Jharkhand ICDS Pre-Analysis Plan Report

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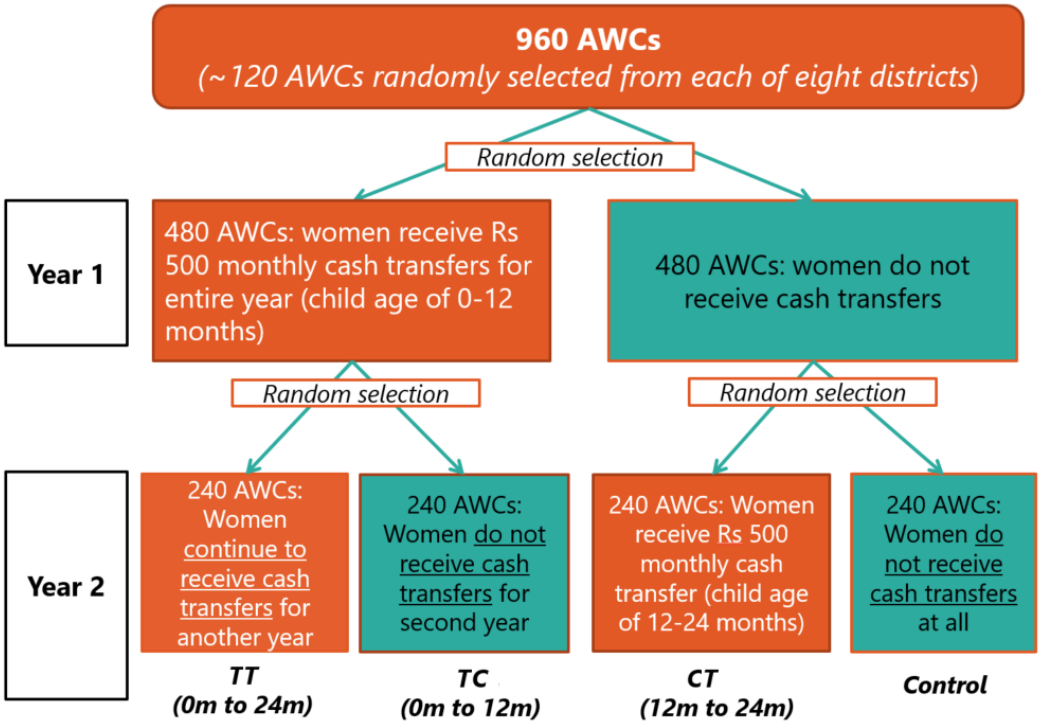
1 Introduction

This document reports the results of the analysis pre-specified for trial #2899 in the American Economic Association RCT registry, a study examining the effects of unconditional framed cash transfers on pregnant women and their children in Jharkhand. As part of this study we posted three distinct pre-analysis plans (PAPs). The first two correspond to the two waves of cash transfers (Year 1 and Year 2), while the third introduces amendments reflecting the impact of the COVID-19 pandemic on the study. Specifically, while the original pre-analysis plans anticipated collecting all data from field surveys, field data collection during year 2 was suspended with only around a quarter of the surveys having been completed. We then filed an amended PAP that described planned phone data collection during year 2 as well as the collection and analysis of field data at a later date. Field data collection became possible roughly one year after that plan was filed (in October–December 2021, which we refer to as year 3), and we follow the third pre-analysis plan for the analysis of that field data.

This report contains results for all four arms of the experiment. These included a control arm and three treatment arms: one in which mothers received cash transfers for the first two years of their child's life, one in which they received transfers for only the first year, and one in which they received transfers for only the second year. As the results below show, we find similar effects on nutrient intake and other intermediate outcomes during the periods transfers were being received in all three arms. We only detect consistent effects on anthropometric and functional development outcomes in the two year treatment arm, likely because the longer treatment period generated a larger treatment effect that we are better powered to detect than any correspondingly smaller effects in the one year arms. Weaver et al. (2023) provides a more detailed examination of the results from this arm, as well as more details on the context and intervention design.

Figure 1: Experimental Design



2 Methods

Analysis for this study is conducted based on the following series of regression specifications that were registered *ex ante* in the initial PAPs. For Year 1, analysis is run on a single cross-sectional dataset with the following basic regression specification:

$$Y_{ias1} = \alpha_0 + \alpha_1 TREAT_a + \phi_s + \epsilon_{ias} \tag{Y1}$$

where $TREAT_a$ is a dummy indicator for treatment at the anganwadi center (AWC) level in year 1, ϕ_s captures sector fixed effects, and ϵ_{ias} is an error term, indexed by individual, AWC, and sector. This includes the 480 AWCs who received transfers in year 1 (TT and TC) in treatment and 480 AWCs who did not in control (CT and CC).

In Year 2, the availability of multiple waves of survey data – in addition to the existence of multiple treatment arms – suggests several different specifications can be used to capture causal effects of interest. We begin with a simple specification of the following form:

$$Y_{ias2} = \beta_0 + \beta_1 T1_a + \beta_2 T2_a + \beta_3 T3_a + \gamma' \mathbf{X}_i + \phi_s + \epsilon_{ias} \tag{S1}$$

where $T1_a$, $T2_a$, and $T3_a$ are dummy indicators for allocation to treatment groups TT, TC, and CT and $\mathbf{X}_i$ is a vector of time invariant household characteristics selected by a post double selection LASSO procedure (Belloni et al., 2014). Recognizing that outcome data from Year 1 can be used to improve the statistical power of estimates in Year 2, we also present results from the following specification:

$$Y_{ias2} = \delta_0 + \delta_1 T3_a + \theta y_{ias1} + \gamma' \mathbf{X}_i + \phi_s + \epsilon_{ias} \tag{S1a}$$

where the group receiving transfers in year 2 (but not year 1) is compared to the pure control group, and we control for y_{ias1}, the value of the outcome variable at the end of Year 1. If y_{ias1} and y_{ias2} are strongly correlated, then the implementation of S1a will improve statistical power vis-á-vis S1. We additionally consider the following specification:

$$Y_{ias2} = \pi_0 + \pi_1 T1_a + \pi_2 T2T3_a + \gamma' \mathbf{X}_i + \phi_s + \epsilon_{ias} \tag{S1b}$$

where the CT and TC treatment arms are pooled. To examine the effects of treatment on a variety of plausible mechanisms underpinning the relationship between cash transfers and anthropometric outcomes, we consider a number of flow outcomes with the following specification:

$$\begin{aligned} y_{iast} = \kappa_0 + \kappa_1 TREAT_{at} + \kappa_2 TREAT_{at} * \mathbb{1}[t=2] + \kappa_3 TREAT_{a1} * \mathbb{1}[t=2] + \\ \kappa_4 TREAT_{a2} * TREAT_{a1} * \mathbb{1}[t=2] + \gamma' \mathbf{X}_i + \phi_s + \lambda \mathbb{1}[t=2] + \epsilon_{ias} \end{aligned} \tag{S2}$$

where $TREAT_{at}$ denotes treatment in AWC a in year t and $\mathbf{X}_i$ is a vector of LASSO chosen controls. Finally, we present results from the following simple specification:

$$Y_{iast} = \zeta_0 + \psi_1 TREAT_{at} + \gamma' \mathbf{X}_i + \phi_s + \epsilon_{iast} \tag{S3}$$

where $TREAT_{at}$ denotes receiving the transfer in AWC a in year t (regardless of past or future treatment status), eliminating year by treatment interactions. In each table presented below, panels are labelled with their corresponding specification. For expositional simplicity, coefficients on LASSO controls and fixed effects are excluded from tables. Appendix A details the construction of nutritional and anthropometric outcomes in addition to any indices used throughout.

3 Year 1 Primary Outcomes

The year 1 analysis in this and the next section (Year 1 secondary outcomes) pools data from respondents across all four treatment groups: individuals from CC and CT are in the year 1 control group, while TT and TC are part of the year 1 treatment group.[1,2] For each of the outcomes reported below, we include the corresponding variable tags from the pre-analysis plan for ease of reference (e.g., in the pre-analysis plan, CH1 refers to child weight for age and sex (WAZ), CH2 refers to child length for age and sex (HAZ), etc.)

Our first set of pre-specified primary outcomes for year 1 were anthropometric outcomes for the target child: height-for-age z-score (HAZ), weight-for-age z-score (WAZ), and weight-for-age z-score (WHZ). Table 1 does not find statistically significant effects on any of these outcomes, where we are well-powered to detect even relatively small effects.

Our second set of outcomes is food consumption for the mother and child, which is based on the food items consumed in the previous day. For each food item the individual consumed, we measure the ingredients that went into it and amount eaten. We then translate this into calories and nutrients ingested from that item and aggregate this into measures such as total caloric or nutrient consumption for the day (see appendix A for details on this process and variable construction). For the mother, Table 2 finds large and statistically significant effects on intermediate inputs such as quantity of food consumed (caloric consumption, column 1), fraction of daily recommended nutrients consumed (nutrient index, column 2) and dietary quality index (column 3). These are sizeable, such as a 7% increase in total caloric consumption from the mean value in the control group. Since some of these children are too small to consume solid foods, we measure effects on their diet using "minimum meal frequency" (column 5) and again find a large and statistically significant increase: the fraction of children meeting minimum meal frequency increases from 61% to 65%. Food consumption is one of many inputs into health, and so it may be that complementary efforts are required to see improvements in anthropometrics (e.g. transfers may be effective when paired with improved sanitation).

3.1 Child Health (CH1, CH2, CH3)

[1] CT and CC are both control because they do not receive transfers, while TT and TC are treatment because they do. Note that individuals did not anticipate the second year of transfers, which were only announced at the end of year 1, so there is no difference between CT and CC or TT and TC during year 1.

[2] Weaver et al. (2023) focuses on the comparison between CC and TT, i.e. the group that received no transfers as compared to the one who received them for two years. As a result, the sample size is half that in this report.

Table 1: Anthropometric Outcomes (Year 1)

	HAZ	WAZ	WHZ
	(1)	(2)	(3)
Treatment	0.01	0.02	0.02
	(0.04)	(0.03)	(0.03)
Control Mean	−1.5	−1.71	−1.31
Observations	4,746	4,747	4,746

The unit of analysis is the child. For details on variable construction, see Appendix A. Standard errors are in parentheses and clustered at the AWC-level. $^{*}p < .10,^{**}p < .05,^{***}p < .01$.

3.2 Food Consumption by Mother and Child (MC1, MC2, MC3, CC1, CC2)

Table 2: Quantity & Quality of Food Intake (Year 1)

	Mother			Child	
	Total caloric consumption	Nutrient index	DQI-I score	Dietary diversity	Minimum meal frequency
	(1)	(2)	(3)	(4)	(5)
Treatment	116.34***	0.09***	0.95***	0.22***	0.04***
	(23.48)	(0.02)	(0.23)	(0.04)	(0.01)
Control Mean	1675.18	0.19	44.75	1.55	0.61
Observations	4,757	4,732	4,731	4,732	4,720

The unit of analysis is specified in the first row of the table. The nutrient index (0-1), DQI-I score (0-100), and dietary diversity score (0-7) are each constructed such that higher values correspond to higher dietary quality. See Appendix A for details on the construction of each of these variables. Standard errors are in parentheses and clustered at the AWC-level. $^{*}p < .10,^{**}p < .05,^{***}p < .01$.

4 Year 1 Secondary Outcomes

This section of the report studies four categories of year 1 outcomes that we pre-specified as secondary outcomes.

4.1 Child Health (CH4, CH5, CH6, CH7, CH8)

Table 3 extends the analysis of anthropometric outcomes in Table 1 by focusing on the left tail of the anthropometric distribution. Columns 1 to 4 expand the tests of the primary outcomes by testing specifically for effects on the binary outcomes of severe (<-3 SD) and moderate (<-2 SD) stunting and wasting among the full sample. Columns 5 to 7 restrict to the bottom 25% of the year 1 treatment and control groups, and test for differences there. We do not find any, consistent with a lack of a shift among the most disadvantaged populations. The coefficient on moderate wasting is statistically significant at the 10% level, but is at best weak evidence for improvement in anthropometrics.

Table 3: Anthropometric Outcomes

	Moderately stunted	Severely stunted	Moderately wasted	Severely wasted	HAZ	WAZ	WHZ
	(1)	(2)	(3)	(4)	(5)	(6)	(7)
Treatment	−0.004	−0.002	−0.02*	−0.01	−0.02	−0.02	0.01
	(0.01)	(0.01)	(0.01)	(0.01)	(0.04)	(0.03)	(0.04)
Control Mean	0.33	0.09	0.23	0.04	−2.92	−3.01	−2.54
Observations	4,746	4,746	4,746	4,746	1,199	1,197	1,198

The unit of analysis is the child. For details on variable construction, see Appendix A. Standard errors are in parentheses and clustered at the AWC-level. $^{*}p < .10,^{**}p < .05,^{***}p < .01$.

4.2 Household Consumption and Spending (S1, S3, FH1)

Table 4 examines spending on food and sin goods, as well as per capita household caloric consumption at the household level. We take the natural log of the spending variables to deal with outliers. Consistent with the increases in food consumption observed above, we find an increase in spending on food, but not on "sin goods" such as alcohol and tobacco.[3] Consistent with households spreading the increase nutrition among household members other than the mother and target child, we observe increases in per capita caloric consumption among this group.

[3]Deviating from the pre-analysis plan, we do not investigate spending on non-food items. That is because this was not collected in year 1 due to an error in the coding of the survey module that was discovered only after the survey was completed. This data was successfully collected in year 2.

Table 4: Household Spending & Caloric Consumption

	(Logged) Food spending	(Logged) Sin spending	Per capita caloric consumption
	(1)	(2)	(3)
Treatment	0.21***	−0.10	61.60*
	(0.06)	(0.20)	(33.97)
Control Mean	7.49	−0.66	1727.26
Observations	4,757	4,705	4,688

The unit of analysis is the household. Spending is reported weekly. Sin spending includes expenditures on alcohol and tobacco. Spending on non-food items was not collected in Year 1, and is thus excluded from this table. Per capita caloric consumption applies only to non-targeted household members (i.e. all members other than the mother and child). Standard errors are in parentheses and clustered at the AWC-level. $^{*}p < .10,^{**}p < .05,^{***}p < .01$.

4.3 Child Morbidity (CM1, CM2)

Table 5 studies child morbidity, measured as whether the child was sick at all during the past three months. We lack power to examine this outcome since over 99.5% of households reported some form of illness.[4] However, there is a 3 percentage point increase in the probability of visiting a formal medical provider in the event of an illness for the child, consistent with households using the money to improve child health.

Table 5: Child Morbidity

	Probability of illness in the past three months	Probability of visiting formal medical provider
	(1)	(2)
Treatment	−0.0004	0.03***
	(0.0004)	(0.01)
Control Mean	1	0.76
Observations	4,522	4,522

The unit of analysis is the child. See Appendix A for details on variable construction. Standard errors are in parentheses and clustered at the AWC-level. $^{*}p < .10,^{**}p < .05,^{***}p < .01$.

4.4 Maternal Outcomes (MO1, MO2, MO3) and Beliefs and Behavior Change (BB1)

Table 6 investigates maternal outcomes, which could plausibly affect the child's development. There are small increases in maternal empowerment and nutritional knowledge in the treatment group, but we do not observe an effect on a depression index. Furthermore, despite the increase in nutritional intake, mother's body mass index (BMI) did not increase.

[4]Due to this issue, we changed the survey instrument in year 2 to measure the total number of illnesses rather than this binary measure.

Table 6: Maternal Outcomes

	Empowerment index	Body mass index	Depression index	Nutritional knowledge index
	(1)	(2)	(3)	(4)
Treatment	0.07*	−0.13	−0.05	0.13***
	(0.04)	(0.11)	(0.06)	(0.05)
Control Mean	2.35	19.59	2.56	3.47
Observations	4,732	2,500	4,728	4,732

The unit of analysis is the respondent (mother). The empowerment index (0-5), depression index (0-5), and nutritional knowledge index (0-6) are constructed such that higher values indicate greater empowerment, more signs of depression, or higher nutritional knowledge (see Appendix A for detail). Mother's height was only collected for one of two phases (see Table 19); hence, body mass index can be computed for only a subset of all observations. Standard errors are in parentheses and clustered at the AWC-level. $^{*}p < .10,^{**}p < .05,^{***}p < .01$.

5 Year 2 Primary Outcomes

This section studies primary outcomes measured in year 2: as in year 1, the primary outcomes were based around anthropometrics and nutrition. Survey operations in year 2 were disrupted due to the COVID-19 pandemic, and only a quarter of the sample was reached in person. As a result, the sample size is significantly reduced for outcomes that required in-person measurement, such as anthropometrics and the more intensive measurement procedures for food consumption.

5.1 Child Health (CH1, CH2, CH3) [S1, S1a, S1b]

Table 7 does not detect statistically significant effects of any of the treatment groups on anthropometric outcomes in year 2. However, the reduced sample size and very large standard errors mean that we are typically underpowered to detect effects of plausible sizes for the anthropometric outcomes – for example, for WAZ, HAZ, and WHZ, the standard errors are typically at least 0.07 or 0.08 – and so this may be the reason for these null results. For this reason, we prefer to focus on the year 3 anthropometric results, in which we could measure the full sample.

Table 7: Anthropometric Outcomes (Year 2)

	HAZ	WAZ	WHZ
	(1)	(2)	(3)
Panel A: S1 Specification			
TT	−0.13	0.004	0.10
	(0.08)	(0.08)	(0.08)
TC	−0.04	−0.01	0.01
	(0.08)	(0.08)	(0.08)
CT	−0.09	−0.04	0.003
	(0.07)	(0.07)	(0.08)
Control Mean	−1.94	−1.92	−1.25
Observations	1,158	1,158	1,158
Panel B: S1a Specification			
CT	−0.07	−0.03	0.01
	(0.05)	(0.04)	(0.06)
Control Mean	−1.58	−1.75	−1.3
Observations	584	584	584
Panel C: S1b Specification			
TT	−0.13	0.005	0.10
	(0.08)	(0.08)	(0.08)
TC/CT	−0.06	−0.03	0.005
	(0.07)	(0.07)	(0.07)
Control Mean	−1.94	−1.92	−1.25
Observations	1,158	1,158	1,158

The unit of analysis is the child. See Appendix A for detail on variable construction. Standard errors are in parentheses and clustered at the AWC-level. $^{*}p < .10$,$^{**}p < .05$,$^{***}p < .01$.

5.2 Food Consumption by Mother and Child (CC1, CC2, CC3, CC5, CC6, CC7, CC8) [S2, S3]

This section studies food consumption: see Table 19 for details on when each outcome was collected. In general, observation counts from year 2 are higher here because this data could be collected during phone surveys, unlike anthropometrics. The regressions are based around specifications S2 and S3, and so typically pool data from year 1 and year 2.

In panel A of table 8, there is a significant improvement in food consumption when receiving the transfer across all the categories we measure (coefficient on "Treatment"). We typically cannot reject equivalence of the treatment effect estimates across the years (Treatment x Year 2) or that there is no effect of past treatment status ($Treatment_1 \times Year2$ or $Treatment_1 \times Treatment_2 \times Year2$).[5] Panel B of table 8 uses specification 3, pooling data from year 1 and year 2 and regressing the outcome on current year treatment status. As we would expect given the lack of consistent heterogeneity detected in panel A, the coefficients on "Treatment" are similar in panel B.

Table 10 studies the quantity of particular food items consumed by the target child. This data was collected both in person and over the phone (where we asked about specific items that were common parts of the diet). Some of the improvement in child nutritional intake is driven by roti (bread), daal (lentils) and eggs, where egg consumption nearly doubles relative to the control group mean. It is likely that consumption of other food items also increased, but we do not measure those here. In general, the treatment effect is stronger in year 2 (columns 2 and 3), which is sensible since the children are older and so consuming a larger quantity of solid food at that point. However, we do not find much evidence of past treatment status affecting current consumption.

[5] This contrasts with possibilities like habit formation (greater consumption due to receiving the transfer in the previous year leads to greater consumption even if the household is no longer receiving the transfer) or savings from the past transfers, which seems sensible given the high level of poverty of these households.

Table 8: Food Consumption by Mother and Child

	Child			Mother		Household
	Dietary diversity	Minimum dietary diversity	Minimum meal frequency	Dietary diversity	Nutrient index	Caloric consumption (mother and child)
	(1)	(2)	(3)	(4)	(5)	(6)
Panel A: Specification S2						
Treatment	0.24***	0.05***	0.04**	0.09***	0.10***	0.08***
	(0.04)	(0.01)	(0.02)	(0.02)	(0.02)	(0.01)
Year 2	2.00***	0.50***	0.28***	0.89***	−0.17**	0.25***
	(0.07)	(0.02)	(0.02)	(0.05)	(0.07)	(0.05)
$\text{Treatment}_1 \times$ Year 2	0.12*	0.04	0.02	0.07	0.09*	0.12***
	(0.07)	(0.03)	(0.02)	(0.05)	(0.05)	(0.04)
$\text{Treatment}_1 \times \text{Treatment}_2 \times$ Year 2	−0.04	−0.02	−0.04	0.05	0.01	−0.04
	(0.10)	(0.04)	(0.03)	(0.07)	(0.07)	(0.05)
Treatment × Year 2	−0.10	−0.01	−0.01	−0.005	−0.06	−0.03
	(0.08)	(0.03)	(0.03)	(0.06)	(0.05)	(0.04)
Control Mean	2.26	0.23	0.69	3.02	0.21	7.45
Observations	6,720	6,720	5,833	6,720	5,276	5,784
Panel B: Specification S3						
Treatment	0.24***	0.05***	0.04***	0.11***	0.09***	0.07***
	(0.05)	(0.01)	(0.01)	(0.03)	(0.02)	(0.01)
Control Mean	2.26	0.23	0.69	3.02	0.21	7.45
Observations	6,720	6,720	5,833	6,720	5,276	5,784

The unit of analysis is specified in the first row of the table. Details on index construction can be found in Appendix A. Dietary diversity (0-7) and nutrient (0-1) indices are constructed such that higher values correspond to higher diet quality. See Appendix A for details on each variable and Table 19 for when the data was collected. Standard errors are in parentheses and clustered at the AWC-level. $^{*}p < .10,^{**}p < .05,^{***}p < .01$.

Table 9: Child's Consumption of Key Foodstuffs

	Rice (Grams)	Roti (Count)	Dal (Spoonfuls)	Eggs (Count)	Milk (Glasses)
	(1)	(2)	(3)	(4)	(5)
Panel A: Specification S2					
Treatment	0.94	0.06***	7.47***	0.14**	−0.91
	(1.34)	(0.02)	(1.49)	(0.07)	(0.92)
Year 2	−6.22	0.58***	−27.55***	0.16***	−2.85***
	(4.29)	(0.06)	(3.82)	(0.05)	(0.99)
$\text{Treatment}_1 \times$ Year 2	3.49	0.17**	12.05**	−0.07	−0.06
	(5.06)	(0.07)	(5.01)	(0.10)	(0.28)
$\text{Treatment}_1 \times \text{Treatment}_2 \times$ Year 2	−6.39	−0.12	3.05	0.02	0.10
	(7.57)	(0.09)	(7.66)	(0.12)	(0.31)
Treatment × Year 2	5.63	0.10	−7.03	0.02	1.01
	(6.05)	(0.07)	(5.15)	(0.12)	(0.96)
Control Mean	34.5	0.27	25.33	0.2	1.68
Observations	5,912	5,912	6,213	2,267	1,160
Panel B: Specification S3					
Treatment	1.60	0.08***	5.46***	0.16***	0.06
	(1.49)	(0.02)	(1.70)	(0.05)	(0.14)
Control Mean	34.5	0.27	25.33	0.2	1.68
Observations	5,912	5,912	6,213	2,267	1,160

The unit of analysis is the child. Outcomes correspond to the amount of the corresponding foodstuffs consumed by the child. Standard errors are in parentheses and clustered at the AWC-level. $^{*}p < .10$,$^{**}p < .05$,$^{***}p < .01$.

Table 10: Child's Consumption of Key Foodstuffs (Recoded Variables)

	Rice (Grams)	Roti (Count)	Dal (Spoonfuls)	Eggs (Count)	Milk (Glasses)
	(1)	(2)	(3)	(4)	(5)
Panel A: Specification S2					
Treatment	0.94	0.06***	7.47***	0.05	−0.03
	(1.34)	(0.02)	(1.49)	(0.03)	(0.03)
Year 2	−6.22	0.58***	−27.55***	−0.09	0.99***
	(4.29)	(0.06)	(3.82)	(0.15)	(0.14)
$\text{Treatment}_1\times$ Year 2	3.49	0.17**	12.05**	0.07	0.01
	(5.06)	(0.07)	(5.01)	(0.19)	(0.18)
$\text{Treatment}_1\times \text{Treatment}_2\times$ Year 2	−6.39	−0.12	3.05	−0.06	0.12
	(7.57)	(0.09)	(7.66)	(0.40)	(0.19)
Treatment × Year 2	5.63	0.10	−7.03	0.45	0.005
	(6.05)	(0.07)	(5.15)	(0.30)	(0.17)
Control Mean	34.5	0.27	25.33	0.08	0.32
Observations	5,912	5,912	6,213	6,160	6,021
Panel B: Specification S3					
Treatment	1.60	0.08***	5.46***	0.18***	0.002
	(1.49)	(0.02)	(1.70)	(0.07)	(0.04)
Control Mean	34.5	0.27	25.33	0.08	0.32
Observations	5,912	5,912	6,213	6,160	6,021

The unit of analysis is the child. Outcomes correspond to the amount of the corresponding foodstuffs consumed by the child. Standard errors are in parentheses and clustered at the AWC-level. $^{*}p < .10$,$^{**}p < .05$,$^{***}p < .01$.

6 Year 2 Secondary Outcomes

6.1 Child Health (CH4, CH5, CH6, CH7, CH8, CH9) [S1, S1a]

As in year 1, columns 1 to 4 of Table 11 expand the tests of the primary outcomes by testing specifically for effects on binary outcomes of severe (<-3 SD) and moderate (<-2 SD) stunting and wasting among the full sample. Columns 5 to 7 restrict to the bottom 25% of the year 1 treatment and control groups, and test for differences there.

The table finds relatively consistent negative coefficients on anthropometric outcomes across the treatment groups. This could be because of the partial sample surveyed before COVID-19 shut down survey operations: it may be that the incomplete sample surveyed in the control group happened to contain an unusually small proportion of highly stunted children. This issue is worsened by the fact that we are only looking at an extreme set among the already small sample of individuals who were were able to survey, and so we prefer the year 3 results with the more complete sample. Nonetheless, we still report these results for completeness.

In year 2, we also measured cognitive outcomes: this was done both in-person and over the phone after COVID-19 shut down in-person survey operations (see Table 19).[6] We do not detect effects here for any of the treatment groups, but this may reflect that the number of questions was relatively small due to the need to implement it over the phone after COVID-19 shut down in-person surveying (and thus it is potentially less precise of a measure). As a result, we prefer the year 3 measure, which collects data from the full sample and has a longer battery of questions that go into the index.

[6] Measuring cognitive outcomes was not possible in year 1 since the children were too young at that point for reliable results

Table 11: Child Development Outcomes

	Moderately stunted	Severely stunted	Moderately wasted	Severely wasted	HAZ	WAZ	WHZ	Child development index
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Panel A: S1 Specification								
TT	0.03	0.07**	−0.01	0.02*	−0.15	−0.20**	−0.17*	0.06
	(0.04)	(0.03)	(0.03)	(0.01)	(0.09)	(0.09)	(0.10)	(0.78)
TC	0.03	0.09***	−0.01	0.03*	−0.12	−0.17**	−0.06	0.88
	(0.04)	(0.03)	(0.04)	(0.01)	(0.09)	(0.09)	(0.08)	(0.88)
CT	0.04	0.06**	0.01	0.002	−0.07	−0.02	0.01	0.20
	(0.04)	(0.03)	(0.04)	(0.01)	(0.09)	(0.08)	(0.07)	(0.81)
Control Mean	0.49	0.16	0.19	0.03	−3.34	−3.18	−2.4	63.81
Observations	1,226	1,226	1,226	1,226	307	308	312	2,262
Panel B: S1a Specification								
CT	0.03	0.05**	0.01	0.01	0.04	0.001	0.05	
	(0.03)	(0.02)	(0.04)	(0.01)	(0.14)	(0.08)	(0.11)	
Control Mean	0.36	0.1	0.22	0.04	−3	−3.04	−2.52	
Observations	573	573	573	584	94	111	92	

The unit of analysis is the child. For details on variable construction, see Appendix A. WAZ, HAZ, and WHZ in this table correspond to only children at or below the 25th percentile of the treatment and control distributions. Standard errors are in parentheses and clustered at the AWC-level. $^{*}p < .10$,$^{**}p < .05$,$^{***}p < .01$.

6.2 Household Consumption and Spending (S1, S2) [S2, S3]

This table measures expenditure on food and non-food items.[7] As in year 1, those who received transfers in year 2 spent more on food items. Although the coefficient for expenditure on non-food items (column 2, panel A) is statistically insignificant, it is large, and when we pool the treatment arms in panel B, the estimate is positive and statistically significant. For both sets of outcomes, we do not find evidence that past treatment status matters for current spending.

Table 12: Household Spending

	(Logged) food expenditure	(Logged) nonfood expenditure
	(1)	(2)
Panel A: Specification S2		
Treatment	0.27***	0.22
	(0.06)	(0.18)
Year 2	−0.23	
	(0.14)	
Treatment$_1$× Year 2	0.20	0.09
	(0.16)	(0.21)
Treatment$_1$× Treatment$_2$× Year 2	0.07	0.05
	(0.20)	(0.26)
Treatment × Year 2	−0.08	
	(0.17)	
Control Mean	7.49	8.07
Observations	7,450	2,708
Panel B: Specification S3		
Treatment	0.24***	0.24*
	(0.05)	(0.12)
Control Mean	7.49	8.07
Observations	7,450	2,708

The unit of analysis is the household. Estimates correspond to pooled samples of Year 1 and Year 2 observations. Treatment in Panel A is a dummy indicator for treatment status in the "present". Treatment in Panel B is a dummy indicator for treatment status in Year 2. Past Treatment is a dummy indicator for treatment status in Year 1.

[7] Unlike in year 1, we do not measure sin good consumption because that proved too difficult to do over the phone. Note that this means that column 2 only has data from year 2, so some of the coefficients are dropped.

6.3 Child Morbidity (CM1, CM2, CM3) [S2, S3]; Maternal Outcomes (MO1, MO2, MO3) [S2, S3]; Beliefs and Health-Seeking Behavior Change [S2, S3]; Sevika Behavior and Contact [S2, S3]

Table 13 measures child morbidity. In both year 1 and year 2, we measure the total number of illnesses over the past three months, but in year 2, we also measure the number of days of illness in the past month [8]. We do not detect effects on illness in either year 2. When pooling the arms, we find that the likelihood of visiting a medical provider if ill increases in panel A, where we cannot reject equivalence of the estimates across arms and years. However, our estimates in panel B are not statistically significant using specification 3. Note that individuals visit formal medical providers much less in year 2: this could reflect individuals being less likely to visit formal medical providers due to the COVID-19 pandemic.

The second table is related to maternal outcomes. We do not see strong evidence of effects on maternal empowerment, BMI, or labor supply. The first two are similar to our year 1 results since most of the sample is year 1 data. The last column was only measured in year 2, but we do not detect effects. This contrasts with other papers such as Carneiro et al. (2021), which finds cash transfers being used for longer-term, income-generating investments. In this context, female formal labor force participation is low (17% in the control group), and so there may be fewer opportunities to invest the cash in income-generating activities for women.

The third and fourth tables investigate take-up of AWC services and maternal practices. We consistently find higher take-up and contact with the AWC in the treatment group (Table 15). This likely explains the modestly better nutritional knowledge in the treatment group (column 1 of Table 16)[9], as we do see more nutritional information being delivered at the AWC (column 6 of Table 15). We do not observe effects on the likelihood of the mother breastfeeding, but this could be because rates were already extremely high (90% in the control) so there are some ceiling effects.

[8] Our year 1 measure was whether the child was sick in the last three months and lacked variation since nearly everyone had the same answer (yes).

[9] Section 4 of Weaver et al. (2023) finds that other messaging through phone calls to respondents did not have an effect on nutritional knowledge in this sample.

Table 13: Child Morbidity

	Total illnessess in the past three months	Number of ill days over the last month	Probability of visiting formal medical provider
	(1)	(2)	(3)
Panel A: Specification S2			
Treatment	0.02	0.01	0.03**
	(0.02)	(0.29)	(0.01)
Year 2	0.04		−0.26***
	(0.05)		(0.03)
$\text{Treatment}_1 \times$ Year 2	0.05	0.17	0.05
	(0.06)	(0.33)	(0.04)
$\text{Treatment}_1 \times \text{Treatment}_2 \times$ Year 2	−0.07	0.19	0.03
	(0.08)	(0.41)	(0.05)
Treatment × Year 2	0.03		−0.03
	(0.06)		(0.04)
Control Mean	1.81	3.07	0.68
Observations	6,923	1,341	6,333
Panel B: Specification S3			
Treatment	0.02	0.09	0.02
	(0.02)	(0.22)	(0.01)
Control Mean	1.81	3.07	0.68
Observations	6,923	1,341	6,333

The unit of analysis is the child. For details on variable construction, see Appendix A. Panel B includes control variables (coefficients excluded) chosen by a post-double selection LASSO procedure. Standard errors are in parentheses and clustered at the AWC-level. $^{*}p < .10,^{**} p < .05,^{***} p < .01$.

Table 14: Maternal Outcomes

	Empowerment index	BMI	Mother's labor supply
	(1)	(2)	(3)
Panel A: Specification S2			
Treatment	0.05	−0.12	0.04
	(0.04)	(0.11)	(0.04)
Year 2	0.23***	1.26***	
	(0.08)	(0.42)	
Treatment$_1$× Year 2	0.13	0.03	0.03
	(0.08)	(0.23)	(0.04)
Treatment$_1$× Treatment$_2$× Year 2	0.01	−0.18	−0.09*
	(0.11)	(0.31)	(0.05)
Treatment × Year 2	−0.07	0.19	
	(0.10)	(0.25)	
Control Mean	2.43	19.73	0.17
Observations	6,021	3,453	885
Panel B: Specification S3			
Treatment	0.03	−0.07	−0.01
	(0.03)	(0.10)	(0.03)
Control Mean	2.43	19.73	0.17
Observations	6,021	3,453	885

The unit of analysis is the mother. The empowerment index (0-5) corresponds to the number of questions answered by the respondent that suggest a high degree of the corresponding characteristic. Mother's labor supply is a binary indicator for whether the respondent engaged in paid work in the last month. Year 2 and Treatment × Year 2 are dropped in Column (3) because this data was only collected in year 2. See Appendix A for details on variable construction. Standard errors are in parentheses and clustered at the AWC-level. $^{*}p < .10,^{**}p < .05,^{***}p < .01$.

Table 15: Take-Up of AWC Services

	Deworming	Government schemes	Growth measurement	Hot cooked meals	Iron/calcium tablets	Nutrition information	Preschool	Take home rations	Vaccinations
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
Panel A: Specification S2									
Treatment	0.04**	0.05***	0.02	−0.001	0.04***	0.09***	−0.002	0.01	0.01
	(0.02)	(0.02)	(0.02)	(0.02)	(0.02)	(0.02)	(0.01)	(0.01)	(0.01)
Year 2	0.12***	−0.28***	−0.10***	0.09*	−0.09***	−0.11***	0.11**	−0.06***	−0.27***
	(0.03)	(0.03)	(0.03)	(0.05)	(0.03)	(0.03)	(0.05)	(0.02)	(0.03)
$\text{Treatment}_1 \times$ Year 2	0.002	0.03	0.005	−0.003	0.02	0.05*	0.003	−0.001	−0.01
	(0.03)	(0.03)	(0.04)	(0.04)	(0.03)	(0.03)	(0.04)	(0.02)	(0.03)
$\text{Treatment}_1 \times \text{Treatment}_2 \times$ Year 2	0.01	−0.08*	0.02	−0.04	−0.04	−0.01	−0.01	−0.01	0.01
	(0.05)	(0.05)	(0.05)	(0.06)	(0.05)	(0.05)	(0.06)	(0.03)	(0.05)
Treatment × Year 2	−0.05	0.02	0.01	0.06	−0.02	−0.02	0.03	0.02	−0.02
	(0.04)	(0.04)	(0.04)	(0.04)	(0.04)	(0.04)	(0.04)	(0.03)	(0.04)
Control Mean	0.47	0.53	0.67	0.35	0.52	0.45	0.32	0.87	0.58
Observations	6,118	6,024	6,026	5,212	6,668	6,028	5,229	6,039	6,051
Panel B: Specification S3									
Treatment	0.03**	0.04***	0.02	0.01	0.03**	0.08***	0.005	0.02*	0.005
	(0.01)	(0.01)	(0.01)	(0.01)	(0.01)	(0.01)	(0.01)	(0.01)	(0.01)
Control Mean	0.47	0.53	0.67	0.35	0.52	0.45	0.32	0.87	0.58
Observations	6,118	6,024	6,026	5,212	6,668	6,028	5,229	6,039	6,051

The unit of analysis is the mother (respondent). Outcomes are dummy indicators for whether the mother took-up the associated AWC service in the previous year. Hot cooked meals and pre-school have a smaller number of observations because we did not collect information about that over the phone during year 2 due to the suspension of these services resulting rom the Covid-19 pandemic. Standard errors are in parentheses and clustered at the AWC-level. $^{*}p < .10,^{**}p < .05,^{***}p < .01$.

Table 16: Beliefs & Health-Seeking Behavioral Change

	Nutritional knowledge index	Breastfed
	(1)	(2)
Panel A: Specification S2		
Treatment	0.10*	0.002
	(0.06)	(0.01)
Year 2	0.60***	−0.18***
	(0.21)	(0.04)
$\text{Treatment}_1 \times$ Year 2	0.22	0.02
	(0.18)	(0.04)
$\text{Treatment}_1 \times \text{Treatment}_2 \times$ Year 2	0.02	−0.08
	(0.24)	(0.06)
Treatment × Year 2	−0.02	0.02
	(0.19)	(0.04)
Control Mean	3.51	0.9
Observations	5,291	5,327
Panel B: Specification S3		
Treatment	0.10**	−0.003
	(0.05)	(0.01)
Control Mean	3.51	0.9
Observations	5,291	5,327

The unit of analysis is the respondent. The nutritional knowledge index (0-6) corresponds to the number of questions answered by the respondent that suggest a high degree of the corresponding characteristic (see Appendix A for detail). Breastfed is a binary indicator for whether the respondent breastfeeds their child. Standard errors are in parentheses and clustered at the AWC-level. $^{*}p < .10,^{**} p < .05,^{***} p < .01$.

7 Year 3 Primary Outcomes

This section of the paper examines anthropometric and cognitive child development outcomes in year 3. We only look at these stock outcomes since the transfer has ceased at this point, so it does not make sense to examine flow measures like nutritional intake. Unlike in year 2, we are able to measure these for the entire sample since we conducted an in-person field survey during a low period for COVID-19 in 2021. Most point estimates in Table 17 are statistically insignificant aside from two that are negative and marginally statistically insignificant at the 10% level. Especially taken in conjunction with Table 18, which looks at secondary anthropometric outcomes and finds a consistent lack of effects, we interpret this as a lack of consistent average effects on anthropometrics across treatment arms. For child development, there is a strongly positive effect in TT, a marginally significant effect in TC, but no effect in CT. This is potentially because the longer treatment period generated a larger treatment effect that we are better powered to detect than any correspondingly smaller effects in the one year arms.

Table 17: Anthropometric Outcomes

	HAZ	WAZ	WHZ
	(1)	(2)	(3)
Panel A: S1 Specification			
TT	0.06	0.04	0.07
	(0.06)	(0.04)	(0.07)
TC	0.03	−0.04	−0.07*
	(0.06)	(0.04)	(0.04)
CT	−0.05	−0.08*	−0.06
	(0.05)	(0.04)	(0.04)
Complementarity Tests (p-value)			
TT = CT + TC	0.265	0.015	0.011
0.5 × TT = CT	0.07	0.014	0.026
0.5 × TT = TC	0.936	0.148	0.02
Control Mean	−0.87	−1.22	−1.07
Observations	4,350	4,435	4,350
Panel B: S1a Specification			
CT	−0.06	−0.02	0.002
	(0.04)	(0.03)	(0.03)
Control Mean	−1.29	−1.53	−1.2
Observations	2,653	2,692	2,653
Panel C: S1b Specification			
TT	0.06	0.04	0.07
	(0.06)	(0.04)	(0.07)
TC/CT	−0.01	−0.06	−0.07*
	(0.05)	(0.04)	(0.03)
Control Mean	−0.87	−1.22	−1.07
Observations	4,350	4,435	4,350

The unit of analysis is the child. See Appendix A for detail on variable construction. Standard errors are in parentheses and clustered at the AWC-level. $^{*}p < .10,^{**}p < .05,^{***}p < .01$.

8 Year 3 Secondary Outcomes

Table 18: Anthropometric Outcomes

	Moderately stunted	Severely stunted	Moderately wasted	Severely wasted	HAZ	WAZ	WHZ	Child development index
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Panel A: S1 Specification								
TT	0.0001	−0.01	−0.02	−0.003	0.04	0.04	0.01	3.90***
	(0.02)	(0.01)	(0.02)	(0.01)	(0.06)	(0.05)	(0.04)	(1.19)
TC	0.01	0.01	0.01	0.0004	−0.01	0.02	0.05	2.03*
	(0.02)	(0.01)	(0.02)	(0.01)	(0.06)	(0.05)	(0.04)	(1.23)
CT	0.02	−0.003	0.001	−0.0001	0.06	−0.03	−0.01	−1.44
	(0.02)	(0.01)	(0.02)	(0.01)	(0.06)	(0.04)	(0.04)	(1.19)
Control Mean	0.19	0.05	0.14	0.02	−2.5	−2.51	−2.2	
Observations	3,600	3,653	3,600	4,050	904	966	1,003	3,663
Panel B: S1a Specification								
CT	0.01	0.001	−0.002	−0.001	−0.05*	−0.02	0.03	
	(0.01)	(0.005)	(0.01)	(0.003)	(0.03)	(0.02)	(0.02)	
Control Mean	0.29	0.08	0.19	0.03	−2.79	−2.82	−2.39	
Observations	4,365	4,409	4,365	4,963	864	956	999	

The unit of analysis is the child. For details on variable construction, see Appendix A. WAZ, HAZ, and WHZ in this table correspond to only children at or below the 25th percentile of the treatment and control distributions. Standard errors are in parentheses and clustered at the AWC-level. $^{*}p < .10$,$^{**}p < .05$,$^{***}p < .01$.

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A Appendix: Variable Construction

This appendix presents detailed information on the construction of variables in this study, including technical material motivating indices or measures with clinical justification.

A.1 In-person measures of food consumption

In order to accurately gauge household consumption of nutrients, we used an intensive measurement protocol taken from the nutrition literature. We conducted a 24-hour recall history with the household in which they were instructed to list everything that they had eaten during the previous calendar day. The next steps were:

- Collect measurements of ingredients used in every food item. For each food item, respondents were asked to list every raw ingredient used to cook the item. We then measured the amount of that ingredient that they used by measuring the capacity of the utensils used to put in each ingredient.

  For example, suppose the respondent had used a particular ladle to measure out raw yellow daal for their dinner on the previous day. We would take the ladle they used to measure out the daal, fill it with water, and then pour that water into a beaker to measure ladle capacity in milliliters. We would then ask how many ladle servings they had put in (including partial servings) and convert that to an amount used of that ingredient. Using data from Longvah et al. (2017) on the nutritional content of raw ingredients used in Indian cooking, we then converted the raw ingredients to nutrient amounts (e.g. 100 grams of "black gram, daal" contains 23.1 grams of protein, 1.7 grams of fat, etc.).

- Collect measurements of the total amount of cooked food for every meal cooked yesterday. This means measuring the capacity of the vessels (in milliliters) in which food was cooked using the same methodology of pouring water into a beaker. We then record the level until which these vessels were filled after the item was cooked and converted that to a total volume cooked.

- Collect measurements of the share eaten of each cooked item by the mother and child. This meant asking the respondent to show how much they ate out of the cooked items in the unit of serving utensils (e.g. three spoonfuls of cooked yellow daal). We convert that to an amount in milliliters by using the same technique to measure the capacity of the utensils used to serve the food.

We combine these three measures to derive a precise measurement of the amount consumed by individual household members (mother and child). This is equal to the total share of cooked item consumed multiplied by the nutritional content of the ingredients for that item, summed across all the cooked items. Additionally, we collected measurements of any complementary feeding of the child (other than breastmilk) such as biscuits or snacks that were not produced at home. We convert those to nutrients using approximations of the nutritional content of those items. The full set of instructions is available at this link.

A.2 Nutritional Measures

- **Dietary diversity score**: Computed as the number of the following dietary groups consumed by the respondent or child: (1) grains, roots, and tubers, (2) legumes and nuts, (3) dairy products, (4) flesh foods, (5) eggs, (6) vitamin-A rich fruits and vegetables, (7) other fruits

and vegetables; based on and calculated in accordance with the WHO's (2008) "Indicators for assessing infant and young child feeding practices"

- **Minimum meal frequency**: Binary indicator taking value 1 if the child meets WHO (2008) guidelines for the minimum number of times that children should consume solid, semi-solid, or soft foods and 0 otherwise; minimum frequency is twice per day for breastfed infants 6-8 months, three times per day for breastfed children 9-23 months, and four times per day for non-breastfed children 6-23 months

- **Nutrient index**: Taking the recommended daily value (as prescribed by the National Institute of Nutrition (2011) for calories, protein, visible fat, calcium, iron, thiamine, riboflavin, niacin, pyridoxine, and dietary folate, we calculated the fraction of this that respondents consumed and then averaged across all items. Foods were translated into nutrients using the Indian Food Consumption Tables as described above (Longvah et al., 2017).

A.3 Social & Behavioral Measures

- **Nutritional knowledge index**: Discrete variable taking values between 0 to 6, corresponding to the number of the following questions or statements that the mother answers or responds to "correctly", i.e. in line with clinical recommendations:
  - How much should you eat during pregnancy: more than normal, the same amount as normal, or less than normal?
  - How much should you eat while breastfeeding: more than normal, the same amount as normal, or less than normal?
  - Eating more during pregnancy affects child intelligence.
  - Eating more during pregnancy affects child height.
  - Eating more as a child affects child intelligence.
  - Eating more as a child affects child height.

- **Anganwadi services received**: Discrete variable taking values between 0 to 9 corresponding to the number of the following AWC services that the respondent received in the previous year: (1) deworming, (2) government schemes, (3) growth measurement, (4) hot cooked meals, (5) iron/calcium tablets, (6) nutrition information, (7) pre-school, (8) take-home rations, (9) vaccination

- **Empowerment index**: Discrete variable taking values between 0 to 5 corresponding to the number of the following questions adapted from J-PAL's "Practical Guide to Measuring Women's and Girls' Empowerment in Impact Evaluations" (Glennerster et al., 2018) that indicate respondent empowerment:
  - The last time you went to a relative or acquaintence's house inside the village, did you have to take permission from other members of your household?
  - The last time you went to the market without your village, did you have to take permission from other members of your household?
  - Do you have to ask someone for money if you want to purchase items from the market?
  - Imagine that you were home alone without your spouse or guardian and one of your children was very sick. Could you make the choice on your own to purchase medication to treat your child?

  - Suppose you earned Rs 300 as part of a government program. Who would decide how to spend it?

- **Depression index**: Discrete variable taking integer values from 0-5, corresponding to the number of the following questions from the Patient Health Questionnaire-9 that are answered in a way indicating the presence of depressive disorders:
  - In the last 2 weeks, how often have you felt nervous or stressed?
  - Often there are multiple tasks that you have to do in a day like cooking, cleaning, taking care of your child, etc. In the last two did you feel that you couldn't manage all these tasks?
  - In the last 2 weeks, how often did you have trouble falling or staying asleep, or sleeping too much?
  - In the last 2 weeks, how often were you feeling tired or having little energy?
  - In the last 2 weeks, how often were you having trouble concentrating on things?
- **Probability of visiting a formal medical provider**: Binary indicator that takes value 1 if the child has visited a government doctor/hospital/clinic/PHC, private doctor/hospital/clinic, or an ANM/sub-centre and 0 otherwise
- **Total illnesses in the past three months**: Discrete index corresponding to the number of the following distinct illnesses or ailments experienced by the child in the previous three months: (1) cold/cough/fever, (2) diarrhea/vomiting/stomach infections, (3) malaria/jaundice/dengue/other vector-borne diseases, (4) measles/chickenpox, (5) pneumonia, (6) physical injuries/fractures, (7) other illnesses not listed here

A.4 Anthropometric Measures

- **HAZ**: Height-for-age z-score; computed using Stata's **zanthro** command (Vidmar et al., 2013) and the WHO Child Growth Charts (2006)
- **WAZ**: Weight-for-age z-score; computed using Stata's **zanthro** command (Vidmar et al., 2013) and the WHO Child Growth Charts (2006)
- **Moderately stunted**: Binary variable that takes value 1 if a child has HAZ $<$ -2 and 0 otherwise
- **Moderately wasted**: Binary variable that takes value 1 if a child has WHZ $<$ -2 and 0 otherwise
- **Severely stunted**: Binary variable that takes value 1 if a child has HAZ $<$ -3 and 0 otherwise
- **Severely wasted**: Binary variable that takes value 1 if a child has WHZ $<$ -3 and 0 otherwise
- **Child development index**: Index taking values 0-90 (Year 2) or 0-170 (Year 3) computed by summing scores associated with one of the following lists of questions asked to respondents, where 10 is granted for "Yes", 5 is granted for "Sometimes", and 0 is granted for "No"
  - **Year 2 Questions**
  - Does your child run, stopping herself and without bumping into things or falling over?

- Does your child climb on furniture?
- Can your child remove clothes on her own without your help?
- When your child wants something does she tell you by pointing to it?
- When you ask your child to, does she go into another room and find familiar objects or toys? For example you might ask your child to "Bring water" or "Go get your chappal (sandals)"
- Does your child say words other than "Mama" and "Papa?" For example words may include "Bakri (goat)" or "Gai (cow)" or "Kaan (ear)" or "Naak (nose)"
- Does your child say short sentences? Such as "Khaana do (Give me food)" or "Mama paani do (Mama, give me water)" or "Yeh kya hai? (What is this?)" or "Mera haath pakdo (Hold my hand)"
- Does your child scribble?
- Has your child started eating food on her own?
- **Year 3 Questions**
- When you ask "What is your name?" Does your child say her full name?
- Can your child tell the name of two or more family members or playmates?
- Can your child tell the correct name of the village/tola/block she stays in?
- Can your child tell which day of the week it is today?
- Can your child count to 5?
- Can your child count to 10?
- Can your child count to 20?
- Can your child name the primary colours (red, yellow, blue)?
- Does your child walk either up or down at least two steps of stairs by herself without holding onto the railing or wall?
- Without holding anything for support, does your child kick a ball by swinging her leg forward?
- Does your child catch a large ball with both hands?
- Does your child serve herself, taking food from one container to another using utensils? For example, does your child use a serving spoon to take rice?
- Does your child unbutton one or more buttons?
- Does your child use a pencil, crayon, or pen for writing or drawing and hold it properly like an adult between thumb and finger?
- Can your child draw a basic figure?
- Does your child brush her teeth by putting toothpaste on the toothbrush and brushing all her teeth without help?
- Can your child do paper folding?

Table 19: Timing and Measurement of Primary Outcome Variables

	Year 1		Year 2				Year 3
	Phase 1	Phase 2	Phase 1		Phase 2		Phase 1 & 2
	Field	Field	Field	Phone	Phone		Field
	Jan '19	Nov '19	Feb '20	May '20	Sep '20	Nov '20	Nov '21
Anthropometrics & Cognition							
Weight-for-Age (WAZ)	✓	✓	✓				✓
Height-for-Age (HAZ)	✓	✓	✓				✓
Sibling Weight-for-Age (HAZ)			✓				✓
Sibling Height-for-Age (HAZ)							✓
Cognitive & Motor Skills			✓		✓		✓
Expenditures							
Food Spending	✓	✓	✓	✓	✓	✓	
Sin Spending	✓	✓	✓				
Non-Food Spending			✓	✓		✓	
Nutrition							
Caloric Consumption	✓	✓	✓				
Child's Dietary Diversity	✓	✓	✓	✓	✓		✓
Mother's Dietary Diversity	✓	✓	✓	✓	✓		✓
Child's Minimum Meal Frequency	✓	✓	✓	✓	✓		
Mother's Nutrient Index	✓	✓	✓				
Social & Behavioral							
Visitation of Formal Medical Provider	✓	✓	✓	✓		✓	
Illnesses in Past Three Months	✓	✓	✓	✓		✓	
Anganwadi Services	✓	✓	✓		✓		
Mother's Nutritional Knowledge	✓	✓	✓				
Empowerment Index	✓	✓	✓		✓		
Depression Index	✓	✓	✓				

The project was rolled out in two phases, where the treatment began in five districts in March 2018 (labeled "Phase 1") and in another three districts in November 2018 ("Phase 2"). As a result, data collection took place at different times in each phase. For phase 1 districts, there was an in-person survey at the end of year 1 in January of 2019 (column 1) and an in-person survey at the end of year 2 beginning in February of 2020 (column 3). The year 2 survey was halted midway due to COVID-19 and data collection was completed over the phone in May of 2020 (column 4). For phase 2 districts, there was an in-person survey at the end of year 1 in November of 2019 (column 2). Due to COVID-19, the year 2 surveys in phase 2 were conducted over the phone. To reduce respondent fatigue, this was split into two phone surveys: one in September of 2020 (column 5) and one in November of 2020 (column 6). Finally, in both phase 1 and phase 2 districts, a final in-person survey was conducted in November of 2021 (column 7).