Online Appendix:

The Impacts of a Multifaceted Pre-natal Intervention on Human Capital Accumulation in Early Life

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A Appendix

A.1 Cognitive and Non-cognitive Development

We consider whether the improvements in height and health spillover to margins of cognitive and non-cognitive development of the new child, that are not targeted but that also have potential importance in determining lifetime welfare. We measure development of communication and gross motor skills using modules adapted from the Ages and Stages Questionnaire [ASQ-3, Squires and Bricker 2009]. At endline we added a modified ASQ module measuring personal-social skills of the new child.

These modules assess a child's development by asking his/her caretaker whether the child is able to perform a number of specific tasks. There are six age-specific tasks (in windows of 2-3 months) asked about along each domain. For example, for motor skills, the caretaker of a child aged 19-20 months is asked, "Does the child run fairly well, stopping himself/herself without bumping into things or falling?" A child then receives zero points if child does not perform the task yet; five points if the child performs it "sometimes"; ten points if he/she does it habitually. We convert aggregate scores on each domain to Z-scores based on international norms. We also report impacts on the likelihood of being below specific thresholds (say for low communication skills), below which children (in richer countries) should typically be referred to a developmental

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nurse or psychologist for further assessment. In the absence of locally validated thresholds, we use the thresholds from the reference western population.

Panel A of Table A8 shows the results. At midline there are significant impacts on the communication skills of new children, with a 5% reduction in those classified as having low communication skills. However, these impacts fade out over time. We find no evidence the program impacts motor skills or personal-social skills.[1]

This is despite the fact that as shown in Panel B, the time mothers allocate towards the new child does increase (that was only measured at midline). We find a shift away from mothers reporting spending less than two hours playing with their child to an increase in the share reporting spending more than five hours playing with the child. If key investments into children are time intensive, they seem to feed through into anthropometric and health outcomes, but not domains of child development.[2]

A.2 Maternal Health

Maternal health is critical to infant survival and child development. Some of the key messages provided by the intervention relate to mothers maintaining their nutritional status, in recognition of the fact that energy and nutrition needs increase during pregnancy and lactation. Moreover, improved food expenditures, dietary diversity and food security through seasons might raise women's labor productivity. In turn this can drive the labor supply responses documented earlier.

To check for this, in Table A13 we show impacts on maternal health using anthropometric outcomes. At neither midline nor endline do we find no robust evidence of changes in any health dimension: mother' weight, BMI and measures of malnourishment are largely unchanged with the majority of outcomes not being statistically different from zero.

A.3 Robustness

Our baseline specification (??) only conditions on district fixed effects, η_d (local government area or LGA), and randomization strata λ_s (the tranches used given rolling enrolment into the program). In Table A15 we use a Lasso procedure to select controls following the methods set out in Urminsky *et al.* [2016]. For each outcome, we also report the number of covariates selected. We see that

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[1]We adapted the questionnaires to our context, translated it into Hausa, and extensively piloted it to further refine its design. Our study is among the first to evaluate the impacts of a cash transfer intervention on child cognitive and motor development in Sub-saharan Africa. Only a few randomized control trials in low-income settings have measured such outcomes, and given the wide range of instruments and scales used, our results are only partially comparable to existing work. Subject to this caveat, we note that our documented impact on communication skills is similar in size to what has been found for domains such as vocabulary and memory [Paxson and Schady 2010, Macours *et al.* 2012, Levere *et al.* 2016], and our null finding on gross motor skills is consistent with Macours *et al.* [2012] and Levere *et al.* [2016].

[2]We also examined impacts by gender of the new child. The impacts on communication skills are present for both. There is no impact for either gender on motor or personal-social skills.

there are few changes in the point estimates and precision of most impacts and in most cases, we do not find estimates to be significantly different from each in other between our main specification (without controls) and the Lasso-selected controls. This is true both for the child related outcomes (Panels A to C) and those on mechanisms (Panels D onwards).

To account for multiple hypothesis testing, we present Romano-Wolf adjusted p-values for each family of outcomes in Table A16 (across two-year and four-year estimates). We again so do so for a wide range of outcomes on child anthropometrics, child health, labor activities, activity types, investment, expenditures, savings/borrowing, and net resources/poverty. Although anthropometric outcomes at endline are not different from zero, outcomes related to height stunting and weight-for-height remain so at midline. Nearly all other results in Panels B to H are robust to this adjustment including those related to women's labor activities, earnings, livestock ownership and net household resources.

Finally, Table A17 shows the main treatment effects split by T1 and T2. On the whole there are few differences in treatment effects although the endline effects of T2 on height (and hence stunting) are significantly smaller than for T1. However, both treatment arms generate significant increases in gestation, health and dietary diversity outcomes for children, parental knowledge, and women's labor market activities, self-employment, livestock ownership, earnings, and net resource impacts on households.

Table A1: Information Components of the Intervention

A. Key Messages

Period	Message	Details
Prenatal	**Attend antenatal care**	Attend antenatal care at least four times during pregnancy.
	Eat one additional meal during pregnancy	Eat one extra small meal or 'snack' (extra food between meals) each day to provide energy and nutrients for you and your growing baby.
Perinatal	**Breastfeed immediately**	Start breast feeding your baby within the first 30 minutes of delivery. Colostrum is good for the baby.
	Breastfeed exclusively	Breastfeed your child exclusively until six months old. Do not give water, tinned milk, or any other food.
Postnatal	**Complementary feeding**	Introduce complimentary foods at six months of age while continuing to breastfeed. Breastfeed on demand and continue until two years of age. Gradually increase food variety as the child gets older.
	Hygiene and sanitation	Wash your hands after going to the toilet, cleaning baby who defecated, before and after feeding baby; wash baby's hands and face before feeding.
	Use health facilities	Take baby to health facility if you notice any of the following: fever, convulsion, refusing to eat, malnutrition, diarrhea.
	Nutritious food	Ensure you buy nutritious foods when you are buying food for your family.

B. Low- and High-intensity Channels of Message Delivery

Low-Intensity Channels	**Information and education posters**	Health and nutrition related posters are affixed in health facilities and village centers.
	Radio jingles / phone-in programs	Jingles are played regularly on local radio channels. Phone-in programs are one-hour shows in which CDGP staff and invited experts talk about one selected topic, and listeners can call in with questions.
	Friday preaching / Islamic school teachers	
	Health talks	Trained health workers come to the village and deliver a session on a selected topic, with the aid of information cards. Any village resident can attend these talks, irrespective of beneficiary status.
	Food demonstrations	CDGP trained staff delivers nutrition education about the benefits of different foods, and demonstrates how to prepare and cook nutritious meals for children and other household members.
	Voice messages	Pre-recorded messages are sent to beneficiaries' program phones to reinforce key messages.
High-Intensity Channels	**Infant and Young Child Feeding (ICYF) support groups**	Groups are formed within communities to support beneficiaries, under the supervision and facilitation of community volunteers and health extension workers. The recommended size is 12-15 people, meeting once a month. They are also offered to men.
	One-on-one counselling	Beneficiaries and their husbands can consult community volunteers on an `as needed' basis to receive specific information and training.

Notes: Panel A lists the eight key messages around which the behavior change communication component of CDGP was built. Panel B details the channels by which these key messages were delivered to beneficiaries in treated villages.

Table A2: Attrition

Dependent variable: attrit from sample (0/1)
Standard errors in parentheses clustered by village

	Pregnant Woman at Baseline			Husband	Child in Utero at Baseline
	(1) Baseline to Four-Year Endline	(2) Baseline to Four-Year Endline	(3) Baseline to Four-Year Endline	(4) Baseline to Four-Year Endline	(5) Two-Year Midline to Four-Year Endline
Treatment	.013	.011	.054	.080	.118
	(.009)	(.009)	(.068)	(.073)	(.083)
Village insecure at midline	.028	.019	.020	.018	
	(.012)	(.017)	(.017)	(.015)	
Village insecure at endline	.893	.876	.897	.883	.831
	(.010)	(.013)	(.016)	(.017)	(.032)
Treatment * Village insecure at endline			-.031	-.029	-.013
			(.015)	(.017)	(.035)
Randomization Strata	Yes	Yes	Yes	Yes	Yes
Attrition rate	.227	.227	.227	.241	.203
Joint p-value on individual/household controls	.000	.000	.000	.000	
Joint p-value on interactions	-	-	.290	.440	.038
Observations	3688	3688	3688	3688	2719

Notes: Each Column presents estimates using a linear probability model where the dependent variable is if the individual subject attrits and the independent variables are a varying set of treatment indicators, baseline covariates and interactions. Attrition takes the value of one if the subject surveyed at Baseline (or Midline if the New Child) was not surveyed at Endline (except for attrition of the Old Child, which is measured at Midline). The sample in Columns 1 to 3 are women pregnant at Baseline. In Column 4, the sample is husbands of women who were pregnant at Baseline. In Columns 5 and 6, the samples are the New Child in households where the woman was pregnant at Baseline. All Columns include treatment status and village insecurity status, at Midline and Endline. Column 2 adds controls for Baseline characteristics of the household and mother: the number children aged 0-2, 3-5, 6-12 and 13-17, the number of adults, the number of adults aged over 60, mother's age, whether she ever attended school, total monthly expenditure, a dummy for polygamous relationships. All other Columns further add interactions between the program indicators and the covariates as well as interaction between security and treatment status. At the foot of Columns 3 onwards, we report the p-value on the null on the joint hypothesis test that all interaction terms are zero.

Table A3: Take-up of Cash Transfers

Sample: Households with pregnant women at baseline (N=3688)
Means, standard deviation in parentheses, p-values in brackets

	(1) Control	(2) Treated
Panel A: Receipt		
Ever received transfer	.109	.899
Panel B: Timing of First Transfer		
Age of new child (in utero) at first payment (months)		-1.19
		{9.42}
During pregnancy (%)		.473
1st trimester (%)		.049
2nd trimester (%)		.149
3rd trimester (%)		.275
In month of birth (%)		.110
After birth (%)		.304
Panel C: Intensity of Treatment		
Number of payments		23.4
		{6.11}
Total amount transferred		458
		{127}
Receiving or received payments at midline (%)		.803
Receiving or received payments at endline (%)		.895

Notes: This uses data from the administrative records data on payments. The age of the new child at first payment is derived from the month of pregnancy as reported by mothers pregnant at Baseline. 0 means that payments began upon birth. A negative number means that payments began before birth. Columns 1 and 2 report the mean (and standard deviation for continuous variables) of the variable in the Control group, and the treatment group. The p-values on tests of equality across Columns are obtained from an OLS regression, controlling for randomization stratum and clustering standard errors at the village level. All monetary amounts are converted from Nigerian Naira to PPP US dollars at the 2014 rate.

Table A4: Exposure to Low- and High-Intensity Channels of Information Dissemination

Sample: Households with pregnant women at baseline (N=3688)
Means, p-values in brackets

	Wife			Husband			Wife = Husband	
	(1) Control	(2) Treatment	(2) = (3)	(4) Control	(5) Treatment	(5) = (6)	(1) = (4)	(2) = (5)
Panel A: Low-intensity channels								
At least one	.650	.900	[.000]	.670	.860	[.000]	.635	[.070]
All	.020	.210	[.000]	.010	.050	[.000]	.010	[.000]
Panel B: High-intensity channels								
None (%)	.920	.500	[.000]	.950	.810	[.000]	.196	[.000]
All (%)	.020	.140	[.000]	.010	.070	[.001]	.766	[.000]
Support group	.060	.380	[.000]	.040	.140	[.000]	.063	[.000]
Says 1:1 counselling available (%)	.110	.590	[.000]	.130	.420	[.000]	.537	[.000]
If yes: tried to obtain 1:1 counselling	.320	.420	[.023]	.220	.280	[.197]	.104	[.000]
If yes: obtained 1:1 counselling (%)	.890	.910	[.400]	.940	.930	[.874]	.316	[.257]

Notes: Column 1-3 show the means of sampled women's exposure to information channels in the Control and Treatment groups. Columns 4-5 show the corresponding means for husbands. Column 2=3 the p-values that test the hypothesis that the estimated effects are equal between treatment and control groups for women. Column 5=6 report the p-values for husbands. Columns 1=4 and 2=5 show the p-values that test the hypothesis that the estimated effects are equal between wife and husband, within each treatment arm (Control and treatment). . P-values are derived from an OLS regression that controls for randomization strata, and clusters standard errors by village. In Panel A, low-intensity channels include posters, radio, attending food demonstrations and attending health talks. In Panel B, high-intensity channels include 1:1 counselling and support groups. The answers to 1:1 counselling are answered sequentially, so that the next answer is given that the respondent answered yes in the previous question

Table A5: Recall of Messages at Midline

Sample: Households with pregnant women at baseline (N=3688)
Means, p-values in brackets

	Wife			Husband			Wife = Husband	
	(1) Control	(2) Treatment	(2) = (3)	(4) Control	(5) Treatment	(5) = (6)	(1) = (4)	(2) = (5)
All (%)	.000	.010	[.070]	.000	.010	[.373]	[.577]	[.257]
At least one (%)	.460	.810	[.000]	.570	.820	[.000]	[.000]	[.240]
None (%)	.540	.190	[.000]	.430	.180	[.000]	[.000]	[.240]
Number	1.16	2.72	[.000]	1.49	2.51	[.000]	[.000]	[.000]
1 Exclusive Breastfeeding (%)	.180	.500	[.000]	.200	.430	[.000]	[.032]	[.000]
2 Breastfeed Immediately (%)	.080	.190	[.000]	.080	.160	[.000]	[.576]	[.000]
3 Complimentary Foods (%)	.110	.330	[.000]	.110	.250	[.000]	[.956]	[.000]
4 Hygiene and Sanitation (%)	.180	.400	[.000]	.250	.400	[.000]	[.000]	[.920]
5 Use Health Facilities (%)	.170	.280	[.000]	.260	.310	[.085]	[.000]	[.002]
6 Attend Antenatal Care (%)	.180	.320	[.000]	.260	.320	[.014]	[.000]	[.296]
7 Additional Meal in Pregnancy (%)	.030	.110	[.000]	.040	.090	[.000]	[.232]	[.001]
8 Nutritious Food (%)	.220	.590	[.000]	.280	.540	[.000]	[.000]	[.000]

Notes: Column 1-2 show the means of sampled women's recall of messages from low-intensity channels in the Control and Treatment groups. Columns 4-5 show the corresponding means for husbands. Column 2=3 the p-values that test the hypothesis that the estimated effects are equal between treatment and control groups for women. Column 5=6 report the p-values for husbands. Columns 1=4 and 2=5 show the p-values that test the hypothesis that the estimated effects are equal between wife and husband, within each treatment arm (Control and treatment). P-values are derived from an OLS regression that controls for randomization strata, and clusters standard errors by village. Low-intensity channels include posters, radio, attending food demonstrations and attending health talks.

Table A6: Anthropometrics, Age Adjustments

Sample: Households with pregnant women at baseline (N=3688)

Standard errors in parentheses clustered by village, p-values in brackets

Age control:	Age-Adjusted ITT, Two-Year Impact			Age-Adjusted ITT, Four-Year Impact			(1) = (4)	(2) = (5)	(3) = (6)
	(1) NP	(2) Cubic	(3) CF	(4) NP	(5) Cubic	(6) CF			
Height-for-Age (HAZ)	.149	.158	.177	.125	.140	.167	[.702]	[.744]	[.082]
	(.064)	(.059)	(.060)	(.063)	(.062)	(.114)			
Stunted (HAZ < -2)	-.029	-.036	-.037	-.052	-.056	-.065	[.376]	[.439]	[.547]
	(.025)	(.022)	(.023)	(.027)	(.027)	(.045)			
Severely stunted (HAZ < -3)	-.042	-.038	-.049	-.044	-.051	-.050	[.939]	[.565]	[.100]
	(.025)	(.021)	(.021)	(.022)	(.022)	(.046)			
Weight-for-Age (WAZ)	.021	.021	.031	.053	.046	.069	[.571]	[.649]	[.302]
	(.063)	(.055)	(.056)	(.056)	(.056)	(.111)			
Weight-for-height (WHZ)	-.087	-.100	-.099	-.039	-.059	-.055	[.461]	[.531]	[.372]
	(.058)	(.050)	(.048)	(.055)	(.057)	(.109)			
Middle upper arm circumference (MUAC)	-.103	-0.11	-.358	1.16	1.32	.822	[.122]	[.084]	[.825]
	(.679)	(.647)	(.549)	(.687)	(.704)	(1.32)			
Malnourished (MUAC < 125mm)	.002	.007	.003	-.008	-.012	-.007	[.589]	[.270]	[.250]
	(.018)	(.017)	(.010)	(.006)	(.006)	(.04)			

Notes: Column 1 shows the mean (and standard deviation for continuous outcomes) value in Control households at Midline. Column 2 reports ITT estimates at Midline, and Column 3 reports ITT estimates at Endline. These are estimated using OLS, controlling for LGA and randomization tranche fixed effects. Columns 1 and 4 control for the age non-parametrically using dummies for different age ranges of the New Child. The age dummies (in months) are: 14-20, 21-27 at Midline and 21-27, 28-33, 34-39, 40-45, 46-51 at Endline. Columns 2 and 5 control for age using a cubic in age in months. Columns 3 and 6 present control function estimations. The estimations control for age with the same age dummies as in Columns 1 and 4 and in addition control functions are estimated as follows: in the first stage, the age of the child is regressed on all covariates and the date of interview (the exogenous instrument); residuals from the first stage are then squared and cubed and included in the regression for the outcome. In the control function specifications in Columns 3 and 6, standard errors are computed by bootstrap with 1,000 repetitions. In all other Columns, standard errors are clustered at the village level. Stunted is a dummy indicating children with height-for-age-z-score (HAZ) under -2 standard deviations of the WHO defined guidelines [WHO 2009]. Severely stunted is a dummy indicating children with height-for-age-z-score (HAZ) under -3 standard deviations of the WHO defined guidelines. Wasted is defined as being below -2 standard deviation below weight-for-height (WHZ) WHO defined guidelines. Malnourished is a dummy indicating children with a MUAC of less than 125mm.

Table A7: Anthropometric Impacts by Gender

Sample: Households with Pregnant Women at Baseline (N=3688)

Standard errors in parentheses clustered by village, p-values in brackets

| | Boys | | | | Girls | | | | Girls = Boys | |
	(1) Control Mean	(2) Two-Year Impact	(3) Four-Year Impact	(2) = (3)	(4) Control Mean	(5) Two-Year Impact	(6) Four-Year Impact	(5) = (6)	ML	EL
Height-for-Age (HAZ)	-2.60	.257	.107	[.060]	-2.29	.159	.173	[.869]	[.118]	[.622]
	{1.38}	(.089)	(.072)		{1.27}	(.085)	(.079)			
Stunted (HAZ < -2)	.683	-.049	-.058	[.823]	.637	-.064	-.049	[.712]	[.845]	[.476]
		(.030)	(.032)			(.033)	(.035)			
Severely stunted (HAZ < -3)	.388	-0.05	-.037	[.695]	.302	-.048	-.057	[.762]	[.610]	[.367]
		(.030)	(.026)			(.027)	(.029)			
Weight-for-Age (WAZ)	-1.79	.077	-.007	[.197]	-1.66	-.013	.139	[.061]	[.164]	[.210]
	{1.17}	(.074)	(.067)		{1.22}	(.079)	(.070)			
Weight-for-height (WHZ)	-.652	-.093	-.120	[.733]	-.594	-.155	.043	[.030]	[.418]	[.128]
	{1.14}	(.065)	(.069)		{1.13}	(.072)	(.072)			
Middle upper arm circumference (MUAC)	137	-.191	.585	[.422]	133	-.485	1.49	[.055]	[.669]	[.542]
	{13.0}	(.863)	(.843)		{12.9}	(.817)	(.906)			
Malnourished (MUAC < 125mm)	.145	.014	.000	[.499]	.211	.003	-.018	[.401]	[.539]	[.964]
		(.021)	(.007)			(.025)	(.010)			

Notes: Column 1 shows the mean (and standard deviation for continuous outcomes) value in Control households at Midline. Column 2 reports ITT estimates at Midline, and Column 3 reports ITT estimates at Endline. These are estimated using OLS, controlling for LGA and randomization tranche fixed effects. Standard errors are clustered at the village level throughout. Stunted is a dummy indicating children with height-for-age-z-score (HAZ) under -2 standard deviations of the WHO defined guidelines [WHO 2009]. Severely stunted is a dummy indicating children with height-for-age-z-score (HAZ) under -3 standard deviations of the WHO defined guidelines. Severely stunted is a dummy indicating children with height-for-age-z-score (HAZ) under -3 standard deviations of the WHO defined guidelines. Wasted is defined as being below -2 standard deviation below weight-for-height (WHZ) WHO defined guidelines. Malnourished is a dummy indicating children with a MUAC of less than 125mm.

Table A8: Child Development and Maternal Time with Child

Sample: Households with pregnant women at baseline (N=3688)
Standard errors in parentheses clustered by village, p-values in brackets

	(1) Control Mean	(2) Two-year Impact	(3) Four-year Impact	(2) = (3)
Panel A: Child Development				
Communication Skills (Z)	.000	.142	.043	[.217]
	{1.00}	(.056)	(.058)	
Low Communication Skills (%)	.68	-.047	.017	[.025]
		(.024)	(.014)	
Gross Motor Skills (Z)	.000	.087	.082	[.950]
	{1.00}	(.055)	(.059)	
Low Gross Motor Skills (%)	.600	-0.04	0.02	[.065]
		(.028)	(.018)	
Personal-Social Skills (Z)			-.095	
			(.064)	
Low Personal-Social Skills (%)			.024	
			(.028)	
Panel B: Daily Time Mother Spent Playing with New Child				
< 2 hours (%)	.726	-.059		
		(.027)		
2-5 hours (%)	.212	.012		
		(.022)		
> 5 hours (%)	.486	.053		
		(.015)		

Notes: Column 1 shows the mean (and standard deviation for continuous outcomes) value in Control households at Midline. Column 2 reports ITT estimates at Midline, and Column 3 reports ITT estimates at Endline. These are estimated using OLS, controlling for LGA and randomization tranche fixed effects. Standard errors are clustered at the village level throughout. Panel A reports child development scores that are obtained from the Age and Stages Questionnaire (ASQ). The survey included questions on communication and gross motor skills at Midline and in addition included personal-social skills at Endline. The standardized test scores are standardized for each age so that the control mean at any given age (in months) is . Low scores is a dummy indicating the child's score falls below the 'normal range'.

Table A9: Household Dietary Diversity and Food Expenditures, by Food Group

Sample: Households with pregnant women at baseline (N=3688)
Standard errors in parentheses clustered by village, p-values in brackets

	Dietary Diversity (%)				Food Expenditures (USD)			
	(1) Control Mean	(2) Two-year Impact	(3) Four-year Impact	(2) = (3)	(4) Control Mean	(5) Two-year Impact	(6) Four-year Impact	(5) = (6)
MDD 1: Grains, tubers, roots	.933	.017	.000	[.137]	51.2	8.50	5.65	[.588]
		(.010)	(.005)		{73.0}	(4.31)	(3.91)	
MDD 2: Legumes and nuts	.609	.026	.031	[.881]	15.2	1.31	1.44	[.928]
		(.024)	(.022)		{24.9}	(1.34)	(.926)	
MDD 3: Dairy products	.266	.155	.121	[.287]	5.23	1.46	1.33	[.811]
		(.024)	(.029)		{9.06}	(.481)	(.371)	
MDD 4 and 5: Flesh foods and eggs	.19	.077	.100	[.394]	3.9	6.41	1.79	[.052]
		(.023)	(.026)		{37.8}	(2.07)	(1.88)	
MDD 6: Vitamin-A rich fruit and vegetables	.744	.016	.029	[.583]	2.66	.812	-.071	[.007]
		(.020)	(.015)		{4.80}	(.284)	(.252)	
MDD 7: Other fruit and vegetables	.47	.054	.054	[1.00]	13.1	1.310	1.30	[.994]
		(.026)	(.025)		{16.9}	(1.01)	(.728)	
Other: Oil, butter and condiments					26.4	.450	2.77	[.108]
					{25.5}	(1.38)	(.990)	
Other: Sugary items, drinks					5.24	.920	.965	[.936]
					{8.73}	(.492)	(.343)	

Notes: Column 1 shows the mean (and standard deviation for continuous outcomes) values in Control households at Midline. Column 2 reports ITT estimates at Midline, and Column 3 reports ITT estimates at Endline. These are estimated using OLS, controlling for LGA and randomization tranche fixed effects. Standard errors are clustered at the village level throughout. Each meal consumed in the day before the interview from waking up to bedtime is recorded, and each ingredient is coded into categories. Columns 4-6 present food expenditures of matching MDD food groups plus two additional categories (oil/butter/condiments and sugary items/drinks). All expenditure categories are derived from 7-day recalls of expenditure, with the top 1% of values being trimmed. All monetary amounts are converted from Nigerian Naira to PPP US dollars at the 2014 rate.

Table A10: Reasons for Food Insecurity and Coping Strategies

Sample: Households with pregnant women at baseline (N=3688)
Standard errors in parentheses clustered by village

	(1) Control Mean	(2) Two-year Impact	(3) Four-year Impact	(2) = (3)
Why not enough food?				
Food too expensive/didn't have enough money	.212	-.062	-.102	[.113]
		(.020)	(.022)	
Unable to reach the market	.100	-.033	-.044	[.488]
		(.014)	(.013)	
Small land size	.083	-.023	-.039	[.295]
		(.013)	(.011)	
Lack of farm inputs	.055	-.013	-.023	[.432]
		(.011)	(.009)	
Strategy to deal with not enough food?				
Helped by relatives or friends	.123	-.044	-.055	[.539]
		(.017)	(.013)	
Took on more work	.122	-.048	-.044	[.837]
		(.016)	(.014)	
Reduced condiments and sauces in meals	.064	-.029	-.035	[.680]
		(.011)	(.011)	
Borrowed money	.053	-.020	-.018	[.852]
		(.009)	(.009)	
Household members moved away to find work	.036	-.025	-.024	[.911]
		(.007)	(.007)	
Sold livestock	.025	-.007	-.024	[.089]
		(.007)	(.008)	
Ate limited range of food	.011	-.002	-.025	[.005]
		(.004)	(.008)	

Notes: Column 1 shows the mean (and standard deviation for continuous outcomes) values in Control households at Midline. Column 2 reports ITT estimates at Midline, and Column 3 reports ITT estimates at Endline. These are estimated using OLS, controlling for LGA and randomization tranche fixed effects. Standard errors are clustered at the village level throughout.

Table A11: Livestock Ownership

Sample: Households with pregnant women at baseline (N=3688)

Standard deviation in braces, standard errors in parentheses clustered by village

	Household				Wife			
	(1) Control Mean	**(2) Two-year Impact**	**(3) Four-year Impact**	**(2) = (3)**	**(4) Control Mean**	**(5) Two-year Impact**	**(6) Four-year Impact**	**(5) = (6)**
Owns any animals	.898	-.001	.046	[.012]	.783	.059	.115	[.014]
		(.014)	(.016)			(.020)	(.022)	
Any goat	.712	.001	.059	[.026]	.569	.063	.139	[.004]
		(.024)	(.024)			(.026)	(.027)	
Any chicken	.609	.008	.029	[.506]	.388	.066	.089	[.405]
		(.027)	(.025)			(.024)	(.028)	
Any sheep	.559	-.022	.051	[.003]	.331	.014	.074	[.011]
		(.026)	(.024)			(.023)	(.023)	
Any camel	.047	.004	-.007	[.291]	.000	.001	.005	[.154]
		(.010)	(.011)			(.001)	(.003)	
Any cow/bull	.365	-.012	.029	[.093]	.044	-.001	.012	[.359]
		(.028)	(.031)			(.009)	(.013)	
Any donkey	.031	.000	-.003	[.709]	.003	-.002	.004	[.005]
		(.010)	(.008)			(.002)	(.002)	
Any guinea fowl	.165	-.021	-.005	[.499]	.049	-.001	.011	[.353]
		(.020)	(.025)			(.008)	(.011)	
Any calf	.136	.019	.030	[.618]	.031	.010	.017	[.496]
		(.017)	(.021)			(.008)	(.010)	

Notes: Columns 1-3 report results for household ownership of livestock, and Columns 4-6 report results for wife's ownership of livestock. Columns 1 and 4 shows the mean (and standard deviation for continuous outcomes) values in Control households at Baseline. Columns 2 and 5 reports ITT estimates at Midline, and Columns 3 and 6 reports ITT estimates at Endline. These are estimated using OLS, controlling for LGA and randomization tranche fixed effects. Standard errors are clustered at the village level throughout.

Table A12: Prices of Livestock, $US [PPP]

Sample: All households

Means, standard deviation in braces

	Price Paid to Purchase			Revenue from Selling		
	(1) Obs	(2) Mean (SD)	(3) Median	(4) Obs	(5) Mean (SD)	(6) Median
Female Sheep	167	83.9 {31.6}	80.5	272	245 {596}	132
Male Sheep	324	125 {56.4}	121	404	330 {477}	201
Female Goat	238	54.2 {20.6}	50.3	456	120 {142}	80.5
Male Goat	147	66.1 {34.7}	60.4	231	117 {115}	80.5
Chicken				143	49.3 {93.7}	22.1

Notes: The sample for this table is all households interviewed, irrespective of whether the women was pregnant or not at baseline. Columns 1 and 4 report the number of observations used to construct each price estimate. Columns 2 and 5 report the mean price (and standard deviation) and Columns 3 and 6 report the median price. Columns 1-3 report details on the price paid to purchase different animals. Columns 4-6 report the revenue from selling the animals reported. All monetary amounts are converted from Nigerian Naira to PPP US dollars at the 2014 rate.

Table A13: Maternal Health

Sample: Households with pregnant women at baseline (N=3688)
Standard deviation in braces
Standard errors in parentheses clustered by village

	(1) Control Mean	(2) Two-year Impact	(3) Four-year Impact	(2) = (3)
Weight	49.8	.007	.059	[.849]
	{7.33}	(.479)	(.558)	
Height	157	-.472	-.266	[.076]
	{5.56}	(.342)	(.348)	
BMI	2.10	.114	.092	[.837]
	{2.63}	(.163)	(.188)	
BMI: Thin	.279	.011	.031	[.377]
		(.028)	(.025)	
BMI: Normal	.665	-.029	-.050	[.391]
		(.031)	(.027)	
BMI: Overweight	.056	.018	.019	[.915]
		(.016)	(.017)	
Mid-upper Arm Circumference	253	-.992	1.76	[.017]
	{25.0}	(1.43)	(1.58)	
Moderately Malnourished	.071	.012	-.006	[.193]
		(.015)	(.014)	
Severely Malnourished	.000	.001	.004	[.182]
		(.001)	(.002)	

Notes: Column 1 shows the mean (and standard deviation for continuous outcomes) values in Control households at Midline. Column 2 reports ITT estimates at Midline, and Column 3 reports ITT estimates at Endline. These are estimated using OLS, controlling for LGA and randomization tranche fixed effects. Standard errors are clustered at the village level.

Table A14: Saving and Borrowing, Detailed

Sample: Households with pregnant women at baseline (N=3688)

Standard deviation in braces, standard errors in parentheses clustered by village

	(1) Control Mean	(2) Two-year Impact	(3) Four-year Impact	(2) = (3)
Panel A: Saving				
Saving money, including In kind (%)	.635	.022	.081	[.115]
		(.021)	(.026)	
Panel B: Borrowing				
Any household member borrowing (%)	.229	-.036	-.077	[.154]
		(.023)	(.024)	
Any household member failed to borrow (%)	.074	-.016	-.012	[.897]
		(.023)	(.022)	
Panel C: Lending				
Any member of household providing loans (%)	.139	-.029	.023	[.068]
		(.020)	(.020)	
Total value of loans	.013	-.005	-.010	[.597]
	{.183}	(.007)	(.009)	

Notes: In Panels A, B and C, Column 1 shows the mean (and standard deviation for continuous outcomes) values in Control households at Baseline. Column 2 reports ITT estimates at Midline, and Column 3 reports ITT estimates at Endline. These are estimated using OLS, controlling for LGA and randomization tranche fixed effects. Standard errors are clustered at the village level throughout. For continuous monetary outcomes, values above the 99th percentile are set to missing. All monetary amounts are converted from Nigerian Naira to PPP US dollars at the 2014 rate.

Table A15, Part One: LASSO Selected Covariates

Sample: Households with pregnant women at baseline (N=3688)
Standard deviation in braces, standard errors in parentheses clustered by village

		No Covariates			Lasso Selected Covariates			
	(1) Control Mean	(2) Two-year Impact	(3) Four-year Impact	(2) = (3)	(4) Two-year Impact	(5) Four-year Impact	(4) = (5)	Number of Controls
Panel A: Gestation								
Month of birth of new child		.642			.641			4
		(.278)			(.278)			
Panel B: Anthropometrics								
Height-for-Age (HAZ)	-2.46	.216	.135	[.228]	.217	.135	[.218]	2
	{1.33}	(.070)	(.061)		(.070)	(.061)		
Stunted (HAZ < -2) (%)	.662	-.056	-.052	[.884]	-.055	-.051	[.877]	4
		(.025)	(.026)		(.024)	(.026)		
Severely stunted (HAZ < -3) (%)	.348	-.052	-.046	[.808]	-.050	-.052	[.928]	4
		(.022)	(.022)		(.021)	(.021)		
Weight-for-Age (WAZ)	-1.73	.037	.054	[.759]	.037	.054	[.759]	0
	{1.19}	(.059)	(.056)		(.059)	(.056)		
Weight-for-height (WHZ)	-.625	-.121	-0.05	[.282]	-.121	-.050	[.281]	4
	{1.13}	(.051)	(.056)		(.051)	(.056)		
Middle upper arm circumference (MUAC)	135	-.442	.922	[.093]	-.436	.931	[.093]	2
	{13.0}	(.658)	(.700)		(.658)	(.700)		
Malnourished (MUAC < 125mm)	.176	.011	-.007	[.277]	.011	-.007	[.278]	2
		(.017)	(.006)		(.017)	(.006)		
Panel C: Health Outcomes								
Been ill/injured in last month (%)	.696	-.084	-.118	[.274]	-.083	-.118	[.275]	2
		(.024)	(.024)		(.024)	(.024)		
Had diarrhea in past two weeks (%)	.378	-.068	-.092	[.423]	-.068	-.092	[.431]	15
		(.022)	(.024)		(.022)	(.024)		
Panel D: Knowledge and Practice								
Woman knowledge index	0	.954	.799	[.028]	.934	.779	[.027]	8
	{1.00}	(.091)	(.091)		(.090)	(.093)		
Husband knowledge index	0	.382	.257	[.024]	.371	.246	[.024]	3
	{1.00}	(.048)	(.048)		(.048)	(.050)		
New Child practices index	0	.852			.852			0
	{1.00}	(.088)			(.088)			
Panel E: Health Behaviors								
MLNC Given Deworming Meds in Past 6	.164	.081	.121	[.316]	.080	.121	[.316]	1
		(.025)	(.029)		(.025)	(.029)		
All basic vaccinations	.008	.006	.029	[.038]	.007	.029	[.044]	2
		(.006)	(.010)		(.006)	(.009)		
Panel F: Diet and Food security								
Minimum Dietary Diversity Indicator	3.22	.355	.344	[.904]	.354	.343	[.902]	2
	{1.49}	(.076)	(.072)		(.076)	(.072)		
Had not enough food in past 30 days	.166	-.047	-.095	[.022]	-.054	-.099	[.091]	29
		(.016)	(.019)		(.026)	(.025)		

Notes: Column 1 shows the mean (and standard deviation for continuous outcomes) value in Control households at Midline. Column 2 reports ITT estimates at Midline, and Column 3 reports ITT estimates at Endline. These are estimated using OLS, controlling for LGA and randomization tranche fixed effects, and controls obtained from a double lasso procedure. The first stage we lasso all baseline variables on the treatment variable, and no controls are selected. We then lasso on the outcome of interest in each row. Standard errors are clustered at the village level throughout. Stunted is a dummy indicating children with height-for-age-z-score (HAZ) under -2 standard deviations of the WHO defined guidelines [WHO 2009]. Severely stunted is a dummy indicating children with height-for-age-z-score (HAZ) under -3 standard deviations of the WHO defined guidelines.

Table A15, Part Two: LASSO Selected Covariates

Sample: Households with pregnant women at baseline (N=3688)
Standard deviation in braces, standard errors in parentheses clustered by village

		No Covariates			Lasso Selected Covariates			
	(1) Control Mean	(2) Two-year Impact	(3) Four-year Impact	(2) = (3)	(4) Two-year Impact	(5) Four-year Impact	(4) = (5)	Number of Controls
Panel G: Male Labor								
Paid/Unpaid Work in Past Year	.945	.003	.003	[.953]	.004	.006	[.615]	0
		(.002)	(.002)		(.004)	(.004)		
Days/week working (highest-earning activity)	3.6 {2.90}	.074 (.140)	.394 (.197)	[.159]	.000 (.172)	.548 (.250)	[.033]	2
Has business/self-employment job	.457	-.027 (.026)	.033 (.021)	[.012]	(.016) (.024)	.045 (.022)	[.010]	4
Man Does Farming your household's la	.815	-.007 (.010)	.001 (.007)	[.388]	.001 (.016)	.015 (.015)	[.170]	1
Earnings from Employment and Self Employment	207 {338}	10.3 (17.8)	16.7 (10.4)	[.729]	9.12 (18.3)	18.7 (11.0)	[.599]	0
Panel H: Expenditure and Savings								
Monthly food expenditure	84.2 {121}	24.9 (9.83)	18.3 (7.60)	[.544]	24.6 (10.1)	17.2 (7.36)	[.494]	6
Total monthly expenditure	225 {256}	49.4 (17.7)	28.1 (14.3)	[.263]	53.0 (18.4)	30.4 (14.2)	[.237]	8
Total savings (including in kind)	255 {668}	-54.8 (46.3)	56.9 (21.5)	[.022]	-55.7 (47.1)	56.7 (21.3)	[.021]	3
Total borrowed	35.5 {158}	-18.0 (9.90)	-19.8 (7.59)	[.868]	-11.9 (9.73)	-16.7 (7.27)	[.671]	6
Change in monthly net resources		48.4 (19.9)	35.2 (11.4)	[.521]	45.5 (20.3)	35.7 (11.7)	[.635]	4
Likelihood above extreme poverty line of $1.90/day	.271 {.127}	(.011) (.008)	.020 (.008)	[.109]	.006 (.005)	.013 (.006)	[.228]	10

Notes: Column 1 shows the mean (and standard deviation for continuous outcomes) value in Control households at Midline. Column 2 reports ITT estimates at Midline, and Column 3 reports ITT estimates at Endline. These are estimated using OLS, controlling for LGA and randomization tranche fixed effects, and controls obtained from a double lasso procedure. The first stage we lasso all baseline variables on the treatment variable, and no controls are selected. We then lasso on the outcome of interest in each row. Standard errors are clustered at the village level throughout.

Table A16: Multiple Hypothesis Testing

Sample: Households with pregnant women at baseline (N=3688)
Unadjusted and Adjusted P-values, Families of Outcomes

	Unadjusted P-values		Romano Wolf Adjusted P-values	
	(1) Two-year Impact	(2) Four-year Impact	(3) Two-year Impact	(4) Four-year Impact
Panel A: Anthropometrics				
Height-for-Age (HAZ)	[.001]	[.039]	[.008]	[.211]
Stunted (HAZ < -2)	[.003]	[.040]	[.013]	[.268]
Severely stunted (HAZ < -3)	[.028]	[.062]	[.192]	[.305]
Weight-for-age (WAZ)	[.254]	[.404]	[.764]	[.345]
Weight-for-height (WHZ)	[.075]	[.317]	[.345]	[.791]
Middle upper arm circumference (MUAC)	[.391]	[.397]	[.821]	[.821]
Malnourished (MUAC < 125mm)	[.278]	[.548]	[.791]	[.821]
Panel B: Health Outcomes				
Been ill/injured in last month (%)	[.001]	[.001]	[.002]	[.001]
Had diarrhea in past two weeks (%)	[.002]	[.001]	[.002]	[.001]
Panel C: Labor Activities				
Women				
Any work in past year (%)	[.006]	[.001]	[.039]	[.001]
Days/week working in highest-earning activity	[.037]	[.001]	[.244]	[.002]
Husband				
Any work in past year (%)	[.279]	[.365]	[.766]	[.766]
Days/week working in highest-earning activity	[.567]	[.059]	[.799]	[.339]
Panel D: Activity Type				
Women				
Has business/self-employed (%)	[.017]	[.001]	[.082]	[.001]
Petty trading (%)	[.162]	[.001]	[.544]	[.001]
Husbands				
Has business/self-employed (%)	[.825]	[.175]	[.860]	[.544]
Farming own land (%)	[.424]	[.635]	[.812]	[.860]
Panel E: Investment				
Monthly expenditure on wife's business inputs		[.001]		[.001]
Monthly expenditure on husband's business inputs		[.728]		[.728]
Owning any livestock (%)	[.002]	[.001]	[.003]	[.001]
Panel F: Expenditure				
Monthly food expenditure	[.006]	[.009]	[.021]	[.024]
Total monthly expenditure	[.015]	[.020]	[.047]	[.057]
Panel G: Saving and Borrowing				
Total savings (including in kind)	[.189]	[.006]	[.335]	[.018]
Total borrowed	[.243]	[.046]	[.335]	[.134]
Panel H: Resources				
Change in monthly net resources	[.028]	[.008]	[.055]	[.024]
Extreme poverty index: likelihood above extreme poverty line of $1.90/day (0-100)	[.130]	[.019]	[.130]	[.044]

Notes: Columns 2 and 3 present the unadjusted p-values for the OLS regressions at Midline and Endline, respectively. Columns 4 and 5 present p-values adjusted for multiple testing. These are computed using the step-down procedure discussed in Romano and Wolf [2016], with 1,000 bootstrap replications. The outcomes in each panel are being simultaneously tested at midline and endline. Therefore, the p-values are adjusted for testing on 14 hypotheses in Panel A, 4 in Panel B, 8 in Panel C, 8 in Panel D, 4 in Panel E, 6 in Panel F, 4 in Panel G, 4 in Panel H.

Table A17, Part One: Main Results by Treatment Arms

Sample: Households with pregnant women at baseline (N=3688)
Standard deviation in braces, standard errors in parentheses clustered by village

		Treatment 1		Treatment 2			
	(1) Control Mean	(2) Two-year Impact	(3) Four-year Impact	(4) Two-year Impact	(5) Four-year Impact	(2) = (4)	(3) = (5)
Panel A: Gestation							
Month of birth of new child		.550		.729		[.580]	
		(.317)		(.326)			
Panel B: Anthropometrics							
Height-for-Age (HAZ)	-2.5	.256	.232	.179	.036	[.340]	[.030]
	{1.30}	(.082)	(.074)	(.079)	(.076)		
Stunted (HAZ < -2) (%)	66.2	-6.63	-9.33	-4.70	-1.03	[.490]	[.020]
		(2.86)	(3.27)	(2.79)	(3.03)		
Severely stunted (HAZ < -3) (%)	34.8	-8.06	-8.45	-2.42	-.668	[.020]	[.010]
		(2.54)	(2.46)	(2.46)	(2.64)		
Weight-for-age (WAZ)	-1.7	.086	.116	-.010	-.009	[.200]	[.060]
	{1.20}	(.071)	(.065)	(.068)	(.064)		
Weight-for-height (WHZ)	-(.600)	-.086	-.048	-.154	-.051	[.310]	[.960]
	{1.10}	(.059)	(.065)	(.063)	(.062)		
Middle upper arm circumference (MUAC)	135.1	.385	1.47	-1.23	.371	[.040]	[.150]
	{13.0}	(.765)	(.806)	(.765)	(.784)		
Malnourished (MUAC < 125mm)	17.6	.638	-1.06	1.64	-.390	[.630]	[.270]
		(1.93)	(.623)	(2.05)	(.665)		
Panel C: Health Outcomes							
Been ill/injured in last month (%)	.678	-.081	-.112	-.086	-.124	[.850]	[.670]
		(.027)	(.029)	(.027)	(.027)		
Had diarrhea in past two weeks (%)	.369	-.052	-.092	-.083	-.091	[.220]	[.940]
		(.027)	(.027)	(.024)	(.026)		
Panel D: Knowledge and Practice							
Woman knowledge index	.000	.868	.745	1.06	.874	[.060]	[.200]
	{1.00}	(.111)	(.107)	(.104)	(.108)		
Husband knowledge index	.000	.342	.289	.422	.225	[.200]	[.260]
	{1.00}	(.058)	(.060)	(.055)	(.052)		
New Child practices index	0	.766	.729	.934	.881	[.160]	[.080]
	{1.00}	(.105)	(.090)	(.106)	(.093)		
Panel E: Health Behaviors							
Given Deworming Meds in Past 6m	.200	.077	.125	.084	.118	[.820]	[.840]
		(.027)	(.034)	(.030)	(.034)		
Has all basic vaccinations	.000	-.001	.035	.013	.022	[.060]	[.310]
		(.006)	(.012)	(.007)	(.011)		
Panel F: Diet and Food security							
Minimum Dietary Diversity Indicator	3.22	.334	.290	.375	.400	[.620]	[.170]
	{1.49}	(.085)	(.087)	(.088)	(.077)		
Had not enough food in past 30 days	.166	-.070	-.093	-.029	-.103	[.050]	[.590]
		(.017)	(.020)	(.021)	(.023)		
Had not enough food in past 12 months	.286	-.060	-.116	-.066	-.120	[.930]	[.880]
		(.027)	(.026)	(.028)	(.028)		

Notes: Column 1 shows the mean (and standard deviation for continuous outcomes) value in Control households at Midline. Column 2 reports ITT estimates at Midline, and Column 3 reports ITT estimates at Endline. These are estimated using OLS, controlling for LGA and randomization tranche fixed effects. Standard errors are clustered at the village level throughout. Stunted is a dummy indicating children with height-for-age-z-score (HAZ) under -2 standard deviations of the WHO defined guidelines [WHO 2009]. Severely stunted is a dummy indicating children with height-for-age-z-score (HAZ) under -3 standard deviations of the WHO defined guidelines.

Table A17, Part Two: Main Results by Treatment Arms

**Sample: Households with pregnant women at baseline (N=3688)**
Standard deviation in braces, standard errors in parentheses clustered by village

| | (1) Control Mean | Treatment 1 | | Treatment 2 | | (2) = (4) | (3) = (5) |
		(2) Two-year Impact	(3) Four-year Impact	(4) Two-year Impact	(5) Four-year Impact		
Panel G: Female Labor							
Paid/Unpaid Work in Past Year	.724	.071	.120	.051	.093	[.290]	[.070]
		(.021)	(.018)	(.021)	(.018)		
Days/week working (highest-earning activity)	2.64	.237	.762	.244	.580	[.970]	[.570]
	{3.06}	(.175)	(.272)	(.180)	(.230)		
Has business/self-employment job	.541	.080	.152	.047	.104	[.200]	[.050]
		(.028)	(.026)	(.025)	(.025)		
Woman Does Petty trading	.403	.076	.131	.036	.089	[.170]	[.100]
		(.030)	(.026)	(.027)	(.025)		
Total exp on business inputs			21.2		21.7		[.920]
			(5.07)		(5.54)		
Woman Owns Any Animal	.597	.051	.093	.066	.137	[.400]	[.020]
		(.022)	(.024)	(.022)	(.023)		
Earnings from Employment and Self Employment	89.6	12.2	21.1	25.8	19.8	[.100]	[.850]
	{164}	(8.12)	(6.33)	(7.86)	(6.88)		
Panel H: Male Labor							
Paid/Unpaid Work in Past Year	.945	.003	.004	.002	.002	[.480]	[.560]
		(.002)	(.002)	(.002)	(.003)		
Days/week working (highest-earning activity)	3.6	.169	.306	.017	.489	[.240]	[.410]
	{2.90}	(.167)	(.229)	(.154)	(.223)		
Has business/self-employment job	.457	.024	.028	.030	.039	[.850]	[.730]
		(.030)	(.027)	(.031)	(.025)		
Does Farming for household's land	.815	.017	.003	.002	0.005	[.250]	[.480]
		(.016)	(.010)	(.008)	(.008)		
Input expenditure business			4.35		-5.30		[.850]
			(5.42)		(4.16)		
Earnings from Employment and Self Employment	207	7.22	16.6	13.0	16.7	[.790]	[.990]
	{338}	(19.6)	(12.3)	(21.9)	(13.1)		
Panel I: Expenditure and Savings							
Monthly food expenditure	84.2	24.5	18.6	25.3	18.0	[.950]	[.950]
	{121}	(12.3)	(8.59)	(1.59)	(9.04)		
Total monthly expenditure	225	39.0	31.8	59.5	24.3	[.360]	[.670]
	{256}	(22.1)	(16.2)	(19.8)	(17.3)		
Total savings (including in kind)	255	66.6	76.1	43.6	38.1	[.610]	[.240]
	{668}	(52.1)	(26.4)	(5.82)	(27.0)		
Total borrowed	35.5	14.7	19.7	21.0	20.0	[.570]	[.970]
	{158}	(1.78)	(9.09)	(11.8)	(8.42)		
Change in monthly net resources		31.3	39.0	64.1	31.3	[.110]	[.620]
		(22.4)	(14.0)	(22.2)	(13.4)		
Likelihood above extreme poverty line of $1.90/day	.271	.017	.025	0.005	.015	[.270]	[.300]
	(.127)	(.011)	(.010)	(.009)	(.009)		

Notes: Column 1 shows the mean (and standard deviation for continuous outcomes) value in Control households at Midline. Column 2 reports ITT estimates at Midline, and Column 3 reports ITT estimates at Endline. These are estimated using OLS, controlling for LGA and randomization tranche fixed effects. Standard errors are clustered at the village level throughout.
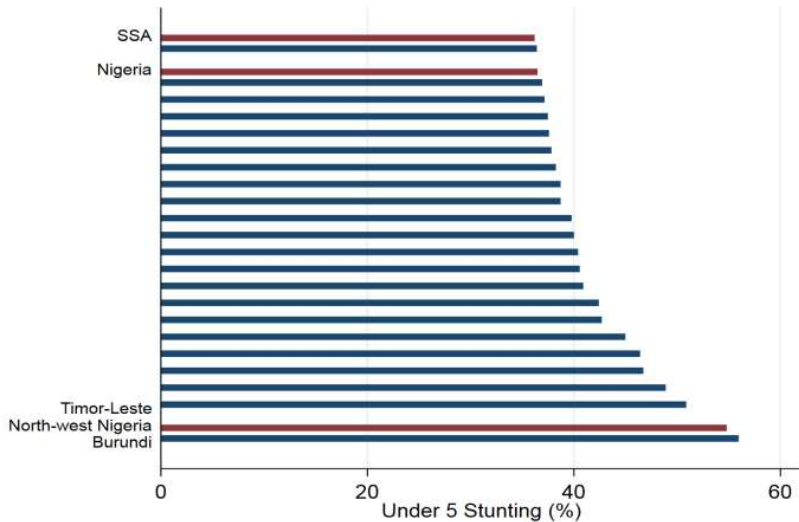
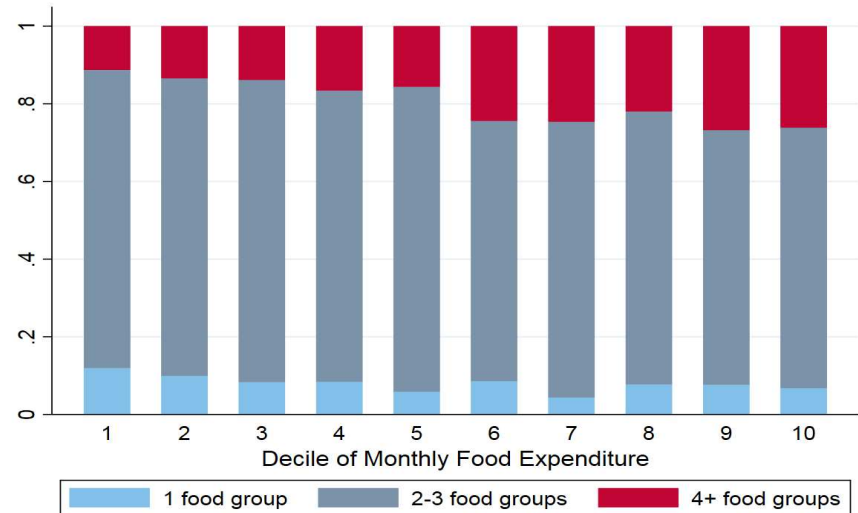# Figure A1: Motivation

A. Number of Individuals in Extreme Poverty
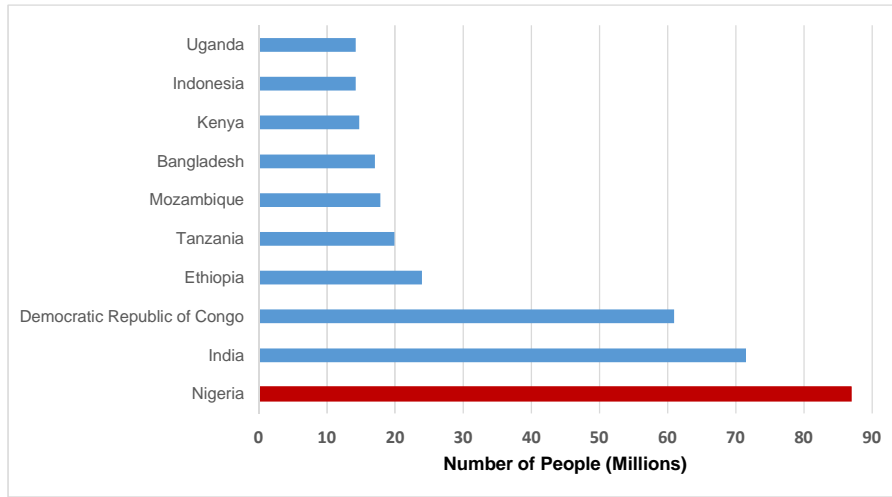
B. Infant Mortality Rate
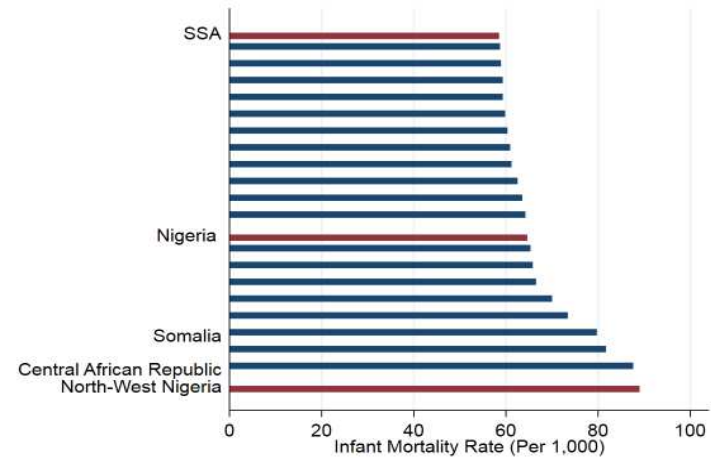
C. Under 5 Stunting Rate

D: Dietary Diversity of Old Children, by Decile of Monthly Food Expenditure at Baseline


Notes: Panel A shows the number of individuals living in extreme poverty in 2018 (less than $1.90/day) [World Poverty Clock]. Panel B Shows the infant mortality rate per 1,000 [World Health Organization (WHO), Nigeria Demography and Health Survey 2013, and the World Bank]. Panel C shows the percentage of under fives's who are stunted (so their height-for-age-z-score (HAZ) is under -2 standard deviations of the WHO defined guidelines [WHO 2009]). The source of the data is the same as in Panel B. Panel D shows the diet diversity of children aged 0-5 in our data at Baseline, by decile of monthly food expenditure. The food groups are defined as: 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.
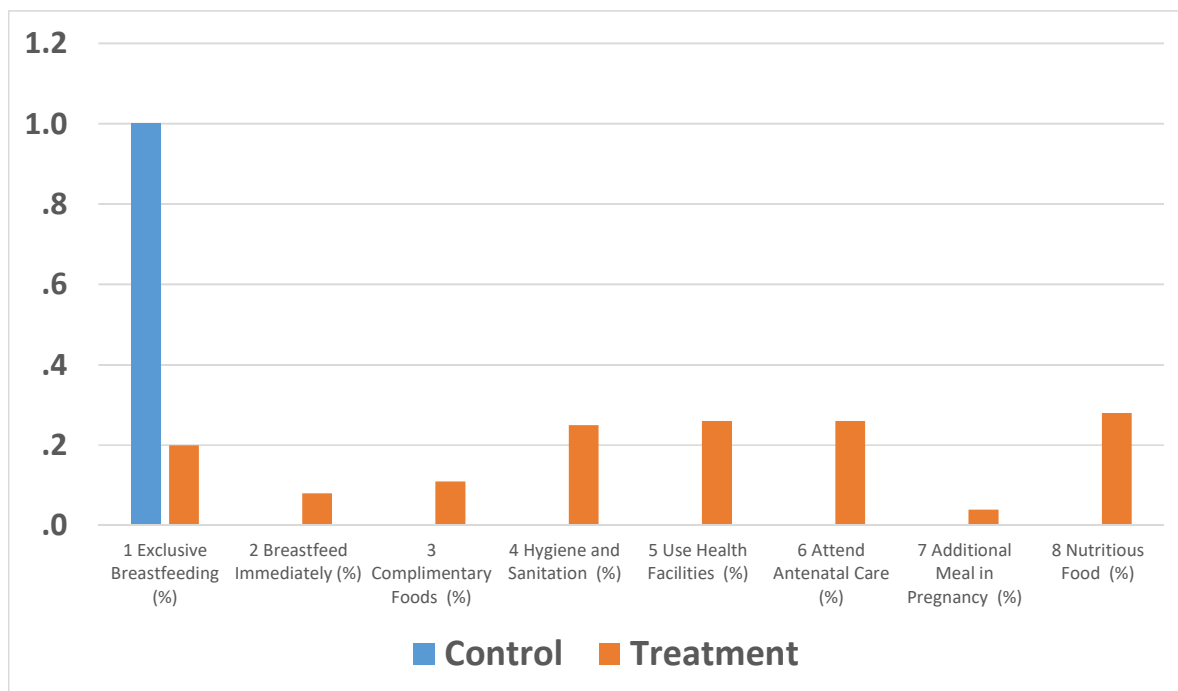
Figure A2: Examples of Visual Aid Materials

Note: Example of instructional materials from the program curriculum. Source: CDGP facilitator guide.

Figure A3: Recall of Key Messages after Two-Years

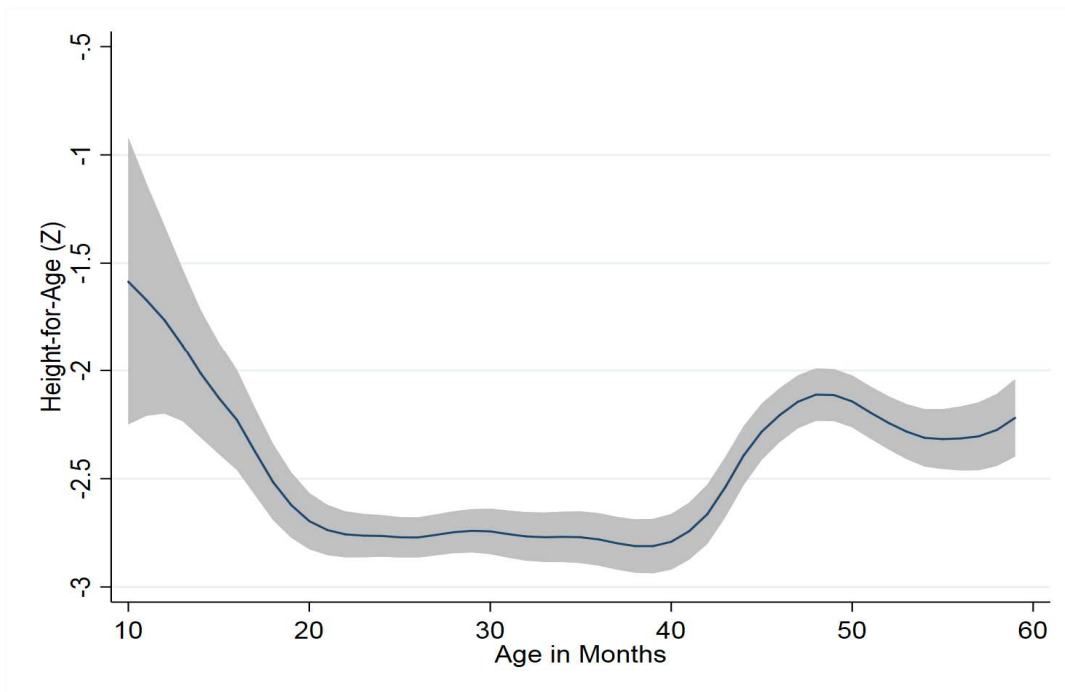## Sample: Households with Pregnant Women at Baseline
Women
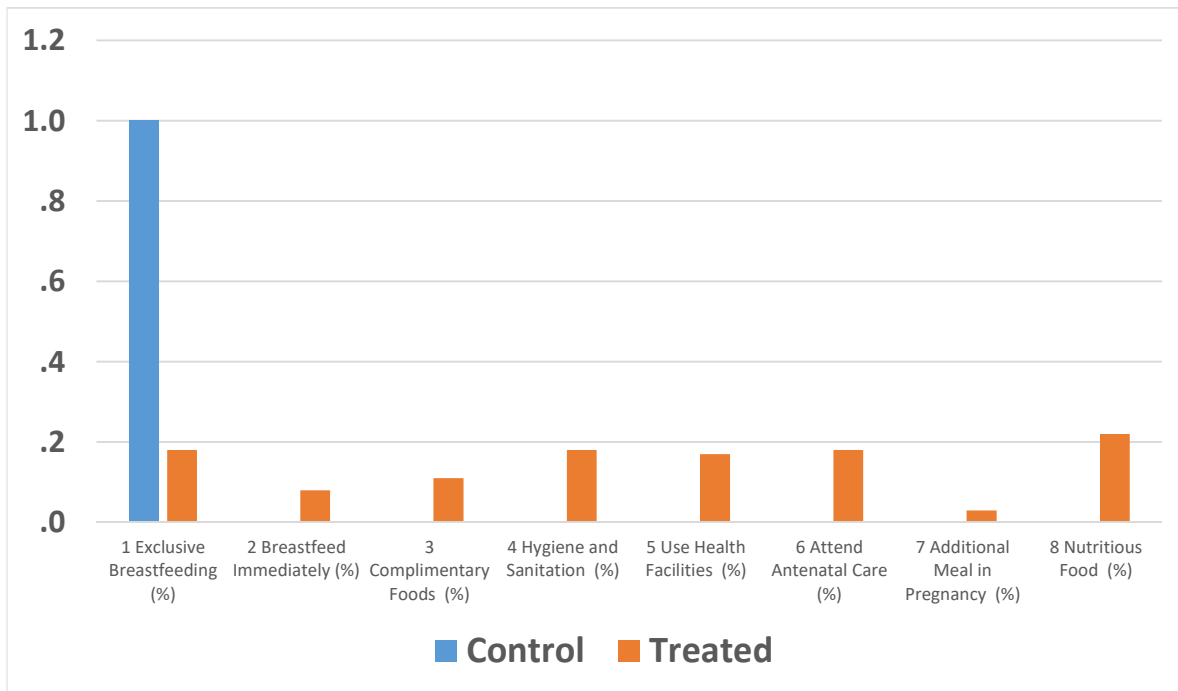
Husbands

Notes: This is based on women and their husbands in households with a pregnant woman at Baseline. It shows the proportion of treatment and control women and husband who recall the eight key messages at the two-year midline. Recall is from any low intensity information channel (posters, radio, food demonstrations and health talks). Individuals are asked if they have been exposed to CDGP information from a particular information channel (and we repeat this for each channel). If the individual says yes to this, they are asked what messages do they recall from the information channel. If an individual was not exposed to any information channel, their recall of messages is set to zero.
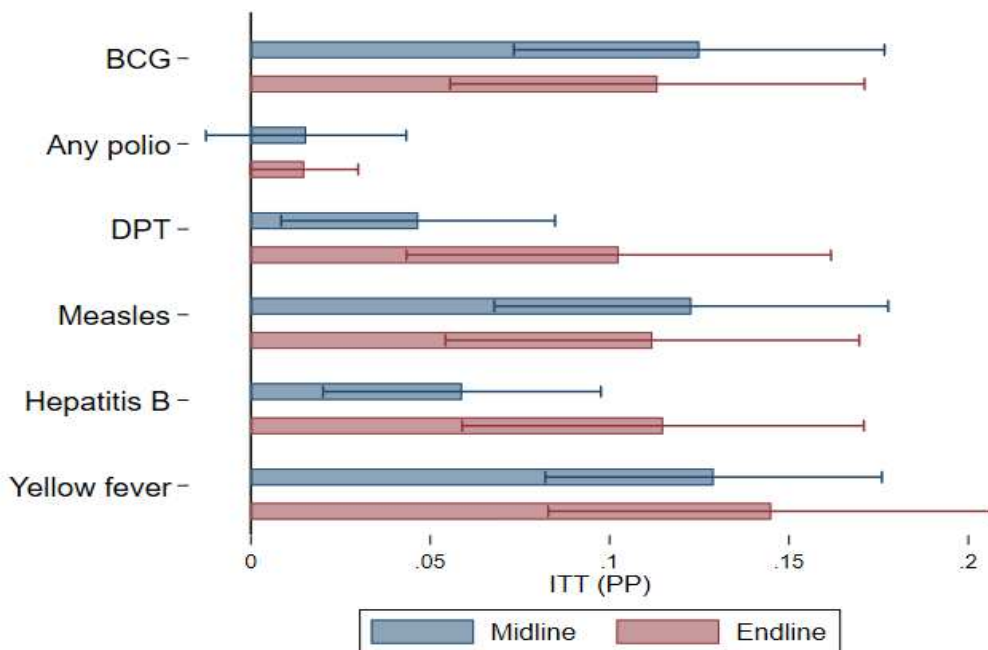
Figure A4: HAZ Profile, Old Children at Baseline

Notes: Figure A4 shows smoothed age profiles of mean height-for-age z-scores (HAZ) for the Old Child at Baseline. The profiles are obtained using a local mean kernel smoother.

Figure A5: ITT Impacts on Vaccinations
Sample: Households with Pregnant Women at Baseline (N=3688)

Notes: Each bar shows the ITT estimates at Midline and Endline, along with the 95% confidence intervals on each. These are estimated using OLS, controlling for LGA and randomization tranche fixed effects. Standard errors are clustered at the village level throughout.