

Interlinking nutrition and workfare during the first 1000 days: A new social safety net in Djibouti

Baseline survey and validation of the evaluation design

Report for the Strategic Impact Evaluation Fund

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This document was prepared for the Strategic Evaluation Fund (SIEF) with the aim of: (i) providing a brief description of the study design, (ii) summarizing baseline data collection and (iii) validating the evaluation design.

1. Introduction

Unemployment is strikingly high in Djibouti: only 30% of the adult population is classified as employed, according to the most recent household survey data (EDAM 2012). Since the time of the 2008 food and fuel crisis and in the lack of social safety nets that could be scaled up to respond to the crisis, the Government aimed at promoting temporary access to employment through workfare. Moreover, in spite of progress made towards meeting some health and education-related MDGs, Djibouti's health indicators remain among the poorest in the world. The national prevalence of moderate and severe stunting in the most recent MICS survey is of 33% among children aged 0-5 years old, a prevalence rate comparable to Sub-Saharan countries of a much lower income per capita.

In order to address both issues, the Government of Djibouti is piloting an innovative integrated public works and nutrition intervention. The intervention (i) actively involves the main caregiver in a number of ways (nutrition, workfare) to strengthen her role in the household and (ii) makes access to income (workfare) conditional on the caregiver attending regular nutrition promotion activities. The program targets households with pregnant women and children 0-2 years of age in poor areas (urban and rural) in Djibouti.

The nutrition promotion component targets pregnant women and children 0-2 years of age. In a community-based setting, a group of maximum 20 women (called 'foyer') come together once a month for 3 hours. Each session starts off with growth/weight monitoring by a community worker. The sessions include nutrition education, feeding practices, growth promotion, cooking sessions and distribution of nutrition supplements during the lean season. This community approach is based on positive deviance and reinforcement of good behaviors, i.e. mothers in the community whose children are healthy and growing well despite living in the same harsh economic and environmental conditions as their peers. If a problem is

¹ The baseline report was prepared by Stefanie Brodmann (sbrodmann@worldbank.org), Florencia Devoto (fdevoto@povertyactionlab.org) and Emanuela Galasso (egalasso@worldbank.org). Research assistance by Dylan Glover is gratefully acknowledged.

detected during the sessions, the family will subsequently receive a home visit to provide more individualized counseling, and/or referral to the nearest health clinic.

Public works generally require participants to do counterpart work in order to receive an income transfer. The target population for such programs is the able-bodied poor. This feature is built in to ensure self-targeting of the poorest sections of the population. The identity of the targeted beneficiary within the household could have implications for both equity as well as household welfare. On the one hand, targeting men is likely to insure a larger take-up from poorer households, as men have a larger opportunity cost of time and better outside work opportunities. At the same time, given the foregone income associated with participation in the program, the net income gains from targeting men within the household could be lower, and hence translate into lower consumption gains. On the other hand, targeting women might provide larger net gains and possibly relax pre-existing constraints to their labor force activation. The income/consumption gains of targeting women may result into higher benefits to children given the inter-linkage between public works and community based nutrition.

Participation in the workfare program is only open for households participating in the nutrition promotion component. The objective is to leverage the additional cash income (net of the opportunity cost of participation) to enhance the adoption of improved nutrition practices. The planned evaluation will provide a test for the interaction effect between income and the information and promotion of behavioral change. The workfare component includes services (e.g., collection of garbage, particularly plastic bags), small artisanal projects, and light labor-intensive community works such as transformation into blocks to pave some of the community roads and footpaths, in order to improve circulation through and access to the selected areas. The public works is given with preferential access to women, who also have the option to delegate to a household member. The household member who participates in the workfare component gets paid and also gets a bank account opened in her/his name. The works are planned to minimize the risk of health hazards to women, while maximizing the income and activation opportunities to them. Pregnant women in the last trimester of pregnancy and women with children in their first month and a half are required to delegate the offer of the public works program. Pregnant women and lactating women in the first six months are offered an artisanat project on a preferential basis, and whenever they do light community work, the implementing agency enforces breastfeeding breaks and the use of protective gear. The public works last for 50 days (about 2 months and ½) and provide a daily wage of 1,000 DJF (corresponding to about 80% of the minimum wage or about 6 USD). The gross income transfer may be quite substantial in this context of high unemployment.

The pilot program focuses on a limited number of poor neighborhoods ('quartiers'). Prior to program start, a household listing/census of the population in these neighborhoods was compiled in August/September 2012 and the listing has been uploaded in the Management Information System (MIS). The listing helped to identify the eligible population (pregnant and lactating mothers, and mothers of children 0-2)². The community workers then promoted the program and encouraged eligible households to enroll. Registration points were set up in urban areas whereas community workers went door-to-door in rural areas to register beneficiaries.

² Its coverage matches quite closely the number of households (and eligible) households contained in the 2009 Population Census in the target neighborhoods, thus providing reassurance about the outreach and identification of the target population.

The community growth promotion activities started in September 2012 in all urban eligible neighborhoods and have enrolled about 60% of the target population of eligible households in the areas of intervention during the first enrollment period. Progressively, more eligible households are joining the program, thereby getting to almost full coverage of eligible families. The public works component of the intervention has been rolled out in two out of three eligible neighborhoods in the capital Djibouti ville shortly after launching the community growth promotion. In contrast, the public work component was only launched in May 2014 in the neighborhood called “Hayableh”.

We designed the evaluation in close collaboration with the government counterparts to exploit the gradual rollout of the public works program on the entire quartier of Hayableh to test for contemporaneous and short term effects of the integrated intervention.

At the onset of the grant that contributed to putting in place the new social safety net program in Djibouti, a different set of objectives and a different design (difference in difference approach) was foreseen. However, delays in program implementation, mostly due to the novelty of such a social safety net for the low-income country, have demanded a change in evaluation design. With the support of SIEF funds the team was able to conduct the in-depth qualitative work to re-orient the evaluation design. These modified objectives and the evaluation design have been agreed upon with Government counterparts.

The main objectives of the qualitative work were to: (i) better understand a) the constraints to take-up of both components of the intervention; and b) for nutrition, constraints on participation on the intensive margin (attendance to sessions); (ii) explore a) the mechanisms of the interaction between the two components of the program; b) whether women make decisions regarding allocation of the net income gains from the workfare; c) the role of intra-household allocation and the spheres of influence; d) the feasibility, in terms of beneficiary’s acceptance, of randomizing the allocation of available workfare activities that will start to be rolled out during 2014. The study was conducting in three neighborhoods of Djibouti city, including Hayableh, and interviewing 34 women and 16 husbands. The interviews were semi-structured, and done separately by gender in separate visits.

The qualitative work suggested that in most Djiboutian households, the man allocates a given portion of the monthly household income to his wife. Women are generally in charge of food expenditures and some basic non-food expenditures like clothes. In contrast, nearly all (95 percent) of the women enrolled in both the nutrition and the temporary works programs reported to have command over the income earned through the program. Nearly all of these women (93 percent) said they spent the extra money on food and other things of benefit to the family, including home improvements, clothing, and mosquito nets. This additional income was not enough to meet their needs, though, given the general level of poverty and the high cost of living. The program also gives participants hope for a future in which they imagined themselves in small businesses (20 percent) or a job with regular pay (20 percent). Many women expressed a desire to save money but were frustrated by their inability to do so. “It depends,” one woman said “... there are times when I save, but this is rare as we have expenses for food every day.”

Several women said they had seen their children’s health improve during the program, specifically describing how they appreciated being able to track their children’s weight, and learn—from cooking demonstrations—how to prepare nutritious meals.

The qualitative work motivated the evaluation design in two ways:

- Reinforcing the importance that the own income earned by mothers during the program might release important credit constraints and strengthen the expenditures on food and other child-related expenditures. The key question of interest is to quantify the magnitude of such changes, and test the value added of the public works component over and above the messaging on nutrition in nutrition foyers;
- Suggesting a potential pathway of labor market activation of women in a very constrained environment and with very limited social and economic opportunities for women. The evaluation design, as it will be made clearer below, will test the medium term effects of a short term intervention. We hypothesize that some changes observed during the program might persist after the public works end and plan to explore the pathways through which this medium term effect may materialize.

Objectives of the evaluation

The Ministry of Social Affairs is working across sectors to institutionalize a preventative approach to malnutrition at the community level. Given the novelty of mainstreaming nutrition-sensitive interventions into a cash-for-work program, the government is seeking evidence of the effectiveness of such an approach, which is more costly than the provision of community growth promotion activities alone. The first objective of this evaluation is to test the value added of combining a public works program targeted to women over and above the provision of information and promotion of behavioral change in child care practices. That is, the evaluation will specifically measure the impact of making an integrated nutrition and workfare intervention available compared to a nutrition program by itself. As access to the public works is given only to households where the women has registered to the community nutrition program, the program's goal is to leverage the additional cash income (net of the opportunity cost of participation) to enhance the adoption of improved nutrition practices. The planned evaluation will provide a test for the interaction effect between income and the information and promotion of behavioral change.

The second objective is to test whether these effects are only short term, or whether they extend beyond the fifty days of participation in the public works program. The safety net, by design, provides only short term income support during the first 1,000 days. We are interested in measuring the extent that the impact extends beyond the contemporaneous duration of the safety net program, after the women have stopped participating. We will interview participants and the control group at endline five months after having exited the workfare program. The medium term effects might in part persist through short term savings, but also through labor supply activation and improved psychological wellbeing of the participants.

2. Evaluation design

To estimate the impact of offering the public works program to households that are participating in the community growth promotion activities, we use a randomized experiment. From a list containing all eligible households surveyed at baseline (1,011 in total), we have randomly assigned households to two groups: i) a “treatment” group where households are given priority to participate in the public works and services offered by the program, and ii) a “control” group where households will get the offer later. The evaluation design was reviewed and cleared by the J-PAL Europe Institutional Review Board on February 2014.

The time lag in the exposure to the intervention between the two groups takes advantage of the phase-in design of the intervention itself: 250 public works positions are being set up every 5 months between May 2014 and December 2015. Thus, the program will make available 250 positions between May and September 2014, 250 between November 2014 and March 2015, 250 between April and July 2015 and 250 between August and December 2015.

Households interviewed at baseline, 1,011³ in total, were randomly assigned to 4 groups:

- Group A: public works and services offered between May and September 2014
- Group B: public works and services will be offered between November 2014 and March 2015
- Group C: public works and services will be offered between April and July 2015
- Group D: public works and services will be offered between August and December 2015

The impact evaluation has thus two groups:

<i>Evaluation Group</i>	<i>Assignment to public works:</i>			
	(A)	(B)	(C)	(D)
<i>Treatment: public works offered to women (Services & “light” works)</i>	250 May-Sept 14	250 Nov-Mar 15	250 Apr-July 15	250 Aug-Dec 15
<i>Control</i>				
# of beneficiaries	250	250	250	250
Cumulative beneficiaries	250	500	750	1000

The evaluation exploits the gradual rollout of the public works within the neighborhood with a randomized assignment of the timing of offer in the program. The 500 hundred households that will be given the opportunity to work between May 2014 and March 2015 will constitute the treatment group. The remaining 500 households will constitute the control group, randomized to receive. They will receive the intervention on average nine months later than in the treatment group (or, equivalently, seven months after the intervention in the corresponding treatment group ends).

Each group will receive a baseline survey immediately before the start of the program, a first follow-up survey, collected during the public works intervention, and an endline survey, after the program had ended. While all groups were administered a baseline survey between January and March 2014, the different groups are interviewed in a staggered fashion, so that ‘each treatment’ group will be interviewed

³ With a sample size of 1,000 households and individual randomization, statistical power calculations show that we will be able to detect minimal standardized effects of around 18%.

with its corresponding randomized control group, both during the intervention as well as at endline. Group A will be interviewed with group C, and group B will be interviewed with group D. The endline surveys for the treatment groups and their corresponding randomized 'control' groups will take place before the latter get offered the intervention. A detailed timeline of the surveys and interventions can be found in Annex A1.

Impact indicators

The key intermediate outcomes of interest of the impact evaluation are going to be: food expenditures, health and education expenditures (and their respective budget shares); diet diversification for pregnant woman and young children (including the importance of vitamin A and animal source food). These outcomes will be collected in the questionnaire administered to women. In addition, we will administer a labor supply module together with time use information for men and women in the household, to account for foregone income of participation and household labor supply responses to the intervention.

The budget shares of key nutritional and investments in child outcomes, the labor supply status of women, as well as a set of psychosocial questions will also represent an important dimension of the medium term final outcomes of interest.

With the current design of the study, the weight for age z-scores are less relevant than in the original difference-in-difference design where the specific effect of the messaging on nutrition was measured. By the time the public works start, the whole study sample of beneficiary women, assigned to both the test and control groups, has already been exposed to the nutrition intervention. This means that any measurable impact on weight can only result from the interaction of increased household expenditures (in particular for food) and the nutrition intervention, and we therefore can expect the impact to be less significant than by the nutrition intervention itself. However, we are still exploring the possibility of measuring this indicator for all household children under 3 years old at endline by well-trained staff.

Data collection

The data collection has been carefully planned to match the timing of the intervention for the different groups of eligible households in Hayableh. A summarized timeline of program implementation and data collection is presented in Annex 1.

- Phase 1: Baseline Household Survey

A baseline household survey was administered between January and March 2014 to 1,011 households (belonging to the test and control groups) selected for the study.

- Phase 2: Follow-up survey

A short follow-up survey will be conducted while the public works are taking place. This survey will allow identifying short-term effects on intermediate and final indicators while the household is receiving income from the government work. The questionnaire will be administered to the beneficiary woman and her husband. Depending on the response rates we obtain among men, we will assess the utility of continuing to administer the questionnaire to the husband. If the beneficiary woman has delegated the public works to another household member, the latter will not be interviewed. We will then record in the interview to the beneficiary women the income sharing rule agreed with the person to whom she has delegated.

- **Phase 3: Endline household survey**

A final survey will be conducted once the household has already finalized the 50 days of work with the aim of measuring the effects of public works in the short term. On average, households will be surveyed five months after the public works have finalized. A household questionnaire similar to the one administered at baseline will be administered to the beneficiary woman (and her husband).

Data is being collected using the Computer Assisted Personal Interviewing (CAPI) Solution developed by the World Bank. This study was the second project to pilot CAPI within the Bank and the first one to do it with tablets initialized in French. Numerous programming issues were faced during the administration of the baseline survey, which required intensive support from the CAPI team at the Bank. All problems encountered during this first survey have been solved since then. The launching of the follow-up surveys required much less support from headquarters than the initial survey.

3. Overview of Baseline Data Collection:

(a) **Scope:** The units of observations are urban households eligible to a community-based nutrition intervention (i.e. households with pregnant women and/or children aged 0-2 years old at the time they joined the nutrition meetings). A baseline household survey was administered to beneficiary women, and another shorter survey to the husbands of these women. The woman beneficiary survey covered the following topics: household socio-economic characteristics, health and nutrition practices, food security, durable assets, housing characteristics, household expenses, non-labor income, transfers, intra-household decision making, aspirations, personality traits, well-being and time use. The man survey covered: labor supply of household members and income from labor, household expenses on items usually bought by male members (*khat*, cigarettes, transport, etc.), intra-household decision making, aspirations, personality traits, well-being and time use.

The baseline questionnaire consisted of the following modules:

Section 1	Identification
Module A	Socio-economic characteristics
Module B	Education
Woman questionnaire	
Module C	Health and Nutrition indicators
Module D	HH assets and expenses in home durables
Module E	HH Expenditures
Module F	HH Non-labor income
Module G	HH Transfers
Module H	Food security
Module I	Intra-household decision making
Module J	Aspirations
Module K	Personality traits and well-being
Module L	Time use
Man questionnaire	
Module HN	HH Employment
Module HE	HH Expenditures
Module HI	Intra-household decision making
Module HJ	Aspirations

Module HK	Personality traits and well-being
Module HL	Time use

The evaluation will consider a number of impact indicators: nutritional expenditure (intermediate), health expenditures (intermediate), type of occupation and working time of men and women in the household (intermediate), the use of time for men and women in the household (intermediate), empowerment of women in the household, diversity of the diet of pregnant and lactating women, dietary diversity of children 0-24 months.

(b) Sampling: the sample consists of all eligible households resident in Hayableh District of Djibouti City. Eligibility is defined as follows: a household with a pregnant or lactating woman (i.e. with children younger than 2 years old) that registered in the program and had been assigned to a nutrition session group. A total of 1,055 eligible households⁴ were identified based on program administrative data. Out of it, 1,011 households were interviewed (96% response rate). One third of the non-responses are due to the absence of the household and another third to the refusal of the beneficiary and her husband to be interviewed.

Site	# of households:				Total
	Surveyed	Refused to answer	Absent	Other	
1	187	3	4	4	198
2	298	0	1	8	307
3	147	2	0	5	154
4	204	0	3	1	208
5	175	8	5	0	188
TOTAL	1011	13	13	18	1055

(c) Data Collection: the baseline survey was implemented between January and March 2014. Data was collected using CAPI (computer-assisted personal interviewing). Three supervisors and fifteen surveyors were trained during 7 days by a consultant hired by the Bank and a field coordinators hired by the ADDS. The training was organized in three phases: (i) questionnaire content (using paper questionnaires), (ii) use of CAPI and (iii) a field test. Surveyors went through several applied exercises all along the training and obtained daily feedback from trainers. Data collection quality was assured directly by the presence during interviews of supervisors and the field coordinator. Moreover, data was downloaded from CAPI server on regular basis and systematic daily checks on the quality of collected data were ensured by another consultant hired by the Bank. This allowed giving frequent feedback to surveyors on data quality. The field coordinator was in charge to share this feedback with the whole group and with specific surveyors if necessary.

⁴ The initial list actually comprised 1,516 households but during baseline field implementation we identified that many of the MIS entries were not accurate (most of them were duplicates) reducing the number of eligible households to 1,055.

4. IE Design Validation

Randomization should ensure that the priority beneficiaries (the "treatment" or "test" group) are comparable in all respects to other eligible but non-priority households (the "control" control): at the beginning of the impact evaluation (i.e. before the intervention takes place) the levels income, education, health, etc. should be comparable on average in the two groups. Especially, unobserved characteristics, such as motivation or ability, will also be balanced on average. The tables presented in Annex 2 (Table 1 to 4) compare averages of a set of selected baseline characteristics between the treatment and control groups. In Table 5, we verify balance by roll-out sub-groups.

It is important to emphasize that randomization of the sample into the 4 groups has been done by the researchers *after* the baseline survey. There is no scope for contamination, or expectations to receiving the program being systematically different across treatment and control groups.

As one can see from Table 1 the treatment and control group are well balanced along household eligibility criteria, response of husbands to the questionnaire, household composition and durable/asset ownership. The only minor deviation is in the age of the head and the beneficiary, which can potentially be controlled for as a regressor in the analysis. A staggering share of 82% of females has no formal education, matched by an equally large share of households heads (2/3). In contrast, 77% of the children 6-15 are formally enrolled in school.

Table 2 and 3 summarize key outcomes of interest in the analysis. In table 2, we can document balance across groups across labor force participation of men and women in the household: the labor supply of these households is very simple, with on average one man/key breadwinner working in the household, 50% as casual day workers, and 30% of the cases as wage salaried worker. The prevalence of self-employment is extremely low. The proportion of women employed or looking for work at baseline is very low, with 15% of reported labor supply.

The extent of prenatal consultations for pregnant women, rates of breastfeeding within 1 hour and prevalence of breastfeeding are in line with the nutrition intervention objectives showing a positive trend since a first survey administered before this intervention started. However, only 1/3 of all children below the age of 6 have a diversified diet. The diet diversification is higher for younger children (aged 6-23 months than for those 24 to 59 months old), with about half of the target population eating food rich in proteins. Pregnant and lactating mothers have similar indicators of food diversity. Overall 1/3 of the target population is concerned about not having enough food. Most indicators in Table 2 are balanced, and the deviations present for some variables (as in two indicators of the labor supply) are very minor and will be controlled in the analysis by including baseline outcome.

Total household income and expenditures presented in Table 3 are on average balanced across treatment and control groups. There is a statistically significant difference in average food per capita expenditures in the past 30 days, with the treatment group reporting slightly lower food per capita expenditures (10% at the mean of the control group). Food expenditure represents on average half of the total budget share. However, median food per capita expenditures are closer: 5331 FDJ in the treatment group compared to

5471 FDJ in the control group⁵. Figures in Annex 3 present the distribution of per capita expenditures by treatment group. We can see more observations at the right tail of the distribution (of food per capita expenditure) for the control group than for the treatment group. All comparisons include week of survey effects, to account for time of the interview and the different recall period across households.

When we look at time use data (table 4), we have on average balanced time allocations. It is interesting to document the extent of labor specialization and time use by gender within the household. If we exclude personal care (which includes sleep in the past 24 hours), women devote half of their time doing household chores, and about 20% of their time caring for other household members, and virtually no time doing work, as defined as employment outside the household. Men in contrast spend half of their time working outside the household. Social activities within the neighborhood are equally important for both men and women, with men (women) spending 25% (16%) of their time (outside of personal care) in social activities with neighbors and friends. . The balancing tables by the timing of the rollout of the (table 5) confirm that both socio-economic characteristics as well as key intermediate and final outcomes are balanced on average. There are small and significant differences in some indicators that arise from the random draw of the sample, but there is no indication that there are any systematic differences across groups that are reason of concern. We also confirm that the balance in husband response to the survey observed for treatment and control groups (Table 1) holds across the roll-out sub-groups.

5. Significant Risks to IE Design

The evaluation has been aligned and integrated fully with the operational rollout of the intervention, in close collaboration with (and support of) the implementing agency, ADDS. In terms of data comprehensiveness, men's questionnaire are much harder to administer, as they need multiple visits during the evenings and weekends to accommodate in the context of the urban environment under study, with men spending $\frac{3}{4}$ of their time outside of the household, either for work or for social activities. There has been a strengthened effort after the baseline survey to strengthen the re-contact rate, and minimize the non-response rate. We will assess quality of data collected from men during the first follow up survey (including balance of man response rates across the study groups) in order to decide whether we will continue surveying man in the following rounds. First indications are positive as we managed to increase slightly response rates during the follow-up survey administered to the first pairs of groups.

On the indicators side, we fielded an extensive section of the questionnaire at baseline that revolves around personality traits, aspirations that did not quite adapt to the Djibouti context. We are in the process of validating this section, and piloting questions and survey instruments that are related to mental well-being of the beneficiaries and are adapted to the local context. In order to do so we are working with a local expert, who has extensive experience in household surveys. We are also exploring sections on savings and investment, as we hope to explore this mechanism. As explained earlier in the document, we are also

⁵ We did not make any correction to data to account for outliers.

assessing the possibility of accurately measuring weight for age z scores for all household children under 3 years old at endline.

We do not foresee any risk of take-up in the treatment arm: The program is extremely popular among beneficiaries: virtually every beneficiary women who is offered the program so far, either took it up if eligible, or delegated to another household member (or non-member if not available) if not able to work or not allowed to work by being in the last trimester of pregnancy or in the first month and a half after delivery.

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Annex 1: Evaluation Timeline

2014			2015		
	Program	Data Collection		Program	Data Collection
Jan					Endline Survey: Group A & C, Sites 3, 4, 5
Feb		Baseline Survey		HIMO: Group B, Sites 1,2	Follow-up Survey: Group B & D, Sites 1,2
Mar					
Apr		Randomization		HIMO: Group C, Sites 3, 4, 5	Endline Survey: Group A & C, Sites 1,2
May	HIMO: Group A, Sites 3, 4, 5				
June		Follow-up Survey: Group A & C, Sites 3, 4, 5		HIMO: Group C, Sites 1, 2	Endline Survey: Group B & D, Sites 3, 4, 5
July					
Aug	HIMO: Group A, Sites 1,2				
Sept		Follow-up Survey: Group A & C, Sites 1,2		HIMO: Group D, Sites 3, 4, 5	Endline Survey: Group B & D, Sites 1,2
Oct	HIMO: Group B, Sites 3,4,5				
Nov		Follow-up Survey: Group B & D, Sites 3, 4, 5		HIMO: Group D, Sites 1, 2	
Dec					

Annex 2: Tables

Table 1. Summary Statistics: Eligibility & Socio-economic Characteristics

	Obs	Control Group		Treatment - Control		
		Obs	Mean	St. Dev.	Coeff.	p-value
<u>Household eligibility</u>						
Indicator for pregnant woman or child 0-2	1011	507	0.888	0.316	-0.007	0.720
Indicator for pregnant woman or child 0-5	1011	507	0.998	0.044	-0.003	0.458
HH with at least one pregnant woman	1011	507	0.118	0.323	0.004	0.849
HH with at least one child 0-2 years of age	1011	507	0.854	0.353	-0.017	0.439
HH with at least one child 0-5 years of age	1011	507	0.988	0.108	-0.001	0.895
<u>Socio-economic characteristics</u>						
Number of members in HH	1011	507	6.94	2.68	-0.15	0.363
Number of children 0-2 years of age in HH	1011	507	0.96	0.51	0.01	0.722
Number of children 3-5 years of age in HH	1011	507	0.80	0.72	0.03	0.569
Number of children 6-15 years of age in HH	1011	507	2.19	1.81	-0.16	0.145
Number of adults >15 years of age in HH	1011	507	2.98	1.63	-0.03	0.786
Male HH head	997	500	0.966	0.181	-0.023 *	0.075
Age of HH head	995	500	40.40	8.46	-1.04 *	0.052
Head mother tongue Somali	977	490	0.969	0.172	-0.002	0.849
Head mother tongue Afar	977	490	0.024	0.155	0.004	0.706
Head mother tongue Other	977	490	0.006	0.078	-0.002	0.705
Head with no education	970	486	0.656	0.475	-0.014	0.637
Head writes and reads without difficulty	974	489	0.209	0.407	-0.009	0.737
Age of woman beneficiary	1005	504	33.38	6.72	-0.89 **	0.039
Woman benef mother tongue Somali	977	490	0.969	0.172	-0.002	0.849
Woman benef mother tongue Afar	977	490	0.024	0.155	0.004	0.706
Woman benef mother tongue Other	977	490	0.006	0.078	-0.002	0.705
Woman benef with no education	1000	501	0.824	0.381	0.004	0.853
Woman benef writes and reads without difficulty	1003	503	0.076	0.265	-0.003	0.837
Number children 6-15 in school	1011	507	1.77	1.65	-0.12	0.210
Share of children 6-15 in school (for HHs with 6-15 children)	747	383	0.77	0.32	0.00	0.998
HH owns a television	1001	500	0.28	0.45	0.01	0.739
HH owns a refrigerator	1001	500	0.18	0.39	-0.02	0.509
HH owns a coal stove	1001	500	0.69	0.46	0.00	0.947
HH owns a gas stove	1001	500	0.24	0.43	-0.01	0.741
HH owns land	1001	500	0.06	0.24	0.00	0.802
HH owns their house	1001	500	0.62	0.49	-0.05	0.122

Table 2. Summary Statistics: Work & Nutrition

	Obs	Control Group			Treatment - Control	
		Obs	Mean	St. Dev.	Coeff.	p-value
<u>Employment</u>						
<i>Men</i>						
Number of adult men (>=15) in HH	917	458	1.57	1.03	0.00	0.947
Number of adult men worked in last 7 days	917	458	1.05	0.64	-0.09	** 0.029
Number of adult men who looked for work in last 4 weeks	917	458	0.09	0.45	0.01	0.622
Number of adult men worked as salaried in last 7 days	917	458	0.33	0.48	-0.04	0.214
Number of adult men worked as day worker in last 7 days	917	458	0.56	0.57	-0.01	0.892
Number of adult men worked as self-employed in last 7 days	917	458	0.05	0.21	-0.02	0.115
Number of adult men worked in other work relationship in last 7 days	917	458	0.00	0.07	0.00	0.691
<i>Women</i>						
Number of adult women (>=15) in HH	917	458	1.58	1.04	-0.05	0.452
Number of adult women worked in last 7 days	917	458	0.15	0.43	0.03	0.316
Number of adult women who looked for work in last 4 weeks	917	458	0.06	0.31	-0.01	0.544
Number of adult women worked as salaried in last 7 days	917	458	0.02	0.12	0.02	* 0.061
Number of adult women worked as day worker in last 7 days	917	458	0.05	0.22	0.00	1.000
Number of adult women worked as self-employed in last 7 days	917	458	0.06	0.26	0.01	0.686
Number of adult women worked in other work relationship in last 7 days	917	458	0.00	0.05	0.00	0.954
<u>Nutrition</u>						
<i>Current or last pregnancy</i>						
Number of prenatal consultations	1002	501	3.064	0.865	-0.031	0.547
At least 4 prenatal consultations	1002	501	0.212	0.409	-0.022	0.386
First prenatal consultation during first trimester	989	495	0.800	0.400	-0.033	0.206
Lost weight during last pregnancy	1001	500	0.534	0.499	-0.004	0.911
<i>Breast-feeding</i>						
Share of kids 0-23 months who were put to the breast within one hour of birth	737	370	0.503	0.501	0.026	0.479
Share of kids 0–5 months who receive breast milk	221	111	0.793	0.407	0.038	0.476
Share of kids 12–23 months who still receive breast milk	470	235	0.613	0.488	-0.022	0.634
<i>Youngest child feeding</i>						

Aged 6-59 months has a diversified diet	397	202	0.351	0.479	0.007		0.891
Aged 6-59 months ate food rich in proteins	397	202	0.550	0.499	0.032		0.523
Aged 6-59 months ate food rich in vitamins	397	202	0.777	0.417	-0.051		0.237
Aged 6-23 months has a diversified diet	204	105	0.371	0.486	-0.028		0.679
Aged 6-23 months ate food rich in proteins	204	105	0.505	0.502	0.043		0.552
Aged 6-23 months ate food rich in vitamins	204	105	0.790	0.409	-0.045		0.448
Household food diversity of children aged 6-59 months (4/10 food groups)	397	202	0.540	0.500	0.023		0.647
Household food diversity of children aged 6-23 months (4/10 food groups)	204	105	0.533	0.501	0.010		0.895
<i>Pregnant or lactating woman</i>							
Has a diversified diet	672	339	0.410	0.493	-0.035		0.348
Ate food rich in proteins	672	339	0.664	0.473	0.006		0.867
Ate food rich in vitamins	672	339	0.805	0.397	-0.027		0.381
Household food diversity of woman (4/10 food groups)	672	339	0.649	0.478	-0.066	*	0.078
<i>Food security</i>							
Concerned about not having enough food in last 7 days	1001	500	0.308	0.462	0.042		0.157
Index of food insecurity in last 7 days	1001	500	1.098	1.676	0.147		0.179

Table 3. Expenditures & Income

	Obs	Control Group			Treatment - Control	
		Obs	Mean	St. Dev.	Coeff.	p-value
<u>Expenditures</u>						
HH total per-capita expenditures in last 30 days	958	476	14,294	11,264	-907	0.149
Of which:						
Food	958	476	6,992	7,054	-864 **	0.018
Health & Education	958	476	1,515	1,803	116	0.464
Other expenditures	958	476	5,787	6,629	-159	0.667
Share of food in total expenditures	958	476	0.494	0.145	-0.007	0.450
Share of health & education in total expenditures	958	476	0.115	0.112	-0.005	0.486
Share of other items in total expenditures	958	476	0.390	0.136	0.012	0.179
HH total expenses in productive assets last 12 months	1011	507	2,052	40,214	-1,769	0.325
<u>Income</u>						
Income from day work in last 7 days	959	480	4,651	10,469	-358	0.631
Income from salaried work in last 30 days	959	480	17,268	38,409	-2,379	0.293
Income from self-employment activity in last 30 days	959	480	2,888	23,334	-1,070	0.367
Income from other labor act in last 7 days	959	480	14	238	-12	0.274
HH received extra-hh transfers in last 12 months	1001	500	0.172	0.378	0.007	0.781
HH had income from gov or NGO in last 12 months	1001	500	0.044	0.205	0.003	0.810
HH had income from a pension in last 12 months	998	498	0.028	0.165	-0.003	0.791
HH had income from other source in last 12 months	1001	500	0.038	0.191	-0.001	0.919
HH made extra-hh transfers in last 12 months	1001	500	0.104	0.306	-0.002	0.911

Table 4. Time use

Table 4: Time use

	Obs	Control Group			Treatment - Control	
		Obs	Mean	St. Dev.	Coeff.	p-value
<i>Minutes spent in past 24 hours in:</i>						
<u>Woman beneficiary</u>						
Personal care	1000	500	737	142	3	0.723
Chores	1000	500	348	141	19 **	0.030
Caring others	1000	500	129	106	-4	0.528
Social	1000	500	117	120	-10	0.187
Work	1000	500	30	101	-6	0.315
Study	1000	500	3	34	-2	0.137
Other	1000	500	74	92	0	0.985
<u>Husband</u>						
Personal care	564	287	700	155	-15	0.254
Work	564	287	393	236	26	0.200
Caring others	564	287	28	65	-9 **	0.045
Social	564	287	180	164	4	0.790
Chores	564	287	6	38	-3	0.322
Study	564	287	0	0	5 *	0.098
Other	564	287	132	124	-11	0.277

Table 5. Summary Statistics by pairs of roll out group

	Obs A+C	Treatment A - Control C					Obs B+D	Treatment B - Control D				
		Mean	St. Dev.	Coeff.		<i>p-value</i>		Mean	St. Dev.	Coeff.		<i>p-value</i>
Eligibility & socio-economic characteristics												
Indicator for pregnant woman or child 0-2	510	0.897	0.304	-0.008		0.779	501	0.878	0.328	-0.007		0.802
Number of members in HH	510	6.957	2.666	-0.420	*	0.060	501	6.917	2.701	0.133		0.574
Number of children 0-2 years of age in HH	510	0.957	0.498	0.015		0.731	501	0.972	0.522	0.009		0.861
Indicator for male HH head	502	0.956	0.206	-0.028		0.173	495	0.976	0.153	-0.017		0.285
Age of HH head	501	40.2	8.6	-2.2	***	0.003	494	40.6	8.4	0.1		0.866
Indicator for head writes and reads without difficulty	488	0.214	0.411	-0.038		0.275	486	0.203	0.403	0.019		0.602
Age of Woman Beneficiary	508	33.5	7.2	-1.5	**	0.010	497	33.2	6.3	-0.2		0.733
Indicator for woman benef writes and reads without difficulty	507	0.083	0.277	-0.010		0.674	496	0.068	0.252	0.003		0.901
Employment adult members (past 7 days)												
Number of men worked	458	1.01	0.59	-0.06		0.284	459	1.08	0.70	-0.12	*	0.054
Number of men who worked as salaried	458	0.31	0.47	-0.04		0.348	459	0.34	0.48	-0.04		0.368
Number of men who worked as day worker	458	0.55	0.53	0.03		0.613	459	0.57	0.60	-0.03		0.541
Number of women who worked in last 7 days	458	0.15	0.43	-0.03		0.429	459	0.14	0.44	0.09	**	0.049
Number of women who worked as salaried	458	0.01	0.11	0.01		0.536	459	0.02	0.13	0.03	**	0.046
Number of women who worked as day worker	458	0.06	0.24	-0.01		0.514	459	0.04	0.19	0.01		0.488
Health & nutrition												
Indicator for at least 4 prenatal consultations	505	0.20	0.40	0.01		0.788	497	0.22	0.41	-0.05		0.125

Share of kids 0–5 months who receive breast milk	111	0.79	0.41	0.01		0.920	110	0.79	0.41	0.08		0.283
Indicator for youngest child aged 6-23 months has a diversified diet	105	0.33	0.47	0.00		0.979	99	0.42	0.50	-0.07		0.482
Indicator for youngest child aged 6-59 months has a diversified diet	198	0.382	0.488	-0.072		0.289	199	0.320	0.469	0.080		0.255
Indicator for pregnant or lactating woman has a diversified diet	338	0.398	0.491	0.010		0.850	334	0.423	0.495	-0.078		0.139
Indicator for being concerned about not having enough food in last 7 days	505	0.333	0.472	-0.043		0.293	496	0.283	0.451	0.130	***	0.002
Expenditures												
Per capita total expenditures in last 30 days	480	14,125	9,721	-1,273	*	0.098	478	14,457	12,596	-512		0.608
Per capita food expenditures in last 30 days	480	7,037	7,023	-1,134	**	0.025	478	6,948	7,098	-593		0.259
Per capita expenditures in health/education in last 30 days	480	1,439	1,703	52		0.771	478	1,590	1,895	193		0.460
Per capita expenditures in other in last 30 days	480	5,650	4,442	-191		0.621	478	5,919	8,216	-111		0.861
Share of food in HH total expenditures	480	0.496	0.153	-0.013		0.339	478	0.492	0.137	-0.001		0.910
Share of health and education in HH total expenditures	480	0.112	0.113	-0.006		0.576	478	0.118	0.111	-0.004		0.701
Share of other items in HH total expenditures	480	0.392	0.146	0.019		0.156	478	0.389	0.127	0.005		0.663
Income												
Income from day work last 7 days	482	5,007	11,662	-1,166		0.169	477	4,303	9,168	486		0.695
Income from salaried work last 30 days	482	14,842	29,318	-1,869		0.457	477	19,635	45,501	-2,858		0.448
Income from self-employment last 30 days	482	2,124	9,278	-842		0.301	477	3,634	31,505	-1,186		0.596
Income from other labor in last 7 days	482	0	0	4		0.388	477	27	334	-28		0.207
HH had pension income in last 12 months	503	0.032	0.177	-0.015		0.269	495	0.024	0.153	0.010		0.522

Indicator for HH had income from gov or NGO in last 12 months	505	0.048	0.215	0.005	0.805	496	0.040	0.196	0.001	0.967
Indicator for HH received extra-hh transfers in last 12 months	505	0.173	0.379	0.015	0.650	496	0.171	0.378	-0.003	0.933
Indicator for HH had income from other source in last 12 months	505	0.036	0.187	0.004	0.828	496	0.040	0.196	-0.006	0.715
Indicator for HH made extra-hh transfers in last 12 months	505	0.068	0.253	0.003	0.896	496	0.139	0.347	-0.006	0.841

Main activities: Time Use past 24 hours

Beneficiary woman

Personal care	505	739	143	11	0.348	495	736	141	-6	0.637
Chores	505	347	144	9	0.486	495	349	138	30	** 0.016
Child care	505	130	108	-3	0.701	495	129	104	-4	0.632

Husband

Personal care	267	698	158	-3	0.878	297	701	152	-27	0.160
Work	267	409	238	10	0.723	297	378	234	37	0.168
Social activities	267	176	166	-1	0.969	297	184	163	9	0.655