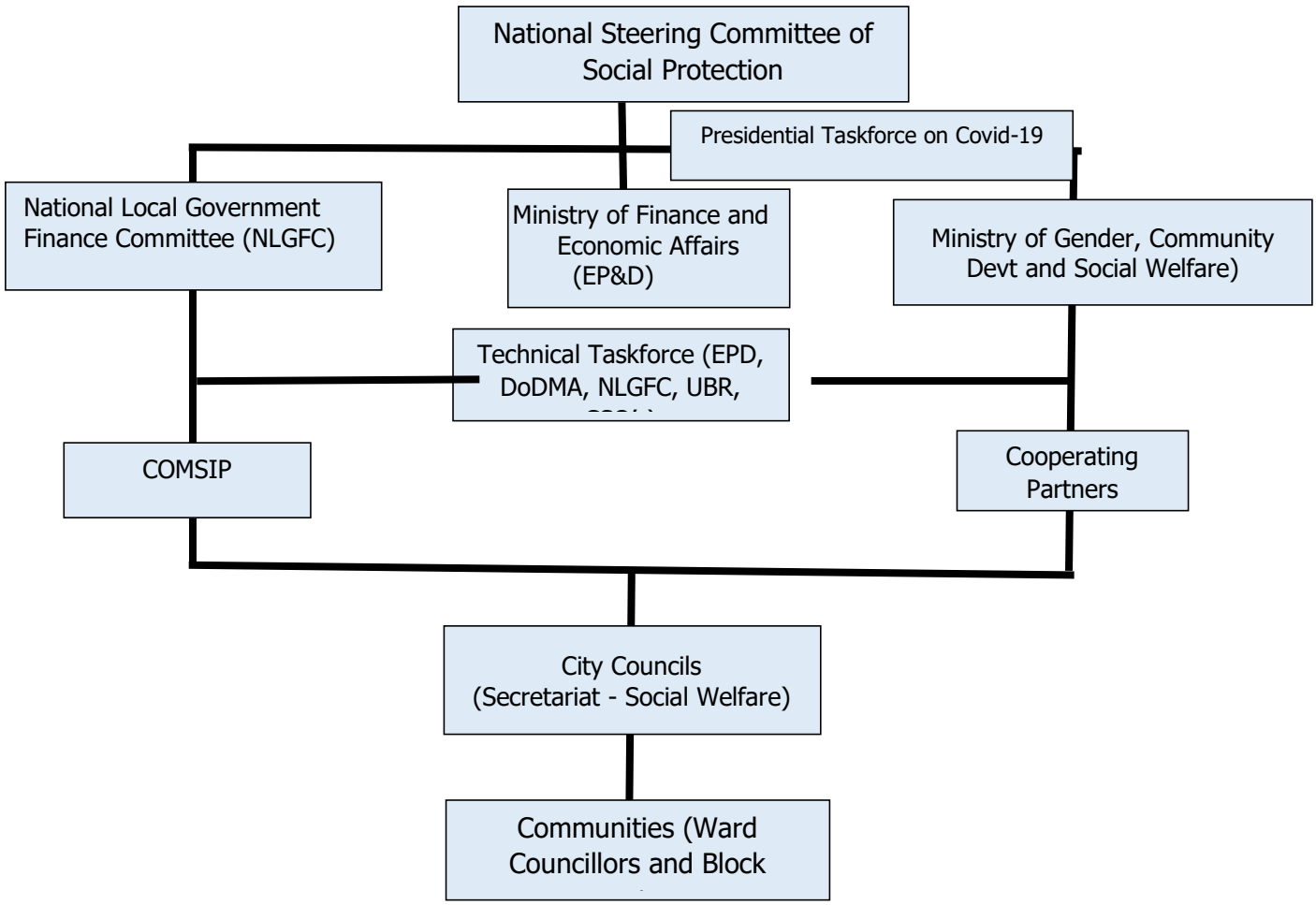
[1] Key information collected include the name of the household head, phone number, occupation, household size, etc.

a call centre to get more detailed information for the household. Data was uploaded into the Unified Beneficiary Registry (UBR) before being transferred to the Social Cash Transfer Program Management Information System (SCTP-MIS). This was to generate a payroll and submit to the Mobile Network Operators (MNOs)[2] for cash out by the beneficiaries.

1.2.2 Implementation Arrangements

The intervention was decentralized with varying roles of key stakeholders according to their mandate and functions. Development partners provided technical and financial support to the intervention and committed to a common set of Standard Operating Procedures (SOPs) on implementation of the intervention.

Figure 1: CUCI Implementation Structure



[2] Individual contracts were signed with the MNOs – Airtel Mobile Commerce Limited and TNM Mpamba Limited to disburse the funds into beneficiary phones at a fee of 1.4% and 1.25% of the disbursed amounts, respectively

Technical Taskforce was an operational hub, responsible for technically guiding the implementation of the programme. This is the Unit provided discussion issues to the National Steering Committee of Social Protection led by the Chief Secretary. The National Steering Committee was a high-level committee responsible for approving decisions regarding the programme. The Presidential Taskforce on Covid-19 was responsible for coordinating all Covid-19 responses including receiving progress reports and making recommendations. Apart from the established committees, key stakeholders involved in programme implementation included Ministry of Finance and Economic Affairs, Ministry of Gender and community Development and Social Welfare (MoGCDSW), City Councils, National Local Government Finance Committee (NLGFC), COMSIP and community Structures.

The Ministry of Finance and Economic Affairs through the PRSP Division in the Department of EP&D is a policyholder of all social protection programmes in Malawi. The ministry is responsible for providing a higher-level coordination including determination of an appropriate benefit amount through the steering committee and supervision of the intervention. The MoGCDSW, through the Social Cash Transfer Unit, was responsible for the implementation of the intervention by providing technical guidance, supervision and leading the design of the intervention.

The City Councils, through the Social Welfare Office, were responsible for identification and mapping of hotspots, coordinating data collection, grievance redress and coordinating Know-Your-Customer (KYC) process. The NLGFC, on the other hand, was responsible for managing and coordinating World Bank financing[3] for the intervention. The intervention had a resilience-building component, which included funding COMSIP to guide beneficiaries to go into livelihood strengthening by joining COMSIP Village Savings and Loans (VSL) groups and Small and Medium Enterprises (SMEs). In the communities, the Ward Councillors, through block leaders, were responsible for community mobilization for registration and receiving grievances from the communities.

Complaints and feedback mechanisms were put in place to handle complaints from the beneficiaries of registered households. All grievances were handled through a Call Centre, toll-free lines, and Grievance Redress Mechanism (GRM) committees. The MNO had set up toll-free lines for beneficiaries to lodge their complaints and grievances regarding payments. All the grievances received were channelled to respective city councils through the District Social Welfare Office or the District Social Cash Transfer Program Secretariat for action.

[3] World Bank provided funding for Lilongwe and Blantyre cities.

1.3 Objectives of the Evaluation

The main objective of the evaluation was to assess the economic and productive impact of CUCI on beneficiaries. Specifically, the evaluation sought to understand;

a) how the beneficiaries utilized the transfers

b) the effect of CUCI on households coping strategies (the number of beneficiaries involved in negative coping mechanisms vis-à-vis the control households)

c) the effect of CUCI on the uptake of nutritious meals and

d) the effect of CUCI on health-seeking behaviours

Chapter 2: Methodology and Approach

2.0 Methodology

The evaluation methodological approach employed both quantitative and qualitative methods. Quantitatively, the evaluation adopted Propensity Score Matching (PSM). Qualitatively, the evaluation adopted Content Analysis (CA) methods. The PSM allowed, under Conditional Independence Assumptions, comparison of outcomes on matched beneficiaries and non-beneficiaries.

2.1 Sampling Design

Sampling was done at two levels, namely quantitative and qualitative. Whereas the quantitative sampling allowed random sampling of respondents within the targeted population, the qualitative sampling followed a purposive approach, by targeting specific groups of people with purported knowledge regarding the intervention or individuals of high standing in the impact areas, and within the implementation arrangement.

2.1.1 Quantitative Sampling

A multi-stage sampling approach was used to sample households from the four cities. Probability Proportional to Size (PPS) sampling method was used to select the sample size to account for variations across the four cities. Accordingly, a household survey questionnaire was used to collect structured data from 1,273 sampled households across the four cities (see Table 1).

Households that received cash in the programme were selected as the *treated group* and those that did not receive cash were the *control group or counterfactual.* The non-cash recipients form an appropriate counterfactual for assessing causality as these were also enrolled into the Programme having passed the structured selection criteria for Programme participation. About half (606) of the sampled households (1,273) were selected from the 147,098 households that received cash to form a treatment sample. The other half (667) was selected from the remaining 52,315 to form a control sample.

2.1.2 Qualitative Sampling

Qualitative sampling was purposively implemented through interviews and discussions with key informants and focus groups, respectively. Key informants were targeted at central and local government levels while focus groups were targeted at local government levels to collect structured and unstructured data for the Programme.

Table 1: Sample Size distribution across the Four Cities

Programme Cash Recipients		Sampled Households		
City	**Number of beneficiaries**	**Control**	**Treatment**	**Total**
Blantyre	56796	289	242	531
Lilongwe	53199	182	169	351
Mzuzu	23469	97	97	194
Zomba	13634	99	98	197
Total	147,098	667	606	1,273

Key Informant Interviews

Key informant interviews were undertaken at National, District and Community levels with senior officials from Government Agencies, development partners and Mobile Money Operators. The interviews were conducted to assess (i) the relevance of the CUCI to national and subnational policies, (ii) efficiency and effectiveness of Programme implementation, (iii) functionality of coordination and case management mechanism.

Focus Group Discussion (FGD)

Discussions were conducted at community levels in City Wards. Beneficiaries were randomly selected from the CUCI enrolment lists and non-beneficiaries were selected from the same communities using a snowballing technique. The FGDs concentrated on complaints and feedback mechanisms, transfer modalities, the perception of people towards the programme, targeting and coverage of the programme.

2.1.3 Quantitative Analysis: Theory and Model Specification

Propensity score matching entails forming matched groups of treated and untreated individuals having a similar value of the propensity score (Rosenbaum & Rubin, 1983). Due to the absence of neither panel nor baseline data, the PSM was deemed an appropriate methodology for the current exercise. Even through the PSM only matches observations on observable attributes and hence may not provide causal evidence, it provides and explanatory basis to suggest the direction of possible impacts. Under conditional Independence Assumptions (CIA) the PSM can be relied upon as expressing the underlying impacts of the programme. -

The PSM uses the Probit or Logistic model to estimate prospects to be in the treated group using Maximum Likelihood Estimation. The Probit or Logistic regression model allows for dependent variable that have several possible outcomes. The outcome in the model for this evaluation has 2 possibilities and hence the study adopted a binomial Logistic regression model as specified below.

The Logistic Regression Models

$\boldsymbol{Y_i} = \beta_0 + \beta_1 x_1 + \beta_2 x_2 + \varepsilon$……………………………………………………………………(1)

$\boldsymbol{Y_i} = 1$ if $Y_i^* > 0$

$\boldsymbol{Y_i} = 0$ if $Y_i^* \leq 0$

Whereby

$\boldsymbol{Y_i}$ is the beneficiary status (binary variable) that takes either value of 1 or 0;

$\boldsymbol{Y_i}^*$ is a latent variable that indexes beneficiary status, and it is a function of socioeconomic and institutional variables;

$\boldsymbol{X_{1,2,3}}$ is a vector of Age, Gender, Income, Education level, etc

$\boldsymbol{\varepsilon}$ is a Stochastic error term

An output variable (hat) was predicted to produce the counterfactual group i.e (the counterfactual group presents the non-beneficiaries with similar characteristics of beneficiaries).

The Propensity Score Matching

The propensity score is the probability of treatment assignment conditional on observed baseline characteristics. For an individual (i), the Propensity Score (π) is defined as the conditional probability (P) of assigning participants to a particular treatment of comparison group (T) given a set of covariates or observed baseline characteristics (X), expressed as

$\pi_i = P(T = 1|X_i)$………………………………………………………… (2)

Theoretically, relevant pretreatment variables are used to derive probabilities of group membership which are then used to match participants in treatment and comparison group (Sumarto, Suryahadi, & Widyanti, 2004).

Model Validity

The analysis checks the validity of the model using two assumptions that underlie the PSM 1: (a) conditional independence, (b) sufficient *common Support* between participating and nonparticipating respondents (S. Khandker et al., 2010; Abadie & Imbens, 2006; Dahejia & Wahaba, 1999).

a. Conditional Independence

Under this assumption, there exists a set of observable covariates such that after controlling for these covariates, the potential outcomes are independent of treatment status. This condition is also

referred to as the "no unmeasured confounders" assumption and implies that all variables that affect treatment assignment and outcome have been measured. This condition is a non-issue for this study as there were structured selection criteria for one to belong to the Programme.

$$(Y_1, Y_0) \perp D|X \text{...(3)}$$

b. Common Support

The common support condition states that every subject has a nonzero probability to receive either treatment. This implies that the probability of receiving treatment for each possible value of the vector X is strictly within the unit interval of 0 and 1: as is the probability of not receiving treatment. This assumption of common support ensures that there is sufficient overlap in the characteristics of treated and untreated units to find adequate matches. Results for this assumption are appended in the Annexes.

$$0 < P(D = 1|\, X) < 1 \text{...4}$$

2.1.4 Different Propensity Score Matching Techniques that CUCI Adopted

In the selection of the matching algorithm, the study takes significant cognizance that there is no superior method among all matching methods. According to Caliendo & Kopeinig (2008), this is due to the trade-off between bias and variance that will affect the estimated value of ATT. However, for precision of the estimates and on account of available comparable untreated individuals, the study uses more than one matching method so that results from the different matching method can be compared and disparities can be further investigated based the structure of the data. Thus, the study employs the Nearest Neighbor Matching, Radius Matching and Kernel Matching for the estimated propensity scores. The matching methods are discussed below;

Nearest neighbor matching

$$Min \, \left\| T_i - C_j \right\| \text{...(5)}$$

Nearest Neighbor Matching technique, also known as greedy matching, involves running through the list of treated units and selecting the closest eligible control unit to be paired with each treated unit.(i.e. For each treated observation, ***i*** selected a control observation ***j*** that had the closest X**Invalid source specified.**). Due to the risk of bad matches that arises when the Nearest neighbor is far, the study adopted the Radius Matching in which a caliper - a tolerance level on the maximum propensity score distance, is imposed. Radius Matching method is discussed below.

Radius Matching

$$\left\| T_i - C_j \right\| < r \text{...}\textit{(6)}$$

Radius matching involves the control group whose propensity scores were falling in a predefined radius. (i.e. For each treated observation, ***i*** was matched with control observations j that fall within a specified Radius (Davis, Gaarder, Handa, & Yabhonski, 2012). Within the radius (caliper), this algorithm uses not only the nearest neighbor within each caliper but all of the comparison members within the caliper. The advantage of this approach is that it uses only as many comparison units as are available within the caliper and therefore allows for usage of extra units when good matches are available. Hence, it shares the attractive feature of oversampling mentioned above, but avoids the risk of bad matches.

Kernel Matching

$$w(i,j) = \frac{K\left(\frac{p_j - p_i}{h}\right)}{\sum_{j=1}^{n_0} k\left(\frac{p_j - p_i}{h}\right)} \quad \ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots (7)$$

This is non-parametric matching estimation that uses the weighted averages of all the individuals in the control group to create the counterfactual outcome. *(i.e.* For each treated observation, ***i*** was matched with several control observations, with weights inversely proportional to the distance between treated and control observations (Begum, Alam, Haque, & Akter, 2015). The lot of information used in this methodology advantageously achieves lower variance. The possibility of bad matches in observations is arrested by proper imposition of the common support condition.

The best fit model was selected based on (i) the one that gave higher number of insignificant variables (ii) one that gave a higher number of common support group matched (iii) the one with lower mean bias (iv) the one with lower pseudo-R-Squared (R^2).

Data Analysis

Conclusions from the matching methods were based on the Average Treatment on Treated (ATT) and Average Treatment Effect on the Treated (ATET) which were computed on the propensity scores falling within the region of common support. The logic behind adoption of both ATT and ATET are policy and decision support implications that arise from their fundamental differences. On one hand, the ATT estimates both the average change in the outcome under inquiry if everyone was on the Programme and if everyone was *not* on the Programme (Purba, 2018). On the other hand, ATET is the average effect of treatment on those subjects who ultimately received the treatment (Austin, May 2011). The ATET is counterfactual in that it is the difference between the outcomes of the treated if they had not been treated.

Data and Variable Description

The survey used Food Consumption Score (FCS); Reduced Coping Strategies (rCSI2), and the Household Dietary Diversity Score (HDDS) as outcome variables to assess the impact of CUCI on (i) food consumption, (ii) coping strategies, and (iii) the in-take of nutritious food for both

beneficiaries and non-beneficiaries respectively. The differences in the outcomes for observations with similar propensity scores for the treated and untreated samples were used to compute the ATET and ATE as discussed in the preceding section, in STATA 17.

a) Household Dietary Diversity Score

This is a food consumption indicator based on households' self-reporting of the number of 12 food groups consumed in the previous 24 hours (FAO, 2021). The HDDS reflects the economic ability of a household to access a variety of foods and is based on households' self-reporting of the number of food groups consumed in the previous 24 hours. In this regard, the study uses the HDDS as a proxy for consumption of nutritious foods. Thus the higher the HDDS unit, the better the diversity and consumption of nutritious foods.

b) Food Consumption Scores

The FCS is a composite score based on self-reported information on consumed food groups (of nine food groups in total) and food frequency (number of days' food groups were consumed during the past seven days), weighted by the ascribed relative nutritional importance of different food groups (IPC Global Partners, 2019). The FCS has three (3) cut off points: poor consumption (FCS = 1.0 to 28); borderline (FCS = 28.1 to 42); and acceptable consumption (FCS = >42.0).

c) Reduced Coping Strategy Index (rCSI)

The rCSI, developed by CARE, is an experience-based indicator collecting information on household use and frequency of five different food-based coping strategies over the past 7 days. The rCSI has a range of 1 to 56. In addition to frequency, the rCSI also characterizes the severity of the five pre-selected coping strategies that the household used in the seven days prior to the survey. The rCSI has three categories: No or low coping (CSI= 0-3), medium (CSI = 4-9, high coping (CSI ≥10). This study however will look at the average effect of the CUCI on the rCSI as in order to assess coping strategies employed. This implies that those with a lower rCSI are actually better-off than those with a higher rCSI.

The rCSI is thought to be most useful in early onset crises when households change their food consumption patterns to respond to shocks, but not in protracted emergencies when households are likely to have already exhausted some coping mechanisms (IPC Global Partners, 2019). On this account, the current undertaking adopts the rCSI since COVID-19 is the shock that necessitated Urban Cash Intervention under shock-sensitive safety nets programme.

Quality of Matching

Matching Quality Tests performed include standardized bias, t-test before and after matching and F joint equality of means test on sample matched. The tests were applied on the ATE and ATET. These are based on the null hypothesis that If there is no difference, the sample used has good

matching quality. If the match quality is poor or there is still a difference, the aforementioned steps were repeated until the matching quality was deemed satisfactory. Sensitivity Analysis was conducted to see the presence of hidden bias due to unmeasured variables in treated and untreated groups.

2.1.5 Limitations of the Study

- The study could not assess impact of the CUCI on health seeking behaviors owing to limited data of the control group that form the evaluation's appropriate counterfactual.
- The study also acknowledges that the PSM only accounts for the observable characteristics for participation in the Programmme. Unobservable attributes that could affect selections into CUCI are uncontrolled for in the models.

Chapter 3: Key Findings

3.0 Introduction

This chapter presents results of the evaluation. Although the main interest of this evaluation is to show analytical outcomes on the impact, efficiency, and effectiveness of CUCI, this chapter provides descriptive statistics, particularly means, standard deviations and frequencies of the variables that were used in the analysis. The descriptive statistics are necessary in explaining patterns that are observed in the analytical outcomes.

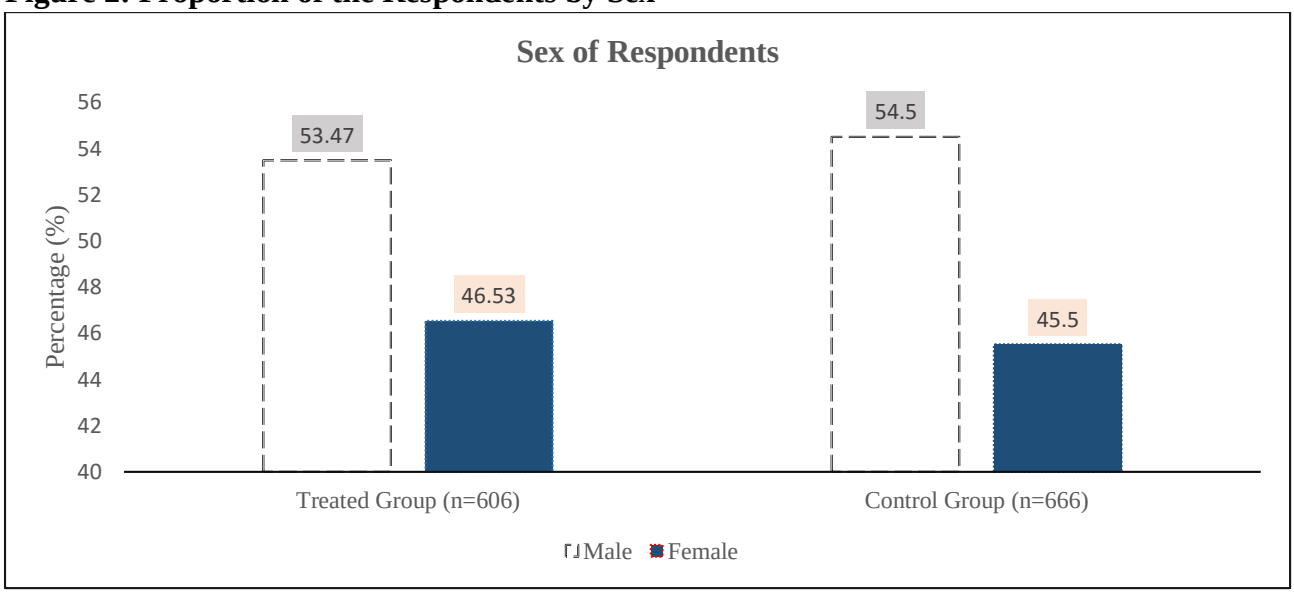
3.1 Demographic Characteristics of the Sample

This section provides a general demographic profile of the survey participants.

3.1.1. Sex of the Respondents

The survey undertakes a binary approach to gender using sex categories of male and female. Figure 2 shows that for both treated and control groups there are has more males than females. For example, among the control group 54.5 percent of the respondents are males as compared to 45.5 percent for females. The sex representation amongst respondents is almost similar for treated and control groups.

Figure 2: Proportion of the Respondents by Sex



Source: *Survey Data*

3.1.2 Age distribution of the Sampled Respondents

Table 3 depicts that majority of the respondents are above 35 years old amongst both treated and control groups (68.1 percent and 68.6 percent respectively). The mean age of the respondent is 45 for the treated group and 44 for the control group. Thus, most of the survey participants are in the economically active age group.

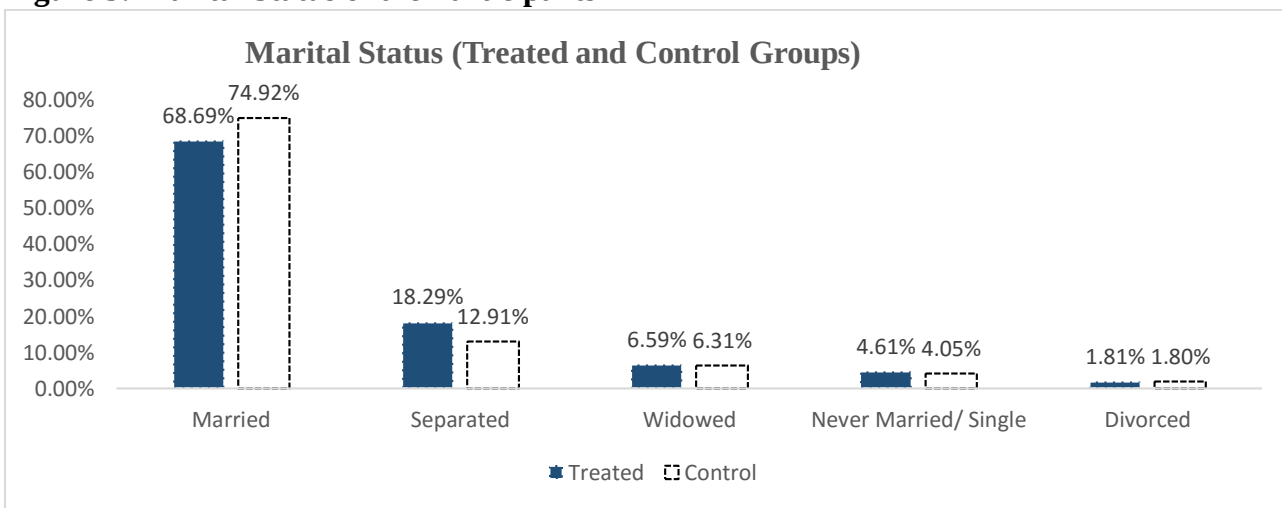
Table 2: Respondents' Age distribution (Beneficiaries and Non-Beneficiaries)

Age Group	Treated (n=605)	Control (n=666)
Less than 18	0.5%	0.15%
19 - 35	31.9%	31.38%
35 - 45	26.45%	29.73%
46 -60	23.14%	24.62%
Above 60	18.02%	14.11%
Mean Age	44.64	43.66

3.1.3 Marital Status

The study examined the marital status of the participants to assess their living arrangements. The analysis indicates that 69% and 75% of the treated and untreated samples are married respectively, indicating some dependency on the household income-earning members. In this regard, the analysis looks at marital status alongside the average household size.

Figure 3: Marital Status of the Participants



***Source**: Survey Data*

3.1.4 Household Size

The study examines household size ceteris paribus. According to the surveyed participants, the average household size is 5.6 for the control group and 5.3 for the treated group as shown in Table 3. These are above the national average of 4.8, according to the 2015 Malawi Demographic Health Survey by NSO.

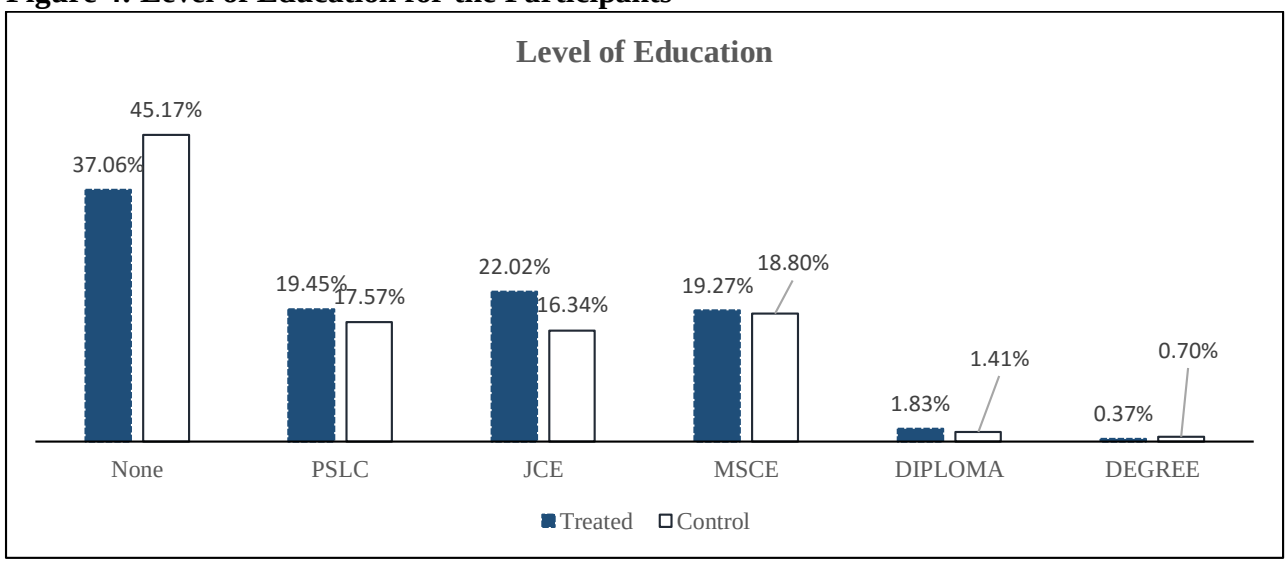
Table 3: Household Size

Household Size	Observations	Mean	Std. Dev.	Min	Max
Treated	607	5.3	1.9	1	15
Control	666	5.6	2.2	1	15

3.1.5 Level of Education for Participants

The apriori expectation with respect to education is that the higher the education, the more rational the expenditure of CUCI funds, ceteris paribus. Figure 1 captures the education profile of the survey participants. The majority of the sampled survey participants from the treated and control groups (37% and 45.4%) do not posses any qualification. While less than one percent have degrees from either groups, around 19% have MSCE certificate from both the treated and control groups.

Figure 4: Level of Education for the Participants



Source: *Survey Data*

3.2 Household Economy Impact

3.2.1 Objective 1: To understand the Utilization of CUCI Money

This section examines utilization of cash received under CUCI using descriptive statistics. A beneficiary households were able to spend on more than one item. Table 4 shows that 70% of the surveyed households spent part of their cash on food with an average of MK33,200. However, there were some who spent all cash received on food. This was seconded by expenditure on business resuscitation (45.2% and average of 41, 981) then education with 36.5% and an average of MK28, 681. The expenditures on food and business resuscitation are indicative of the stress that the communities were facing prior to the intervention. Further, three percent of the beneficiaries spent their transfers on loan repayment thereby reducing their debt burden because of coping, with the expenditure averaging MK22, 645.

Particular attention was paid to treated group participation in COMSIP Savings and Loans Groups (SLGs) as this was a sustainability measure for the intervention. The Savings and Loans Groups would be a revolving fund from which beneficiaries and non-beneficiaries would access credit for business and consumption. The study notes that there was little participation in SLGs as evidenced by the meagre eight percent that saved their money in the SLGs with an average of slightly over MK16, 000. However, there were some who saved the whole amount. The project thus failed to realize potential benefits that could accrue to beneficiaries and non-beneficiaries through SLGs as a sustainability component. FGDs revealed that this was due to inadequate sensitization at community level.

Table 4: Utilization of Funds Received

CUCI Funds Utilization	No of Households	(Utilization %)	Mean (MK)	Min (MK)	Max (MK)
Food Purchase	421	69.47	33,206.53	2,800.00	105,000.00
Resuscitate Business	274	45.21	41,981.03	2,000.00	105,000.00
Education Expenses	221	36.47	28,638.01	700.00	95,000.00
Building Expenses	130	21.45	57,860.00	5,000.00	105,000.00
Household Assets	128	21.12	28,594.14	3,000.00	80,000.00
Rent	75	12.38	24,993.33	5,000.00	66,000.00
Shared with Friends/Relatives	72	11.88	16,361.14	2,000.00	42,555.00
Medical Expenses	60	9.90	31,516.67	1,000.00	72,000.00
Used on COMSIP	47	7.76	16,458.62	2,500.00	105,000.00
Livestock Purchase	32	5.28	27,750.03	8,000.00	74,555.00
Transport Expenses	29	4.79	18,379.31	3,000.00	80,000.00
Agricultural Inputs	26	4.29	34,576.92	2,000.00	72,000.00
Repaid Loans	21	3.47	22,645.86	5,000.00	66,000.00

Village Savings	11	1.82	36,090.91	20,000.00	65,000.00
Not Spent	9	1.49	21,555.78	2,000.00	55,000.00
Other specify (Beer Drinking, Funds Abuse)	1	0.17	2,000.00	2,000.00	2,000.00

Source: *Survey Data*

3.2.2 Objective 2: To Assess the Effect of CUCI on household Reduced Coping Strategy Index

This section examines the impact of the cash intervention on the experiential indicator, Reduced Coping Strategy Index (rCSI). The KII and FGDs unearthed that the most common coping mechanism for peri-urban populations is borrowing money from loan sharks to buy food or invest in business. At the height of the pandemic, the need to borrow from sharks was exacerbated by the economic slowdown that came about due to COVID-19 preventive measures. Communities reported soaring cases of loss of property such as iron sheets and household items due to high default rates on loans obtained from loan sharks.

rCSI Comparison between Treatment and Control Groups

The study looks at the rCSI for the treated and control group as part of descriptive statistics. The indices for those that received cash and those that did not receive cash show that those that received cash were better off. Table 5 shows that there were more people in low or no coping category for the beneficiaries than those in the control group, at 38.6% compared to 30.2% for the control group. In the same spirit, there were less people (11.3%), exhibiting high stress among beneficiaries compared to the control group (17.4%). This implies that the stress of coping was less severe for the beneficiaries than for the non-beneficiaries. However, the study cannot draw conclusions from this comparison as other factors other than the intervention might also lead to lessening of the severity of the coping stress.

Table 5: rCSI Profiles for Survey Participants

rCSI category	Treated (n=586)	Control (n=630)
No or Low coping (CSI= 0-3)	38.57%	30.20%
Medium coping (CSI = 4-18)	50.17%	52.43%
High coping (CSI ≥19)	11.26%	17.37%

Source*: Survey Data*

CUCI Impact on rCSI

Results from the PSM show a negative relationship between coping strategies employed by the targeted population and belonging to the Programme. Those that received cash, on average had a lower rCSI than those that did not. This implies that the cash intervention reduced the severity of coping by 1.56 units of the index, using Kernel Matching. As can be seen from Table 6, the results are statistically significant for the matching technique. The balancing property is also satisfied, and results are in Appendix I.

Table 6 provides matching results based on the Average Treatment on Treated (ATT) on Reduced Coping Strategy Index over the sampled households. Kernel matching under bandwidth of 0.1 was found to be the most appropriate. The rCSI for the treated was on average lower than for those in the control group at 8.8 and 10.4 respectively. The statistical score on Average Treatment on Treated (ATT) between those that received the cash intervention in the specified four cities (treated) and those that did not receive (control) was **-2.22** which is less than the cut off critical value of 5% (**-1.96**). This is a clear indication that the cash injection had a significant impact on the severity of coping as evidenced by its negative difference between the treated and the control. Since the treated households had money transferred to them for their livelihood during this period, there was a significant reduction in coping strategies that could be employed. In effect, households did not have to borrow money to buy food.

Table 6: Impact of CUCI on household rCSI via Average Treatment on Treated (ATT)

Variable Sample	Treated	Controls	Difference	S.E.	T-stat
rCSI Unmatched	8.79773157	10.4505495	-1.65281788	0.692495164	-2.39
ATT	8.79773157	10.3547401	-1.55700858	0.701884189	-2.22

***Source**: Survey Data*

Furthermore, in order to ascertain the robustness of the results, the survey explored the results of the rCSI based on the Average Treatment Effect on the Treated (ATET). Under ATET, the evaluation finds that the CUCI Programme significantly reduced the severity of coping because on average those that received cash have a lower rCSI.

The ATET results depicted in Table 7 are consistent with the ATT in Table 6. Table 6 shows that the p-value 0.032 is less than designated alpha level of 5% (0.05) (p-value=0.032 < 0.05) and z-value of -2.15 is less than the confidence interval of critical value of -1.96. Thus, we fail to accept the null hypothesis that the rCSI between those who received COVID-19 cash intervention (treated) and those that did not receive (control) are the same and conclude that there is a statistically significant difference between the two groups in terms of the coping strategies. This implies that the programme intervention, had significantly contributed to the decrease in the rCSI among the beneficiaries.

Table 7: Impact of CUCI on Household rCSI via Average Treatment Effect on Treated (ATET)

rCSI	Coefficient	Standard Error	Z	P>z
ATET				
Benefit Status				
(Beneficiary vs Non-Beneficiary)	-1.855703	0.8628417	-2.15	0.032

***Source**: Survey Data*

3.2.3 Objective 3: To Assess the Effect of CUCI on the Uptake of Nutritious Meals (HDDS)

This section provides results of the impact of the CUCI on the uptake of nutritious foods. As discussed in the preceding sections, the study uses the HDDS as a proxy for uptake of nutritious foods in terms of quality. However, the study restricts its conclusions within the confines of *nutrient adequacy* as the HDDS falls short as a gold standard for measuring *Micro-nutrient adequacy* and intra-household inequities.

HDDS Comparison between Treatment and Control Groups

The comparison of frequencies of HDDS between the treatment and control groups show the treatment group, cash beneficiaries, with consumption of better nutritious foods unlike the non-cash recipients (Table 8). Programme beneficiaries have more people with high diversity (73%) compared to non-beneficiaries (66%). In the same vein, there are less beneficiaries, 5.9%, in the low diversity group compared to the non-beneficiaries (9.4%). As noted under rCSI, the mere comparison of the indicator between the beneficiaries and non-beneficiaries is not enough to attribute the difference to the CUCI. This is because the comparison does not account for other factors other than the CUCI that might lead to higher dietary diversity.

Table 8: Household Dietary Diversity Scores Profile: Treatment and Control Groups

HDDS categories	Beneficiary (n=578)	Non Beneficiaries (n=615)
High Dietary Diversity	73.70%	66.02%
Medium Dietary Diversity	20.42%	24.55%
Low Dietary Diversity	5.88%	9.43%

***Source**: Survey Data*

CUCI Impact on Household Dietary Diversification Score

Output from the analysis shows that the Programme improved nutrient adequacy among those that received cash. This is consistent with the findings under Objective 1, as nearly 70% spent on food commodities. The analysis employed Nearest Neighbor matching with a bandwidth of (1) as its best fit model. Table 9 shows a positive difference in HDDS between the households that received the cash intervention (treatment) and those that did not receive the cash (control). This positive

result on ATT is backed by the t-statistics which is 2.84 greater than the cut-off critical value of 5% (1.96) meaning that the Programme was fully significant on HDDS.

It is worth noting that the magnitude of the difference between those that received cash and those that did not, despite being statistically significant, is not large enough. The intervention could have realized a higher level of impact.

Table 9: Impact of CUCI on Household Dietary Diversity Score (HDDS) via Average Treatment on Treated (ATT).

Variable Sample	Treated	Controls	Difference	S.E.	T-stat
HDDS Unmatched	6.13819578	5.59160305	0.546592724	0.147878669	3.70
ATT	6.13819578	5.57581574	0.562380038	0.198263459	2.84

***Source**: Survey Data*

In addition to the Average Treatment on Treated (ATT), the analysis went further to explore the Average Treatment Effect on Treated (ATET). The results support findings under the ATT on (HDDs) above, with a p-value of 0.002 which is less than designated alpha level of 5% (0.05) (p-value=0.002 < 0.05) and z-value of 3.04 is greater than the confidence interval of critical value of 1.96 (see Table 10). This confirms the rejection of the null hypothesis that the HDDS between those who received COVID-19 cash intervention (treated) and those that did not receive (control) are the same and conclude that there is a statistically significant difference in their dietary scores due to the cash intervention.

Table 10: Impact of CUCI on HDDS via Average Treatment Effect on Treated (ATET)

HDDS	Coefficient	Standard Error	z	P>z
ATET				
Benefit Status				
Beneficiary vs non-Beneficiary	0.5361484	0.1764408	3.04	0.002

***Source**: Survey Data*

3.2.4 Objective 4: To Assess the Effect of CUCI on the Food Consumption

This section has a two-fold approach to the FCS. The first part provides an overview of FCS between the treatment and control groups using frequencies and the second part provides the impact assessment results from the PSM model.

Food Consumption Scores Comparison between Treatment and Control Groups

A comparison between food consumption for the beneficiaries and non-beneficiaries using the FCS shows that beneficiaries consumed more foods with high nutritional value. As can be seen

from the categories in Table 11, the acceptable consumption category had 77% and 74.9% beneficiaries and non-beneficiaries, respectively.

Table 11: Food Consumption Score Profile of the Treatment and Control Groups

FCS category	Beneficiary (n=569)	Non-Beneficiary (n=614)
Acceptable	77.01%	74.92
Borderline	19.1%	20.68
Poor	3.89%	4.4%

***Source**: Survey Data*

CUCI Impact on Food Consumption Scores

The results under the FCS show that the intervention improved the overall quantity and quality of food over the 7-day period prior to the survey. Using a Kernel Matching with a bandwidth of (0.1) results show a positive difference in the FCS between the households that received the cash intervention (treatment) and those that did not receive the cash (control) under ATT. Thus, the CUCI improved food consumption by 3.2 units of the score. This result is reinforced by the t-statistics of 2.65 which is greater than the cut off critical value of 5% (1.96) meaning that the results are statistically significant. The Table 12 below provides the result.

Table 12: Impact of CUCI on household Food Consumption Score (FCS) via Average Treatment on Treated (ATT)

Variable Sample	Treated	Controls	Difference	S.E.	T-stat
FCS Unmatched	58.0836576	54.9990512	3.08460635	1.20376646	2.56
ATT	58.0836576	54.8438872	3.23977038	1.22457033	2.65

***Source**: Survey Data*

Evidence from the ATET, supports the findings in Table 12. As can be seen results on FCS in Table 13 show the FCS, on average, improved by 3.59 units for those that were on the Programme. Further, the table shows that the p-value is 0.012 which is less than the designated alpha level of 5% (0.05) (p-value=0.012 < 0.05), and the z-value of 2.51 is greater than the confidence interval of the critical value of 1.96. This confirms the rejection of the null hypothesis that the FCS between those who received cash under CUCI (treated) and those that did not receive (control) are the same and conclude that there is a statistically significant difference between their consumption scores due to the cash intervention.

Table 13: Impact of CUCI on household Food Consumption Score (FCS) via Average Treatment Effect on the Treated

FCS	Coefficient	Standard error	Z	P>z
ATET				
Benefit-Status				
Beneficiary vs Non-Beneficiary	3.597763	1.433856	2.51	0.012

***Source**: Survey Data*

3.3 Programme Implementation

The study also looked at Programme design and implementation with respect to the possible attainable level of impact as per the programme design vis-à-vis what the project has achieved. In addition to findings from the KIIs and FGDs, the study considers the findings of the CUCI Process Evaluation by World Bank, as alluded to in the Literature Review. This study looks at the quality of the implementation process as a limiting factor or an enabler to attainment of the impact. This evaluation focuses on three main phases of the *cash programming*. The phases are (i) sensitization, (ii) targeting and registration and (iii) transfers. Throughout this process, case management or complaints and feedback mechanisms are implemented to ensure there is feedback from the participants.

3.3.1 Sensitization

The KIIs at City Councils and FGDs revealed that sensitization of the programme was not adequate as some targeted populations were not aware and did not avail themselves during the targeting and registration processes. This is due to the businesses and income-generating activities that they were pursuing at the time given the income-based consumption. From FGDs, the consensus was that sensitization could have been done with more frequency. Consequently, household heads were not available, and the information given had some gaps and some individuals doubted the veracity of the messages. A rumour was thus mongered that the money was associated with Satanism.

As observed in the findings under Objective 1 (Utilization of CUCI money), linkages to SLGs were part of the sustainability plan of the CUCI and a mechanism to ensure that a revolving fund was created that extends the benefits to programme non-beneficiaries. However, the findings from the in-depth discussions with key informants and focus groups show that the message regarding the COMSIP SLGs was either limited or came after beneficiaries had spent the money. This resulted in low participation the SLGs and thus limited the potential impact the project would have obtained.

3.3.2 Targeting and Registration

The evaluation observes that targeting and registration are an integral process to identifying the right beneficiaries and recording beneficiary data for use in the electronic cash transfers. The survey established that beneficiary data collected during registration was not consistent with data in the National Registry (National IDs) and Mobile Money Operator database. Names of some beneficiaries registered were not corresponding with either the names used when registering their phone number or provided or the name on the National IDS. Once both the MoGCDSW and EP&D, a payroll, verified data separate registry, specific to the CUCI Programme was created through the UBR Management Information System.

In terms of geographical targeting, the qualitative data revealed that the population in borderline areas of rural and urban areas were a policy blinds-pot as they were neither considered by programmes in rural or urban areas. Areas beyond Njewa in the outskirts of Lilongwe registered complaints that they were not targeted in the Programme through their leaders. The officials from the City Councils echoed the same during KIIs and FGDs.

Airtel and TNM implemented a KYC exercise to arrest the inconsistencies in the data. Despite the KYC being planned for 2 weeks, it lasted approximately 3 months. Despite the KYC, 19% of beneficiaries under Airtel did not receive cash as their personal details could not be authenticated whilst TNM did not cover up to 40% of the total targeted beneficiaries due to the same challenge. In total, only 36% of the beneficiaries had matching data at the start of the Programme. Contractually, the KYC exercise was not part of CUCI. Due to the data challenges, the evaluation finds that more impact would have been realized had these challenges been ironed out as more people would have benefitted.

3.3.3 Blasting Money and Local Liquidity

Key informant interviews with MNO showed that fund managers transferred money to the MNOs on time prior to blasting to beneficiaries. As a result, the blasts were timely. Once money was transferred (blasted), beneficiaries were able to collect at mobile money agents. Super-agents were also involved to backstop the mobile money agents due to the surge in demand for cash. Thus, there were no liquidity issues bordering on beneficiaries being unable to access cash at pay points.

3.3.4 Effect on Commodity Prices

The study investigated commodity prices considering the cash injection to see if there were any price surges. The current undertaking considers the inflationary effect of cash injection as an impact attenuator as the purchasing power of the transfer value would be lower and affect non-beneficiaries as well. Price surges were only observed in Mtandire Ward (Lilongwe) where speculation about cash receipts led to traders raising their commodity prices. However, these surges were limited and lasted for two (2) days after which prices reverted to normalcy.

Chapter 4: Conclusions and Recommendations

4.1 Conclusions

This evaluation established that the COVID-19 Urban Cash Intervention had a positive impact on food security outcomes of beneficiary households. This is consistent with the expenditure patterns of the transfers. Food purchases accounted for the largest share of beneficiaries' expenditure. The evaluation used the Reduced Coping Strategy Index (rCSI), Household Dietary Diversity Score (HDDS) and Food Consumption Score (FCS) to establish the impact of the intervention on food security outcomes. Accordingly, the evaluation found that the CUCI protected beneficiary households from using negative coping mechanisms against food insecurity. The intervention further increased dietary diversity and quantity of foods consumed among the beneficiaries. The study also established that only few beneficiaries saved their money with the SLGs due to inadequate sensitization at community level. While it was envisaged that the SLGs would serve as revolving funds where households would borrow funds for running their businesses, this was not the case due to inadequate sensitization at community level. Most households learnt of the expectation to save part of the money they received after they had already spent the money on food and other necessities.

The study found that time allocated for sensitization on the CUCI was not adequate to the extent that some deserving households were not aware and did not turn up for the registration. Besides, some households that had turned up for registration were not able to provide the requested information and therefore, did not benefit from the programme within the prescribed period. The survey established that beneficiary data collected during registration was not consistent with data in the National Registry (National IDs) and Mobile Money Operator database. As a result of this anomaly, names of some beneficiaries registered were not corresponding with either the names used when registering the phone number provided or the name on the National Identity Cards. As such, they were not able to receive the money. However, transferring of money to the beneficiaries was done timely and the beneficiaries did not face any challenges in getting money from the Mobile Money Agents once the transfer were made.

4.2 Recommendations

Based on the study findings of the study, the following are the recommendations:

a) Social Cash Transfer Programme should be scaled up to urban centres to improve the nutrition and food security of the urban poor especially during pandemics.

b) Urban Cash Transfer programmes should come with a condition for linkages with livelihood components that includes capacity building in business and ongoing government initiatives as National Economic Empowerment Fund (NEEF) to ensure long term benefits to the households.
c) There is need to strengthen or establish SCTP collaboration with the micro-loan institutions such as COMSIP to promote a savings culture among the households and ensure that the benefits are sustained beyond programme period.
d) Databases for National Registration and Identification System, Mobile Money Operators and SCTP (UBR) should be harmonized to address issues of beneficiary ID authentication. This will ensure consistent data in the National Registry, MNO database and the UBR MIS.
e) Given a predetermined use of e- transfers, Mobile Money Operators (MMO) should be involved right at the beneficiary targeting and registration tools development stage so that data collected in the field should properly feed into MMO databases and requirements for authentication.
f) Programme staff should ensure that adequate time is allocated towards sensitization activities and ensure that content of messages should be comprehensive enough to cover all programme aspects.
g) There is need to clearly outline the roles and responsibilities of City Councils and Councilors for the smooth operation of cash intervention and other programmes targeting urban households.
h) For residents in the borderline areas of urban and rural locations being left out in both rural and urban programmes, there may be need to carry out socio- economic profiling so that they are targeted by appropriate interventions under the shock sensitive safety nets for the ultra-poor.

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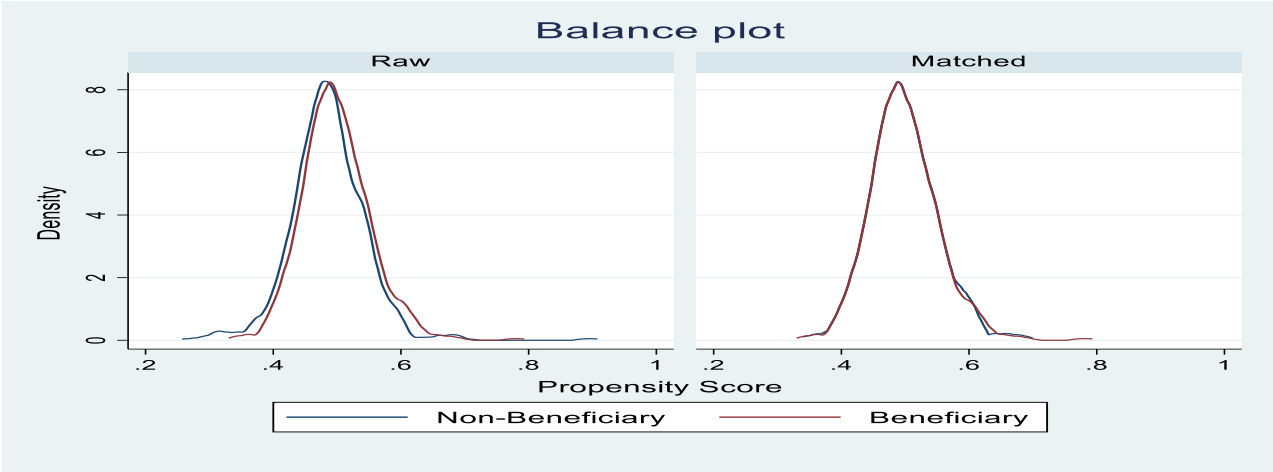
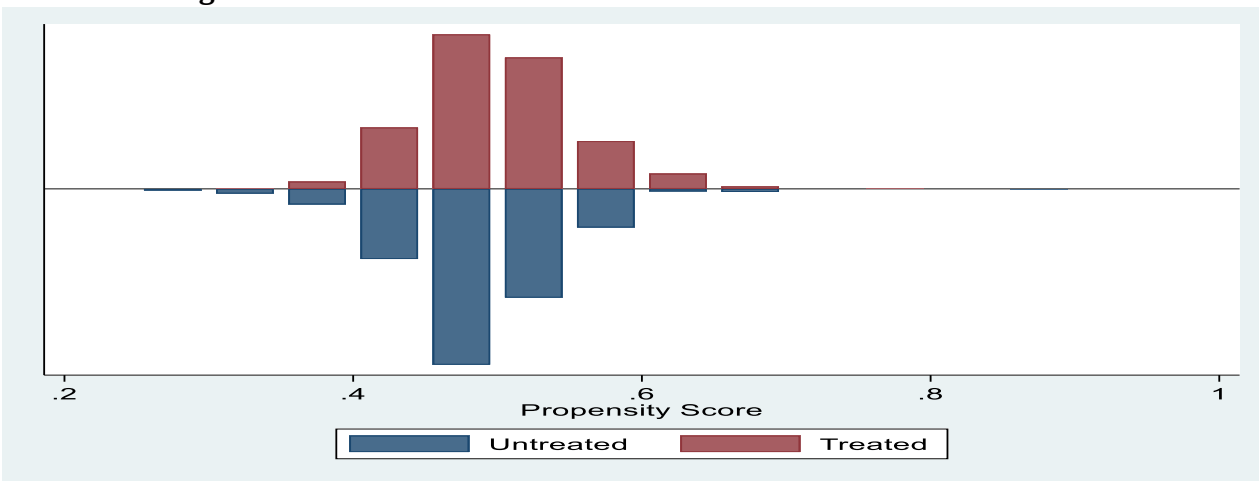
Annexes

Annex 1: Propensity Scores Distribution and Common Support for Reduced Copying Strategy (rCSI)

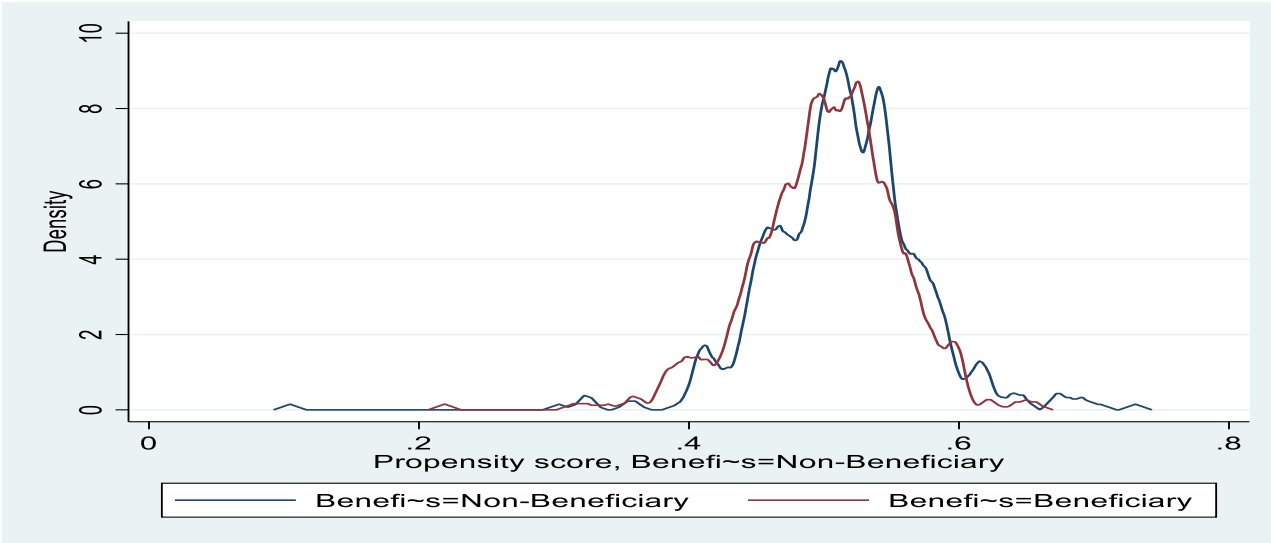
Before and After Matching



After Matching

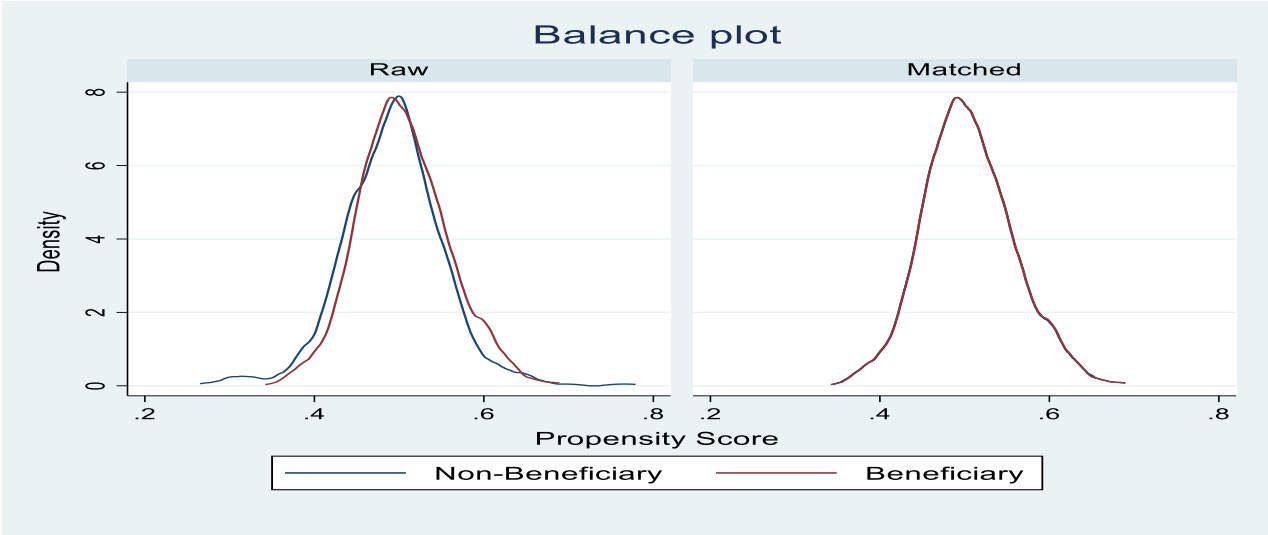


Overlap Distribution



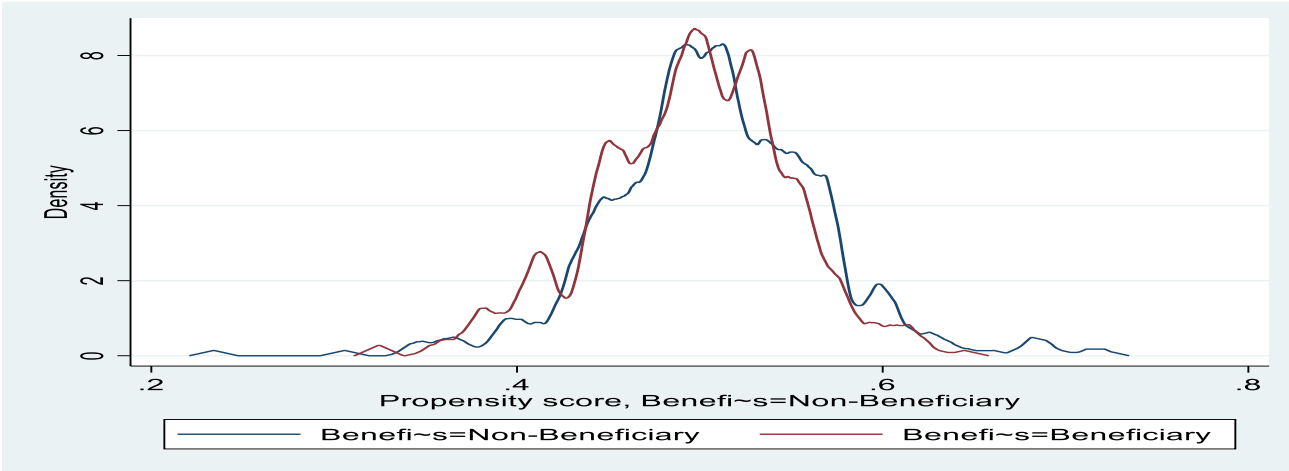
Annex 2: Propensity Scores Distribution and Common Support for Household Dietary Diversity Score (HDDS)

Before and After Matching



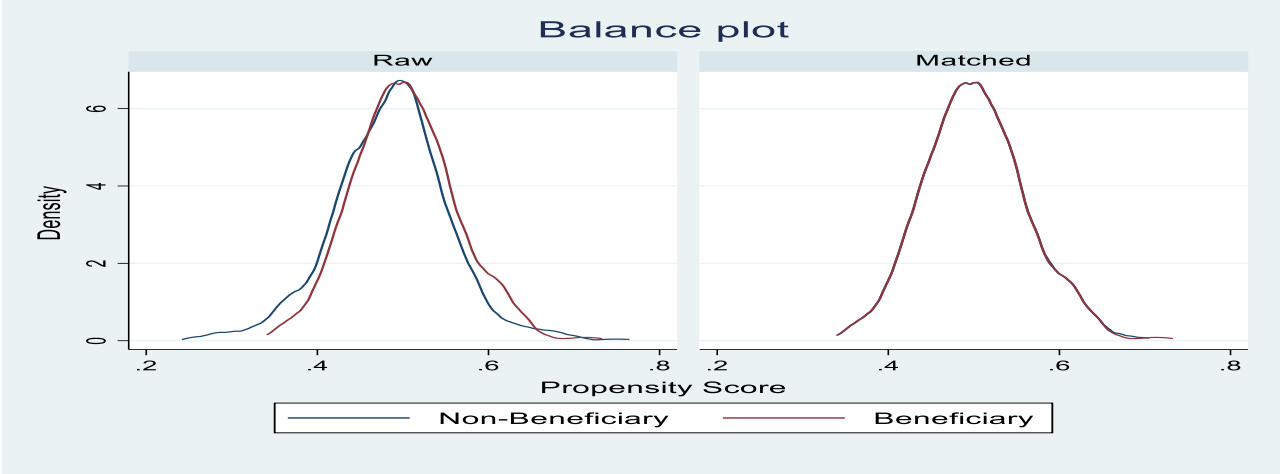
After Matching

Overlap Distribution

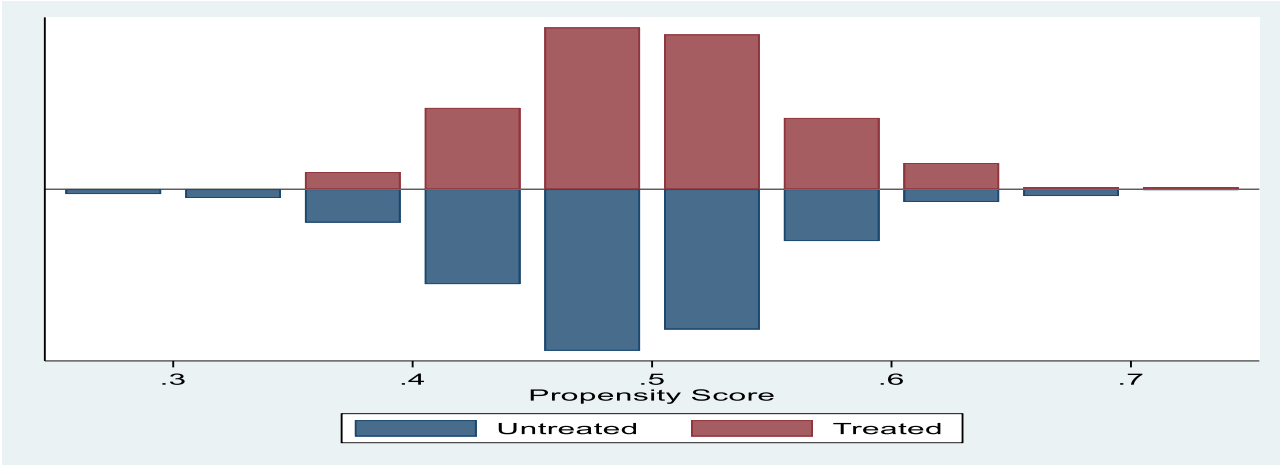


Annex 3: Propensity Scores Distribution and Common Support for Food Consumption Score (FCS)

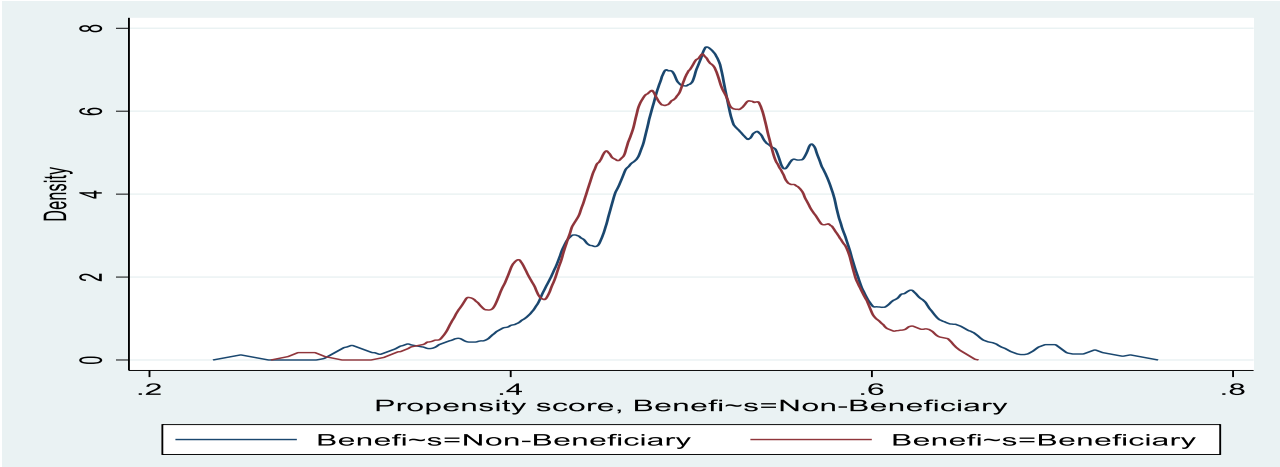
Before and After Matching



After Matching



Overlap Distribution



Annex 4**:** Test for Means

Variable	**Mean**		**%bias**	**t-test**	**V(T)/V(C)**
	Treated	Control		t p>t	
Total Income	45601	44303	2.1	0.35 0.729	0.65*
Household Size	5.286	5.1919	4.7	0.83 0.405	1.02
Gender	1.4395	1.4645	-5	-0.81 0.419	0.99
Age	43.816	43.816	0	0.00 1.000	1.05
Marital Status	4.4338	4.3225	3.5	0.57 0.572	12.62*
Highest Class	9.0192	8.7063	9.1	1.47 0.142	1.02

Monitoring and Evaluation Division,
Department of Economic Planning and Development,
P.O. Box 30136,
Lilongwe 3,
Malawi