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Understanding Intra-household Food Allocation Rules

Evidence from a Randomized Social Safety Net Intervention in Bangladesh

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ABSTRACT

Evidence shows social protection can improve diets, but little is understood about how effects vary within a household or what factors determine how food is allocated across different household members. We use individual food intake data from two randomized control trials to estimate intrahousehold dietary impacts of cash or food transfers, with or without nutrition behavior change communication (BCC), in two regions of Bangladesh. We assess whether intrahousehold impacts 1) are consistent with different allocation "rules" hypothesized in the literature, 2) differ by transfer modality, provision of BCC, or regional context. Results indicate that households distribute food equally among their members (men, women, boys, and girls), both in absolute terms and in proportion to individual-specific requirements and deficits. Patterns are similar across regions and do not depend on transfer modality or whether BCC is provided. Findings have implications for designing nutrition-sensitive social protection with different target groups prioritized.

Keywords: intra-household allocation; social protection; fairness rules; gender equity; nutrition; Bangladesh

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ABBREVIATIONS & ACRONYMS

ANCOVA: Analysis of covariance

BCC: Behavior change communication

CAR: Caloric Adequacy Ratio

CNW: Community Nutrition Worker

DDS: Dietary Diversity Score

EER: Estimated Energy Requirements

GDQS: Global Diet Quality Score

FAO: Food and Agriculture Organization

IFPRI: International Food Policy Research Institute

ITT: Intent to Treat

LPM: Linear probability model

OLS: Ordinary least square (regression)

PAL: Physical activity level

RCT: Randomized controlled trial

SUEST: Seemingly unrelated estimation

TMRI: Transfer Modality Research Initiative

WFP: World Food Programme

WHO: World Health Organization

24HR: 24-h dietary recall

7DDR: 7-day dietary recall

1. Introduction

Social protection programs have gained significant attention as a promising strategy to improve nutrition and health among the poor. These programs, which provide food or cash transfers, not only reduce income constraints and poverty, but they have also been shown to improve household diet and nutrition outcomes (Olney et al., 2022; Hidrobo et al. 2018). However, less is known about their impacts on individual household members and where that evidence exists, it focuses on specific member-types: infants and women of reproductive age.

How social programs impact different household members is largely determined by how households decide to allocate resources such as food. Research on intrahousehold resource allocation can provide insights into these decisions. One strand of this work has focused on "who decides" how resources are allocated, through relaxing the assumption that the household behaves "as if" it was a unitary entity (Alderman et al, 1995) when making resource allocation decisions. A second stand focuses on "who gets what" resources, considering the processes by which resources such as food are allocated among household members – research that was motivated by early work undertaken by Chen et al. (1981), and Kynch and Sen (1983). While research on "who decides" has grown enormously over the past 40 years, much less empirical progress has been made on "who gets what." For example, in their systematic review of intra-household food allocation between adults in South Asia, Harris-Fry et al. (2017) identify only 16 quantitative studies published between 1972 and 2016, with 70 percent of these published before 2000. Early theoretical work, most notably by Behrman, Pollak and Taubman (1982) and by Farmer and Tiefenthaler (1995) described a series of allocation rules that households might adopt. However, recent studies on this topic are scarce and many of these, such De Vreyer and Lambert (2021), while documenting difference in allocations among household members, do not attempt to understand why such differences arise. A reason for this paucity of evidence is that observing consumption at an individual level is difficult. While there is some scope to uncover these inferentially (Deaton, 1989; Dunbar, Lewbel, and Pendakur, 2013; Bargain, Donni, Kwenda, 2014), these approaches are often limited to items (such as clothing) that do not comprise a large fraction of household budgets. A second reason relates to

causality. As Pitt et al. (1990) noted, if allocations are influenced by the level of resources available to the household, and if work effort is dependent on caloric intakes (and thus allocations of calories across household members), then it becomes challenging to understand the reasons why allocations differ within the household.

In this paper, we address the neglected issue of "who gets what" in terms of food allocations. We make the following contributions, drawing on data collected as part of a multi-treatment arm randomized control trial (which allows us to sidestep the bi-directionality issue identified by Pitt et al. (1990)) of a social protection intervention fielded in rural Bangladesh, the Transfer Modality Research Initiative (TMRI). First, using data on individual food intakes collected at multiple points in time, we assess who benefits within the household from the increased calories and diet quality resulting from the TMRI transfers. Second, we assess three decision rules underpinning these observed allocations (Farmer and Tiefenthaler, 1995):

- Equal input gains: households may divide the new resources equally, resulting in equal consumption boosts in absolute terms across the household;
- Proportional input gains: households may divide resources proportionate to individual needs, resulting in equal consumption boosts relative to requirements; or
- Proportional outcome gains: households may be most concerned about ensuring everyone has a similar level of well-being and thus channel more resources to those who are more deprived.

Third, TMRI contained treatment arms that provided cash, food, a mix of cash and food transfers, a cash transfer and nutrition behavior change communication (BCC) and a food transfer and nutrition BCC. This allows us to assess whether household allocations are affected by the form of the transfer received by the household. Fourth, because some treatment arms were provided in different regions of Bangladesh, we assess whether observed allocations, and the decision rules underlying these, are context specific.

2. Study design, and data collection

2.1 Study Design

The Transfer Modality Research Initiative (TMRI) was a two-year pilot safety net program designed by the International Food Policy Research Institute (IFPRI) and implemented by the United Nations' World Food Program (WFP). It was based on two cluster randomized control trials (RCTs) in rural Bangladesh: one in the northwest region (the "North") and one in the coastal southern region (the "South"). The North in this study is characterized by better market conditions but higher poverty and food insecurity, whereas the South has lower poverty but greater vulnerability to weather shocks and less market access during certain times of the year.

In the North, study villages were randomly assigned to a control group or to one of four treatment arms in which participating households either received a cash transfer ("Cash-only"), a food ration ("Food-only"), a combination of a cash transfer and half food ration ("Food+Cash"), or a cash transfer conditional on attending nutrition behavior change communication (BCC) sessions ("BCC + Cash"). In the South, study villages were also randomly assigned to a control group or to one of four treatment arms, which included the same first three treatment arms as the North (Cash-only, Food-only, and Food+Cash) and a fourth treatment arm where households received a food ration conditional on nutrition BCC attendance ("BCC+Food").

Households enrolled in the study were ultra-poor households from rural areas with a child aged 0 to 24 months as of March 2012. The mother of the child was the designated recipient for the transfer and the target participant in BCC activities. All cash and food transfers and BCC activities were implemented over a period of 24 months, from May 2012 to April 2014. See Ahmed et al. (2023) for further details on the study's design.

2.1.1 Transfers

Mothers received monthly food or cash transfers on behalf of their households. Participants in the Cash arms received 1,500 Taka (approximately 19 USD) via a mobile phone cash transfer system. Participants in the Food arms received food rations of 30kg of rice, 2 kg of mosoor

lentils, and 2 liters of micronutrient-fortified cooking oil per household at a distribution center near participants' homes. Half of the food and cash transfers – 750 Taka, 15 kg of rice, 1 kg of lentils, and 1 liter of cooking oil – were given to participants in the Food+Cash arm. At baseline, the value of the food ration was equal to the value of the cash transfer.

2.1.2 Behavior change communication

Women in the BCC+Cash and BCC+Food arms received the same transfers as the Cash-only and Food-only treatment groups, respectively, but transfers were (softly) conditional on regular attendance of the weekly nutrition BCC activities over the two-year implementation period. Community nutrition workers (CNWs) led the BCC sessions, which focused on education and behavior change at the household and community level. Topics that the BCC covered included basic nutrition, control and prevention of micronutrient deficiencies, infant and young child feeding practices, health care, maternal nutrition, and hygiene and sanitation. The BCC strategy was intensive and included the following four training activities led by CNWs: 1) once-per-month group training sessions for the primary women participants on the day of food or cash distribution; 2) three weekly group training sessions per month with the primary women participants and their husbands, mothers-in-law, fathers-in-law, and any other pregnant or lactating women in the household; 3) group meetings for influential community members once a month; and 4) follow-up visits to participants' homes by CNWs twice a month, or if participant missed training.

2.2 Randomization, Sampling, and Survey Administration

TMRI used a cluster RCT design where separate but analogous sampling processes were followed in the North and South. In each region, five upazilas (sub-districts) were randomly selected from a list of upazilas with high poverty rates, defined as having at least 33 percent of households living under the extreme poverty line in 2010 (World Bank et al. 2010). From this sample of upazilas, all villages were listed. Villages classified as peri-urban or had fewer than 125 were dropped. Upazila and villages with community nutrition programs by other stakeholders were also dropped to avoid spillover effects from other programs. In each region,

simple random sampling was used to assign 50 villages from this list to the four treatment groups and control groups. A complete village census was conducted in each of the 250 villages that collected information on household demographics, poverty indicators (described in Ahmed et al. 2016), and participation in safety nets or other targeted interventions. This data was used to randomly select 10 households from each village that met the following criteria: they were considered poor (based on the poverty indicators), had at least one child aged between 0–24 months, and were not receiving benefits from any other social protection program. The total sample included 2,500 households in each of the two regions.

Three waves of household data were collected. The baseline survey was conducted just prior to the start of transfers in March-April 2012, midline was conducted 12 months after the start of transfers in June 2013, and endline was conducted just before the end of the intervention in April 2014. Enumerators conducted in-person interviews for each of the households and administered questionnaires separately to men and women. Household heads (typically men) were interviewed on household demographic and socioeconomic characteristics, including livelihood activities of all adult household members (occupations and hours spent in each occupation), years of education completed and literacy level of each household member, and wealth indicators such as land ownership, assets, and household expenditures. The mother of the index child was interviewed on food preparation and sharing practices during the last 24 hours (24HR) and household food security status. All women were asked about their lactation and pregnancy status.

Individual-level dietary intake data were collected using a combination of single-day 24-hour dietary recalls (24HR) and food weighing methods. In each household, the person primarily in charge of preparing and serving meals (in nearly all cases, the female spouse of the male household head) was interviewed about the foods consumed (within and outside the home) the previous day by all household members. If the day prior was special (e.g., the household ate special foods, ate more or less than usual, or did not eat because they were fasting), the respondent was asked to describe the foods consumed the two days prior or the last “normal” day. For each dish consumed, information was collected on the ingredients, the raw weight of ingredients, and the cooked weight of the dish. The respondent was then asked

about the portion size (grams) consumed by each household member. Caloric content was estimated by matching food items and mixed dishes to a food composition table specific to Bangladesh (Shaheen et al. 2013; USDA, 2015).

2.3 Outcome Variables

We used the individual-level 24-hour food intake data from all survey rounds to construct a suite of dietary intake indicators. These were designed to assess whether household members experienced equal input gains, proportional input gains, or proportional outcome gains.

To determine whether household members received equal input gains, we use three measures of diet quantity and quality. *Caloric intake* (kcal/day) quantifies the total increase in food consumption. The *Dietary Diversity Score* (DDS; range 0-10 food groups) assesses food group additions and changes to overall diet quality. The *Global Dietary Score* (GDQS; range 0-49 points), which accounts for quantities of healthy and unhealthy foods consumed and is sensitive to diet-related outcomes associated with both undernutrition and overnutrition for adults (Bromage et al., 2021), evaluates changes to overall diet healthfulness for adult household members (GDQS has not been validated for children). Further details on the construction of these outcome variables can be found in Section 1 of the Appendix. The combination of these three measures allows us to assess and compare not just the quantity of intake gains, but also the quality of these additions.

To assess if the resources were divided proportionate to individual-specific needs (proportional input gains), we estimate each household member's gain to their *Caloric Adequacy Ratio (CAR).* CAR is the ratio of energy intake (kcal) to estimated energy requirements (EER), where a CAR value of 1 represents a calorically adequate diet. Energy requirements are estimated using FAO guidelines and a table of Bangladeshi-specific requirements (FAO, 2004; Waid et al. 2017). Adult requirements (19+ years) are specific to an individual's physical activity level (PAL), pregnancy and lactation status, and the ideal adult weight for each age and sex group (based on the average heights of Bangladeshi adults (FAO, 2004; Picciano, 2003; Waid et al., 2017). EERs for adolescents 10-18 years are based on the WHO growth reference for BMI for age and height for age, with adjustments for the short stature of Bangladeshis (see Waid et

al. 2017 for details). Adolescent values are further adjusted for occupation-related physical activity levels and pregnancy or lactation status if applicable. EERs for children 2-9 years are estimated using WHO growth standards and growth reference curves and are assumed to have a moderate PAL level (FAO, 2004; Waid et al. 2017).

Lastly, we assess if resources were allocated in proportion to the level of deprivation (proportional outcome gains). To do so, we created two measures that are based on the food consumption measures (CAR and DDS above), but truncated between 0 and 1, where 0 represents a minimally sufficient diet or low likelihood of diet inadequacy. Conditioning on nutritional inadequacy allows us to more closely inspect treatment impacts on the most nutritionally deficient individuals. The two measures we use include: *caloric shortfall* (range: 0-1), defined as the relative distance from a calorically adequate diet (i.e., caloric shortfall = 1-CAR), where an individual with a calorically adequate diet [i.e., CAR $\geq$1] has a shortfall of 0; and *probability of inadequate diet diversity* (0/1), which is the likelihood that an individual consumes at least 5 out of 10 food groups, which is generally considered a minimally adequate diverse diet for male and female children and adults, although this cut-off has only been validated as a proxy for micronutrient adequacy in non-pregnant, non-lactating women aged 15-49 years (FAO and FHI 360, 2016).

3. Empirical approach

3.1 Estimation strategy

We estimate intent-to-treat (ITT) impacts using an analysis of covariance (ANCOVA) specification (McKenzie, 2012). Due to differences in regional characteristics and treatment types between the North and South we conduct separate but analogous analyses for the two regions using the following model:

$$Y_{i,v,post-treatment} = \alpha_t + \beta_1 Y_{i,v,baseline} + \beta_2 Treatment_v + \beta_3 X_{i,v,baseline} + \varepsilon_{i,v}$$

Where $\boldsymbol{Y}_{i,v,post-treatment}$ is the outcome of interest for individual *i* residing in village *v* post-treatment; $\mathbf{Y}_{\mathbf{i,v,\ baseline}}$ is the value of the outcome at baseline; $\boldsymbol{Treatment_v}$ is the categorical variable for each treatment arm (i.e. transfer modality type: Cash-only, Food-only, Food+Cash, BCC+Cash, BCC+Food) and control (with the control group as the reference level); **X** is the vector of baseline covariates; and $\boldsymbol{\varepsilon_i}$ is an error term that is adjusted for clustering at the village level, which is the level of randomization. $\boldsymbol{\beta_2}$ represents the impact estimates for each of the treatment arms. In our estimations, we stratify by household member type, which includes men (adult males, 18+ years), women (adult females, ages 18+ years), boys (male children, 2-17 years), and girls (female children, 2-17 years) [1].

All models include the following baseline covariates, intended to account for between-household demographic and socioeconomic differences among treatment arms prior to the intervention: household size, education level of household head, gender of household head, age of individual, land ownership, mean household income (proxied by per capita monthly household expenditure), and upazila of the household (geographical level above randomization). All continuous variables are log-transformed to minimize the influence of outliers.

We use ordinary-least-squares (OLS) regressions to estimate treatment effects for most outcomes, including dichotomous outcomes such the probability of inadequate dietary diversity, where linear probability models (LPM) are used. However, for caloric shortfalls, which are censored between 0 and 1, we use Tobit regressions. We winsorize caloric intake outcomes (caloric intake, CAR) at the 99th percentile to limit the influence of large outliers in the samples. To reduce random error from day-to-day variation associated with single-day 24HR dietary data, we average midline and endline outcomes if data are available from both post-treatment rounds, as is the case for most participants.

For each outcome, we use seemingly unrelated estimation (SUEST; Weesie, 1999) to combine estimates from the stratified models for each household member type and conduct Wald tests to determine whether differences in estimated treatment impacts ($\boldsymbol{\beta_2}$) across

[1] The terms "male and female" and "men and women" or "boys and girls" are used interchangeably in this study to refer to gender. In Bangladesh, one can argue that the influence of gender roles (socially determined) affects allocations to males and females across the age distribution.

different household members are statistically significant (i.e., within-treatment, between-member tests). These comparisons allow us to assess if treatment benefits were allocated equally – in terms of absolute intake, relative intake, or shortfall reduction, as outlined earlier – and examine whether they depend on the form of transfer or the context in which the transfers took place.

3.2 Robustness Tests

We conduct a series of robustness tests to assess how sensitive our findings are to missing data, model specification, and handling of post-treatment data.

Concerning missing data, we explore three scenarios. First, we assess whether our results change when considering only individuals with complete information across all three surveys (Robustness Test 1). Second, we examine how our findings are affected when we restrict our analysis to those who reached endline, considering only endline treatment impacts (Robustness Test 2). Third, we assess whether our findings differ when we include individuals with missing baseline information in our analysis. This is done by assigning a value of zero for missing baseline data and including a dummy variable for missing baseline information in our regression analysis (Robustness Test 3).

Next, to evaluate the effect of specific modeling choices, we assess whether our results remain consistent test if we exclude covariates (Robustness Test 4) and do not winsorize outliers (Robustness Test 5).

In a final test, we investigate whether our results differ if we pool data from our two post-treatment surveys (midline and endline) instead of averaging them (Robustness Test 6), which increases the power to detect significant differences between treatment and control groups, as well as between member types.

3.3 Estimation sample, attrition, and baseline characteristics

We include all individuals who were over 2 years of age at baseline and have complete dietary recall information at baseline and midline or endline. If a treatment household divided during the intervention period (which occurred in 12 households within our sample), we only include individuals in the part of the household that continued to receive the food or cash transfers. Our

estimation sample includes 8,353 individuals from 2,459 households in the North region and 9,377 individuals from 2,465 households in the South.

Household attrition from baseline to midline and endline was low in both regions. Across treatment arms, less than 2% of households were lost to follow-up by the midline survey and by endline, less than 3% were lost, with similar attrition rates in both regions. Migration was the most common reason for household attrition, followed by the inability of the enumerator to locate the household participants for interview and refusal to be interviewed. No discernable between-treatment differences were found in the attrition rate or in baseline household characteristics within the non-attrited sample (Ahmed et al., 2023).

At the individual level, we observe moderately higher attrition rates. **Figure 1** shows the participant flow between survey rounds and indicates the samples used for our primary analysis and robustness tests. In the North, 9.3% of individuals present at baseline permanently dropped from the study by midline, which increased to 16.8% by endline. In the South, the attrition rates were 9.7% by midline and 17.1% by endline. Additionally, among individuals who were present at both baseline and endline, 3% in the North and 4.9% were absent from the midline survey. Thus, of those in the baseline survey, complete data from both post-treatment surveys is available for 80.3% of individuals in the North and 78% in the South.

While not included in our primary analysis, there were also some individuals who were absent during the baseline survey (from households enrolled in the study at baseline), but present in the midline or endline survey. This group accounted for 8.4% in the North and 8.8% in the South of the total individuals present at midline or endline surveys. **Table A2.1** in the Appendix details attrition and missingness from surveys by treatment arm.

One of the primary reasons for individual-level attrition was permanent departure from the household due to household division. **Tables A2.2 and A2.3** in the Appendix provide the reasons for attrition in the North and South, respectively.

Attrition after the baseline survey (those who were missing at both midline and endline survey) did not significantly differ between treatment groups and control. In the North, there were no between-treatment differences in attrition. However, in the South, those in the BCC+Food arms were marginally less likely to attrit compared to all other treatment arms, see

Tables A2.4 and **A2.5** in the Appendix for between-arm attrition comparisons. Among all treatment groups, men were more likely to attrit compared to other household members, as seen in **Appendix, Table A2.6**.

Most households in both regions were food insecure, landless, had low levels of educational attainment and literacy, and were engaged in strenuous manual labor. Households in the South were comparatively better off across these dimensions compared to those in the North. On average, households in both regions had approximately five household members and were predominantly headed by males, with households in the South being slightly larger and having a higher proportion of female-headed households. Further information about the household characteristics at baseline can be found in Ahmed et al. (2016) and Coleman et al. (2023).

At baseline, there were some differences in dietary outcomes between household members, as seen in **Table 1**. On average, men had the highest absolute consumption, with higher caloric intakes and dietary diversity scores than women and children. However, in relative terms, men's caloric adequacy was only slightly higher than other members. Boys experienced the greatest caloric deficiencies and girls had the highest likelihood of inadequate dietary diversity compared to other household members. Household dietary patterns were similar across regions and treatment arms, though dietary indicators across household member types were better in the South than in the North. Coleman et al., 2023 provide a comprehensive within-household comparison of the quantity and quality diets of this TMRI sample at baseline.

3.4 Ethical approval and consent

TMRI received ethical approval from the Institutional Review Board of the International Food Policy Research Institute, Washington DC. The Bangladesh Ministry of Food and Disaster Management reviewed the TMRI study and issued Letters of Authorization to conduct the surveys. Consent to participate in the study was received orally from respondents and this consent was witnessed and formally recorded. The study was registered with ClinicalTrials.gov (study ID: NCT02237144).

3.5 Implementation fidelity

Implementation fidelity of TMRI to the design was high across all treatment arms. Cash and food transfers were received on time and without issues and predominantly received by the primary female participant. Most reported that they used the cash transfer for household consumption (60-70% across arms) and few reported that they sold, shared, or bartered food transfers (<14%). The food distribution centers were accessible, with participants traveling an average of 20 minutes to reach the centers. **Tables A3.1** and **A3.2** in the Appendix detail implementation fidelity of the food and cash transfers.

The nutrition BCC training had high levels of attendance, as seen in **Table A3.3** of the Appendix. In the BCC+Cash arm, the primary female participants attended an average of 48 trainings per year, with 78% attending all trainings. Similarly, primary female participants in BCC+Food averaged 49 trainings per year, with 63% attending all trainings. Other family members, such as the male household head, also attended the training sessions. Specifically, among the respondents in the BCC+Cash group, 57% stated that other household members attended training with them, and 60% among those in the BCC+Food group. Out of these respondents, 43% from the BCC+Cash group and 22% from the BCC+Food group reported that the male household head attended the training with them.

4. Results

The following series of figures display the estimated impacts of the TMRI modalities across household member types in the North and South regions: **Figures 2-4** show changes to absolute food consumption (caloric intake, DDS, and GDQS); **Figure 5** depicts consumption gains relative to requirements (CAR); and **Figures 6 and 7** show reductions to deprivation outcomes (caloric shortfall and probability of inadequate dietary diversity). Each set of figures corresponds to one of three decision rules that households may follow when allocating new resources resulting from the modality transfer: 1) equal input gains; 2) proportional input gains; 3) proportional outcome gains.

Tables-2-5 include the results of the post-estimation Wald tests that assess whether the estimated treatment impacts significantly differ between pairs of household members. These

results are used to determine which allocation rule(s) were followed and whether the rules were context specific.

In the following sections, we present the findings by modality type and allocation rule. The complete regression output of estimated impacts is available in **Section 4 of the Appendix (Tables A4.1-A4.12).**

4.1 Cash-only

Equal input gains: For households in the Cash-only group, we do not reject the null hypothesis that absolute input gains, measured by caloric intake, DDS, or GDQS (adults only), were equal among household member types in the North or South regions. The effects of Cash-only were as follows: In the North, caloric intakes did not change, but all household members gained 0.2-0.3 food groups (DDS) and adults improved GDQS by 0.5-0.6 GDQS points[2]. In the South, men and women increased caloric intake by 67-76 kcal and men gained 0.2 food groups and 0.4 GDQS points. In both regions, there were no significant differences in absolute intake gains between household members for any indicator.

Proportional input gains: The null hypothesis that consumption boosts were equal relative to requirements among household members is not rejected in either region for Cash-only. Cash-only did not significantly improve caloric adequacy in the North, but adults (men and women) in the South experienced 3% gains to caloric adequacy (+0.03 CAR). We found no significant differences in caloric adequacy gains between any household member types in either region.

Proportional outcome gains: We fail to reject the null hypothesis that relative outcome gains were equal among household member types in either region for Cash-only. In the North, while Cash-only did not significantly reduce caloric shortfalls, all household member types decreased in their probability of inadequate dietary diversity by 10-12% (-0.10 – -0.12 impact to probability). In the South, adults experienced a 2-3% reduction in caloric shortfalls (-0.02 – -0.03

[2] Treatment effects mentioned in this section are significant at $p<0.05$ unless otherwise noted. Effect sizes of insignificant impacts and p-values of all impacts can be found in the Appendix, Section 4.

impact to caloric shortfall) but no household members lowered their probability of having inadequate dietary diversity from the Cash-only transfer. In both regions, reductions to caloric shortfalls and probabilities of inadequate dietary diversity did not significantly differ among household member types.

4.2 Food-only

Equal input gains: For households in Food-only in both regions, we cannot reject the null hypothesis that absolute input gains were equal among household member types in either the North or South. In the North, all household members gained 82-131 kcal and 0.3-0.4 food groups, and adults improved GDQS by 0.8-0.9 points as a result of the Food-only transfer. In the South, Food-only did not significantly change caloric intakes or GDQS, but men and women gained 0.1-0.2 food groups. For all absolute intake indicators, there were no significant impact differences between household member types in either region.

Proportional input gains: For Food-only in both regions, we fail to reject the null hypothesis that relative intake gains were equal among household member types. In the North, all household member types experienced caloric adequacy gains of 4-6%. While in the South, no household member type improved caloric adequacy. Caloric adequacy impacts were non-different between household member types in both the North and South.

Proportional outcome gains: The null hypothesis that relative outcome gains were equal among household member types is not rejected in either region for Food-only. In the North, all household member types experienced a 3-4% decrease in caloric shortfalls and 8-10% decrease in the probability of dietary diversity. In the South, women's caloric shortfalls reduced by 2% and adults reduced their likelihood of inadequate dietary diversity by 5-7%. For both regions and indicators, we found no significant impact differences among household members.

4.3 Food and Cash

Equal input gains: For households receiving Food+Cash, the null that input gains were equal among household members is only rejected for caloric intake, and this finding is context-specific to the North. In the North, adults alone significantly increased their caloric intake, gaining an additional 92-106 calories, which was 69-84 more calories than what girls gained (impact differences between adults and boys were non-significant). Impacts to other indicators were non-different between household members in the North: men, women, and girls gained 0.2-0.3 food groups (impact to boys' DDS was marginally significant at p=0.09) and men and women improved GDQS improved by 0.4-0.6 points. In the South, men gained 77kcal and women gained 0.1 food groups, and neither men nor women experienced improvements to GDQS. All impacts related to absolute intake were non-different between household member types in the South.

Proportional input gains: For Food+Cash, the null hypothesis of equal relative input gains among household members is only rejected in the South. In the North, men alone experienced gains to relative intake, resulting in a 3% boost to caloric adequacy. However, there were no significant differences in caloric adequacy impacts between household member types in the North. Whereas, in the South, men experienced a 5% increase to caloric adequacy, a significantly greater boost compared to boys who experienced no caloric adequacy gains. For all other between-household member comparisons in the South, caloric adequacy impacts were non-different.

Proportional outcome gains We reject the null hypothesis of equal relative outcome gains among household member types in only in the South for Food-only. In the North, men reduced caloric shortfalls by 2% and all household member types except boys decreased their probability of low dietary diversity by 8-11%. There were no significant differences between household members for either measure in the North. In the South, men experienced 3% reductions in caloric shortfalls and women reduced their probability of low dietary diversity by 5%.

Reductions to probability of low dietary diversity were non-different between household member types in the South. However, men experienced 4% greater reductions to caloric shortfalls compared to boys in the South. No other significant differences were found in caloric shortfall reductions between household members in the South.

4.4 BCC+Cash (North only)

Equal input gains: For households in the Nutrition BCC+Cash arm, we reject the null that input gains were equal among household members. All household member types experienced significant gains to absolute intake, including increases of 207-315 kcal, 1.2-1.5 food groups, and 3.0 GDQS points (adults only). However, adults experienced greater boosts to caloric intake than boys, receiving an additional 93-108kcal, and girls gained 0.2 to 0.3 more food groups than other household member types. Impacts on absolute intake measures were non-different for all other between household-member comparisons.

Proportional input gains: For Nutrition BCC+Cash, we reject the null that relative input gains were equal among household members. While all household member types experienced 10-14% gains to caloric adequacy, girls experienced 4% larger boosts to caloric adequacy compared to men. All other caloric adequacy impacts were non-different between household member types.

Proportional outcome gains: For Nutrition BCC+Cash, the null hypothesis of equal relative outcome gains among household member types is not rejected. All household member types experienced 6-8% reductions to caloric shortfalls and 37-44% reductions in the probability of low dietary diversity. For both measures, all impacts were non-different between household members.

4.5 BCC+Food (South only)

Equal input gains: For households in the Nutrition BCC+Food arm, we cannot reject the null that input gains were equal among household members. All household member types experienced

boosts to absolute intake, including 103-179 more kcal, 0.7-0.8 new food groups, and 1.6-1.7 additional GDQS points. All impacts on absolute intake measures were non-different across household member types.

Proportional input gains: We do not reject the null that relative input gains were equal among household members in Nutrition BCC+Food. All household member types experienced 5-8% gains to caloric adequacy and impacts were non-different between all household member types.

Proportional outcome gains: For Nutrition BCC+Food, the null hypothesis of equal relative outcome gains is not rejected for caloric shortfall reductions. All household member types reduced caloric shortfalls by 3-6% (boys' caloric shortfalls were only marginally impacted at p=0.05) and a 22- 25% reduction in probability of low dietary diversity, impacts which were non-significantly different between members.

4.6 Robustness tests

We conducted six tests to assess the robustness of our results to missing data and modeling specification choices. In all robustness tests, we consistently fail to reject at least one of the three null hypotheses of equal gains for each of the transfer types, largely finding that impacts did not significantly differ between household member types. The one exception is Food+Cash, where in Robustness tests 2 and 4 – when only endline observations are included, and when covariates are excluded, respectively – we found that adults experienced marginally larger consumption gains compared to children in absolute and relative terms. However, despite this finding and several variations between the main results and robustness tests in the specific allocation rules observed, the differences in impacts between household members were consistently small and similar in magnitude to what we observed in the main results. Summary tables of the robustness tests can be found in **Appendix, Section 5 (Tables A5.1 and A5.2)**.

5. Discussion

Our results show that, regardless of whether households received cash, food, a combination of both, or food or cash with BCC, households distributed the increased amount of food available according to at least one allocation rule. This trend remained consistent regardless of the type of transfer or regional context. We also find that food and cash transfers modestly improved both the quantity and quality of food consumed in this sample of ultra-poor households, and these impacts were further enhanced when transfers were combined with BCC.

For most transfer modalities, all three allocation rules are observed (equal input gain, proportional input gain, proportional outcome gain). This can be attributed to two factors. First, treatment effects were relatively modest, thus, if input gains are small and equal, they are also proportional. Second, on average, all household member types were nutritionally deprived. Therefore, deprivation outcomes, which penalize overconsumption, closely resemble the relative input measures.

There are two instances where all three allocation rules were not observed and where rules differed by context. First, after receiving a combination of food and cash, households in the North shared caloric input gains proportionally but not equally, while households in the South shared input gains equally but not proportionally. Second, when BCC was included with the cash transfer in the North, only the proportional outcome gains rule was followed, with food gains diverted slightly more towards girls, who were more nutritionally deprived than adults at baseline. However, it is important to note that all between-member impact differences we observed were marginal in magnitude (e.g., a maximum difference of <90kcal and 0.3 food groups) and the vast majority of treatment impacts did not significantly differ between members. Therefore, these exceptions only suggest a minor inclination towards one rule over another, and the overall finding remains that household shared resource gains equally, regardless of the transfer modality or context.

Our results are robust to missing data and alternative model specifications. While there are a few exceptions where some significant between-member differences emerge or disappear, the magnitudes of these changes are inconsequential. We acknowledge that we test a multitude of hypotheses in this study but maintain that adjusting for this would diminish the

few significant differences found, further supporting the null hypothesis that treatments equally benefitted household member types.

Taken together, these findings indicate poor Bangladeshi households allocate modest food gains equally in absolute and relative terms, irrespective of the type of resource transfer they receive. Our results also suggest that informational resources, such as BCC, may not only play a role in increasing the overall quality and quantity household resources, but it may also influence households to prioritize allocation based on deficits, especially when household food gains are substantial. Tying back to Farmer and Tiefenthaler's (1995) decision rules, our findings generally align with equal input gain and proportional input gain decision rules, but with the additional influence of BCC (or potentially when resource gains are large), allocations may lean more towards the proportional outcome gains decision rule.

To the best of our knowledge, our study is the first to experimentally examine how resources are distributed within households, taking into account all household members, and focusing on a resource that constitutes a substantial portion of the household budget – namely, food. The unique characteristics of TMRI, including the exogenous increase of available resources to households, individual-level consumption data, and the randomized design of the study, make this examination possible. Consequently, we avoid the issue of bi-directionality—whether resource allocations are determined by the availability of resources or if the availability of resources is influenced by the allocations themselves – and directly observe how resources are distributed within households.

Our findings are consistent with the results of related studies using similar data. For example, Coleman et al., 2023 found gender-equitable diets in both impoverished and food-secure farming households in rural, while another study (Coleman et al., forthcoming) found equal within-household impacts of an agricultural program implemented in rural Bangladesh. Furthermore, our findings reflect the broader positive trajectory observed in the status and conditions of women in Bangladesh, where women have made significant progress (and even surpassed males) in indicators such as school enrollment, literacy rates, and reduced mortality rates (World Bank, 2022). While our findings may be specific to the cultural context and program-specific factors of our study, historically, Bangladesh and South Asia have had the most

consistent evidence of inequitable intra-household food and resource allocation in comparison to other regions, often explained by strong patriarchal norms (Harris-Fry et al., 2017). Thus, if equitable food allocation is observed in rural Bangladeshi households, it is possible that allocations maybe more equitable in other contexts too. Confirming this hypothesis will require additional research in different settings.

It is worth further studying the "who gets what" dimension of intra-household allocation with other resources, interventions, and settings, as it has implications relevant to policymaking. Examining how households distribute resources can result in more accurate estimates of the impact of interventions – including but not limited to social protection programs – that seek to reduce malnutrition, food insecurity, and poverty for all members of targeted households. As Brown, Calvi and Penglase (2021) and De Vreyer and Lambert (2021) note, accounting for differences in allocations within households can also generate more accurate estimates of poverty (including food poverty), which can improve targeting of programs and policies. Lastly, understanding the decision rule(s) underpinning these allocations enhances the ability to predict, ex ante, the likely intra-household impacts of new interventions.

CRediT authorship contribution statement

FMC: Conceptualization, Methodology, Software, Formal Analysis, Investigation, Visualization, Writing - Original Draft, Writing – review & editing

JH: Conceptualization, Methodology, Writing - Original Draft, Writing - Review & Editing, Supervision, Project administration, Funding acquisition

SR: Writing - Review & Editing, Methodology, Funding acquisition, Project administration

AUA: Writing - Review & Editing, Methodology, Funding acquisition, Project administration

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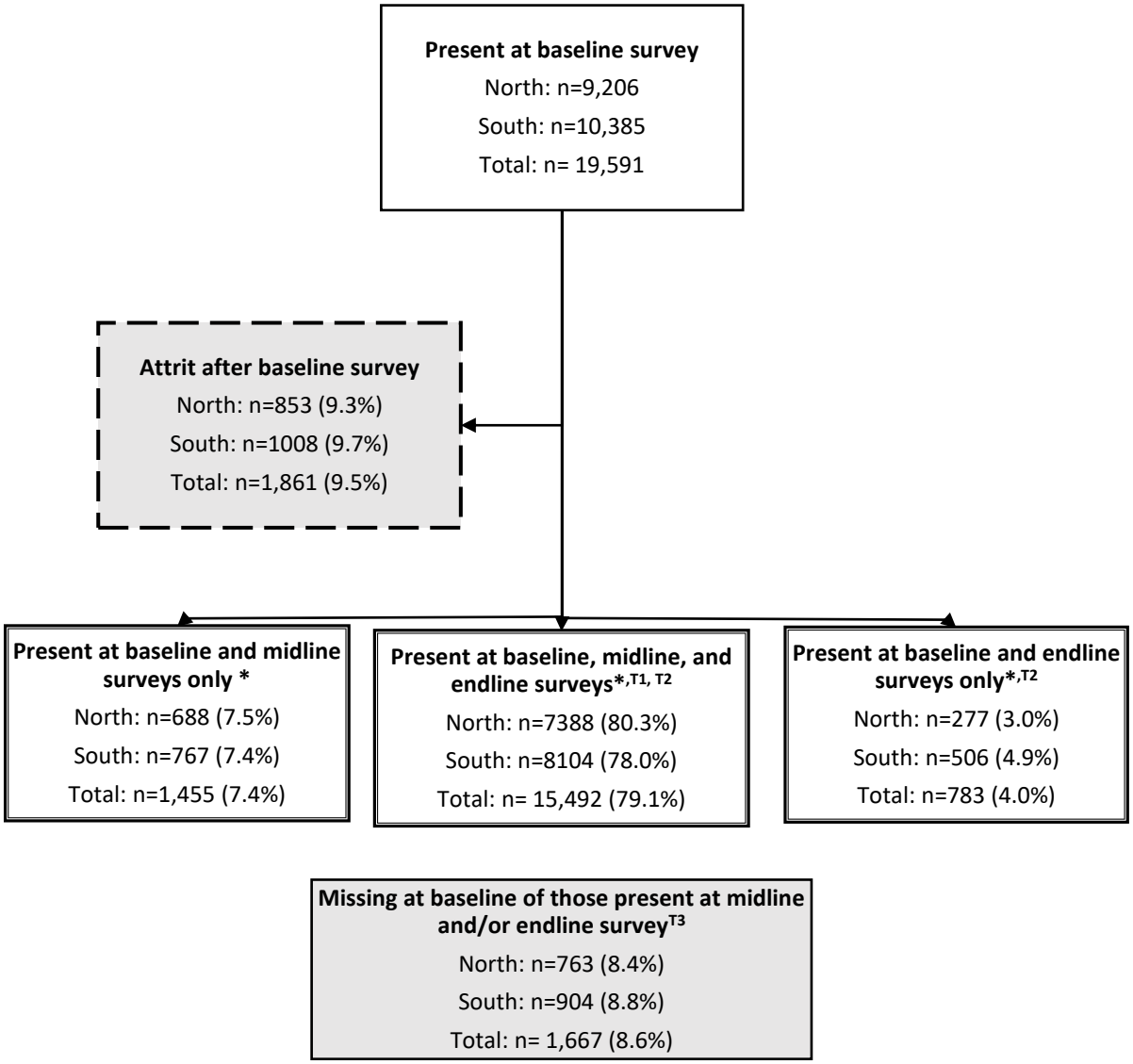
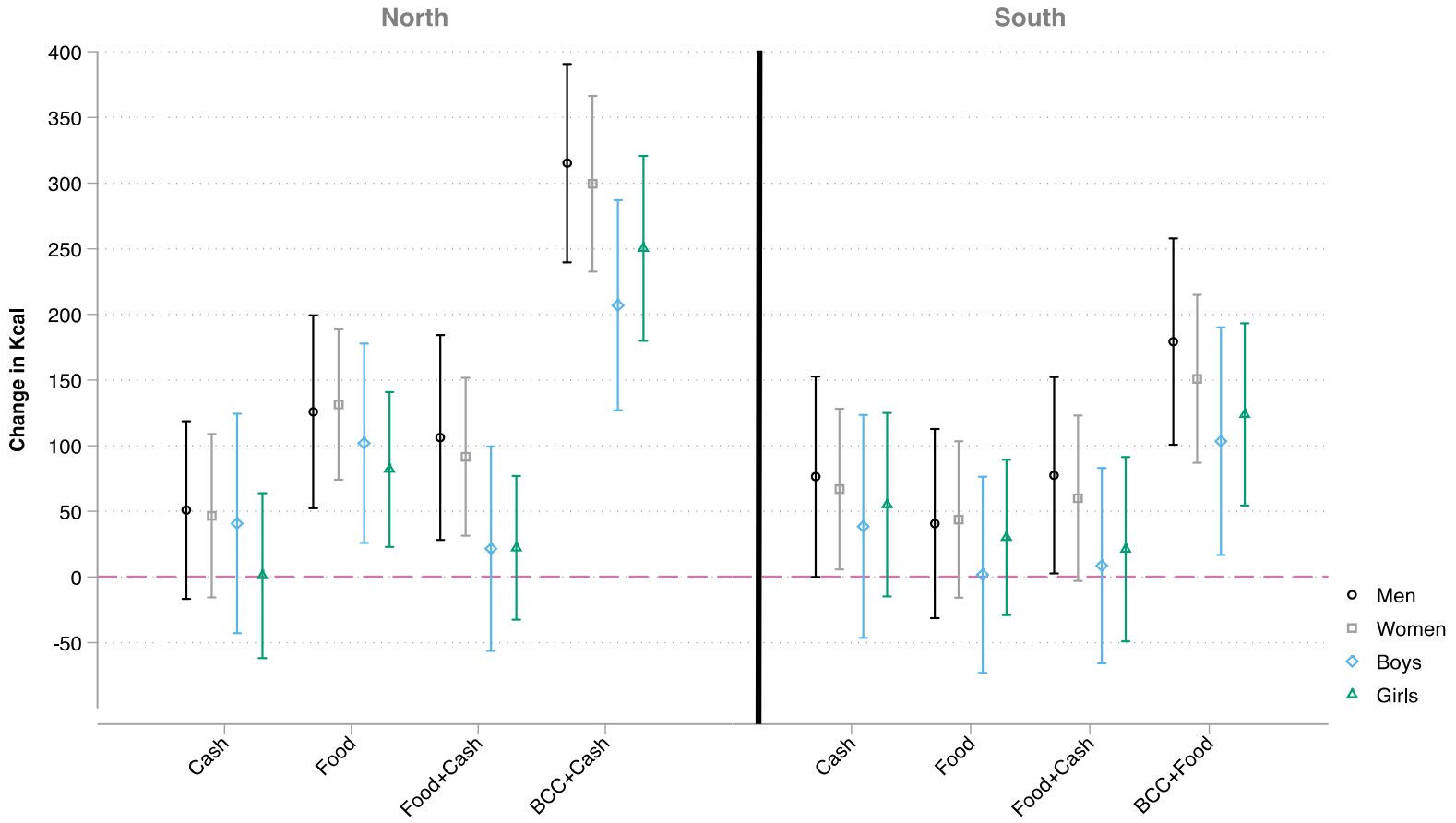
7. Tables and Figures

Figure 1: Estimation Samples



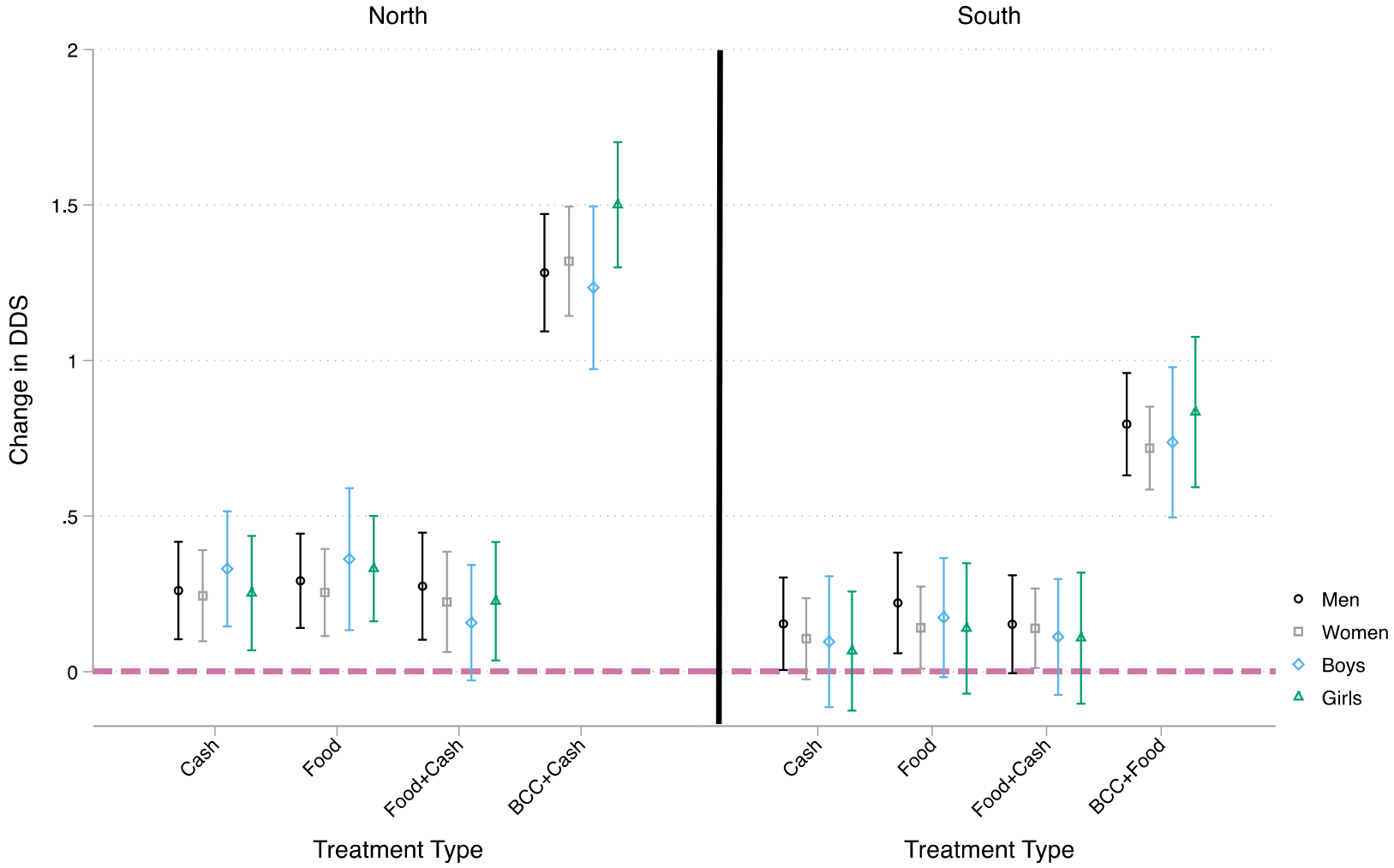
Legend: *: Sample included in main analysis (n= 8,353 in North, 9,377 in South, 17,730 total); T1: Sample used for Robustness Test 1; T2: Sample used in Robustness Test 2; T3: Sample used in Robustness Test 3.
Note: For all boxes, percentages indicate the percentage out of those present at baseline, except for "Missing at baseline of those present at midline and/or endline survey", which indicates the percentage out of those present at any follow-up survey (i.e. North: 8.4% = (763/(763+8,353))*100).

Figure 2: Impact on Caloric Intake by Household Member



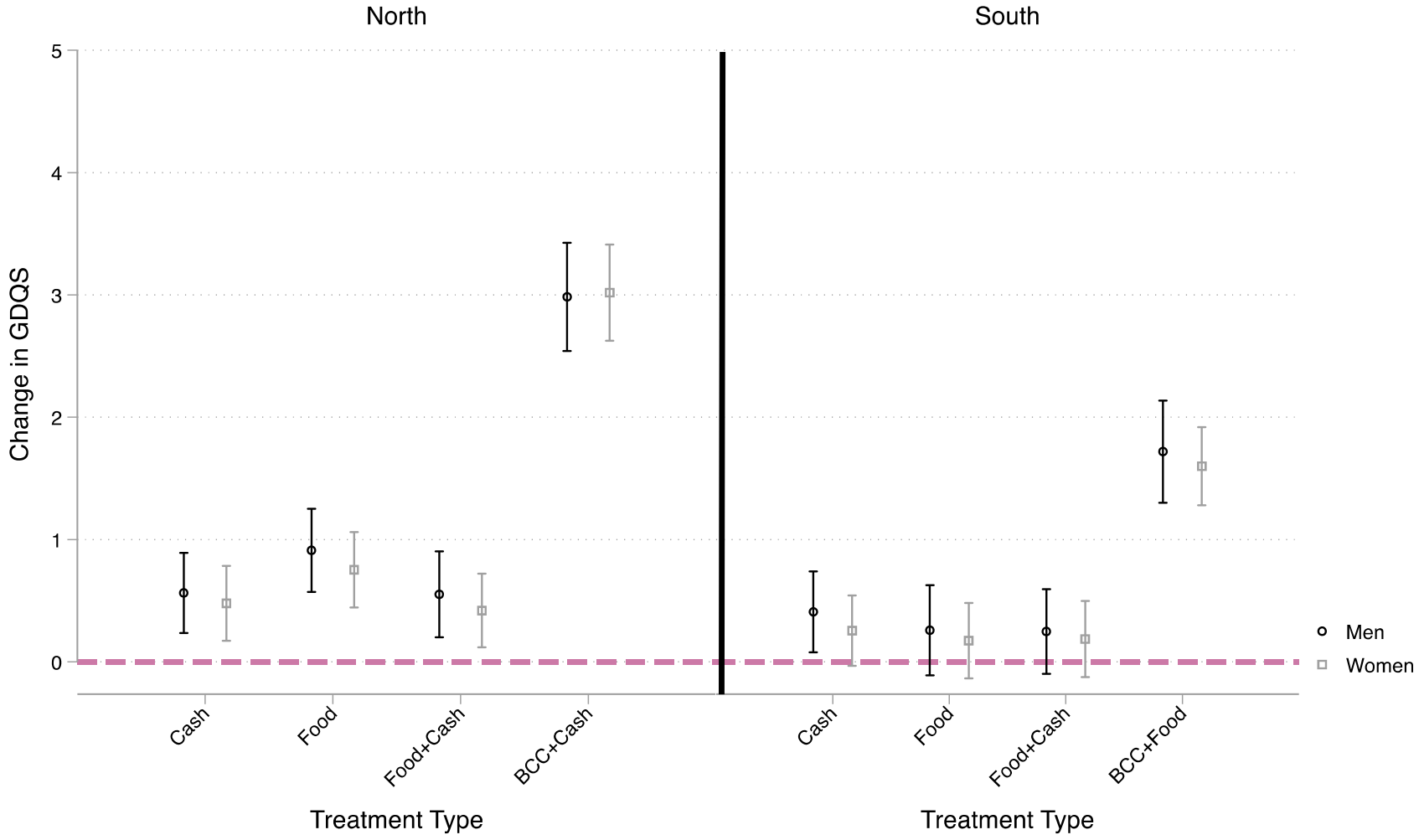
Note: Estimates are OLS, intent-to-treat. Standard errors are adjusted for clustering at the village level. The figure shows estimates stratified by household member type (the combined SUEST estimates are found in Appendix, Section 4). All models include treatment arms as independent variables and the following covariates: the value of the outcome at baseline, household size, education level of household head, gender of household head, age of individual, land ownership, mean household income, and upazila.

Figure 3: Impact on DDS by Household Member



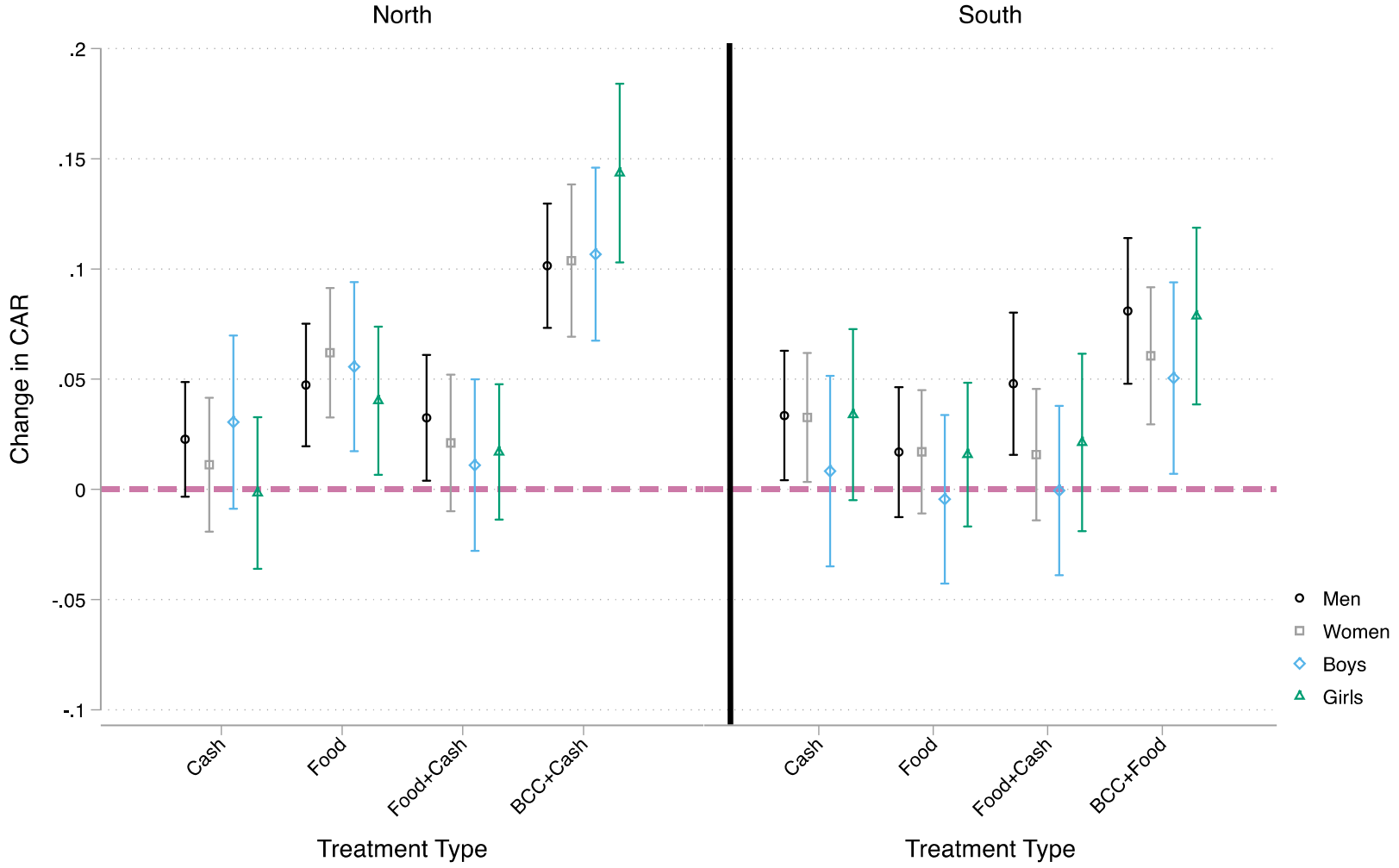
Note: Estimates are OLS, intent-to-treat. Standard errors are adjusted for clustering at the village level. The figure shows estimates stratified by household member type (the combined SUEST estimates are found in Appendix, Section 4). All models include treatment arms as independent variables and the following covariates: the value of the outcome at baseline, household size, education level of household head, gender of household head, age of individual, land ownership, mean household income, and upazila.

Figure 4: Impact on GDQS by Household Member
(Men and Women Only)



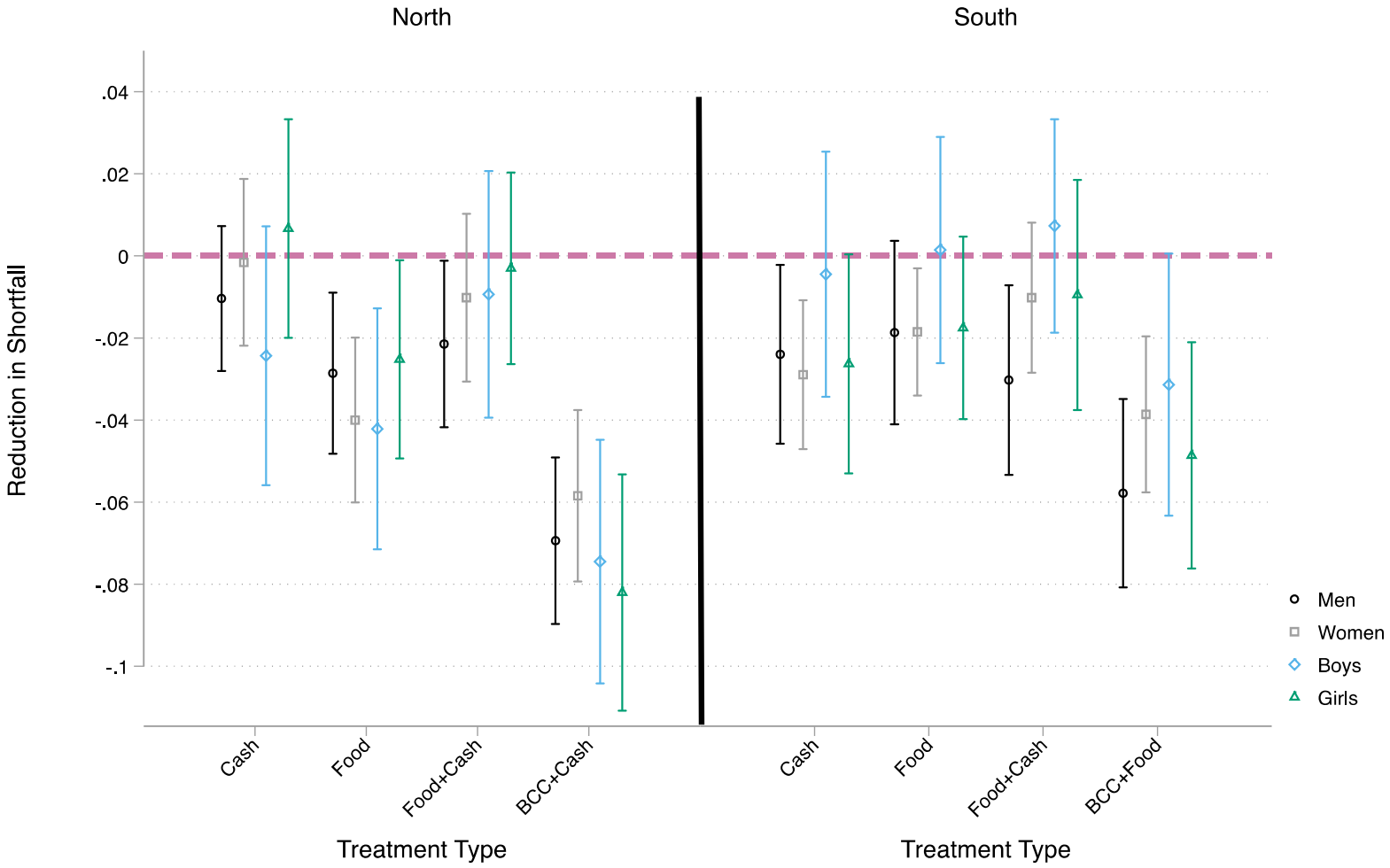
Note: Estimates are OLS, intent-to-treat. Standard errors are adjusted for clustering at the village level. The figure shows estimates stratified by household member type (the combined SUEST estimates are found in Appendix, Section 4). All models include treatment arms as independent variables and the following covariates: the value of the outcome at baseline, household size, education level of household head, gender of household head, age of individual, land ownership, mean household income, and upazila.

Figure 5: Impact on CAR by Household Member



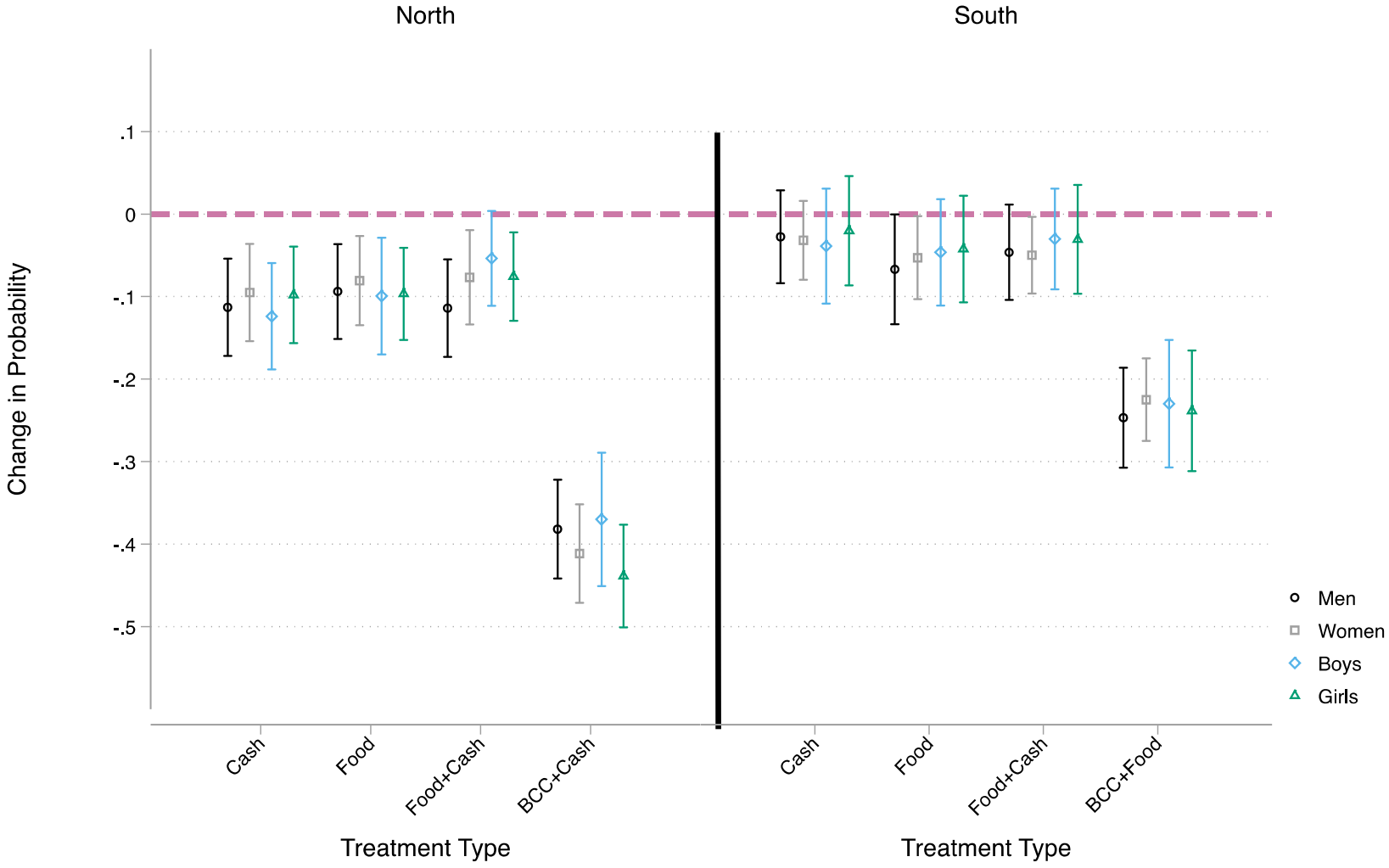
Note: Estimates are OLS, intent-to-treat. Standard errors are adjusted for clustering at the village level. The figure shows estimates stratified by household member type (the combined SUEST estimates are found in Appendix, Section 4). All models include treatment arms as independent variables and the following covariates: the value of the outcome at baseline, household size, education level of household head, gender of household head, age of individual, land ownership, mean household income, and upazila.

Figure 6: Impact on Reduction of Caloric Shortfall by Household Member



Note: Estimates are Tobit, intent-to-treat (lower limit =0, upper limit =1). Standard errors are adjusted for clustering at the village level. The figure shows estimates stratified by household member type (the combined SUEST estimates are found in Appendix, Section 4). All models include treatment arms as independent variables and the following covariates: the value of the outcome at baseline, household size, education level of household head, gender of household head, age of individual, land ownership, mean household income, and upazila.

Figure 7: Impact on Probability of Inadequate Diet Diversity by Household Member



Note: Estimates

Note: Estimates are LPM, intent-to-treat. Standard errors are adjusted for clustering at the village level. The figure shows estimates stratified by household member type (the combined SUEST estimates are found in Appendix, Section 4). All models include treatment arms as independent variables and the following covariates: the value of the outcome at baseline, household size, education level of household head, gender of household head, age of individual, land ownership, mean household income, and upazila.

Table 1: *Dietary Outcomes at Baseline by Treatment Arm and Household Member Type*

Treatment arm	Outcome Mean (SD)	North					South				
		Men	**Women**	**Boys**	**Girls**	**All**	**Men**	**Women**	**Boys**	**Girls**	**All**
		(N = 481)	(N = 599)	(N = 281)	(N = 287)	(N = 1648)	(N = 516)	(N = 658)	(N = 330)	(N = 401)	(N = 1905)
	Caloric intake (kcal)	2677 (711)	2364 (563)	1630 (567)	1513 (533)	2182 (762)	2749 (648)	2296 (539)	1660 (570)	1580 (554)	2157 (741)
	DDS	3.7 (1.1)	3.5 (1.1)	2.9 (1.1)	2.8 (0.9)	3.3 (1.1)	4.2 (1.2)	4.0 (1.2)	3.5 (1.3)	3.4 (1.1)	3.8 (1.3)
	GDQS	5.0 (2.7)	4.5 (2.5)	4.2 (2.4)	4.1 (2.1)	4.5 (2.5)	7.0 (2.9)	6.5 (2.9)	6.1 (2.7)	6.0 (2.7)	6.5 (2.9)
Cash-only	CAR	0.90 (0.26)	0.90 (0.24)	0.86 (0.25)	0.91 (0.28)	0.90 (0.26)	0.96 (0.26)	0.92 (0.25)	0.87 (0.25)	0.94 (0.28)	0.92 (0.26)
	Caloric shortfall	0.16 (0.17)	0.16 (0.16)	0.18 (0.19)	0.17 (0.18)	0.16 (0.17)	0.12 (0.15)	0.15 (0.16)	0.18 (0.18)	0.15 (0.18)	0.15 (0.17)
	Probability of inadequate dietary diversity	0.79 (0.41)	0.85 (0.36)	0.90 (0.30)	0.97 (0.17)	0.86 (0.35)	0.57 (0.50)	0.63 (0.48)	0.79 (0.41)	0.86 (0.35)	0.69 (0.46)
		(N = 459)	(N = 597)	(N = 286)	(N = 306)	(N = 1648)	(N = 487)	(N = 660)	(N = 355)	(N = 391)	(N = 1893)
	Caloric intake (kcal)	2724 (721)	2302 (587)	1614 (568)	1540 (518)	2159 (771)	2792 (653)	2308 (525)	1675 (613)	1603 (534)	2168 (744)
	DDS	3.7 (1.0)	3.5 (1.0)	2.9 (1.0)	2.9 (1.1)	3.3 (1.1)	4.2 (1.2)	4.0 (1.3)	3.5 (1.3)	3.4 (1.1)	3.8 (1.3)
	GDQS	4.9 (2.6)	4.2 (2.5)	3.9 (2.4)	4.0 (2.4)	4.3 (2.5)	7.0 (3.0)	6.6 (2.8)	6.1 (2.8)	6.3 (2.7)	6.6 (2.9)
Food-only	CAR	0.91 (0.26)	0.87 (0.24)	0.86 (0.24)	0.90 (0.26)	0.89 (0.25)	0.97 (0.26)	0.93 (0.24)	0.87 (0.27)	0.94 (0.27)	0.93 (0.26)
	Caloric shortfall	0.15 (0.16)	0.18 (0.16)	0.19 (0.17)	0.16 (0.18)	0.17 (0.17)	0.12 (0.15)	0.14 (0.15)	0.19 (0.18)	0.15 (0.16)	0.14 (0.16)
	Probability of inadequate dietary diversity	0.78 (0.41)	0.85 (0.36)	0.92 (0.27)	0.94 (0.24)	0.86 (0.35)	0.60 (0.49)	0.64 (0.48)	0.80 (0.40)	0.84 (0.37)	0.70 (0.46)

		(N = 466)	(N = 597)	(N = 290)	(N = 337)	(N = 1690)	(N = 502)	(N = 660)	(N = 283)	(N = 380)	(N = 1825)
Cash+ Food	Caloric intake (kcal)	2702 (696)	2340 (579)	1571 (616)	1493 (519)	2139 (781)	2781 (628)	2317 (533)	1655 (628)	1546 (529)	2181 (750)
	DDS	3.6 (1.0)	3.4 (1.0)	2.8 (1.1)	2.7 (1.0)	3.2 (1.1)	4.2 (1.2)	4.1 (1.3)	3.6 (1.4)	3.4 (1.2)	3.9 (1.3)
	GDQS	4.9 (2.7)	4.2 (2.4)	4.1 (2.4)	4.0 (2.4)	4.3 (2.5)	7.0 (2.8)	6.6 (2.8)	6.5 (2.8)	6.0 (2.5)	6.6 (2.8)
	CAR	0.91 (0.27)	0.89 (0.25)	0.85 (0.26)	0.90 (0.27)	0.89 (0.26)	0.98 (0.25)	0.94 (0.26)	0.86 (0.26)	0.92 (0.26)	0.93 (0.26)
	Caloric shortfall	0.16 (0.17)	0.17 (0.16)	0.20 (0.19)	0.17 (0.17)	0.17 (0.17)	0.11 (0.15)	0.14 (0.16)	0.19 (0.18)	0.15 (0.17)	0.14 (0.16)
	Probability of inadequate dietary diversity	0.83 (0.38)	0.87 (0.33)	0.94 (0.24)	0.95 (0.21)	0.89 (0.32)	0.60 (0.49)	0.65 (0.48)	0.76 (0.43)	0.84 (0.37)	0.69 (0.46)
		(N = 463)	(N = 597)	(N = 312)	(N = 311)	(N = 1683)					
Cash+BCC	Caloric intake (kcal)	2772 (693)	2368 (595)	1596 (609)	1539 (478)	2183 (785)					
	DDS	3.7 (1.0)	3.4 (1.0)	2.7 (1.1)	2.8 (1.1)	3.2 (1.1)					
	GDQS	5.0 (2.7)	4.4 (2.7)	4.0 (2.5)	4.1 (2.3)	4.4 (2.6)					
	CAR	0.92 (0.26)	0.89 (0.25)	0.84 (0.26)	0.91 (0.22)	0.89 (0.25)					
	Caloric shortfall	0.15 (0.16)	0.16 (0.17)	0.20 (0.20)	0.14 (0.15)	0.16 (0.17)					
	Probability of inadequate dietary diversity	0.80 (0.40)	0.87 (0.34)	0.93 (0.26)	0.93 (0.26)	0.87 (0.33)					
							(N = 513)	(N = 694)	(N = 294)	(N = 360)	(N = 1861)
Food+BCC	Caloric intake (kcal)						2776 (654)	2322 (544)	1718 (638)	1542 (546)	2201 (753)
	DDS						4.1 (1.2)	4.0 (1.2)	3.5 (1.3)	3.4 (1.3)	3.8 (1.3)
	GDQS						6.8 (2.6)	6.3 (2.6)	6.4 (2.6)	6.1 (2.5)	6.4 (2.6)

	CAR						0.97 (0.26)	0.94 (0.25)	0.89 (0.27)	0.93 (0.27)	0.94 (0.26)
	Caloric shortfall						0.12 (0.14)	0.14 (0.15)	0.17 (0.18)	0.15 (0.17)	0.14 (0.16)
	Probability of inadequate dietary diversity						0.61 (0.49)	0.65 (0.48)	0.80 (0.40)	0.79 (0.40)	0.69 (0.46)
		(N = 492)	(N = 617)	(N = 264)	(N = 311)	(N = 1684)	(N = 505)	(N = 677)	(N = 332)	(N = 379)	(N = 1893)
	Caloric intake (kcal)	2672 (719)	2328 (561)	1567 (564)	1476 (549)	2152 (774)	2739 (704)	2245 (542)	1667 (597)	1489 (556)	2124 (765)
	DDS	3.6 (1.1)	3.4 (1.1)	2.8 (1.0)	2.8 (1.0)	3.2 (1.1)	4.2 (1.2)	4.0 (1.2)	3.5 (1.3)	3.3 (1.2)	3.8 (1.3)
	GDQS	4.8 (2.7)	4.1 (2.5)	3.9 (2.4)	3.9 (2.2)	4.2 (2.5)	7.0 (2.7)	6.7 (2.6)	6.4 (2.6)	5.9 (2.5)	6.6 (2.6)
Control	CAR	0.91 (0.27)	0.89 (0.26)	0.84 (0.25)	0.91 (0.28)	0.89 (0.27)	0.94 (0.26)	0.91 (0.25)	0.87 (0.27)	0.88 (0.27)	0.90 (0.26)
	Caloric shortfall	0.16 (0.17)	0.17 (0.16)	0.20 (0.19)	0.17 (0.18)	0.17 (0.17)	0.14 (0.17)	0.15 (0.16)	0.19 (0.19)	0.18 (0.19)	0.16 (0.17)
	Probability of inadequate dietary diversity	0.80 (0.40)	0.84 (0.36)	0.92 (0.27)	0.95 (0.21)	0.86 (0.34)	0.60 (0.49)	0.65 (0.48)	0.77 (0.42)	0.82 (0.39)	0.69 (0.46)

Table 2: Wald-Test Results and Benefit Allocation Findings: ***CASH-ONLY***

Outcome	Context	Wald Test Results			Allocation rule tested	Questions	
		Comparison	*P-value*	*Impact Difference (in outcome units)*		*Are allocations equal?*	*Are allocation rules context specific?*
Caloric Intake (kcal/day)	**North**	M v. W	0.88	4	**1: Equal input gains** (Equal gains to overall consumption)	**YES** Increases are equal for men and women Increases are equal for boys and girls Increases are equal for adults (men and women) and children (boys and girls)	**NO** We find the same results in the North and South
		M v. B	0.81	10			
		M v. G	0.22	50			
		W v. B	0.88	6			
		W v. G	0.19	46			
		B v. G	0.38	40			
	South	M v. W	0.76	9		**YES** Increases are equal for men and women Increases are equal for boys and girls Increases are equal for adults (men and women) and children (boys and girls)	
		M v. B	0.38	38			
		M v. G	0.61	21			
		W v. B	0.43	28			
		W v. G	0.74	12			
		B v. G	0.70	-17			
DDS (food groups/day)	**North**	M v. W	0.72	0.0	**1: Equal input gains** (Equal gains to food group consumption)	**YES** Increases are equal for men and women Increases are equal for boys and girls Increases are equal for adults (men and women) and children (boys and girls)	**NO** We find the same results in the North and South
		M v. B	0.40	-0.1			
		M v. G	0.92	0.0			
		W v. B	0.28	-0.1			
		W v. G	0.92	0.0			
		B v. G	0.46	0.1			
	South	M v. W	0.38	0.0		**YES** Increases are equal for men and women Increases are equal for boys and girls Increases are equal for adults (men and women) and children (boys and girls)	
		M v. B	0.59	0.1			
		M v. G	0.39	0.1			
		W v. B	0.93	0.0			
		W v. G	0.68	0.0			
		B v. G	0.82	0.0			
GDQS	**North**	M v. W	0.43	0.1	**1: Equal input gains** (healthfulness of consumption)	**YES** Increases are equal for men and women	**NO** We find the same results in the North and South
	South	M v. W	0.17	0.2		**YES** Increases are equal for men and women	
CAR	**North**	M v. W	0.46	0.01			

		M v. B	0.71	-0.01	**2. Proportional input gains** (Equal gains to needs-adjusted caloric intake)	**YES** Increases are equal for men and women Increases are equal for boys and girls Increases are equal for adults (men and women) and children (boys and girls)	**NO** We find the same results in the North and South
		M v. G	0.23	0.02			
		W v. B	0.32	-0.02			
		W v. G	0.50	0.01			
		B v. G	0.16	0.03			
	South	M v. W	0.96	0.00		**YES** Increases are equal for men and women Increases are equal for boys and girls Increases are equal for adults (men and women) and children (boys and girls)	
		M v. B	0.26	0.03			
		M v. G	0.99	0.00			
		W v. B	0.26	0.02			
		W v. G	0.95	0.00			
		B v. G	0.25	-0.03			
Caloric Shortfall	**North**	M v. W	0.43	-0.01	**3. Proportional outcome gains** (Equality reductions to caloric shortfall)	**YES** Decreases are equal for men and women Decreases are equal for boys and girls Decreases are equal for adults (men and women) and children (boys and girls)	**NO** We find the same results in the North and South
		M v. B	0.41	0.01			
		M v. G	0.26	-0.02			
		W v. B	0.16	0.02			
		W v. G	0.57	-0.01			
		B v. G	0.09	-0.03			
	South	M v. W	0.67	0.00		**YES** Decreases are equal for men and women Decreases are equal for boys and girls Decreases are equal for adults (men and women) and children (boys and girls)	
		M v. B	0.23	-0.02			
		M v. G	0.88	0.00			
		W v. B	0.12	-0.02			
		W v. G	0.86	0.00			
		B v. G	0.16	0.02			
Probability of low dietary diversity	**North**	M v. W	0.34	-0.02	**3. Proportional outcome gains** (Equal reductions to probability of inadequate diet diversity)	**YES** Decreases are equal for men and women Decreases are equal for boys and girls Decreases are equal for adults (men and women) and children (boys and girls)	**NO** We find the same results in the North and South
		M v. B	0.74	0.01			
		M v. G	0.67	-0.01			
		W v. B	0.37	0.03			
		W v. G	0.93	0.00			
		B v. G	0.50	-0.03			
	South	M v. W	0.85	0.00		**YES** Decreases are equal for men and women Decreases are equal for boys and girls Decreases are equal for adults (men and women) and children (boys and girls)	
		M v. B	0.77	0.01			
		M v. G	0.85	-0.01			
		W v. B	0.84	0.01			
		W v. G	0.74	-0.01			
		B v. G	0.68	-0.02			

Table 3: Wald-Test Results and Benefit Allocation Findings: ***FOOD-ONLY***

		Wald Test Results				Questions	
Outcome	**Context**	*Comparison*	*P-value*	*Impact Difference (in outcome units)*	**Allocation rule tested**	*Are allocations equal?*	*Are allocation rules context specific?*
Caloric Intake (kcal/day)	**North**	M v. W	0.86	-6	**1: Equal input gains** (Equal gains to overall consumption)	**YES** Increases are equal for men and women Increases are equal for boys and girls Increases are equal for adults (men and women) and children (boys and girls)	**NO** We find the same results in the North and South
		M v. B	0.60	24			
		M v. G	0.25	44			
		W v. B	0.48	29			
		W v. G	0.14	49			
		B v. G	0.66	20			
	South	M v. W	0.93	-3		**YES** Increases are equal for men and women Increases are equal for boys and girls Increases are equal for adults (men and women) and children (boys and girls)	
		M v. B	0.33	39			
		M v. G	0.81	11			
		W v. B	0.22	42			
		W v. G	0.69	14			
		B v. G	0.46	-28			
DDS (food groups/day)	**North**	M v. W	0.49	0.0	**1: Equal input gains** (Equal gains to food group consumption)	**YES** Increases are equal for men and women Increases are equal for boys and girls Increases are equal for adults (men and women) and children (boys and girls)	**NO** We find the same results in the North and South
		M v. B	0.50	-0.1			
		M v. G	0.68	0.0			
		W v. B	0.27	-0.1			
		W v. G	0.33	-0.1			
		B v. G	0.80	0.0			
	South	M v. W	0.12	0.1		**YES** Increases are equal for men and women Increases are equal for boys and girls Increases are equal for adults (men and women) and children (boys and girls)	
		M v. B	0.62	0.0			
		M v. G	0.43	0.1			
		W v. B	0.73	0.0			
		W v. G	0.98	0.0			
		B v. G	0.77	0.0			
GDQS	**North**	M v. W	0.17	0.2	**1: Equal input gains** (healthfulness of consumption)	**YES** Increases are equal for men and women	**NO** We find the same results in the North and South
	South	M v. W	0.45	0.1		**YES** Increases are equal for men and women	
CAR	**North**	M v. W	0.38	-0.01			

		M v. B	0.70	-0.01	**2. Proportional input gains** (Equal gains to needs-adjusted caloric intake)	**YES** Increases are equal for men and women Increases are equal for boys and girls Increases are equal for adults (men and women) and children (boys and girls)	**NO** We find the same results in the North and South
		M v. G	0.71	0.01			
		W v. B	0.78	0.01			
		W v. G	0.25	0.02			
		B v. G	0.52	0.02			
	South	M v. W	0.99	0.00		**YES** Increases are equal for men and women Increases are equal for boys and girls Increases are equal for adults (men and women) and children (boys and girls)	
		M v. B	0.30	0.02			
		M v. G	0.96	0.00			
		W v. B	0.25	0.02			
		W v. G	0.95	0.00			
		B v. G	0.31	-0.02			
Caloric Shortfall	**North**	M v. W	0.35	0.01	**3. Proportional outcome gains** (Equality reductions to caloric shortfall)	**YES** Increases are equal for men and women Increases are equal for boys and girls Increases are equal for adults (men and women) and children (boys and girls)	**NO** We find the same results in the North and South
		M v. B	0.41	0.01			
		M v. G	0.81	0.00			
		W v. B	0.90	0.00			
		W v. G	0.27	-0.01			
		B v. G	0.32	-0.02			
	South	M v. W	0.99	0.00		**YES** Increases are equal for men and women Increases are equal for boys and girls Increases are equal for adults (men and women) and children (boys and girls)	
		M v. B	0.21	-0.02			
		M v. G	0.94	0.00			
		W v. B	0.16	-0.02			
		W v. G	0.94	0.00			
		B v. G	0.19	0.02			
Probability of low dietary diversity	**North**	M v. W	0.57	-0.01	**3. Proportional outcome gains** (Equal reductions to probability of inadequate diet diversity)	**YES** Increases are equal for men and women Increases are equal for boys and girls Increases are equal for adults (men and women) and children (boys and girls)	**NO** We find the same results in the North and South
		M v. B	0.88	0.01			
		M v. G	0.94	0.00			
		W v. B	0.58	0.02			
		W v. G	0.64	0.02			
		B v. G	0.95	0.00			
	South	M v. W	0.54	-0.01		**YES** Increases are equal for men and women Increases are equal for boys and girls Increases are equal for adults (men and women) and children (boys and girls)	
		M v. B	0.59	-0.02			
		M v. G	0.48	-0.02			
		W v. B	0.84	-0.01			
		W v. G	0.69	-0.01			
		B v. G	0.92	0.00			

Table 4: Wald-Test Results and Benefit Allocation Findings: ***FOOD+CASH***

Outcome	Context	Wald Test Results			Allocation rule tested	Questions	
		Comparison	*P-value*	*Impact Difference (in outcome units)*		*Are allocations equal?*	*Are allocation rules context specific?*
Caloric Intake (kcal/day)	**North**	M v. W	0.64	15	**1: Equal input gains** (Equal gains to overall consumption)	**NO** Increases are equal for men and women Increases are equal for boys and girls Increases are larger for adults (men and women) compared to girls	**YES** Allocation rules differ between the North and South
		M v. B	0.07	85			
		M v. G	0.03	84			
		W v. B	0.08	70			
		W v. G	0.04	69			
		B v. G	0.99	-1			
	South	M v. W	0.60	17		**YES** Increases are equal for men and women Increases are equal for boys and girls Increases are equal for adults (men and women) and children (boys and girls)	
		M v. B	0.12	69			
		M v. G	0.16	56			
		W v. B	0.18	51			
		W v. G	0.25	39			
		B v. G	0.77	-13			
DDS (food groups/day)	**North**	M v. W	0.29	0.1	**1: Equal input gains** (Equal gains to food group consumption)	**YES** Increases are equal for men and women Increases are equal for boys and girls Increases are equal for adults (men and women) and children (boys and girls)	**NO** We find the same results in the North and South
		M v. B	0.17	0.1			
		M v. G	0.59	0.0			
		W v. B	0.41	0.1			
		W v. G	0.98	0.0			
		B v. G	0.47	-0.1			
	South	M v. W	0.80	0.0		**YES** Increases are equal for men and women Increases are equal for boys and girls Increases are equal for adults (men and women) and children (boys and girls)	
		M v. B	0.68	0.0			
		M v. G	0.67	0.0			
		W v. B	0.77	0.0			
		W v. G	0.72	0.0			
		B v. G	0.98	0.0			
GDQS	**North**	M v. W	0.19	0.1	**1: Equal input gains**	**YES** Increases are equal for men and women	

	South	M v. W	0.60	0.1	(healthfulness of consumption)	**YES** Increases are equal for men and women	**NO** We find the same results in the North and South
CAR	**North**	M v. W	0.48	0.01	**2. Proportional input gains** (Equal gains to needs-adjusted caloric intake)	**YES** Increases are equal for men and women Increases are equal for boys and girls Increases are equal for adults (men and women) and children (boys and girls)	**YES** Allocation rules differ between the North and South
		M v. B	0.33	0.02			
		M v. G	0.38	0.02			
		W v. B	0.62	0.01			
		W v. G	0.82	0.00			
		B v. G	0.78	-0.01			
	South	M v. W	0.08	0.03		**NO** Increases are equal for men and women Increases are equal for boys and girls Increases are larger for men compared to boys	
		M v. B	0.03	0.05			
		M v. G	0.24	0.03			
		W v. B	0.45	0.02			
		W v. G	0.80	-0.01			
		B v. G	0.36	-0.02			
Caloric Shortfall	**North**	M v. W	0.33	-0.01	**3. Proportional outcome gains** (Equality reductions to caloric shortfall)	**YES** Decreases are equal for men and women Decreases are equal for boys and girls Decreases are equal for adults (men and women) and children (boys and girls)	**YES** Allocation rules differ between the North and South
		M v. B	0.47	-0.01			
		M v. G	0.17	-0.02			
		W v. B	0.96	0.00			
		W v. G	0.59	-0.01			
		B v. G	0.69	-0.01			
	South	M v. W	0.11	-0.02		**NO** Decreases are equal for men and women Decreases are equal for boys and girls Decreases are larger for men compared to boys	
		M v. B	0.02	-0.04			
		M v. G	0.21	-0.02			
		W v. B	0.27	-0.02			
		W v. G	0.97	0.00			
		B v. G	0.30	0.02			
Probability of low dietary diversity	**North**	M v. W	0.06	-0.04	**3. Proportional outcome gains** (Equal reductions to probability of inadequate diet diversity)	**YES** Decreases are equal for men and women Decreases are equal for boys and girls Decreases are equal for adults (men and women) and children (boys and girls)	**NO** We find the same results in the North and South
		M v. B	0.06	-0.06			
		M v. G	0.25	-0.04			
		W v. B	0.45	-0.02			
		W v. G	0.98	0.00			
		B v. G	0.50	0.02			
	South	M v. W	0.87	0.00		**YES** Decreases are equal for men and	
		M v. B	0.65	-0.02			

	M v. G	0.67	-0.02		women
	W v. B	0.56	-0.02		Decreases are equal for boys and girls
	W v. G	0.51	-0.02		Decreases are equal for adults (men and women) and children (boys and girls)
	B v. G	0.99	0.00		

Table 5: Wald-Test Results and Benefit Allocation Findings: ***CASH + BCC (NORTH)*** *and* ***FOOD + BCC (SOUTH)***

Outcome	Context	Wald Test Results			Allocation rule tested	Questions	
		Comparison	*P-value*	*Impact Difference (in outcome units)*		*Are allocations equal?*	*Are allocation rules context specific?*
Caloric Intake (kcal/day)	**North**	M v. W	0.60	16	**1: Equal input gains** (Equal gains to overall consumption)	**NO** Increases are equal for men and women Increases are equal for boys and girls Increases are larger for adults (men and women) compared to boys	n/a
		M v. B	0.02	108			
		M v. G	0.12	65			
		W v. B	0.03	93			
		W v. G	0.21	49			
		B v. G	0.33	-43			
	South	M v. W	0.39	28		**YES** Increases are equal for men and women Increases are equal for boys and girls Increases are equal for adults (men and women) and children (boys and girls)	
		M v. B	0.06	76			
		M v. G	0.17	55			
		W v. B	0.16	47			
		W v. G	0.42	27			
		B v. G	0.63	-20			
DDS (food groups/day)	**North**	M v. W	0.48	0.0	**1: Equal input gains** (Equal gains to food group consumption)	**NO** Increases are equal for men and women Increases are larger for girls compared to boys Increases are larger for girls compared to adults (men and women)	n/a
		M v. B	0.65	0.0			
		M v. G	0.03	-0.2			
		W v. B	0.39	0.1			
		W v. G	0.04	-0.2			
		B v. G	0.03	-0.3			
	South	M v. W	0.13	0.1		**YES** Increases are equal for men and women Increases are equal for boys and girls	
		M v. B	0.58	0.1			
		M v. G	0.71	0.0			
		W v. B	0.86	0.0			

		W v. G	0.22	-0.1		Increases are equal for adults (men and women) and children (boys and girls)	
		B v. G	0.45	-0.1			
GDQS	**North**	M v. W	0.77	0.0	**1: Equal input gains** (healthfulness of consumption)	**YES** Increases are equal for men and women	n/a
	South	M v. W	0.29	0.1		**YES** Increases are equal for men and women	
CAR	**North**	M v. W	0.89	0.00	**2. Proportional input gains** (Equal gains to needs-adjusted caloric intake)	**NO** Increases are equal for men and women Increases are equal for boys and girls Increases are larger for girls compared to men	n/a
		M v. B	0.81	-0.01			
		M v. G	0.05 (0.048)	-0.04			
		W v. B	0.89	0.00			
		W v. G	0.06	-0.04			
		B v. G	0.10	-0.04			
	South	M v. W	0.24	0.02		**YES** Increases are equal for men and women Increases are equal for boys and girls Increases are equal for adults (men and women) and children (boys and girls)	
		M v. B	0.16	0.03			
		M v. G	0.91	0.00			
		W v. B	0.61	0.01			
		W v. G	0.38	-0.02			
		B v. G	0.21	-0.03			
Caloric Shortfall	**North**	M v. W	0.33	-0.01	**3. Proportional outcome gains** (Equality reductions to caloric shortfall)	**YES** Decreases are equal for men and women Decreases are equal for boys and girls Decreases are equal for adults (men and women) and children (boys and girls)	n/a
		M v. B	0.77	0.01			
		M v. G	0.42	0.01			
		W v. B	0.30	0.02			
		W v. G	0.11	0.02			
		B v. G	0.64	0.01			
	South	M v. W	0.09	-0.02		**YES** Decreases are equal for men and women Decreases are equal for boys and girls Decreases are equal for adults (men and women) and children (boys and girls)	
		M v. B	0.12	-0.03			
		M v. G	0.57	-0.01			
		W v. B	0.64	-0.01			
		W v. G	0.50	0.01			
		B v. G	0.27	0.02			
Probability of low dietary diversity	**North**	M v. W	0.10	0.03	**3. Proportional outcome gains** (Equal reductions to probability of	**YES** Decreases are equal for men and women Decreases are equal for boys and girls	n/a
		M v. B	0.75	-0.01			
		M v. G	0.11	0.06			
		W v. B	0.25	-0.04			

	W v. G	0.40	0.03	inadequate diet diversity)	Decreases are equal for adults (men and women) and children (boys and girls)
	B v. G	0.08	0.07		
South	M v. W	0.30	-0.02		**YES**
	M v. B	0.65	-0.02		Decreases are equal for men and women
	M v. G	0.82	-0.01		Decreases are equal for boys and girls
	W v. B	0.89	0.00		Decreases are equal for adults (men and women) and children (boys and girls)
	W v. G	0.66	0.01		
	B v. G	0.84	0.01		

Appendix

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1. Construction of Outcome Variables

Table A1.1: Estimated Energy Requirements for Adolescents and Adults (15+ years) based on Physical Activity Level

Sex	Age range in completed years (inclusive)	Average weight (kg)	Low Activity – Total Energy Expenditure in kcal	Moderate Activity – Total Energy Expenditure in kcal	High Activity – Total Energy Expenditure in kcal
Female	15	46.3	1970.6	2318.4	2666.1
	16	47.4	1990.0	2341.2	2692.4
	17	48.1	2001.9	2355.2	2708.4
	18	48.6	2010.1	2364.8	2719.5
	19-29	48.9	1876.4	2239.6	2602.7
	30-59	48.9	1926.1	2298.8	2671.6
	60+	48.9	1708.4	2039.0	2369.7
Male	15	50.6	2432.9	2862.3	3291.6
	16	53.7	2522.3	2967.4	3412.5
	17	56.0	2585.7	3042.0	3498.3
	18	57.6	2631.2	3095.6	3559.9
	19-29	58.4	2435.2	2906.6	3377.9
	30-59	58.4	2391.3	2854.1	3317.0
	60+	58.4	1970.6	2352.0	2733.4

References: FAO, 2004; Waid et al., 2017

Table A1.2: Adjustments in Energy Requirements for Pregnancy and Lactation

Reason for adjustment	Age/time range	Additional Energy Expenditure in kcal
Lactation	Child less than 6 months (exclusive/predominate breastfeeding)	500
Lactation	Child 6 to 11 months (continued breastfeeding)	400
Lactation	Child 12-24 months (continued breastfeeding at the same level as 6-11 months)	400
Pregnancy	First trimester	100.6
Pregnancy	Second trimester	295.2
Pregnancy	Third trimester	441.0
Pregnancy	Average (trimester not recorded)	278.9

References: FAO, 2004; Picciano, 2003; Waid et al., 2017

Table A1.3: Estimated Energy Requirements for Children and Young Adolescents (2-14 years)

	Male		**Female**	
Age in complete years	Average weight (kg)	Moderate Activity – Total Energy Expenditure in kcal	Average weight (kg)	Moderate Activity – Total Energy Expenditure in kcal
2	13.3	1117.2	12.7	1031.4
3	15.3	1231.5	15.0	1150.5
4	17.3	1340.7	17.2	1260.8
5	19.3	1447.0	19.1	1352.6
6	21.6	1568.3	21.1	1452.5
7	24.0	1694.8	23.5	1562.7
8	26.6	1825.6	26.4	1688.7
9	29.5	1965.3	29.8	1826.0
10	32.3	2097.7	33.2	1942.9
11	35.1	2226.6	36.1	2044.4
12	38.5	2380.3	39.3	2142.6
13	42.6	2555.9	42.2	2223.0
14	46.9	2723.5	44.6	2280.9

References: FAO, 2004; Waid et al., 2017

Table A1.4: DDS Food Groups

1. Grains, white roots, and tubers
2. Pulses (beans, peas, and lentils)
3. Nuts and seeds
4. Dairy
5. Meat, poultry, and fish
6. Eggs
7. Dark green leafy vegetables
8. Other vitamin A–rich fruits and vegetables
9. Other vegetables
10. Other fruits

Reference: FAO and FHI 360. 2016. Minimum Dietary Diversity for Women: A Guide for Measurement. Rome: FAO.

Table A1.5: GDQS Food Groups and Scoring

		Categories of Consumed Amounts (grams/day)				Points Assigned			
Healthy Food Groups		Low	Middle	High	Very High	Low	Middle	High	Very High
	Citrus fruits	24	24–69	69		0	1	2	
	Deep orange fruits	25	25–123	123		0	1	2	
	Other fruits	27	27–107	107		0	1	2	
	Dark green leafy vegetables	13	13–37	37		0	2	4	
	Cruciferous vegetables	13	13–36	36		0	0.25	0.5	
	Deep orange vegetables	9	9–45	45		0	0.25	0.5	
	Other vegetables	23	23–114	114		0	0.25	0.5	
	Legumes	9	9–42	42		0	2	4	
	Deep orange tubers	12	12–63	63		0	0.25	0.5	
	Nuts and seeds	7	7–13	13		0	2	4	
	Whole grains	8	8–13	13		0	1	2	
	Liquid oils	2	2–7.5	7.5		0	1	2	
	Fish and shellfish	14	14–71	71		0	1	2	
	Poultry and game meat	16	16–44	44		0	1	2	
	Low-fat dairy	33	33–132	132		0	1	2	
	Eggs	6	6–32	32		0	1	2	
Healthy food groups when consumed in moderation	High-fat dairy (in milk equivalents)	35	35–142	142-734	>734	0	1	2	0
	Red meat	9	9–46	46		0	1	0	
Unhealthy food groups	Processed meat	9	9–30	30		2	1	0	
	Refined grains and baked goods	7	7–33	33		2	1	0	
	Sweets and ice cream	13	13–37	37		2	1	0	
	Sugar-sweetened beverages	57	57–180	180		2	1	0	
	Juice	36	36–144	144		2	1	0	
	White roots and tubers	27	27–107	107		2	1	0	
	Deep fried food	9	9–45	45		2	1	0	

Note: GDQS ≥23 is associated with a low risk of nutrient inadequacy and NCD-related outcomes, scores ≥15 and <23 indicate moderate risk, and scores <15 indicate high risk.

Reference: Intake–Center for Dietary Assessment, The Global Diet Quality Score: Data Collection Options and Tabulation Guidelines. 2021. Washington, DC.

2. Attrition

Table A2.1: Attrition and Missingness by Treatment Arm

	North						South					
	Cash	**Food**	**Food+ Cash**	**BCC+Cash**	**Control**	**Total**	**Cash**	**Food**	**Food+ Cash**	**BCC+ Food**	**Control**	**Total**
Present at baseline	**(N = 1844)**	**(N =1837)**	**(N =1828)**	**(N =1849)**	**(N =1848)**	**(N =9206)**	**(N =2084)**	**(N =2097)**	**(N =2053)**	**(N =2016)**	**(N =2135)**	**(N=10385)**
Attrit after baseline (Present at baseline only)	196 (10.6%)	189 (10.3%)	138 (7.5%)	166 (9.0%)	164 (8.9%)	853 (9.3%)	179 (8.6%)	204 (9.7%)	228 (11.1%)	155 (7.7%)	242 (11.3%)	1008 (9.7%)
Attrit after midline (Present at baseline and midline only)	126 (6.8%)	129 (7.0%)	136 (7.4%)	146 (7.9%)	151 (8.2%)	688 (7.5%)	144 (6.9%)	170 (8.1%)	136 (6.6%)	150 (7.4%)	167 (7.8%)	767 (7.4%)
Absent from midline (Present at baseline and endline only)	44 (2.4%)	74 (4.0%)	53 (2.9%)	46 (2.5%)	60 (3.2%)	277 (3.0%)	102 (4.9%)	117 (5.6%)	98 (4.8%)	102 (5.1%)	87 (4.1%)	506 (4.9%)
Present at either midline or endline	**(N = 2000)**	**(N =1983)**	**(N =2021)**	**(N =1985)**	**(N =1980)**	**(N =9969)**	**(N =2251)**	**(N =2291)**	**(N =2230)**	**(N =2219)**	**(N =2298)**	**(N=11128)**
Missing at baseline (Present at midline or endline only)	156 (8.6%)	146 (8.1%)	193 (10.2%)	136 (7.5%)	132 (7.3%)	763 (8.4%)	167 (8.1%)	194 (9.3%)	177 (8.8%)	203 (9.8%)	163 (7.9%)	904 (8.8%)

Table A2.2: Reasons for Attrition, North

	Attrit after baseline						Attrit after midline					
	Cash	**Food**	**Food +Cash**	**BCC +Cash**	**Control**	**Total**	**Cash**	**Food**	**Food +Cash**	**BCC +Cash**	**Control**	**Total**
Number of participants that attrit:	(N = 196)	(N = 189)	(N = 138)	(N = 166)	(N = 164)	(N = 853)	(N = 126)	(N = 129)	(N = 136)	(N = 146)	(N = 151)	(N = 688)
Participant left the household temporarily (out of all participants who attrited)	**35 (17.9%)**	**33 (17.5%)**	**19 (13.8%)**	**23 (13.9%)**	**27 (16.5%)**	**137 (16.1%)**	**25 (19.8%)**	**25 (19.4%)**	**36 (26.5%)**	**20 (13.7%)**	**38 (25.2%)**	**144 (20.9%)**
Reason for leaving the household temporarily (out of participants who temporarily left)												
Left for education	2 (5.7%)	0 (0.0%)	0 (0.0%)	1 (4.3%)	4 (14.8%)	7 (5.1%)	2 (8.0%)	4 (16.0%)	2 (5.6%)	1 (5.0%)	2 (5.3%)	11 (7.6%)
Left household for work	33 (94.3%)	33 (100.0%)	19 (100.0%)	22 (95.7%)	23 (85.2%)	130 (94.9%)	23 (92.0%)	21 (84.0%)	34 (94.4%)	19 (95.0%)	36 (94.7%)	133 (92.4%)
Participant left the household permanently (out of all participants who attrited)	**116 (59.2%)**	**99 (52.4%)**	**83 (60.1%)**	**100 (60.2%)**	**58 (35.4%)**	**456 (53.5%)**	**33 (26.2%)**	**37 (28.7%)**	**37 (27.2%)**	**46 (31.5%)**	**34 (22.5%)**	**187 (27.2%)**
Reason for leaving the household permanently (out of all participants who permanently left)												
Division of household	92 (79.3%)	83 (83.8%)	61 (73.5%)	78 (78.0%)	38 (65.5%)	352 (77.2%)	20 (60.6%)	18 (48.6%)	25 (67.6%)	23 (50.0%)	20 (58.8%)	106 (56.7%)
Death	9 (7.8%)	4 (4.0%)	6 (7.2%)	10 (10.0%)	9 (15.5%)	38 (8.3%)	6 (18.2%)	7 (18.9%)	4 (10.8%)	6 (13.0%)	3 (8.8%)	26 (13.9%)

Marriage into other family	14 (12.1%)	11 (11.1%)	13 (15.7%)	10 (10.0%)	11 (19.0%)	59 (12.9%)	6 (18.2%)	11 (29.7%)	7 (18.9%)	17 (37.0%)	10 (29.4%)	51 (27.3%)
Divorced	1 (0.9%)	1 (1.0%)	3 (3.6%)	2 (2.0%)	0 (0.0%)	7 (1.5%)	1 (3.0%)	1 (2.7%)	1 (2.7%)	0 (0.0%)	1 (2.9%)	4 (2.1%)
Participant only missing meals during survey period (out of all participants who attrited)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)
Participant left the household for unknown duration/reason (out of all participants who attrited)	**45 (23.0%)**	**57 (30.2%)**	**36 (26.1%)**	**43 (25.9%)**	**79 (48.2%)**	**260 (30.5%)**	**68 (54.0%)**	**67 (51.9%)**	**63 (46.3%)**	**80 (54.8%)**	**79 (52.3%)**	**357 (51.9%)**

Table A2.3 Reasons for Attrition, South

	Attrit after baseline						Attrit after midline					
	Cash	**Food**	**Food+ Cash**	**BCC+ Food**	**Control**	**Total**	**Cash**	**Food**	**Food+ Cash**	**BCC+ Food**	**Control**	**Total**
Number of participants that attrit:	(N = 179)	(N = 204)	(N = 228)	(N = 155)	(N = 242)	(N = 1008)	(N = 144)	(N = 170)	(N = 136)	(N = 150)	(N = 167)	(N = 767)
Participant left the household temporarily (out of all participants who attrited)	**22 (12.3%)**	**34 (16.7%)**	**39 (17.1%)**	**34 (21.9%)**	**41 (16.9%)**	**170 (16.9%)**	**30 (20.8%)**	**30 (17.6%)**	**30 (22.1%)**	**21 (14.0%)**	**23 (13.8%)**	**134 (17.5%)**
Reason for leaving the household temporarily (out of participants who temporarily left)												
Left for education	1 (4.5%)	3 (8.8%)	4 (10.3%)	6 (17.6%)	9 (22.0%)	23 (13.5%)	8 (26.7%)	6 (20.0%)	8 (26.7%)	5 (23.8%)	3 (13.0%)	30 (22.4%)
Left household for work	21 (95.5%)	31 (91.2%)	35 (89.7%)	28 (82.4%)	32 (78.0%)	147 (86.5%)	22 (73.3%)	24 (80.0%)	22 (73.3%)	16 (76.2%)	20 (87.0%)	104 (77.6%)
Participant left the household permanently (out of all participants who attrited)	**100 (55.9%)**	**93 (45.6%)**	**124 (54.4%)**	**57 (36.8%)**	**117 (48.3%)**	**491 (48.7%)**	**54 (37.5%)**	**47 (27.6%)**	**26 (19.1%)**	**54 (36.0%)**	**53 (31.7%)**	**234 (30.5%)**

Reason for leaving the household permanently (out of all participants who permanently left)												
Division of household	75 (75.0%)	64 (68.8%)	99 (79.8%)	34 (59.6%)	84 (71.8%)	356 (72.5%)	29 (53.7%)	30 (63.8%)	15 (57.7%)	33 (61.1%)	40 (75.5%)	147 (62.8%)
Death	8 (8.0%)	12 (12.9%)	13 (10.5%)	14 (24.6%)	12 (10.3%)	59 (12.0%)	7 (13.0%)	8 (17.0%)	2 (7.7%)	12 (22.2%)	5 (9.4%)	34 (14.5%)
Marriage into other family	14 (14.0%)	14 (15.1%)	10 (8.1%)	8 (14.0%)	20 (17.1%)	66 (13.4%)	18 (33.3%)	9 (19.1%)	9 (34.6%)	9 (16.7%)	7 (13.2%)	52 (22.2%)
Divorced	3 (3.0%)	3 (3.2%)	2 (1.6%)	1 (1.8%)	1 (0.9%)	10 (2.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	1 (1.9%)	1 (0.4%)
Participant only missing meals during survey period (out of all participants who attrited)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)
Participant left the household for unknown duration/reason (out of all participants who attrited)	**57 (31.8%)**	**77 (37.7%)**	**65 (28.5%)**	**64 (41.3%)**	**84 (34.7%)**	**347 (34.4%)**	**60 (41.7%)**	**93 (54.7%)**	**80 (58.8%)**	**75 (50.0%)**	**91 (54.5%)**	**399 (52.0%)**

Table A2.4: Attrition by Treatment Arms and Control

Treatment Type	(1) **North:** Any Treatment and Control	(2) **North:** All Treatment Arms	(3) **South:** Any Treatment and Control	(4) **South:** All Treatment Arms
Any treatment	0.005		-0.021	
Cash		0.018		-0.027
Food		0.014		-0.016
Cash+Food		-0.013		-0.002
BCC+Cash		0.001		
BCC+Food			-0.021	-0.036
Constant	0.089***	0.089***	0.113***	0.078***
N	9206	9206	10385	10385

Notes: Attrition (after baseline) =1; did not attrit =0. Control group is the reference level. Standard errors are adjusted for clustering at the village level.

*** p<0.01, ** p<0.05

Table A2.5: Attrition Differences between Treatment Arms

North		South	
Comparison	***P-value***	***Comparison***	***P-value***
Cash = Food	0.56	Cash = Food	0.18
Cash = Cash+Food	0.25	Cash = Cash+Food	0.12
Cash= BCC+Cash	0.59	Cash= BCC+Food	0.04
Food = Cash+Food	0.23	Food = Cash+Food	0.51
Food = BCC+Cash	0.61	Food = BCC+Food	0.04
Cash+Food = BCC+ Cash	0.59	Cash+Food = BCC+ Food	0.02

Table A2.6: Attrition Differences between Household Member Types by Treatment Arm

	Cash-only											
	North						**South**					
Household Member Type												
(Men=reference level)												
Women			-0.03**						-0.02			
Boys			-0.03						-0.02			
Girls			-0.01						-0.04**			
Constant			0.12***						0.11***			
Equality of Attrition	M = W	M = B	M = G	W = B	W = G	B = G	M = W	M = B	M = G	W = B	W = G	B = G
F-test	4.70	2.81	0.19	0.04	1.93	1.33	1.90	1.52	4.70	0.11	2.34	0.89
Prob > F	0.04	0.10	0.67	0.84	0.17	0.26	0.18	0.22	0.04	0.74	0.13	0.35
	Food-only											
	North						**South**					
Household Member Type												
(Men=reference level)												
Women			-0.06***						-0.02**			
Boys			-0.05**						0.01			
Girls			-0.03						0			
Constant			0.14***						0.10***			
Equality of Attrition	M = W	M = B	M = G	W = B	W = G	B = G	M = W	M = B	M = G	W = B	W = G	B = G
F-test	22.02	5.12	1.95	0.58	2.83	0.46	4.19	0.37	0.06	3.09	1.57	0.70
Prob > F	0.00	0.03	0.17	0.45	0.10	0.50	0.05	0.55	0.80	0.09	0.22	0.41

				Food+Cash								
			North						South			
Household Member Type												
(Men=reference level)												
Women			-0.04***						-0.04**			
Boys			-0.03**						-0.02			
Girls			-0.03						-0.04**			
Constant			0.10***						0.14***			
Equality of Attrition	M = W	M = B	M = G	W = B	W = G	B = G	M = W	M = B	M = G	W = B	W = G	B = G
F-test	11.48	5.51	2.38	0.14	0.46	0.03	6.36	0.72	6.56	1.19	0.01	0.82
Prob > F	0.00	0.02	0.13	0.71	0.50	0.86	0.02	0.40	0.01	0.28	0.93	0.37
				BCC+Cash						BCC+Food		
			North						South			
Household Member Type												
(Men=reference level)												
Women			-0.01						-0.03**			
Boys			-0.04**						-0.03			
Girls			-0.01						-0.06***			
Constant			0.10***						0.10***			
Equality of Attrition	M = W	M = B	M = G	W = B	W = G	B = G	M = W	M = B	M = G	W = B	W = G	B = G
F-test	1.85	6.94	0.42	3.18	0.05	2.58	4.69	2.05	16.02	0.03	4.28	2.05
Prob > F	0.18	0.01	0.52	0.08	0.83	0.11	0.04	0.16	0.00	0.87	0.04	0.16

Notes: Attrition (after baseline) =1; did not attrit =0. Standard errors are adjusted for clustering at the village level. *** p<0.01, ** p<0.05

3. Implementation fidelity

Table A3.1: Delivery of Transfer

	Cash-only	Food only	North Food+ Cash	BCC + Cash	Total	Cash-only	Food only	South Food+ Cash	BCC + Food	Total
Who is the cardholder?										
	461	461	458	452	1832	468	461	461	474	1864
Mother of the under-2 child	(96.4%)	(96.2%)	(96.0%)	(96.4%)	(96.3%)	(96.3%)	(95.8%)	(96.0%)	(97.7%)	(96.5%)
Mother-in-law of the mother of the child	9 (1.9%)	12 (2.5%)	12 (2.5%)	12 (2.6%)	45 (2.4%)	10 (2.1%)	9 (1.9%)	9 (1.9%)	5 (1.0%)	33 (1.7%)
Mother of the mother of the child	4 (0.8%)	2 (0.4%)	6 (1.3%)	4 (0.9%)	16 (0.8%)	3 (0.6%)	4 (0.8%)	2 (0.4%)	3 (0.6%)	12 (0.6%)
Other	4 (0.8%)	4 (0.8%)	1 (0.2%)	1 (0.2%)	10 (0.5%)	5 (1.0%)	7 (1.5%)	8 (1.7%)	3 (0.6%)	23 (1.2%)
How did you get your cash transfer since you joined the program?										
Always hand-to-hand cash transfer	0 (0.0%)	–	0 (0.0%)	1 (0.2%)	1 (0.1%)	0 (0.0%)	–	1 (0.2%)	–	1 (0.1%)
Initially hand-to-hand, later on mobile cash transfer	477 (100.0%)	–	476 (100.0%)	467 (99.8%)	1420 (99.9%)	485 (100.0%)	–	479 (99.8%)	–	964 (99.9%)
Did you face any technical difficulties with the mobile cash transfer?										
Yes	22 (4.6%)	0 (0.0%)	25 (5.3%)	16 (3.4%)	63 (4.4%)	20 (4.1%)	0 (0.0%)	26 (5.4%)	0 (.%)	46 (4.8%)
	455		451	452	1358	465	0 (0.0%)	454		919
No	(95.4%)	0 (0.0%)	(94.7%)	(96.6%)	(95.6%)	(95.9%)		(94.6%)	0 (.%)	(95.2%)
What would you have done if you did not have to come to collect the transfer?										
	428	409	415	424	1676	387	401	356	385	1529
Household work	(89.7%)	(85.4%)	(87.2%)	(90.6%)	(88.2%)	(79.8%)	(83.4%)	(74.2%)	(79.4%)	(79.2%)
		59			184	90	69	103	91	353
Childcare	38 (8.0%)	(12.3%)	47 (9.9%)	40 (8.5%)	(9.7%)	(18.6%)	(14.3%)	(21.5%)	(18.8%)	(18.3%)
Non-household work	10 (2.1%)	9 (1.9%)	14 (2.9%)	3 (0.6%)	36 (1.9%)	8 (1.6%)	11 (2.3%)	20 (4.2%)	8 (1.6%)	47 (2.4%)
Other	1 (0.2%)	2 (0.4%)	0 (0.0%)	1 (0.2%)	4 (0.2%)	0 (0.0%)	0 (0.0%)	1 (0.2%)	1 (0.2%)	2 (0.1%)
Did you have to forego any earning because of the time spent for collecting transfer?										
Yes	5 (1.0%)	4 (0.8%)	8 (1.7%)	0 (0.0%)	17 (0.9%)	4 (0.8%)	1 (0.2%)	4 (0.8%)	4 (0.8%)	13 (0.7%)
	472	475	468	468	1883	481	480	476	481	1918
No	(99.0%)	(99.2%)	(98.3%)	(100.0%)	(99.1%)	(99.2%)	(99.8%)	(99.2%)	(99.2%)	(99.3%)
		20.4(11.5	19.8	21.9	21.0	21.5	21.4	23.0	22.2	22.0
Distance to distribution center (minutes)	21.8 (11.7)	)	(12.1)	(12.1)	(11.9)	(11.9)	(12.3)	(12.1)	(11.9)	(12.1)

*Note: Responses are from the primary female participant who reported on behalf of their households. The percentages represent the prevalence of each answer among respondents who participated in the respective question. The level of missing information varied slightly between survey questions. The number of respondents for each question can be inferred by the prevalence percentage and the total count of a specific response.

Table A3.2: Use of Transfers

	North					South				
	Cash-only	Food only	Food+Cash	BCC + Cash	Total	Cash-only	Food only	Food+Cash	BCC + Food	Total
How have you used the rice you received so far?										
Consumed entirely	–	434 (90.6%)	454 (95.4%)	–	888 (93.0%)	–	456 (94.8%)	471 (98.1%)	464 (95.7%)	1391 (96.2%)
Gave a portion to others willingly	–	10 (2.1%)	3 (0.6%)	–	13 (1.4%)	–	10 (2.1%)	5 (1.0%)	12 (2.5%)	27 (1.9%)
Sold a portion(s)	–	27 (5.6%)	10 (2.1%)	–	37 (3.9%)	–	11 (2.3%)	1 (0.2%)	2 (0.4%)	14 (1.0%)
Stored part of it for future	–	8 (1.7%)	9 (1.9%)	–	17 (1.8%)	–	3 (0.6%)	3 (0.6%)	6 (1.2%)	12 (0.8%)
Other	–	0 (0.0%)	0 (0.0%)	–	0 (0.0%)	–	0 (0.0%)	0 (0.0%)	1 (0.2%)	1 (0.1%)
N/a	–	0 (0.0%)	0 (0.0%)	–	0 (0.0%)		1 (0.2%)	0 (0.0%)	0 (0.0%)	1 (0.1%)
How have you used the dal you received so far?										
Consumed entirely	–	388 (81.0%)	433 (91.0%)	–	821 (86.0%)	–	437 (90.9%)	461 (96.0%)	441 (90.9%)	1339 (92.6%)
Gave a portion to others willingly	–	45 (9.4%)	24 (5.0%)	–	69 (7.2%)	–	23 (4.8%)	16 (3.3%)	25 (5.2%)	64 (4.4%)
Sold a portion(s)	–	28 (5.8%)	4 (0.8%)	–	32 (3.4%)	–	10 (2.1%)	2 (0.4%)	5 (1.0%)	17 (1.2%)
Stored part of it for future	–	15 (3.1%)	13 (2.7%)	–	28 (2.9%)	–	10 (2.1%)	1 (0.2%)	13 (2.7%)	24 (1.7%)
Other	–	3 (0.6%)	2 (0.4%)	–	5 (0.5%)	–	0 (0.0%)	0 (0.0%)	1 (0.2%)	1 (0.1%)
N/a		0 (0.0%)	0 (0.0%)	–	0 (0.0%)		1 (0.2%)	0 (0.0%)	0 (0.0%)	1 (0.1%)
How have you used the oil you received far?										
Consumed entirely	–	431 (90.0%)	453 (95.2%)	–	884 (92.6%)	–	463 (96.3%)	474 (98.8%)	468 (96.5%)	1405 (97.2%)
Gave a portion to others willingly	–	20 (4.2%)	9 (1.9%)	–	29 (3.0%)	–	5 (1.0%)	1 (0.2%)	7 (1.4%)	13 (0.9%)
Sold a portion(s)	–	17 (3.5%)	1 (0.2%)	–	18 (1.9%)	–	2 (0.4%)	0 (0.0%)	2 (0.4%)	4 (0.3%)
Stored part of it for future	–	10 (2.1%)	12 (2.5%)	–	22 (2.3%)	–	7 (1.5%)	3 (0.6%)	6 (1.2%)	16 (1.1%)
Other	–	0 (0.0%)	0 (0.0%)	–	0 (0.0%)	–	0 (0.0%)	0 (0.0%)	1 (0.2%)	1 (0.1%)
N/a	–	1 (0.2%)	1 (0.2%)	–	2 (0.2%)	–	4 (0.8%)	2 (0.4%)	1 (0.2%)	7 (0.5%)
Did you barter some ration you received last month? (rice)										

Yes	–	2 (0.4%)	0 (0.0%)	–	2 (0.2%)	–	2 (0.4%)	0 (0.0%)	1 (0.2%)	3 (0.2%)
No	–	477 (99.6%)	476 (100.0%)	–	953 (99.8%)	–	479 (99.6%)	480 (100.0%)	484 (99.8%)	1443 (99.8%)
Did you barter some ration you received last month? (dal)										
Yes	–	6 (1.3%)	0 (0.0%)	–	6 (0.6%)	–	2 (0.4%)	2 (0.4%)	0 (0.0%)	4 (0.3%)
No	–	473 (98.7%)	476 (100.0%)	–	949 (99.4%)	–	479 (99.6%)	478 (99.6%)	485 (100.0%)	1442 (99.7%)
Did you barter some ration you received last month? (oil)										
Yes	–	1 (0.2%)	0 (0.0%)	–	1 (0.1%)	–	1 (0.2%)	0 (0.0%)	0 (0.0%)	1 (0.1%)
No	–	478 (99.8%)	476 (100.0%)	–	954 (99.9%)	–	480 (99.8%)	480 (100.0%)	485 (100.0%)	1445 (99.9%)
How did you use the cash transfer you received last month?										
Spent for household consumption	309 (65.7%)	–	295(62.9%)	325 (69.6%)	929 (66.1%)	297 (61.9%))	–	290 (60.9%)	–	587 (61.4%)
Saved part of it	122 (26.0%)	–	113(24.1%)	159 (34.0%)	394 (28.0%)	154 (32.1%)	–	128 (26.9%)	–	282(29.5%)
Repaid earlier loan	62 (13.2%)	–	56(11.9%)	42 (9.0%)	160 (11.4%)	93 (19.4%)	–	81 (17.0%)	–	174(18.2%)
Used for housing repairing	44 (9.4%)	–	29(6.2%)	29 (6.2%)	102 (7.3%)	42 (8.8%)	–	24 (5.0%)	–	66(6.9%)
Used for children's education	35 (7.4%)	–	40(8.5%)	38 (8.1%)	113 (8.0%)	71 (14.8%)	–	60 (12.6%)	–	131(13.7%)
Health purpose	2 (0.4%)	–	0(0.0%)	1 (0.2%)	3 (0.2%)	4 (0.8%)	–	1 (0.2%)	–	5(0.5%)
Other purpose	193 (41.1%)	–	184(39.2%)	197 (42.2%)	574 (40.8%)	167 (34.8%)	–	158 (33.2%)	–	325(34.0%)
Who decided how to use the cash transfer you received last month ?										
Mother of the under 2 child	115 (24.7%)	–	126 (27.1%)	99 (21.3%)	340 (24.4%)	155 (32.7%)	–	191 (40.9%)	–	346 (36.8%)
Mother-in-law of the mother of the child	9 (1.9%)	–	19 (4.1%)	8 (1.7%)	36 (2.6%)	10 (2.1%)	–	22 (4.7%)	–	32 (3.4%)
Mother of the mother of the child	15 (3.2%)	–	6 (1.3%)	10 (2.2%)	31 (2.2%)	8 (1.7%)	–	6 (1.3%)	–	14 (1.5%)
Father of the child	62 (13.3%)	–	74 (15.9%)	57 (12.3%)	193 (13.8%)	98 (20.7%)	–	59 (12.6%)	–	157 (16.7%)
Others	11 (2.4%)	–	11 (2.4%)	13 (2.8%)	35 (2.5%)	18 (3.8%)	–	25 (5.4%)	–	43 (4.6%)
Both the father and mother of the child	253 (54.4%)	–	229 (49.2%)	277 (59.7%)	759 (54.4%)	185 (39.0%)	–	159 (34.0%)	–	344 (36.6%)
Did you or anybody in the household reduce or stop or switch jobs because of receiving the transfer?										

Yes, reduced	0 (0.0%)	6 (1.3%)	3 (0.6%)	1 (0.2%)	10 (0.5%)	0 (0.0%)	3 (0.6%)	0 (0.0%)	0 (0.0%)	3 (0.2%)
Yes, switched	1 (0.2%)	1 (0.2%)	2 (0.4%)	3 (0.6%)	7 (0.4%)	5 (1.0%)	10 (2.1%)	14 (2.9%)	14 (2.9%)	43 (2.2%)
	476		471	464	1883	480	468	466	471	1885
No	(99.8%)	472 (98.5%)	(98.9%)	(99.1%)	(99.1%)	(99.0%)	(97.3%)	(97.1%)	(97.1%)	(97.6%)

*Note: Responses are from the primary female participant who reported on behalf of their households. The percentages represent the prevalence of each answer among respondents who participated in the respective question. The level of missing information varied slightly between survey questions. The number of respondents for each question can be inferred by the prevalence percentage and the total count of a specific response.

Table A3.3: BCC Training

	North	South
	BCC + Cash	BCC+Food
Did you or anybody in the household reduce or stop or switch jobs because of the BCC trainings?		
Yes, reduced	1 (0.2%)	0 (0.0%)
Yes, switched	3 (0.6%)	14 (2.9%)
No	464 (99.1%)	471 (97.1%)
What would you have done if you did not have to come to training?		
Household chores	434 (92.7%)	386 (79.6%)
Childcare	31 (6.6%)	87 (17.9%)
Work outside of home	3 (0.6%)	12 (2.5%)
Who attended the training sessions in the beginning?		
Mother of the under-2 child	400 (85.5%)	391 (80.6%)
Mother-in-law of the child	58 (12.4%)	79 (16.3%)
Mother of the mother of the child	9 (1.9%)	13 (2.7%)
Father of the child	1 (0.2%)	0 (0.0%)
Other	0 (0.0%)	2 (0.4%)
Who attends the training sessions now (endline survey)?		
Mother of the under-2 child	451 (96.4%)	472 (97.3%)
Mother-in-law of the child	9 (1.9%)	7 (1.4%)
Mother of the mother of the child	5 (1.1%)	4 (0.8%)
Father of the child	1 (0.2%)	0 (0.0%)
Other	2 (0.4%)	2 (0.4%)
How many sessions did you attend? (average yearly attendance)		
Mean	48	49
Did you attend all of the BCC sessions?		
Yes	364 (77.8%)	307 (63.3%)

No	104 (22.2%)	178 (36.7%)
If not, why?		
Did not find it interesting	7 (6.7%)	4 (2.2%)
Did not understand the contents clearly	2 (1.9%)	2 (1.1%)
Did not think it is necessary	2 (1.9%)	0 (0.0%)
Due to illness	61 (58.7%)	109 (61.2%)
Did not know the session schedule	1 (1.0%)	
Due to work	12 (11.5%)	21 (11.8%)
Household chores	8 (7.7%)	20 (11.2%)
Other reason	11 (10.6%)	22 (12.4%)
If you missed a session, did the community nutrition worker come to your house?		
Yes	279 (82.1%)	391 (84.1%)
No	61 (17.9%)	74 (15.9%)
Did any other household member attend the training session apart from the primary female beneficiary?		
Yes	267 (57.1%)	292 (60.2%)
No	201 (42.9%)	193 (39.8%)
If yes, who else attended the sessions? (in relation to household head)		
Male household head	107 (42.6%)	61 (21.7%)
Female household head	2 (0.8%)	7 (2.5%)
Wife of household head	70 (27.9%)	77 (27.4%)
Son	16 (6.4%)	12 (4.3%)
Daughter	29 (11.6%)	58 (20.6%)
Son-in-law	0 (0.0%)	1 (0.4%)
Daughter-in-law	7 (2.8%)	8 (2.8%)
Grandson	0 (0.0%)	3 (1.1%)
Granddaughter	1 (0.4%)	2 (0.7%)
Father	0 (0.0%)	5 (1.8%)
Mother	17 (6.8%)	38 (13.5%)
Sister	0 (0.0%)	1 (0.4%)
Father-in-law	0 (0.0%)	1 (0.4%)
Mother-in-law	1 (0.4%)	6 (2.1%)
Sister-in-law	0 (0.0%)	1 (0.4%)
Other male relative	0 (0.0%)	0 (0.0%)
Other female relative	1 (0.4%)	0 (0.0%)
Have you ever passed on the information you learn at the training session to others?		
Yes	454 (97.0%)	478 (98.6%)

No	14 (3.0%)	7 (1.4%)

*Note: Responses are from the primary female participant who reported on behalf of their households. The percentages represent the prevalence of each answer among respondents who participated in the respective question. The level of missing information varied slightly between survey questions. The number of respondents for each question can be inferred by the prevalence percentage and the total count of a specific response

4. Regression Tables [3]

Table A4.1: Treatment Impacts on Caloric Intake, North

Simultaneous results for Men, Women, Boys, Girls
Number of obs = 8,353
(Std. Err. adjusted for 249 clusters in village)

	Coef.	Std.Err.	z	P>z	[95%Conf.	Interval]
Men						
Caloric intake, baseline	0.15	0.02	8.92	0.00	0.12	0.18
Modality type						
Cash	50.92	34.21	1.49	0.14	-16.12	117.97
Food	125.79	37.15	3.39	0.00	52.99	198.60
Food+Cash	106.21	39.43	2.69	0.01	28.92	183.49
BCC+Cash	315.23	38.24	8.24	0.00	240.29	390.17
Age, years (ln)	-204.25	36.54	-5.59	0.00	-275.86	-132.64
Household size (ln)	-170.07	47.88	-3.55	0.00	-263.91	-76.22
Education level of household head						
Completed preschool	-92.06	112.19	-0.82	0.41	-311.96	127.83
Completed some or all of primary school	-22.38	25.61	-0.87	0.38	-72.57	27.80
Completed some or all of secondary or post-secondary school	-58.61	44.78	-1.31	0.19	-146.37	29.15
Female headed household	-233.08	102.56	-2.27	0.02	-434.11	-32.06
Household owns land	81.40	32.33	2.52	0.01	18.03	144.76
Income, Taka (ln)	13.83	37.21	0.37	0.71	-59.11	86.77
Constant	3056.04	320.86	9.52	0.00	2427.17	3684.91
Women						
Caloric intake, baseline	0.13	0.01	9.84	0.00	0.11	0.16
Modality type						
Cash	46.61	31.52	1.48	0.14	-15.16	108.38

[3] Notes for all tables in Section 4: Regression tables do not show upazila fixed effects or log variance. Estimates are OLS, intent-to-treat, except for caloric shortfall regressions which are Tobit (lower limit =0, upper limit =1). All models adjust standard errors for clustering at the village level. Estimates are combined using seemingly unrelated regression (SUEST).

Food	131.37	29.04	4.52	0.00	74.45	188.28
Food+Cash	91.55	30.48	3.00	0.00	31.82	151.29
BCC+Cash	299.55	33.85	8.85	0.00	233.19	365.90
Age, years (ln)	-218.86	22.52	-9.72	0.00	-263.00	-174.73
Household size (ln)	-174.84	37.52	-4.66	0.00	-248.38	-101.30
Education level of household head						
Completed preschool	56.76	72.44	0.78	0.43	-85.22	198.75
Completed some or all of primary school	-28.19	19.69	-1.43	0.15	-66.77	10.40
Completed some or all of secondary or post-secondary school	-11.58	32.35	-0.36	0.72	-74.98	51.82
Female headed household	-10.56	36.62	-0.29	0.77	-82.34	61.22
Household owns land	63.65	22.75	2.80	0.01	19.06	108.24
Income, Taka (ln)	7.88	28.20	0.28	0.78	-47.38	63.14
Constant	2837.95	236.99	11.98	0.00	2373.46	3302.44
Boys						
Caloric intake, baseline	0.09	0.03	3.67	0.00	0.04	0.14
Modality type						
Cash	40.80	42.17	0.97	0.33	-41.85	123.46
Food	101.90	38.32	2.66	0.01	26.78	177.01
Food+Cash	21.60	39.30	0.55	0.58	-55.42	98.62
BCC+Cash	206.92	40.38	5.13	0.00	127.79	286.06
Age, years (ln)	624.39	31.02	20.13	0.00	563.58	685.19
Household size (ln)	-87.13	54.51	-1.60	0.11	-193.97	19.70
Education level of household head						
Completed preschool	-7.35	62.02	-0.12	0.91	-128.89	114.20
Completed some or all of primary school	-9.74	29.15	-0.33	0.74	-66.88	47.40
Completed some or all of secondary or post-secondary school	8.23	46.36	0.18	0.86	-82.64	99.10
Female headed household	84.78	52.96	1.60	0.11	-19.03	188.58
Household owns land	92.19	33.25	2.77	0.01	27.01	157.36

Income, Taka (ln)	10.22	39.32	0.26	0.80	-66.84	87.27
Constant	349.52	290.81	1.20	0.23	-220.46	919.51
Girls						
Caloric intake, baseline	0.07	0.02	3.15	0.00	0.03	0.12
Modality type						
Cash	1.02	31.72	0.03	0.97	-61.15	63.18
Food	81.95	29.78	2.75	0.01	23.58	140.33
Food+Cash	22.18	27.67	0.80	0.42	-32.06	76.41
BCC+Cash	250.28	35.52	7.05	0.00	180.67	319.89
Age, years (ln)	461.03	26.18	17.61	0.00	409.71	512.34
Household size (ln)	-34.30	43.36	-0.79	0.43	-119.28	50.68
Education level of household head						
Completed preschool	-86.44	47.44	-1.82	0.07	-179.43	6.55
Completed some or all of primary school	-5.68	27.15	-0.21	0.83	-58.90	47.53
Completed some or all of secondary or post-secondary school	5.96	37.36	0.16	0.87	-67.25	79.18
Female headed household	19.76	43.63	0.45	0.65	-65.75	105.27
Household owns land	-9.43	26.33	-0.36	0.72	-61.04	42.18
Income, Taka (ln)	90.54	35.46	2.55	0.01	21.05	160.04
Constant	-8.44	272.89	-0.03	0.97	-543.30	526.41

Table A4.2: Treatment Impacts on Caloric Intake, South

Simultaneous results for Men, Women, Boys, Girls

Number of obs = 9,377

(Std. Err. adjusted for 250 clusters in village)

	Coef.	Std.Err.	z	P>z	[95%Conf.	Interval]
Men						
Caloric intake, baseline	0.11	0.02	5.90	0.00	0.07	0.15
Modality type						
Cash	76.43	38.62	1.98	0.05	0.73	152.13
Food	40.65	36.47	1.11	0.27	-30.84	112.14
Food+Cash	77.44	37.84	2.05	0.04	3.28	151.60

BCC+Food	179.29	39.78	4.51	0.00	101.33	257.24
Age, years (ln)	-241.77	30.26	-7.99	0.00	-301.08	-182.46
Household size (ln)	-109.34	39.49	-2.77	0.01	-186.74	-31.94
Education level of household head						
Completed preschool	-23.67	99.07	-0.24	0.81	-217.84	170.51
Completed some or all of primary school	-46.70	26.72	-1.75	0.08	-99.07	5.67
Completed some or all of secondary or post-secondary school	-56.37	40.26	-1.40	0.16	-135.27	22.54
Female headed household	-23.23	71.39	-0.33	0.74	-163.14	116.68
Household owns land	49.31	28.66	1.72	0.09	-6.86	105.47
Income, Taka (ln)	13.20	38.78	0.34	0.73	-62.81	89.21
Constant	3288.08	312.82	10.51	0.00	2674.96	3901.20
Women						
Caloric intake, baseline	0.14	0.02	9.12	0.00	0.11	0.18
Modality type						
Cash	66.95	30.95	2.16	0.03	6.29	127.62
Food	43.73	30.18	1.45	0.15	-15.42	102.89
Food+Cash	59.99	31.93	1.88	0.06	-2.60	122.58
BCC+Food	150.88	32.40	4.66	0.00	87.38	214.38
Age, years (ln)	-214.21	18.66	-11.48	0.00	-250.78	-177.65
Household size (ln)	-90.87	33.54	-2.71	0.01	-156.62	-25.13
Education level of household head						
Completed preschool	20.50	54.34	0.38	0.71	-86.00	127.01
Completed some or all of primary school	6.75	19.53	0.35	0.73	-31.53	45.03
Completed some or all of secondary or post-secondary school	-14.10	26.89	-0.52	0.60	-66.81	38.62
Female headed household	5.02	30.13	0.17	0.87	-54.03	64.08

Household owns land	45.70	21.80	2.10	0.04	2.96	88.43
Income, Taka (ln)	7.62	28.10	0.27	0.79	-47.45	62.68
Constant	2672.61	228.64	11.69	0.00	2224.48	3120.73
Boys						
Caloric intake, baseline	0.11	0.02	4.53	0.00	0.06	0.15
Modality type						
Cash	38.50	42.88	0.90	0.37	-45.54	122.54
Food	1.65	37.76	0.04	0.96	-72.35	75.65
Food+Cash	8.55	37.57	0.23	0.82	-65.08	82.18
BCC+Food	103.45	43.73	2.37	0.02	17.74	189.16
Age, years (ln)	588.75	28.59	20.59	0.00	532.71	644.79
Household size (ln)	-92.13	44.44	-2.07	0.04	-179.23	-5.03
Education level of household head						
Completed preschool	-91.97	79.39	-1.16	0.25	-247.56	63.63
Completed some or all of primary school	-5.95	24.55	-0.24	0.81	-54.06	42.17
Completed some or all of secondary or post-secondary school	-5.48	48.27	-0.11	0.91	-100.08	89.12
Female headed household	-10.21	34.57	-0.30	0.77	-77.98	57.55
Household owns land	75.50	29.86	2.53	0.01	16.98	134.02
Income, Taka (ln)	49.49	42.28	1.17	0.24	-33.37	132.35
Constant	108.80	330.54	0.33	0.74	-539.03	756.64
Girls						
Caloric intake, baseline	0.13	0.02	5.43	0.00	0.08	0.17
Modality type						
Cash	55.03	35.32	1.56	0.12	-14.19	124.25
Food	30.07	29.93	1.00	0.32	-28.60	88.74
Food+Cash	21.19	35.49	0.60	0.55	-48.36	90.74
BCC+Food	123.83	35.07	3.53	0.00	55.08	192.57
Age, years (ln)	501.83	22.56	22.24	0.00	457.61	546.05
Household size (ln)	-94.10	42.76	-2.20	0.03	-177.90	-10.30

Education level of household head						
Completed preschool	-18.58	86.94	-0.21	0.83	-188.97	151.82
Completed some or all of primary school	0.76	23.50	0.03	0.97	-45.31	46.83
Completed some or all of secondary or post-secondary school	11.86	30.62	0.39	0.70	-48.15	71.87
Female headed household	32.58	34.39	0.95	0.34	-34.83	99.98
Household owns land	45.50	29.05	1.57	0.12	-11.43	102.43
Income, Taka (ln)	28.04	35.40	0.79	0.43	-41.34	97.42
Constant	344.16	262.12	1.31	0.19	-169.59	857.91

Table A4.3: Treatment Impacts on DDS, North

Simultaneous results for Men, Women, Boys, Girls

Number of obs = 8,353

(Std. Err. adjusted for 249 clusters in village)

	Coef.	Std.Err.	z	P>z	[95%Conf.	Interval]
Men						
DDS, baseline	0.08	0.02	3.37	0.00	0.03	0.13
Modality type						
Cash	0.26	0.08	3.30	0.00	0.11	0.42
Food	0.29	0.08	3.81	0.00	0.14	0.44
Food+Cash	0.27	0.09	3.15	0.00	0.10	0.45
BCC+Cash	1.28	0.10	13.44	0.00	1.10	1.47
Age, years (ln)	0.05	0.06	0.84	0.40	-0.07	0.17
Household size (ln)	0.03	0.10	0.33	0.74	-0.16	0.22
Education level of household head						
Completed preschool	-0.38	0.16	-2.43	0.01	-0.69	-0.08
Completed some or all of primary school	-0.00	0.05	-0.03	0.97	-0.11	0.11
Completed some or all of secondary or post-secondary school	0.02	0.09	0.20	0.84	-0.15	0.18

Female headed household	0.07	0.19	0.35	0.72	-0.31	0.45
Household owns land	0.02	0.07	0.32	0.75	-0.11	0.16
Income, Taka (ln)	0.41	0.08	4.98	0.00	0.25	0.58
Constant	0.78	0.67	1.17	0.24	-0.53	2.10
Women						
DDS, baseline	0.08	0.02	4.46	0.00	0.05	0.12
Modality type						
Cash	0.24	0.07	3.29	0.00	0.10	0.39
Food	0.25	0.07	3.59	0.00	0.12	0.39
Food+Cash	0.22	0.08	2.75	0.01	0.06	0.38
BCC+Cash	1.32	0.09	14.84	0.00	1.14	1.49
Age, years (ln)	-0.01	0.04	-0.14	0.89	-0.09	0.08
Household size (ln)	-0.01	0.07	-0.09	0.93	-0.15	0.13
Education level of household head						
Completed preschool	-0.13	0.17	-0.80	0.42	-0.46	0.19
Completed some or all of primary school	0.01	0.05	0.26	0.79	-0.08	0.11
Completed some or all of secondary or post-secondary school	0.03	0.07	0.43	0.67	-0.11	0.17
Female headed household	0.03	0.07	0.43	0.67	-0.11	0.17
Household owns land	0.01	0.06	0.08	0.93	-0.12	0.13
Income, Taka (ln)	0.40	0.07	5.95	0.00	0.27	0.54
Constant	0.95	0.53	1.79	0.07	-0.09	1.98
Boys						
DDS, baseline	0.04	0.03	1.41	0.16	-0.02	0.10
Modality type						
Cash	0.33	0.09	3.54	0.00	0.15	0.51
Food	0.36	0.12	3.14	0.00	0.14	0.59
Food+Cash	0.16	0.09	1.68	0.09	-0.03	0.34
BCC+Cash	1.23	0.13	9.36	0.00	0.98	1.49
Age, years (ln)	0.27	0.06	4.42	0.00	0.15	0.38
Household size (ln)	-0.22	0.12	-1.74	0.08	-0.46	0.03

Education level of household head						
Completed preschool	-0.10	0.22	-0.48	0.63	-0.53	0.32
Completed some or all of primary school	-0.07	0.08	-0.90	0.37	-0.23	0.09
Completed some or all of secondary or post-secondary school	0.14	0.12	1.16	0.25	-0.10	0.39
Female headed household	0.00	0.11	0.02	0.98	-0.21	0.22
Household owns land	0.05	0.08	0.59	0.56	-0.11	0.20
Income, Taka (ln)	0.60	0.10	6.08	0.00	0.40	0.79
Constant	-0.74	0.74	-0.99	0.32	-2.20	0.72
Girls						
DDS, baseline	0.07	0.03	2.23	0.03	0.01	0.12
Modality type						
Cash	0.25	0.09	2.72	0.01	0.07	0.43
Food	0.33	0.09	3.87	0.00	0.16	0.50
Food+Cash	0.23	0.10	2.36	0.02	0.04	0.41
BCC+Cash	1.50	0.10	14.77	0.00	1.30	1.70
Age, years (ln)	0.09	0.06	1.49	0.14	-0.03	0.20
Household size (ln)	-0.10	0.13	-0.79	0.43	-0.36	0.16
Education level of household head						
Completed preschool	-0.23	0.21	-1.09	0.28	-0.65	0.19
Completed some or all of primary school	0.09	0.08	1.08	0.28	-0.07	0.24
Completed some or all of secondary or post-secondary school	0.25	0.11	2.28	0.02	0.04	0.47
Female headed household	0.02	0.11	0.18	0.86	-0.19	0.23
Household owns land	-0.05	0.07	-0.73	0.46	-0.20	0.09
Income, Taka (ln)	0.55	0.10	5.39	0.00	0.35	0.75
Constant	-0.49	0.79	-0.62	0.53	-2.03	1.05

Table A4.4: Treatment Impacts on DDS, South

Simultaneous results for Men, Women, Boys, Girls

Number of obs = 9,377

(Std. Err. adjusted for 250 clusters in village)

	Coef.	Std.Err.	z	P>z	[95%Conf.	Interval]
Men						
DDS, baseline	0.09	0.02	4.33	0.00	0.05	0.13
Modality type						
Cash	0.15	0.08	2.04	0.04	0.01	0.30
Food	0.22	0.08	2.69	0.01	0.06	0.38
Food+Cash	0.15	0.08	1.91	0.06	-0.00	0.31
BCC+Food	0.80	0.08	9.57	0.00	0.63	0.96
Age, years (ln)	0.01	0.06	0.24	0.81	-0.10	0.12
Household size (ln)	-0.05	0.09	-0.59	0.55	-0.22	0.12
Education level of household head						
Completed preschool	0.03	0.19	0.15	0.88	-0.35	0.41
Completed some or all of primary school	0.02	0.05	0.38	0.70	-0.08	0.12
Completed some or all of secondary or post-secondary school	-0.02	0.07	-0.23	0.82	-0.16	0.12
Female headed household	-0.17	0.14	-1.18	0.24	-0.44	0.11
Household owns land	0.07	0.06	1.27	0.20	-0.04	0.19
Income, Taka (ln)	0.15	0.07	2.12	0.03	0.01	0.29
Constant	2.76	0.56	4.92	0.00	1.66	3.85
Women						
DDS, baseline	0.11	0.02	5.91	0.00	0.07	0.14
Modality type						
Cash	0.11	0.07	1.60	0.11	-0.02	0.24
Food	0.14	0.07	2.12	0.03	0.01	0.27
Food+Cash	0.14	0.06	2.16	0.03	0.01	0.27
BCC+Food	0.72	0.07	10.63	0.00	0.59	0.85
Age, years (ln)	0.06	0.04	1.39	0.17	-0.02	0.14
Household size (ln)	0.00	0.08	0.01	1.00	-0.16	0.16

Education level of household head						
Completed preschool	0.16	0.17	0.95	0.34	-0.17	0.49
Completed some or all of primary school	0.04	0.04	0.93	0.35	-0.04	0.12
Completed some or all of secondary or post-secondary school	0.04	0.06	0.60	0.55	-0.09	0.16
Female headed household	0.04	0.08	0.59	0.55	-0.10	0.19
Household owns land	0.10	0.05	1.77	0.08	-0.01	0.20
Income, Taka (ln)	0.20	0.07	2.99	0.00	0.07	0.32
Constant	1.99	0.53	3.75	0.00	0.95	3.04
Boys						
DDS, baseline	0.11	0.02	4.53	0.00	0.06	0.16
Modality type						
Cash	0.10	0.11	0.91	0.36	-0.11	0.30
Food	0.17	0.10	1.80	0.07	-0.02	0.36
Food+Cash	0.11	0.09	1.19	0.23	-0.07	0.30
BCC+Food	0.74	0.12	6.03	0.00	0.50	0.98
Age, years (ln)	0.40	0.06	6.64	0.00	0.28	0.52
Household size (ln)	-0.10	0.14	-0.69	0.49	-0.38	0.18
Education level of household head						
Completed preschool	0.27	0.20	1.36	0.17	-0.12	0.67
Completed some or all of primary school	0.11	0.08	1.47	0.14	-0.04	0.26
Completed some or all of secondary or post-secondary school	0.08	0.12	0.67	0.50	-0.16	0.32
Female headed household	0.04	0.10	0.37	0.71	-0.15	0.22
Household owns land	0.17	0.08	2.06	0.04	0.01	0.33
Income, Taka (ln)	0.23	0.13	1.80	0.07	-0.02	0.47
Constant	1.09	0.94	1.16	0.24	-0.75	2.94

Girls						
DDS, baseline	0.08	0.03	2.97	0.00	0.03	0.13
Modality type						
Cash	0.07	0.10	0.69	0.49	-0.12	0.26
Food	0.14	0.11	1.31	0.19	-0.07	0.35
Food+Cash	0.11	0.11	1.01	0.31	-0.10	0.32
BCC+Food	0.83	0.12	6.84	0.00	0.60	1.07
Age, years (ln)	0.31	0.05	5.70	0.00	0.20	0.41
Household size (ln)	-0.12	0.14	-0.88	0.38	-0.40	0.15
Education level of household head						
Completed preschool	0.11	0.26	0.42	0.67	-0.39	0.61
Completed some or all of primary school	0.11	0.07	1.73	0.09	-0.02	0.24
Completed some or all of secondary or post-secondary school	0.10	0.09	1.09	0.28	-0.08	0.28
Female headed household	0.10	0.10	0.99	0.32	-0.10	0.29
Household owns land	0.17	0.08	1.97	0.05	0.00	0.33
Income, Taka (ln)	0.42	0.10	4.18	0.00	0.22	0.61
Constant	0.05	0.80	0.07	0.95	-1.52	1.62

Table A4.5: Treatment Impacts on GDQS, North

Simultaneous results for Men, Women

Number of obs = 5,368

(Std. Err. adjusted for 249 clusters in village)

	Coef.	Std.Err.	z	P>z	[95%Conf.	Interval]
Men						
GDQS, baseline	0.10	0.02	4.85	0.00	0.06	0.14
Modality type						
Cash	0.56	0.17	3.40	0.00	0.24	0.89
Food	0.91	0.17	5.29	0.00	0.57	1.25
Food+Cash	0.55	0.18	3.10	0.00	0.20	0.90
BCC+Cash	2.98	0.22	13.34	0.00	2.55	3.42
Age, years (ln)	-0.08	0.16	-0.48	0.63	-0.38	0.23

Household size (ln)	0.45	0.24	1.90	0.06	-0.02	0.92
Education level of household head						
Completed preschool	-0.53	0.34	-1.55	0.12	-1.19	0.14
Completed some or all of primary school	-0.04	0.14	-0.30	0.77	-0.31	0.22
Completed some or all of secondary or post-secondary school	-0.07	0.20	-0.36	0.72	-0.47	0.32
Female headed household	-0.15	0.58	-0.26	0.80	-1.29	0.99
Household owns land	-0.06	0.17	-0.36	0.72	-0.38	0.27
Income, Taka (ln)	1.03	0.18	5.58	0.00	0.67	1.39
Constant	-1.66	1.55	-1.07	0.28	-4.70	1.38
Women						
GDQS, baseline	0.08	0.02	4.09	0.00	0.04	0.12
Modality type						
Cash	0.48	0.16	3.09	0.00	0.17	0.78
Food	0.75	0.16	4.82	0.00	0.45	1.06
Food+Cash	0.42	0.15	2.75	0.01	0.12	0.72
BCC+Cash	3.02	0.20	15.16	0.00	2.63	3.41
Age, years (ln)	-0.14	0.10	-1.37	0.17	-0.35	0.06
Household size (ln)	0.35	0.19	1.81	0.07	-0.03	0.73
Education level of household head						
Completed preschool	-0.40	0.35	-1.15	0.25	-1.09	0.28
Completed some or all of primary school	0.08	0.12	0.68	0.49	-0.16	0.32
Completed some or all of secondary or post-secondary school	0.22	0.17	1.26	0.21	-0.12	0.55
Female headed household	0.07	0.17	0.40	0.69	-0.27	0.41
Household owns land	0.02	0.14	0.15	0.88	-0.25	0.30

Income, Taka (ln)	0.78	0.15	5.13	0.00	0.48	1.08
Constant	0.06	1.20	0.05	0.96	-2.29	2.42

Table A4.6: Treatment Impacts on GDQS, South

Simultaneous results for Men, Women

Number of obs = 5,872

(Std. Err. adjusted for 250 clusters in village)

	Coef.	Std.Err.	z	P>z	[95%Conf.	Interval]
Men						
GDQS, baseline	0.11	0.02	5.21	0.00	0.07	0.15
Modality type						
Cash	0.41	0.17	2.45	0.01	0.08	0.74
Food	0.26	0.19	1.38	0.17	-0.11	0.62
Food+Cash	0.25	0.18	1.42	0.16	-0.09	0.59
BCC+Food	1.72	0.21	8.14	0.00	1.31	2.13
Age, years (ln)	-0.11	0.13	-0.82	0.41	-0.37	0.15
Household size (ln)	0.08	0.22	0.39	0.70	-0.34	0.51
Education level of household head						
Completed preschool	0.00	0.49	0.01	0.99	-0.96	0.97
Completed some or all of primary school	0.02	0.12	0.17	0.87	-0.21	0.25
Completed some or all of secondary or post-secondary school	-0.01	0.18	-0.04	0.97	-0.35	0.34
Female headed household	-0.18	0.34	-0.54	0.59	-0.84	0.48
Household owns land	0.23	0.15	1.50	0.14	-0.07	0.53
Income, Taka (ln)	0.16	0.18	0.85	0.39	-0.20	0.52
Constant	5.52	1.45	3.82	0.00	2.69	8.36
Women						
GDQS, baseline	0.11	0.02	5.48	0.00	0.07	0.15
Modality type						
Cash	0.25	0.15	1.75	0.08	-0.03	0.54
Food	0.17	0.16	1.12	0.27	-0.13	0.48
Food+Cash	0.19	0.16	1.19	0.24	-0.12	0.50
BCC+Food	1.60	0.16	9.91	0.00	1.28	1.92
Age, years (ln)	-0.15	0.10	-1.55	0.12	-0.35	0.04

Household size (ln)	0.16	0.17	0.95	0.34	-0.18	0.50
Education level of household head						
Completed preschool	-0.19	0.43	-0.45	0.65	-1.04	0.65
Completed some or all of primary school	0.13	0.10	1.26	0.21	-0.07	0.33
Completed some or all of secondary or post-secondary school	0.04	0.14	0.31	0.76	-0.24	0.33
Female headed household	0.09	0.18	0.50	0.62	-0.26	0.44
Household owns land	0.36	0.13	2.75	0.01	0.10	0.62
Income, Taka (ln)	0.29	0.16	1.81	0.07	-0.02	0.61
Constant	4.24	1.27	3.34	0.00	1.75	6.73

Table A4.7: Treatment Impacts on CAR, North

Simultaneous results for Men, Women, Boys, Girls

Number of obs = 8,353

(Std. Err. adjusted for 249 clusters in village)

	Coef.	Std.Err.	z	P>z	[95%Conf.	Interval]
Men						
CAR, baseline	0.20	0.02	11.56	0.00	0.16	0.23
Modality type						
Cash	0.02	0.01	1.73	0.08	-0.00	0.05
Food	0.05	0.01	3.36	0.00	0.02	0.07
Food+Cash	0.03	0.01	2.25	0.03	0.00	0.06
BCC+Cash	0.10	0.01	7.11	0.00	0.07	0.13
Age, years (ln)	0.02	0.01	1.15	0.25	-0.01	0.04
Household size (ln)	-0.00	0.02	-0.06	0.95	-0.04	0.03
Education level of household head						
Completed preschool	-0.03	0.04	-0.95	0.34	-0.10	0.04
Completed some or all of primary school	0.00	0.01	0.42	0.68	-0.01	0.02
Completed some or all of	-0.01	0.01	-0.78	0.43	-0.04	0.02

secondary or post-secondary school						
Female headed household	0.00	0.05	0.04	0.96	-0.09	0.10
Household owns land	0.02	0.01	1.70	0.09	-0.00	0.04
Income, Taka (ln)	0.04	0.01	3.15	0.00	0.02	0.07
Constant	0.32	0.11	2.80	0.01	0.09	0.54
Women						
CAR, baseline	0.13	0.02	7.97	0.00	0.10	0.17
Modality type						
Cash	0.01	0.02	0.73	0.47	-0.02	0.04
Food	0.06	0.01	4.17	0.00	0.03	0.09
Food+Cash	0.02	0.02	1.34	0.18	-0.01	0.05
BCC+Cash	0.10	0.02	5.93	0.00	0.07	0.14
Age, years (ln)	-0.03	0.01	-2.56	0.01	-0.06	-0.01
Household size (ln)	-0.06	0.02	-3.23	0.00	-0.10	-0.02
Education level of household head						
Completed preschool	0.01	0.03	0.34	0.74	-0.05	0.07
Completed some or all of primary school	-0.00	0.01	-0.16	0.87	-0.02	0.02
Completed some or all of secondary or post-secondary school	0.01	0.02	0.34	0.73	-0.03	0.04
Female headed household	-0.02	0.02	-1.06	0.29	-0.06	0.02
Household owns land	0.02	0.01	2.09	0.04	0.00	0.04
Income, Taka (ln)	0.00	0.01	0.31	0.76	-0.02	0.03
Constant	0.97	0.10	9.32	0.00	0.77	1.17
Boys						
CAR, baseline	0.07	0.02	2.98	0.00	0.02	0.12
Modality type						
Cash	0.03	0.02	1.54	0.12	-0.01	0.07
Food	0.06	0.02	2.88	0.00	0.02	0.09
Food+Cash	0.01	0.02	0.56	0.58	-0.03	0.05
BCC+Cash	0.11	0.02	5.39	0.00	0.07	0.15

Age, years (ln)	-0.05	0.01	-4.01	0.00	-0.07	-0.03
Household size (ln)	-0.05	0.03	-1.98	0.05	-0.11	-0.00
Education level of household head						
Completed preschool	-0.01	0.03	-0.31	0.75	-0.07	0.05
Completed some or all of primary school	0.00	0.02	0.30	0.77	-0.03	0.03
Completed some or all of secondary or post-secondary school	0.01	0.02	0.24	0.81	-0.04	0.05
Female headed household	0.03	0.03	1.24	0.21	-0.02	0.08
Household owns land	0.04	0.02	2.64	0.01	0.01	0.07
Income, Taka (ln)	0.01	0.02	0.77	0.44	-0.02	0.05
Constant	0.86	0.14	6.11	0.00	0.58	1.14
Girls						
CAR, baseline	0.05	0.02	2.33	0.02	0.01	0.09
Modality type						
Cash	-0.00	0.02	-0.10	0.92	-0.04	0.03
Food	0.04	0.02	2.37	0.02	0.01	0.07
Food+Cash	0.02	0.02	1.09	0.28	-0.01	0.05
BCC+Cash	0.14	0.02	7.01	0.00	0.10	0.18
Age, years (ln)	-0.05	0.01	-3.93	0.00	-0.08	-0.03
Household size (ln)	-0.02	0.02	-0.85	0.40	-0.07	0.03
Education level of household head						
Completed preschool	-0.06	0.03	-2.29	0.02	-0.11	-0.01
Completed some or all of primary school	-0.00	0.02	-0.20	0.84	-0.03	0.03
Completed some or all of secondary or post-secondary school	0.00	0.02	0.13	0.90	-0.04	0.04
Female headed household	0.02	0.02	0.84	0.40	-0.03	0.07

Household owns land	0.00	0.01	0.05	0.96	-0.03	0.03
Income, Taka (ln)	0.05	0.02	2.32	0.02	0.01	0.08
Constant	0.66	0.15	4.26	0.00	0.36	0.96

Table A4.8: Treatment Impacts on CAR, South

Treatment Impacts on CAR, South

Simultaneous results for men, women, boys, girls

Number of obs = 9,377

(Std. Err. adjusted for 250 clusters in village)

	Coef.	Robust Std.Err.	z	P>z	[95%Conf.	Interval]
Men						
CAR, baseline	0.17	0.02	9.59	0.00	0.13	0.20
Modality type						
Cash	0.03	0.01	2.25	0.02	0.00	0.06
Food	0.02	0.01	1.13	0.26	-0.01	0.05
Food+Cash	0.05	0.02	2.94	0.00	0.02	0.08
BCC+Cash	0.08	0.02	4.84	0.00	0.05	0.11
Age, years (ln)	0.04	0.01	2.92	0.00	0.01	0.07
Household size (ln)	0.02	0.01	1.06	0.29	-0.01	0.05
Education level of household head						
Completed preschool	0.02	0.05	0.43	0.67	-0.08	0.12
Completed some or all of primary school	0.02	0.01	1.44	0.15	-0.01	0.04
Completed some or all of secondary or post-secondary school	0.02	0.02	1.15	0.25	-0.01	0.05
Female headed household	0.05	0.03	1.65	0.10	-0.01	0.11
Household owns land	-0.00	0.01	-0.18	0.85	-0.03	0.02
Income, Taka (ln)	0.02	0.02	1.27	0.20	-0.01	0.05
Constant	0.44	0.13	3.48	0.00	0.19	0.69
Women						
CAR, baseline	0.13	0.02	7.07	0.00	0.09	0.16
Modality type						
Cash	0.03	0.01	2.20	0.03	0.00	0.06
Food	0.02	0.01	1.20	0.23	-0.01	0.04

Food+Cash	0.02	0.02	1.04	0.30	-0.01	0.05
BCC+Cash	0.06	0.02	3.84	0.00	0.03	0.09
Age, years (ln)	-0.00	0.01	-0.29	0.77	-0.03	0.02
Household size (ln)	-0.02	0.02	-1.16	0.25	-0.05	0.01
Education level of household head						
Completed preschool	0.01	0.03	0.31	0.76	-0.05	0.07
Completed some or all of primary school	0.01	0.01	1.33	0.18	-0.01	0.03
Completed some or all of secondary or post-secondary school	0.01	0.01	0.41	0.69	-0.02	0.03
Female headed household	0.00	0.02	0.20	0.84	-0.03	0.03
Household owns land	0.01	0.01	1.29	0.20	-0.01	0.03
Income, Taka (ln)	0.03	0.01	2.39	0.02	0.01	0.06
Constant	0.63	0.11	5.61	0.00	0.41	0.85
Boys						
CAR, baseline	0.09	0.02	3.85	0.00	0.04	0.13
Modality type						
Cash	0.01	0.02	0.38	0.71	-0.03	0.05
Food	-0.00	0.02	-0.23	0.82	-0.04	0.03
Food+Cash	-0.00	0.02	-0.03	0.98	-0.04	0.04
BCC+Cash	0.05	0.02	2.30	0.02	0.01	0.09
Age, years (ln)	-0.08	0.01	-7.21	0.00	-0.10	-0.06
Household size (ln)	-0.06	0.02	-2.81	0.01	-0.11	-0.02
Education level of household head						
Completed preschool	-0.04	0.04	-0.98	0.33	-0.13	0.04
Completed some or all of primary school	-0.00	0.01	-0.05	0.96	-0.03	0.02
Completed some or all of secondary or post-secondary school	0.00	0.02	0.11	0.91	-0.04	0.05
Female headed household	-0.01	0.02	-0.36	0.72	-0.04	0.03

Household owns land	0.04	0.01	2.52	0.01	0.01	0.07
Income, Taka (ln)	0.03	0.02	1.34	0.18	-0.01	0.07
Constant	0.83	0.16	5.24	0.00	0.52	1.14
Girls						
CAR, baseline	0.10	0.02	4.84	0.00	0.06	0.14
Modality type						
Cash	0.03	0.02	1.73	0.08	-0.00	0.07
Food	0.02	0.02	0.96	0.34	-0.02	0.05
Food+Cash	0.02	0.02	1.04	0.30	-0.02	0.06
BCC+Cash	0.08	0.02	3.88	0.00	0.04	0.12
Age, years (ln)	-0.01	0.01	-0.81	0.42	-0.03	0.01
Household size (ln)	-0.06	0.03	-2.34	0.02	-0.11	-0.01
Education level of household head						
Completed preschool	-0.00	0.05	-0.01	0.99	-0.09	0.09
Completed some or all of primary school	0.00	0.01	0.06	0.96	-0.03	0.03
Completed some or all of secondary or post-secondary school	0.01	0.02	0.53	0.59	-0.02	0.04
Female headed household	0.01	0.02	0.63	0.53	-0.03	0.05
Household owns land	0.03	0.02	1.85	0.06	-0.00	0.06
Income, Taka (ln)	0.02	0.02	1.27	0.20	-0.01	0.06
Constant	0.73	0.14	5.05	0.00	0.45	1.01

Table A4.9: Treatment Impacts on Caloric Shortfall, North

Simultaneous results for Men, Women, Boys, Girls

Number of obs = 8,353

(Std. Err. adjusted for 249 clusters in village)

	Coef.	Std.Err.	z	P>z	[95%Conf.	Interval]
Men						
Caloric shortfall, baseline	0.18	0.02	9.55	0.00	0.14	0.22
Modality type						

Cash	-0.01	0.01	-1.15	0.25	-0.03	0.01
Food	-0.03	0.01	-2.85	0.00	-0.05	-0.01
Food+Cash	-0.02	0.01	-2.08	0.04	-0.04	-0.00
BCC+Cash	-0.07	0.01	-6.70	0.00	-0.09	-0.05
Age, years (ln)	-0.01	0.01	-0.90	0.37	-0.03	0.01
Household size (ln)	0.00	0.01	0.20	0.84	-0.02	0.03
Education level of household head						
Completed preschool	0.04	0.03	1.34	0.18	-0.02	0.09
Completed some or all of primary school	-0.00	0.01	-0.67	0.50	-0.02	0.01
Completed some or all of secondary or post-secondary school	-0.01	0.01	-0.47	0.64	-0.03	0.02
Female headed household	0.01	0.03	0.30	0.76	-0.05	0.07
Household owns land	-0.01	0.01	-1.33	0.18	-0.03	0.01
Income, Taka (ln)	-0.03	0.01	-2.83	0.01	-0.05	-0.01
Constant	0.39	0.09	4.44	0.00	0.22	0.56
Women						
Caloric shortfall, baseline	0.11	0.02	7.14	0.00	0.08	0.15
Modality type						
Cash	-0.00	0.01	-0.15	0.88	-0.02	0.02
Food	-0.04	0.01	-3.91	0.00	-0.06	-0.02
Food+Cash	-0.01	0.01	-0.98	0.33	-0.03	0.01
BCC+Cash	-0.06	0.01	-5.49	0.00	-0.08	-0.04
Age, years (ln)	0.02	0.01	1.77	0.08	-0.00	0.03
Household size (ln)	0.04	0.01	3.23	0.00	0.02	0.07
Education level of household head						
Completed preschool	0.00	0.02	0.05	0.96	-0.05	0.05
Completed some or all of primary school	0.00	0.01	0.16	0.87	-0.01	0.02
Completed some or all of secondary or post-secondary school	0.00	0.01	0.07	0.94	-0.02	0.02

Female headed household	0.01	0.01	0.78	0.43	-0.02	0.04
Household owns land	-0.01	0.01	-1.94	0.05	-0.03	0.00
Income, Taka (ln)	-0.01	0.01	-1.60	0.11	-0.03	0.00
Constant	0.11	0.07	1.53	0.12	-0.03	0.25
Boys						
Caloric shortfall, baseline	0.06	0.02	2.76	0.01	0.02	0.10
Modality type						
Cash	-0.02	0.02	-1.51	0.13	-0.06	0.01
Food	-0.04	0.01	-2.81	0.01	-0.07	-0.01
Food+Cash	-0.01	0.02	-0.61	0.54	-0.04	0.02
BCC+Cash	-0.07	0.02	-4.92	0.00	-0.10	-0.04
Age, years (ln)	0.02	0.01	2.69	0.01	0.01	0.04
Household size (ln)	0.04	0.02	1.70	0.09	-0.01	0.08
Education level of household head						
Completed preschool	-0.01	0.03	-0.36	0.72	-0.07	0.05
Completed some or all of primary school	-0.00	0.01	-0.36	0.71	-0.03	0.02
Completed some or all of secondary or post-secondary school	0.01	0.02	0.34	0.73	-0.03	0.04
Female headed household	-0.02	0.02	-1.21	0.23	-0.06	0.01
Household owns land	-0.03	0.01	-2.70	0.01	-0.05	-0.01
Income, Taka (ln)	-0.01	0.02	-0.75	0.45	-0.04	0.02
Constant	0.16	0.11	1.44	0.15	-0.06	0.38
Girls						
Caloric shortfall, baseline	0.05	0.02	2.34	0.02	0.01	0.10
Modality type						
Cash	0.01	0.01	0.49	0.62	-0.02	0.03
Food	-0.03	0.01	-2.05	0.04	-0.05	-0.00
Food+Cash	-0.00	0.01	-0.25	0.80	-0.03	0.02

BCC+Cash	-0.08	0.01	-5.60	0.00	-0.11	-0.05
Age, years (ln)	0.02	0.01	2.11	0.04	0.00	0.04
Household size (ln)	-0.01	0.02	-0.67	0.51	-0.05	0.03
Education level of household head						
Completed preschool	0.04	0.02	1.64	0.10	-0.01	0.08
Completed some or all of primary school	0.00	0.01	0.42	0.68	-0.02	0.03
Completed some or all of secondary or post-secondary school	0.00	0.02	0.13	0.90	-0.03	0.03
Female headed household	-0.03	0.02	-1.37	0.17	-0.06	0.01
Household owns land	-0.00	0.01	-0.43	0.67	-0.03	0.02
Income, Taka (ln)	-0.03	0.01	-2.25	0.02	-0.06	-0.00
Constant	0.36	0.11	3.12	0.00	0.13	0.58

Table A4.10: Treatment Impacts on Caloric Shortfall, South

Simultaneous results for Men, Women, Boys, Girls

Number of obs = 9,377

(Std. Err. adjusted for 250 clusters in village)

	Coef.	Std.Err.	z	P>z	[95%Conf.	Interval]
Men						
Caloric shortfall, baseline	0.13	0.02	5.66	0.00	0.09	0.18
Modality type						
Cash	-0.02	0.01	-2.16	0.03	-0.05	-0.00
Food	-0.02	0.01	-1.64	0.10	-0.04	0.00
Food+Cash	-0.03	0.01	-2.57	0.01	-0.05	-0.01
BCC+Food	-0.06	0.01	-4.94	0.00	-0.08	-0.03
Age, years (ln)	-0.02	0.01	-1.65	0.10	-0.04	0.00
Household size (ln)	-0.01	0.01	-1.28	0.20	-0.04	0.01
Education level of household head						
Completed preschool	0.00	0.04	0.08	0.93	-0.07	0.08
Completed some or all of primary school	-0.01	0.01	-1.16	0.25	-0.02	0.01

Completed some or all of secondary or post-secondary school	-0.02	0.01	-1.49	0.14	-0.04	0.01
Female headed household	-0.04	0.02	-1.62	0.11	-0.08	0.01
Household owns land	0.00	0.01	0.25	0.80	-0.01	0.02
Income, Taka (ln)	-0.03	0.01	-2.32	0.02	-0.05	-0.00
Constant	0.40	0.09	4.45	0.00	0.22	0.57
Women						
Caloric shortfall, baseline	0.12	0.02	6.70	0.00	0.08	0.15
Modality type						
Cash	-0.03	0.01	-3.13	0.00	-0.05	-0.01
Food	-0.02	0.01	-2.34	0.02	-0.03	-0.00
Food+Cash	-0.01	0.01	-1.09	0.28	-0.03	0.01
BCC+Food	-0.04	0.01	-3.99	0.00	-0.06	-0.02
Age, years (ln)	0.00	0.01	0.42	0.67	-0.01	0.02
Household size (ln)	0.00	0.01	0.15	0.88	-0.02	0.02
Education level of household head						
Completed preschool	-0.00	0.02	-0.06	0.95	-0.04	0.04
Completed some or all of primary school	-0.00	0.01	-0.68	0.49	-0.02	0.01
Completed some or all of secondary or post-secondary school	-0.00	0.01	-0.26	0.80	-0.02	0.01
Female headed household	-0.00	0.01	-0.12	0.90	-0.02	0.02
Household owns land	-0.01	0.01	-1.12	0.26	-0.02	0.01
Income, Taka (ln)	-0.04	0.01	-3.91	0.00	-0.05	-0.02
Constant	0.36	0.08	4.69	0.00	0.21	0.50
Boys						
Caloric shortfall, baseline	0.11	0.02	4.88	0.00	0.06	0.15

Modality type						
Cash	-0.00	0.02	-0.29	0.77	-0.03	0.03
Food	0.00	0.01	0.10	0.92	-0.03	0.03
Food+Cash	0.01	0.01	0.55	0.58	-0.02	0.03
BCC+Food	-0.03	0.02	-1.93	0.05	-0.06	0.00
Age, years (ln)	0.04	0.01	5.16	0.00	0.03	0.06
Household size (ln)	0.03	0.02	1.83	0.07	-0.00	0.06
Education level of household head						
Completed preschool	0.03	0.04	0.92	0.36	-0.04	0.10
Completed some or all of primary school	-0.00	0.01	-0.15	0.88	-0.02	0.02
Completed some or all of secondary or post-secondary school	-0.00	0.02	-0.23	0.81	-0.04	0.03
Female headed household	-0.00	0.01	-0.01	0.99	-0.03	0.03
Household owns land	-0.02	0.01	-2.07	0.04	-0.04	-0.00
Income, Taka (ln)	-0.01	0.02	-0.50	0.62	-0.04	0.02
Constant	0.10	0.12	0.79	0.43	-0.14	0.34
Girls						
Caloric shortfall, baseline	0.10	0.02	4.38	0.00	0.06	0.15
Modality type						
Cash	-0.03	0.01	-1.93	0.05	-0.05	0.00
Food	-0.02	0.01	-1.55	0.12	-0.04	0.00
Food+Cash	-0.01	0.01	-0.67	0.51	-0.04	0.02
BCC+Food	-0.05	0.01	-3.46	0.00	-0.08	-0.02
Age, years (ln)	-0.01	0.01	-1.46	0.14	-0.03	0.00
Household size (ln)	0.05	0.02	2.83	0.01	0.01	0.08
Education level of household head						
Completed preschool	-0.00	0.03	-0.08	0.94	-0.07	0.06
Completed some or all of primary school	0.01	0.01	0.84	0.40	-0.01	0.03
Completed some or all of secondary or	-0.01	0.01	-0.78	0.43	-0.04	0.02

post-secondary school						
Female headed household	-0.02	0.01	-1.44	0.15	-0.05	0.01
Household owns land	-0.02	0.01	-1.99	0.05	-0.05	-0.00
Income, Taka (ln)	-0.01	0.01	-0.78	0.43	-0.04	0.02
Constant	0.16	0.10	1.56	0.12	-0.04	0.36

Table A4.11: Treatment Impacts on Probability of Inadequate Dietary Diversity, North

Simultaneous results for Men, Women, Boys, Girls

Number of obs = 8,353

(Std. Err. adjusted for 249 clusters in village)

	Coef.	Std.Err.	z	P>z	[95%Conf.	Interval]
Men						
Probability of inadequate dietary diversity, baseline	0.05	0.02	2.47	0.01	0.01	0.10
Modality type						
Cash	-0.11	0.03	-3.79	0.00	-0.17	-0.05
Food	-0.09	0.03	-3.23	0.00	-0.15	-0.04
Food+Cash	-0.11	0.03	-3.82	0.00	-0.17	-0.06
BCC+Cash	-0.38	0.03	-12.62	0.00	-0.44	-0.32
Age, years (ln)	-0.04	0.02	-1.68	0.09	-0.08	0.01
Household size (ln)	0.00	0.03	0.14	0.89	-0.06	0.07
Education level of household head						
Completed preschool	0.16	0.06	2.82	0.01	0.05	0.26
Completed some or all of primary school	0.01	0.02	0.27	0.79	-0.03	0.04
Completed some or all of secondary or post-secondary school	0.01	0.03	0.37	0.71	-0.05	0.08
Female headed household	0.03	0.09	0.33	0.74	-0.15	0.21
Household owns land	-0.04	0.02	-1.71	0.09	-0.09	0.01

Income, Taka (ln)	-0.13	0.03	-4.59	0.00	-0.18	-0.07
Constant	1.58	0.23	6.93	0.00	1.14	2.03
Women						
Probability of inadequate dietary diversity, baseline	0.06	0.02	2.49	0.01	0.01	0.10
Modality type						
Cash	-0.10	0.03	-3.19	0.00	-0.15	-0.04
Food	-0.08	0.03	-2.95	0.00	-0.13	-0.03
Food+Cash	-0.08	0.03	-2.65	0.01	-0.13	-0.02
BCC+Cash	-0.41	0.03	-13.62	0.00	-0.47	-0.35
Age, years (ln)	-0.01	0.02	-0.79	0.43	-0.05	0.02
Household size (ln)	0.01	0.03	0.38	0.70	-0.04	0.07
Education level of household head						
Completed preschool	0.02	0.06	0.30	0.77	-0.10	0.14
Completed some or all of primary school	-0.00	0.02	-0.11	0.91	-0.04	0.03
Completed some or all of secondary or post-secondary school	-0.00	0.03	-0.18	0.85	-0.06	0.05
Female headed household	-0.03	0.03	-0.97	0.33	-0.08	0.03
Household owns land	-0.03	0.02	-1.45	0.15	-0.07	0.01
Income, Taka (ln)	-0.11	0.02	-4.54	0.00	-0.16	-0.06
Constant	1.42	0.20	7.15	0.00	1.03	1.81
Boys						
Probability of inadequate dietary diversity, baseline	-0.02	0.04	-0.39	0.70	-0.09	0.06
Modality type						
Cash	-0.12	0.03	-3.81	0.00	-0.19	-0.06
Food	-0.10	0.04	-2.79	0.01	-0.17	-0.03
Food+Cash	-0.05	0.03	-1.85	0.06	-0.11	0.00
BCC+Cash	-0.37	0.04	-9.08	0.00	-0.45	-0.29
Age, years (ln)	-0.06	0.02	-3.05	0.00	-0.11	-0.02
Household size (ln)	0.13	0.04	2.94	0.00	0.04	0.21

Education level of household head						
Completed preschool	0.06	0.07	0.76	0.44	-0.09	0.20
Completed some or all of primary school	0.02	0.03	0.87	0.39	-0.03	0.08
Completed some or all of secondary or post-secondary school	-0.02	0.04	-0.65	0.52	-0.10	0.05
Female headed household	0.03	0.04	0.74	0.46	-0.05	0.11
Household owns land	-0.01	0.03	-0.49	0.62	-0.06	0.04
Income, Taka (ln)	-0.17	0.03	-5.11	0.00	-0.23	-0.10
Constant	1.85	0.26	7.06	0.00	1.33	2.36
Girls						
Probability of inadequate dietary diversity, baseline	0.03	0.04	0.77	0.44	-0.05	0.11
Modality type						
Cash	-0.10	0.03	-3.32	0.00	-0.16	-0.04
Food	-0.10	0.03	-3.43	0.00	-0.15	-0.04
Food+Cash	-0.08	0.03	-2.80	0.01	-0.13	-0.02
BCC+Cash	-0.44	0.03	-13.95	0.00	-0.50	-0.38
Age, years (ln)	-0.04	0.02	-2.13	0.03	-0.08	-0.00
Household size (ln)	0.05	0.04	1.20	0.23	-0.03	0.14
Education level of household head						
Completed preschool	0.14	0.08	1.84	0.07	-0.01	0.29
Completed some or all of primary school	-0.01	0.03	-0.29	0.77	-0.06	0.04
Completed some or all of secondary or post-secondary school	-0.06	0.04	-1.76	0.08	-0.14	0.01
Female headed household	0.01	0.04	0.24	0.81	-0.06	0.08
Household owns land	0.00	0.03	0.09	0.93	-0.05	0.05

Income, Taka (ln)	-0.17	0.03	-5.13	0.00	-0.23	-0.10
Constant	1.93	0.25	7.65	0.00	1.44	2.43

Table A4.12: Treatment Impacts on Probability of Inadequate Dietary Diversity, South

Simultaneous results for Men, Women, Boys, Girls

Number of obs = 9,377

(Std. Err. adjusted for 250 clusters in village)

	Coef.	Std.Err.	z	P>z	[95%Conf.	Interval]
Men						
Probability of inadequate dietary diversity, baseline	0.05	0.02	2.74	0.01	0.02	0.09
Modality type						
Cash	-0.03	0.03	-0.97	0.33	-0.08	0.03
Food	-0.07	0.03	-1.99	0.05	-0.13	-0.00
Food+Cash	-0.05	0.03	-1.58	0.11	-0.10	0.01
BCC+Food	-0.25	0.03	-8.05	0.00	-0.31	-0.19
Age, years (ln)	-0.03	0.02	-1.32	0.18	-0.07	0.01
Household size (ln)	0.01	0.03	0.21	0.84	-0.06	0.08
Education level of household head						
Completed preschool	-0.01	0.09	-0.09	0.93	-0.19	0.17
Completed some or all of primary school	-0.03	0.02	-1.46	0.14	-0.07	0.01
Completed some or all of secondary or post-secondary school	-0.01	0.03	-0.53	0.60	-0.07	0.04
Female headed household	0.04	0.06	0.78	0.43	-0.07	0.15
Household owns land	-0.04	0.02	-1.92	0.06	-0.08	0.00
Income, Taka (ln)	-0.04	0.03	-1.62	0.11	-0.10	0.01
Constant	0.97	0.22	4.34	0.00	0.53	1.40
Women						
Probability of inadequate dietary diversity, baseline	0.05	0.02	3.15	0.00	0.02	0.09
Modality type						

Cash	-0.03	0.02	-1.31	0.19	-0.08	0.02
Food	-0.05	0.03	-2.08	0.04	-0.10	-0.00
Food+Cash	-0.05	0.02	-2.12	0.03	-0.10	-0.00
BCC+Food	-0.22	0.03	-8.89	0.00	-0.27	-0.18
Age, years (ln)	-0.05	0.02	-3.02	0.00	-0.08	-0.02
Household size (ln)	-0.01	0.03	-0.44	0.66	-0.08	0.05
Education level of household head						
Completed preschool	-0.01	0.06	-0.12	0.91	-0.13	0.12
Completed some or all of primary school	-0.01	0.01	-0.74	0.46	-0.04	0.02
Completed some or all of secondary or post-secondary school	-0.02	0.02	-0.72	0.47	-0.06	0.03
Female headed household	-0.01	0.03	-0.42	0.67	-0.06	0.04
Household owns land	-0.03	0.02	-1.78	0.08	-0.07	0.00
Income, Taka (ln)	-0.07	0.02	-2.86	0.00	-0.12	-0.02
Constant	1.32	0.21	6.42	0.00	0.92	1.72
Boys						
Probability of inadequate dietary diversity, baseline	0.06	0.03	2.40	0.02	0.01	0.11
Modality type						
Cash	-0.04	0.04	-1.10	0.27	-0.11	0.03
Food	-0.05	0.03	-1.42	0.15	-0.11	0.02
Food+Cash	-0.03	0.03	-0.98	0.33	-0.09	0.03
BCC+Food	-0.23	0.04	-5.88	0.00	-0.31	-0.15
Age, years (ln)	-0.13	0.02	-6.47	0.00	-0.17	-0.09
Household size (ln)	-0.01	0.05	-0.16	0.87	-0.10	0.09
Education level of household head						
Completed preschool	-0.03	0.07	-0.49	0.62	-0.16	0.10
Completed some or all of primary school	-0.01	0.03	-0.30	0.77	-0.06	0.05
Completed some or all of secondary or	-0.00	0.04	-0.05	0.96	-0.07	0.07

post-secondary school						
Female headed household	-0.02	0.04	-0.63	0.53	-0.09	0.05
Household owns land	-0.08	0.03	-2.74	0.01	-0.14	-0.02
Income, Taka (ln)	-0.04	0.04	-1.08	0.28	-0.11	0.03
Constant	1.30	0.30	4.30	0.00	0.71	1.89
Girls						
Probability of inadequate dietary diversity, baseline	0.06	0.03	1.99	0.05	0.00	0.11
Modality type						
Cash	-0.02	0.03	-0.61	0.54	-0.09	0.05
Food	-0.04	0.03	-1.30	0.19	-0.11	0.02
Food+Cash	-0.03	0.03	-0.92	0.36	-0.10	0.03
BCC+Food	-0.24	0.04	-6.45	0.00	-0.31	-0.17
Age, years (ln)	-0.09	0.02	-5.19	0.00	-0.13	-0.06
Household size (ln)	-0.00	0.05	-0.03	0.98	-0.09	0.09
Education level of household head						
Completed preschool	-0.05	0.07	-0.77	0.44	-0.19	0.08
Completed some or all of primary school	-0.02	0.02	-0.90	0.37	-0.07	0.02
Completed some or all of secondary or post-secondary school	-0.02	0.04	-0.53	0.60	-0.09	0.05
Female headed household	-0.03	0.03	-0.90	0.37	-0.09	0.03
Household owns land	-0.03	0.03	-0.97	0.33	-0.09	0.03
Income, Taka (ln)	-0.13	0.03	-3.97	0.00	-0.20	-0.07
Constant	1.83	0.28	6.61	0.00	1.28	2.37

5. Robustness checks

Table A5.1 Robustness Tests 1-3

Robustness Test

If a significant between-member impact differences was found, the difference magnitude and Wald-p-value are shown in paratheses (e.g. G>B (0.03 shortfall; p=0.02) indicates that girls experienced a 0.03 greater reduction to shortfall than boys and this difference was significant at p=0.02)

Red text indicates robustness test result was different than main results

6/6 comparisons null indicates that no significant between-member impact differences were found in post-estimation Wald-tests

Treatment	Indicator	Region	Main Results (sig differences found)	1 - Non-missing all surveys	Main Results	2- Endline results	Main Results	3 - Missing at baseline included
Cash only	kcal	North	6/6 comparisons null	6/6 comparisons null	6/6 comparisons null	6/6 comparisons null	6/6 comparisons null	6/6 comparisons null
		South	6/6 comparisons null	6/6 comparisons null	6/6 comparisons null	6/6 comparisons null	6/6 comparisons null	6/6 comparisons null
	DDS	North	6/6 comparisons null	6/6 comparisons null	6/6 comparisons null	6/6 comparisons null	6/6 comparisons null	6/6 comparisons null
		South	6/6 comparisons null	6/6 comparisons null	6/6 comparisons null	6/6 comparisons null	6/6 comparisons null	6/6 comparisons null
	GDQS	North	comparison null	comparison null	comparison null	comparison null	comparison null	comparison null
		South	comparison null	comparison null	comparison null	comparison null	comparison null	comparison null
	CAR	North	6/6 comparisons null	6/6 comparisons null	6/6 comparisons null	6/6 comparisons null	6/6 comparisons null	6/6 comparisons null
		South	6/6 comparisons null	6/6 comparisons null	6/6 comparisons null	**G>B (0.07 CAR; p=0.02)**	6/6 comparisons null	6/6 comparisons null
	Caloric Shortfall	North	6/6 comparisons null	6/6 comparisons null	6/6 comparisons null	6/6 comparisons null	6/6 comparisons null	6/6 comparisons null
		South	6/6 comparisons null	**G>B (0.03 shortfall; p=0.04)**	6/6 comparisons null	6/6 comparisons null	6/6 comparisons null	6/6 comparisons null
	Probability of Low DDS	North	6/6 comparisons null	6/6 comparisons null	6/6 comparisons null	6/6 comparisons null	6/6 comparisons null	6/6 comparisons null
		South	6/6 comparisons null	6/6 comparisons null	6/6 comparisons null	6/6 comparisons null	6/6 comparisons null	6/6 comparisons null
Food only	kcal	North	6/6 comparisons null	6/6 comparisons null	6/6 comparisons null	6/6 comparisons null	6/6 comparisons null	6/6 comparisons null

	DDS	South	6/6 comparisons null	6/6 comparisons null	6/6 comparisons null	6/6 comparisons null	6/6 comparisons null	6/6 comparisons null
		North	6/6 comparisons null	6/6 comparisons null	6/6 comparisons null	6/6 comparisons null	6/6 comparisons null	6/6 comparisons null
		South	6/6 comparisons null	6/6 comparisons null	6/6 comparisons null	6/6 comparisons null	6/6 comparisons null	6/6 comparisons null
	GDQS	North	comparison null	comparison null	comparison null	comparison null	comparison null	**M>W (0.25pts; p=0.02)**
		South	comparison null	comparison null	comparison null	comparison null	comparison null	comparison null
	CAR	North	6/6 comparisons null	6/6 comparisons null	6/6 comparisons null	6/6 comparisons null	6/6 comparisons null	6/6 comparisons null
		South	6/6 comparisons null	6/6 comparisons null	6/6 comparisons null	**W>B (0.05 CAR; p=0.04)**	6/6 comparisons null	6/6 comparisons null
	Caloric Shortfall	North	6/6 comparisons null	6/6 comparisons null	6/6 comparisons null	6/6 comparisons null	6/6 comparisons null	6/6 comparisons null
		South	6/6 comparisons null	**G>B (0.03 shortfall; p=0.04)**	6/6 comparisons null	6/6 comparisons null	6/6 comparisons null	6/6 comparisons null
	Probability of Low DDS	North	6/6 comparisons null	6/6 comparisons null	6/6 comparisons null	6/6 comparisons null	6/6 comparisons null	6/6 comparisons null
		South	6/6 comparisons null	6/6 comparisons null	6/6 comparisons null	6/6 comparisons null	6/6 comparisons null	6/6 comparisons null
Cash+Food	kcal	North	**W >G (69kcal; p=0.04) M>G (84kcal; p=0.03)**	6/6 comparisons null	**W>G (69 kcal; p=0.04) M>G (84 kcal; p=0.03)**	6/6 comparisons null	**W >G (69 kcal; p=0.04) M>G (84 kcal; p=0.03)**	**W >G (70 kcal; p=0.03)**
		South	6/6 comparisons null	6/6 comparisons null	6/6 comparisons null	**W>B (97 kcal; p=0.03)**	6/6 comparisons null	6/6 comparisons null
	DDS	North	6/6 comparisons null	6/6 comparisons null	6/6 comparisons null	6/6 comparisons null	6/6 comparisons null	6/6 comparisons null
		South	6/6 comparisons null	6/6 comparisons null	6/6 comparisons null	6/6 comparisons null	6/6 comparisons null	6/6 comparisons null
	GDQS	North	comparison null	comparison null	comparison null	comparison null	comparison null	comparison null
		South	comparison null	comparison null	comparison null	comparison null	comparison null	comparison null
	CAR	North	6/6 comparisons null	6/6 comparisons null	6/6 comparisons null	6/6 comparisons null	6/6 comparisons null	6/6 comparisons null
		South	**M>B (0.05 CAR; p=0.03)**	6/6 comparisons null	**M>B (0.05 CAR; p=0.03)**	**M>B (0.05 CAR; p=0.04)**	**M>B (0.05 CAR; p=0.03)**	6/6 comparisons null
	Caloric Shortfall	North	6/6 comparisons null	6/6 comparisons null	6/6 comparisons null	6/6 comparisons null	6/6 comparisons null	6/6 comparisons null
		South	**M>B (0.04 shortfall; p=0.04)**	**M>B (0.03 shortfall; p=0.03)**	**M>B (0.04 shortfall; p=0.02)**	6/6 comparisons null	**M>B (0.04 shortfall; p=0.02)**	**M>B (0.04 shortfall; p=0.04)**

	Probability of Low DDS	North	6/6 comparisons null	6/6 comparisons null	6/6 comparisons null	6/6 comparisons null	6/6 comparisons null	6/6 comparisons null
		South	6/6 comparisons null	6/6 comparisons null	6/6 comparisons null	**W>M (0.06 prob; p=0.04)**	6/6 comparisons null	6/6 comparisons null
BCC+Cash	kcal	North	**M>B (108 kcal; p=.02) W>B (93 kcal; p=0.03)**	**M>B (93 kcal; p=0.048) W>B (81 kcal; p=0.047)**	**M>B (108 kcal; p=.02) W>B (93 kcal; p=0.03)**	**M>G (113 kcal; p=0.03)**	**M>B (108 kcal; p=.02) W>B (93 kcal; p=0.03)**	**M >B (102 kcal; p=.03) W>B (83 kcal; p=0.048)**
	DDS	North	**G>M (0.2 DDS; p=0.03) G>W (0.2 DDS; p=0.04) G>B (0.3 DDS; p=0.03)**	6/6 comparisons null	**G>M (0.2 DDS; p=0.03) G>W (0.2 DDS; p=0.04) G>B (0.3 DDS; p=0.03)**	6/6 comparisons null	**G>M (0.2 DDS; p=0.03) G>W (0.2 DDS; p=0.04) G>B (0.3 DDS; p=0.03)**	**G>M (0.2 DDS; p=0.03) G>W (0.2 DDS; p=0.047)**
	GDQS	North	comparison null	comparison null	comparison null	comparison null	comparison null	comparison null
	CAR	North	**G>M (0.04 CAR; p=0.048)**	6/6 comparisons null	**G>M (0.04 CAR; p=0.048)**	6/6 comparisons null	**G>M (0.04 CAR; p=0.048)**	6/6 comparisons null
	Caloric Shortfall	North	6/6 comparisons null	6/6 comparisons null	6/6 comparisons null	6/6 comparisons null	6/6 comparisons null	6/6 comparisons null
	Probability of Low DDS	North	6/6 comparisons null	6/6 comparisons null	6/6 comparisons null	6/6 comparisons null	6/6 comparisons null	6/6 comparisons null
BCC+Food	kcal	South	6/6 comparisons null	6/6 comparisons null	6/6 comparisons null	6/6 comparisons null	6/6 comparisons null	6/6 comparisons null
	DDS	South	6/6 comparisons null	6/6 comparisons null	6/6 comparisons null	**G>M (0.3 DDS; p=0.03) G>W (0.3 DDS; p=0.01)**	6/6 comparisons null	6/6 comparisons null
	GDQS	South	comparison null	comparison null	comparison null	comparison null	comparison null	comparison null
	CAR	South	6/6 comparisons null	6/6 comparisons null	6/6 comparisons null	**G>W (0.06 CAR; p=0.01)**	6/6 comparisons null	6/6 comparisons null
	Caloric Shortfall	South	6/6 comparisons null	6/6 comparisons null	6/6 comparisons null	**G>W (0.06 shortfall; p=0.03)**	6/6 comparisons null	6/6 comparisons null
	Probability of Low DDS	South	6/6 comparisons null	6/6 comparisons null	6/6 comparisons null	6/6 comparisons null	6/6 comparisons null	6/6 comparisons null

Table A5.2 Robustness Tests 4-6

Robustness Test

If a significant between-member impact differences was found, the difference magnitude and Wald-p-value are shown in paratheses
(e.g. G>B (0.03 shortfall; p=0.02) indicates that girls experienced a 0.03 greater reduction to shortfall than boys and this difference was significant at p=0.02)
Red text indicates robustness test result was different than main results
6/6 comparisons null indicates that no significant between-member impact differences were found in post-estimation Wald-tests

Treatment	Indicator	Region	Main Results	4 - Covariates excluded	Main Results	5 - Non-winsorized outcomes	Main Results	6- Post-treatment data pooled (not averaged)
Cash only	kcal	North	6/6 comparisons null	6/6 comparisons null	6/6 comparisons null	6/6 comparisons null	6/6 comparisons null	6/6 comparisons null
		South	6/6 comparisons null	6/6 comparisons null	6/6 comparisons null	6/6 comparisons null	6/6 comparisons null	6/6 comparisons null
	DDS	North	6/6 comparisons null	6/6 comparisons null	6/6 comparisons null		6/6 comparisons null	6/6 comparisons null
		South	6/6 comparisons null	6/6 comparisons null	6/6 comparisons null		6/6 comparisons null	6/6 comparisons null
	GDQS	North	comparison null	comparison null	comparison null		comparison null	comparison null
		South	comparison null	comparison null	comparison null		comparison null	comparison null
	CAR	North	6/6 comparisons null	6/6 comparisons null	6/6 comparisons null	6/6 comparisons null	6/6 comparisons null	6/6 comparisons null
		South	6/6 comparisons null	6/6 comparisons null	6/6 comparisons null	6/6 comparisons null	6/6 comparisons null	6/6 comparisons null
	Caloric Shortfall	North	6/6 comparisons null	6/6 comparisons null	6/6 comparisons null	6/6 comparisons null	6/6 comparisons null	6/6 comparisons null
		South	6/6 comparisons null	6/6 comparisons null	6/6 comparisons null	6/6 comparisons null	6/6 comparisons null	6/6 comparisons null
	Probability of Low DDS	North	6/6 comparisons null	6/6 comparisons null	6/6 comparisons null		6/6 comparisons null	6/6 comparisons null
		South	6/6 comparisons null	6/6 comparisons null	6/6 comparisons null		6/6 comparisons null	6/6 comparisons null
Food only	kcal	North	6/6 comparisons null	6/6 comparisons null	6/6 comparisons null	6/6 comparisons null	6/6 comparisons null	6/6 comparisons null
		South	6/6 comparisons null	6/6 comparisons null	6/6 comparisons null	6/6 comparisons null	6/6 comparisons null	6/6 comparisons null
	DDS	North	6/6 comparisons null	6/6 comparisons null	6/6 comparisons null		6/6 comparisons null	6/6 comparisons null

	GDQS	South	6/6 comparisons null	6/6 comparisons null	6/6 comparisons null		6/6 comparisons null	6/6 comparisons null
		North	comparison null	comparison null	comparison null		comparison null	comparison null
		South	comparison null	comparison null	comparison null		comparison null	comparison null
	CAR	North	6/6 comparisons null	6/6 comparisons null	6/6 comparisons null	6/6 comparisons null	6/6 comparisons null	6/6 comparisons null
		South	6/6 comparisons null	6/6 comparisons null	6/6 comparisons null	6/6 comparisons null	6/6 comparisons null	6/6 comparisons null
	Caloric Shortfall	North	6/6 comparisons null	6/6 comparisons null	6/6 comparisons null	6/6 comparisons null	6/6 comparisons null	6/6 comparisons null
		South	6/6 comparisons null	6/6 comparisons null	6/6 comparisons null	6/6 comparisons null	6/6 comparisons null	6/6 comparisons null
	Probability of Low DDS	North	6/6 comparisons null	6/6 comparisons null	6/6 comparisons null		6/6 comparisons null	6/6 comparisons null
		South	6/6 comparisons null	6/6 comparisons null	6/6 comparisons null		6/6 comparisons null	6/6 comparisons null
Cash+ Food	kcal	North	**W>G (69 kcal; p=0.04) M>G (84 kcal; p=0.03)**	**M>B (115 kcal; p=0.04) W>B (103 kcal; p=0.04)**	**W >G (69 kcal; p=0.04) M>G (84 kcal; p=0.03)**	**W >G (76 kcal; p=0.043 M>G (88 kcal; p=0.03)** M>B (93 kcal; p=0.04) W>B (81 kcal; p=0.049)	**W >G (69 kcal; p=0.04) M>G (84 kcal; p=0.03)**	**W >G (64 kcal; p=0.046)**
		South	6/6 comparisons null	**W>G (82 kcal; p=0.03)**	6/6 comparisons null	6/6 comparisons null	6/6 comparisons null	6/6 comparisons null
	DDS	North	6/6 comparisons null	**M>B (0.2 DDS; p=0.046)**	6/6 comparisons null		6/6 comparisons null	6/6 comparisons null
		South	6/6 comparisons null	6/6 comparisons null	6/6 comparisons null		6/6 comparisons null	6/6 comparisons null
	GDQS	North	comparison null	comparison null	comparison null		comparison null	comparison null
		South	comparison null	comparison null	comparison null		comparison null	comparison null
	CAR	North	6/6 comparisons null	6/6 comparisons null	6/6 comparisons null	6/6 comparisons null	6/6 comparisons null	6/6 comparisons null
		South	**M>B (0.05 CAR; p=0.03)**	**M>B (0.05 CAR; p =0.04)**	**M>B (0.05 CAR; p=0.03)**	6/6 comparisons null	**M >B (0.05 CAR; p=0.03)**	6/6 comparisons null
	Caloric Shortfall	North	6/6 comparisons null	6/6 comparisons null	6/6 comparisons null	6/6 comparisons null	6/6 comparisons null	6/6 comparisons null
		South	**M>B (0.04 shortfall; p=0.02)**	**M>B (0.04 shortfall; p=0.04)**	**M>B (0.04 shortfall; p=0.02)**	**M>B (0.04 shortfall; p=0.04)**	**M>B (0.04 shortfall; p=0.02)**	**M>B (0.04 shortfall; p=0.04)**

	Probability of Low DDS	North	6/6 comparisons null	**M>B (0.08 shortfall; p=0.02)**	6/6 comparisons null		6/6 comparisons null	6/6 comparisons null
		South	6/6 comparisons null	6/6 comparisons null	6/6 comparisons null		6/6 comparisons null	6/6 comparisons null
BCC+Cash	kcal	North	**M>B (108 kcal; p=.02) W>B (93 kcal; p=0.03)**	**M>B (116 kcal; p=0.048)**	**M>B (108 kcal; p=.02) W>B (93 kcal; p=0.03)**	**M >B (120 kcal; p=0.02) W>B (95 kcal; p=0.04)**	**M>B (108 kcal; p=0.02) W>B (93 kcal; p=0.03)**	**M>B (102 kcal; p=0.03) W>B (99 kcal; p=0.03)**
	DDS	North	**G>M (0.2 DDS; p=0.03) G>W (0.2 DDS; p=0.04) G>B (0.3 DDS; p=0.03)**	**G>M (0.2 DDS; p =0.04) G>B (0.3 DDS; p=0.02)**	**G>M (0.2 DDS; p=0.03) G>W (0.2 DDS; p=0.04) G>B (0.3 DDS; p=0.03)**		**G>M (0.2 DDS; p=0.03) G>W (0.2 DDS; p=0.04) G>B (0.3 DDS; p=0.03)**	**G>M (0.2 DDS; p=0.02)**
	GDQS	North	comparison null	comparison null	comparison null		comparison null	comparison null
	CAR	North	**G>M (0.04 CAR; p=0.048)**	6/6 comparisons null	**G>M (0.04 CAR; p=0.048)**	6/6 comparisons null	**G>M (0.04 CAR; p=0.048)**	**G>M (0.04 CAR; p=0.048)**
	Caloric Shortfall	North	6/6 comparisons null	6/6 comparisons null	6/6 comparisons null	6/6 comparisons null	6/6 comparisons null	6/6 comparisons null
	Probability of Low DDS	North	6/6 comparisons null	**G>B (0.1 prob.; p=0.02)**	6/6 comparisons null		6/6 comparisons null	6/6 comparisons null
BCC+Food	kcal	South	6/6 comparisons null	6/6 comparisons null	6/6 comparisons null	6/6 comparisons null	6/6 comparisons null	6/6 comparisons null
	DDS	South	6/6 comparisons null	6/6 comparisons null	6/6 comparisons null		6/6 comparisons null	6/6 comparisons null
	GDQS	South	comparison null	comparison null	comparison null		comparison null	comparison null
	CAR	South	6/6 comparisons null	6/6 comparisons null	6/6 comparisons null	6/6 comparisons null	6/6 comparisons null	6/6 comparisons null
	Caloric Shortfall	South	6/6 comparisons null	6/6 comparisons null	6/6 comparisons null	6/6 comparisons null	6/6 comparisons null	6/6 comparisons null
	Probability of Low DDS	South	6/6 comparisons null	6/6 comparisons null	6/6 comparisons null		6/6 comparisons null	6/6 comparisons null

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