

Human Development Cash Transfer: Midline Impacts

[DRAFT – NOT FOR DISSEMINATION]

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Executive Summary

The figures in this document describe the impacts of the various treatment arms of the Human Development Cash Transfer intervention suite as evaluated at midline (~18 months, or nine cash transfer payment cycles, after baseline). We emphasize that these results are to be treated as early initial estimates and thus have presented them with a minimum of accompanying interpretation to facilitate comment from our collaborators and other partners.

Because of the multilevel randomization used in the evaluation design, we present two sets of main effects for each outcome:

1. The effect of the cash transfer itself (commune-level)
2. The additive effect of each of a suite of ‘enhanced’ treatments – including the Mother Leaders program reinforced by two separate sets of behavioral “nudges” – on households already receiving cash (fokontany-level)

While the results are heterogeneous both across outcome sets and intervention classes, some broad trends emerge. The cash transfers have some significant effects scattered across most indicator sets, with the largest improvements seen in parenting behavior. However, the enhancement interventions seem to supplement the effects of the cash, particularly in reducing short-term food insecurity, as well as in shifting recipients away from focusing on subsistence and towards more income generating activities, as evidenced by the rise in export and industry crop incomes and suggestive evidence that recipients start repaying more outstanding loans. Within the enhanced treatment arms, the affirmation variant seems particularly effective in promoting food security while the planning variant was most effective in increasing agricultural productivity and parenting behaviors (though both display some indicative improvements in childhood development, suggesting a broad impact on food intake and child stimulation). Most treatments demonstrate effects on various school attainment outcomes, however while these are statistically significant, they are mostly of insufficient magnitude to be relevant to policy.

Broadly, we assess that the Human Development Cash Transfer program has produced subtle but meaningful improvements across a wide range of human development and productivity outcomes. The innovative “enhanced” components of the program appear to reinforce the basic transfer substantially, particularly in areas (e.g. financial health and food security) where the impacts of the cash are weakest.

In future iterations of these results, we aim to include both the results of the childhood socio-cognitive development module (the Malawi Developmental Assessment Test), which is still being cleaned and analyzed, and comparative cost-effectiveness estimates for each treatment set which will be important to assess the scalability of each treatment type for eventual application to Madagascar’s wide and growing social protection landscape.

Table 1, below, summarizes high-level impacts (statistically significant at p>90% and p>95%) for each measured outcome and treatment condition.

Table 1: Summary of effect direction and magnitude across treatment arms and outcomes

Outcome	Model	"Enhanced" Treatments															
		Cash				MLs Only				MLs & Affirm				MLs & Planning			
		1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
A. Consumption Behavior																	
Log of Total expense										==	==	==					
Log of Total food expense										=	==	=					
Log of Total other non-food expense				++	++												
Log of food produced for auto-consumption																	
B. Food Security																	
# meals prepared yesterday for family										+	++	++	++				
Food insecurity - last 7 days						==	==	==	==	=	=	==	==			=	=
Food insecurity - over 12 months				==	=									==		=	
Food insecurity 7 - binary						==	==	==	==	==	==	==	==			=	
C. Food Diversity																	
Behavior change: diverse meals				X		++	++	X	++	++	++	X	++	++	++	X	++
Food diversification		+	+	+	+												
D. Financial Health																	
Borrowed money																	
Log of Export crop income														+	++	++	+
Log of Food crop income											+				+		
Log of Industry crop income		=	=	=	=					++	++	++	++		+	+	+
Log of Livestock income				X				X				X				X	++
Log of Total income								+									
Paid back loans						+				++	+	++	+				
E. Future Behaviors/Investment																	
Livestock Index										+							
Log of Total education expense		++	++	++	++	++											
Log of Total health expense																	
Member of savings association																	
F. Parenting																	
Behavior change: parenting		++	++	X	++		+	X				X		++	++	X	++
Interactions with 2 youngest children		+	+	++	++			+	+			+	+	++			
G. School Advancement																	
Advanced school class (overall)															+	+	+
Advanced primary school class		==	==			++	+	+						++	+	+	
Attendance rate 16-17 (overall)		++	++	+	++	=	==	=									
Attendance rate for primary age children		++	++		++	==	==	=	=	=	==		=	==			=
H. Female Empowerment																	
Female empowerment		++	++														
I. Child Development																	
Composite cognitive development progress		+	+	++		+											
Fine motor progress																	
Language learning progress				++	++	++	+							++	+		
Social skills progress		+	+			++					+	++	++	+			

Key: “=” indicates negative sign, p> 90% ; “==” indicates negative sign, p> 95% ; “+” indicates positive sign, p> 90% ; “++” indicates positive sign, p> 95% ; “X” indicates missing baseline values ; colors added for visual salience

Results

Analytical Procedure

Below we report the results of the four analytical models we have run as allowed for in our pre-analysis plan:

- I. Bivariate OLS with heteroskedasticity-robust standard errors
- II. Same as Model I, controlling for unbalanced covariates
- III. Same as Model II, controlling for baseline outcome included
- IV. Same as Model II, but only for households who were successfully reached at both midline and baseline

We have used Ordinary Least Squares (OLS) estimates in all cases, preferring a linear probability model in the case of binary outcomes for simplicity of interpretation. For the cash-only treatment, we have clustered standard errors at the commune level to reflect the lowest level of homogenous treatment assignment, while we have clustered at the village (fokontany) level for “enhanced” conditions. We have clustered SEs at the household level in the case of child-specific outcomes such as educational advancement and school attendance rates.

In Appendix A, we provide summary statistics at midline for outcomes and covariates of interest. In addition, because the baseline included 3,684 respondents, while the midline re-surveyed those respondents while adding another 2,322 respondents to the total sample at midline, we compare the characteristics of sample baseline sample to the midline. We find that the baseline sample was worse off the midline sample statistical significance in that the baseline group exhibit more food insecurity, lower non-food consumption, and are more likely to have borrowed money. These differences mean that treatment effects may differ between the baseline and midline samples because of differences in sample characteristics.

Observations by intervention category

Condition	Observations
<i>Cash (vs “pure” control)</i>	<ul style="list-style-type: none">• The TMDH cash transfer has produced significant improvements across almost all modules, albeit with significant heterogeneity across outcomes within each group.• The cash demonstrates its most significant impacts overall on parenting behaviors, consistent with the goals of the TMDH program• Overall, the magnitude of cash impacts is larger than the additional impacts of the enhanced treatments, however they are less precisely estimated and thus less likely to be statistically significant
<i>“Enhanced” (vs Cash)</i>	Mother Leaders:

	<ul style="list-style-type: none"> • The Mother Leaders intervention successfully added value to the cash treatment across most outcome sets, demonstrating particular effectiveness in food security and food diversity. • We do not see impacts for the Mother Leaders on consumption behavior or female empowerment, while there are weak indications of impact on financial health and future behaviors <p>Self-Affirmation:</p> <ul style="list-style-type: none"> • As a variant of the Mother Leaders intervention, the affirmation treatment was most effective in stimulating improved food security, with mild improvements in financial health and parenting • The self-affirmation condition decreased consumption spending overall, driven largely by decreases in spending on food. While unexpected, this, together with the positive effects of the affirmation treatment on income from export crops and repayment of loans, is consistent with the affirmation activity’s focus on future-oriented behavior. • The affirmation treatment reduced log food spending lightly (by 1.2% from control, T-statistic = 2.13) and reduced the number of food insecure by nearly 30% from control (T-statistic = 2.27). It is possible affirmation both reduced food spending early in the transfer period, while also encouraging better management of spending at the end of the transfer period, but we are unable to validate this with our data. <p>Planning:</p> <ul style="list-style-type: none"> • As a variant of the Mother Leaders intervention, the planning treatment was most effective in stimulating improved financial health and parenting behaviors, with mild improvements seen in food security and food diversity
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Observations by outcome set

Outcome set	Observations
<i>A. Consumption Behavior</i>	<ul style="list-style-type: none"> • We see no significant effects on total log expenditures from the cash or most of the enhanced treatments. However, the affirmation arm reduces overall expenditure. • The same is the case for total food expenditure, suggesting that affirmation may have shifted spending away from subsistence to other uses, potentially investment or other future-oriented expenses.
<i>B. Food Security</i>	<ul style="list-style-type: none"> • The transfer appears to improve longer-term food security but has no discernible impacts on shorter-term measures of food insecurity

	<ul style="list-style-type: none"> • Cash reduces the long-term (12-month) measure of food insecurity substantially (by about 18 days per year, or a 12% decrease overall), but enhanced treatments do no better than cash in this regard. Cash does not appear to reduce the 7-day measure of food insecurity, but all the enhanced arms demonstrate a significant additional impact (a nearly 35% decrease) on 7-day food insecurity. • The affirmation arm also increases the number of meals prepared at home (a 5% increase). • With some noise, the enhanced measures improve people’s ability to manage food insecurity from period to period more than cash alone, though cash does reduce food insecurity over the longer term. This would be consistent with a consumption smoothing hypothesis.
<i>C. Food Diversity</i>	<ul style="list-style-type: none"> • The cash does improve diversification of food consumed, but our measures of actual behavior change do not pick up accompanying effects • The enhanced treatments as a group seem to have had strong effects on behavior (the diversity of meals prepared), but not on actual food diversification • It is possible that the cash leads to greater diversification of food purchases, but not necessarily behavior, while the “enhanced” treatments (particularly the Mother Leaders) effectively supplement these impacts by focusing on accompanying behavior change.
<i>D. Financial Health</i>	<ul style="list-style-type: none"> • The cash demonstrates limited effects on financial health and enterprise outcomes, consistent with a consumption support grant, with the exception of light decreases on agricultural income • Both of the behavioral enhanced treatments exhibit significant impacts on a range of financial health measures, particularly on agricultural income (reversing the decreases associated with the cash treatment) and loan repayment • The planning intervention increased export and industrial crop income streams, perhaps signifying a move towards market-based activities • The affirmation treatment in particular seems to have led beneficiaries to pay back more money on existing loans, consistent with an overall picture of a move towards managing money better, investing in productive income earning activities
<i>E. Future-Oriented/Investment Behaviors</i>	<ul style="list-style-type: none"> • The transfer leads to large increases in education expenses but not on other indicators of future-oriented investment, such as long-term savings-related behaviors. Livestock ownership increases substantially but without statistical significance.

	<ul style="list-style-type: none"> No sustained impacts for the enhanced treatments are seen on future-oriented behaviors, however
<i>F. Parenting</i>	<ul style="list-style-type: none"> We see significant improvements across two separate measures of parent-child interaction, for both the cash (14% increase) and enhanced treatments. These impacts are particularly large for the planning treatment (12% increase above the cash condition); the Mother Leaders and affirmation conditions demonstrate less pronounced improvements (around 10%)
<i>G. School Advancement</i>	<ul style="list-style-type: none"> While some treatments produced subtle shifts in advancement or attendance rates for either primary or secondary students, most of them attenuate with the inclusion of baseline covariates Most observed statistically significant changes are of such low magnitude as to be virtually irrelevant to policy (<1% increases or decreases)
<i>H. Female Empowerment</i>	<ul style="list-style-type: none"> Weak evidence exists for cash increases on self-reported empowerment among female beneficiaries (3-4%), which would be consistent with other literature on cash transfer effects, however this effect attenuates in some models No changes are seen in an indicator of female empowerment (beyond the impacts of the cash) for any of the enhanced treatments
<i>I. Child Development</i>	<ul style="list-style-type: none"> Each indicator except fine motor shows positive trends and even some significant results despite no improvements expected at midline It is possible that the large food security and nutrition effects we see may have led to a more direct than expected impact on childhood development. We would expect improvements to be even larger at endline.

Appendix A: Summary Tables and Variable Descriptions

Description of variables

Treatments:

Value	Description
Control (0)	No cash, placebo or other exposure (commune level)
Cash Only (I)	Human Development Cash Transfer (HDCT) distributed every two months (commune level)
Cash + Mother Leaders (II)	HDCT combined with the “Mother Leaders” program in which beneficiaries are nominated and elected to serve finite terms in community leadership roles, with responsibility for communicating to their assigned beneficiaries about both the operational aspects of the HDCT and essential family practices through different channels (village level)
Cash + MLs + Affirmation (III)	HDCT combined with Mother Leaders combined with “nudge sessions” facilitated on payment days by an externally hired community facilitator and Mother Leaders together, undertaken in groups. The exercises take the form of several different types of “games” (e.g. drawing, card-selection, etc) that repeat on a cycle to combat habituation. “Affirmation” sessions focus primarily on affirming beneficiaries’ values and thus instilling a more positive future outlook. (village level)
Cash + MLs + Planning (IV)	HDCT combined with Mother Leaders combined with “nudge sessions” organized similarly to those in treatment III. “Planning” sessions focus primarily on helping beneficiaries visualize, articulate and de-risk specific actions they need to take during the coming period to fulfill their goals for their participation in the HDCT program. (village level)

Covariates:

Variable	Scale	Description (if needed)
Household size	Number of individuals	
Total children under 6	Number of children	
Distance to school	Km.	
Education of head of household	1-4 (4 is highest level)	
Female head of household	0-1 (No, Yes)	
Age of head of household	Age	
Weeks since last payment	Number of weeks	Included only for models including the enhanced treatments

Outcomes:

Variable	Scale	Description (if needed)
Consumption Behavior		
Total expense	In ariaries	12 months. Logged for analyses.
Total food expense	In ariaries	12 months. Logged for analyses.
Total other non-food expense	In ariaries	12 months. Logged for analyses.
Value of food produced for auto-consumption	In ariaries	12 months. Logged for analyses.
Food Security		
Food insecurity - over 12 months	0-12	How many months not enough food over the last year

	0-7, alpha .69	Mean number of days seven different types of insecurity were experienced over last seven days
Food insecurity - last 7 days		
	0-1 (no, yes)	Experienced food insecurity over last 7 days
Food insecurity 7 - binary		
# meals prepared yesterday for family	Open question	Winsorized
Food Diversity		
Food diversification	1-10	Total types of food consumed
	0-1	Whether household usually prepares diverse meal
Behavior change: diverse meals		Note: no baseline
Financial Health		
Total income	In ariaries	12 months. Logged for analyses.
Food crop income	In ariaries	12 months. Logged for analyses.
Export crop income	In ariaries	12 months. Logged for analyses.
Industry crop income	In ariaries	12 months. Logged for analyses.
Livestock income	In ariaries	12 months. Logged for analyses.
Borrowed money	0-1 (no, yes)	
Paid back loans	0-1 (no, yes)	
Future Behaviors		
Livestock Index	Total number of livestock	Winsorized
Member of savings association	0-1 (no, yes)	
Total health expense	In ariaries	12 months. Logged for analyses.
Total education expense	In ariaries	12 months. Logged for analyses.
Parenting		
	0-12, alpha .83	Sum of whether household engaged in 6 parenting interactions with 2 youngest children
Interactions with 2 youngest children		
	0-3, alpha .43	Sum of whether household engaged in 3 parenting practices
Behavior change - parenting		Note: no baseline
School Advancement		
Advanced school class (overall)	0-1 (no, yes)	Whether student advanced grade from 2016-2017 to 2017-2018 Note: not a hh level variable Note: not a hh level variable
Advanced primary school class	0-1 (no, yes)	Whether primary school student advanced grade from 2016-2017 to 2017-2018 Note: not a hh level variable
Attendance rate in 2016-2017 (Overall)	Four categories reported, coded at their midpoint as .05, .295, .695, .95	Attendance percentage of students during year 2016-2017 Note: not a hh level variable
Attendance rate in 2016-2017 for primary school children	Four categories reported, coded at their midpoint as .05, .295, .695, .95	Attendance percentage of primary school students during 2016-2017 Note: not a hh level variable
Female Empowerment		
Female empowerment	0-5, alpha .65	Sum of whether woman participates in 5 different kinds of household decisions

(Note: some variables were winsorized at the 99th percentile to adjust for outliers, and some were logged for analyses, as indicated above.)

Summary Statistics

Midline summary statistics

Outcomes	No Cash - Control		Cash Only		Cash*ML		Cash*ML*Affirm		Cash*ML*Plan	
	Mean	SD	Mean	SD	Mean	SD	Mean	SD	Mean	SD
Household Characteristics										
Total household size	6.48	2.37	6.42	2.44	6.47	2.33	6.69	2.43	6.56	2.45
Age of head of household	45.42	12.94	45.04	13.22	45.57	12.38	45.15	12.97	45.15	12.92
Education of head of household	2.80	0.93	2.97	0.93	2.93	0.89	2.92	0.91	3.03	0.92
Female head of household	0.18	0.39	0.23	0.42	0.26	0.44	0.22	0.41	0.26	0.44
Number of children under 6	1.10	0.92	1.14	1.00	1.11	0.96	1.13	0.96	1.19	0.98
Distance to school	1.52	2.00	1.04	1.62	1.02	1.53	1.09	1.58	1.07	1.69
Weeks since last payment	6.50	2.12	6.02	3.03	5.57	1.95	5.64	2.69	5.75	3.84
Consumption Behavior										
Total expense	1368681	1036845	1469920	1081943	1398719	1046566	1498709	1151523	1500018	1104237
Total food expense	928752	801960	1003007	834340	927627	808189	1030773	935268	1038450	877667
Total other non-food expense	336765	404046	354652	395200	360895	452548	353538	381088	354249	375911
Value of food produced for auto-consumption	22798	125829	20173	116496	19669	115968	34294	406832	19501	113345
Food Security										
Food insecurity - over 12 months	4.89	2.56	4.53	2.63	4.28	2.48	4.42	2.52	4.25	2.45
Food insecurity - last 7 days	0.94	1.30	1.15	1.43	0.78	1.27	0.90	1.37	0.97	1.38
Food insecurity 7 - binary	0.46	0.50	0.52	0.50	0.40	0.49	0.41	0.49	0.45	0.50
# meals prepared yesterday for family	2.71	0.54	2.65	0.57	2.73	0.53	2.75	0.52	2.69	0.56
Food Diversity										

Food diversification	8.03	1.09	8.32	1.11	8.33	1.05	8.24	1.10	8.32	1.15
Behavior change: diverse meals	0.32	0.47	0.34	0.47	0.47	0.50	0.45	0.50	0.50	0.50
Financial Health										
Total income	657164	1007974	718235	982536	712139	946584	698721	903878	708942	1040074
Food crop income	78215	329010	71724	302461	58866	184747	61359	178295	61165	200634
Export crop income	34697	141312	20021	113911	27242	131276	28195	153875	43577	609429
Industry crop income	3463	30299	674	10134	3287	33511	3477	46609	1921	28165
Livestock income	97643	588977	68326	237816	75925	290648	73053	322607	66213	267795
Borrowed money	0.35	0.48	0.37	0.48	0.40	0.49	0.38	0.49	0.38	0.49
Paid back loans	0.43	0.50	0.43	0.50	0.49	0.50	0.51	0.50	0.48	0.50
Future Behaviors										
Livestock Index	6.10	7.30	5.93	7.50	5.89	7.42	6.77	8.13	6.23	7.12
Member of savings association	0.03	0.16	0.07	0.25	0.07	0.25	0.09	0.28	0.07	0.26
Total health expense	53876	209375	46791	177388	51441	174280	52100	139004	47528	125970
Total education expense	49289	71615	65470	81933	58757	67141	62297	72794	59791	79119
Parenting										
Interactions with 2 youngest children	2.27	2.59	2.60	2.74	2.71	2.75	2.73	2.82	2.92	2.86
Behavior change: parenting	2.17	0.85	2.37	0.74	2.41	0.74	2.41	0.72	2.45	0.74
Female Empowerment										
Female empowerment	4.04	1.14	4.20	1.10	4.21	1.11	4.14	1.11	4.19	1.07
Observations	1200.00		1204.00		1200.00		1205.00		1197.00	

Midline summary statistics for education variables

Outcomes	No Cash - Control		Cash Only		Cash*ML		Cash*ML*Affirm		Cash*ML*Plan	
	Mean	SD	Mean	SD	Mean	SD	Mean	SD	Mean	SD
School Advancement										

Advanced school class (overall)	0.76	0.43	0.77	0.42	0.77	0.42	0.75	0.43	0.78	0.41
Advanced primary school class	0.76	0.43	0.80	0.40	0.80	0.40	0.77	0.42	0.80	0.40
Attendance rate in 2016-2017 (Overall)	0.94	0.06	0.93	0.09	0.93	0.07	0.93	0.07	0.93	0.07
Attendance rate in 2016-2017 for primary school children	0.94	0.06	0.93	0.08	0.93	0.07	0.93	0.07	0.94	0.06
Observations	2390		2215		2556		2563		2582	

Comparison of baseline respondents at midline

Household Outcomes	Took Baseline Survey		No Baseline Survey		Difference in Means	T-Statistic
	Mean	SD	Mean	SD		
Consumption Behavior						
Total expense	1430329.00	1060179.00	1473818.00	1125170.00	-43488.90	(-1.49)
Total food expense	975714.70	827540.00	1001451.00	894093.60	-25735.90	(-1.12)
Total other non-food expense	344121.00	394505.70	364528.80	415025.30	-20407.80	(-1.89)
Value of food produced for auto-consumption	19856.37	240136.70	28682.20	150721.80	-8825.80	(-1.75)
Food Security						
Food insecurity - over 12 months	4.43	2.57	4.54	2.48	-0.11	(-1.60)
Food insecurity - last 7 days	0.97	1.37	0.92	1.33	0.05	-1.30
Food insecurity 7 - binary	0.45	0.50	0.44	0.50	0.01	-0.52
# meals prepared yesterday for family	2.68	0.56	2.74	0.52	-0.0529***	(-3.72)
Food Diversity						
Food diversification	8.23	1.11	8.29	1.10	-0.0601*	(-2.06)
Behavior change: diverse meals	0.41	0.49	0.42	0.49	-0.01	(-0.93)
Financial Health						
Total income	674661.50	880197.10	737628.90	1112864.00	-62967.4*	(-2.31)
Food crop income	64815.67	235771.60	68540.60	264620.60	-3724.90	(-0.55)
Export crop income	26597.47	145601.70	37323.59	443548.70	-10726.10	(-1.13)
Industry crop income	2369.20	30482.00	2871.94	34184.31	-502.70	(-0.58)
Livestock income	67832.00	369579.10	89498.41	355468.70	-21666.4*	(-2.27)
Borrowed money	0.39	0.49	0.35	0.48	0.0340**	-2.66
Paid back loans	0.47	0.50	0.46	0.50	0.01	-0.51
Future Behaviors						
Livestock Index	6.02	7.31	6.43	7.81	-0.405*	(-2.01)

Member of savings association	0.07	0.26	0.05	0.22	0.0194**	-3.10
Total health expense	50213.84	143628.00	50553.57	200203.60	-339.70	(-0.07)
Total education expense	60279.65	73804.57	57285.20	76532.09	2994.40	-1.50
Parenting						
Interactions with 2 youngest children	2.63	2.77	2.68	2.75	-0.05	(-0.63)
Behavior change: parenting	2.37	0.75	2.37	0.77	0.00	(-0.17)
Female Empowerment						
Female empowerment	4.15	1.12	4.16	1.09	0.00	(-0.14)
Observations	3679.00		2327.00		6006.00	

*p<.05, **p<0.01, ***p<0.001

Comparison of baseline respondents at midline for education variables

Household Outcomes	Took Baseline Survey		No Baseline Survey		Difference in Means	T-Statistic
	Mean	SD	Mean	SD		
Advanced school class (overall)	0.77	0.42	0.77	0.42	0.00	-0.03
Advanced primary school class	0.79	0.41	0.78	0.41	0.01	-0.97
Attendance rate in 2016-2017 (Overall)	0.93	0.07	0.93	0.07	0.00	-1.26
Attendance rate in 2016-2017 for primary school children	0.94	0.07	0.93	0.07	0.00	-1.48
Observations	8030		4276		12306	

*p<.05, **p<0.01, ***p<0.001

Balance checks at baseline for midline respondents (household-level)

Orthogonality Table	Control	Cash_only	Cash*ML	Cash*ML*affirm	Cash*ML*plan
Consumption Behavior					
Total expense - Baseline	1140977.63 (32126.535)	1110787.13 (25691.305)	1131802.88 (24866.932)	1221140.00 (62631.941)	1184127.25 (30928.441)
Total food expense - Baseline	856956.69 (26462.891)	842678.63 (21347.967)	857464.06 (19550.014)	948072.19 (58703.711)	893460.31 (23319.176)
Total non-food expense - Baseline	209984.42 (8727.686)	197452.64 (6628.607)	199069.92 (7201.363)	204318.48 (9483.784)	213983.27 (12818.152)
Value of food produced for auto-consumption - Baseline	16951.75 (3075.106)	12419.12 (2180.086)	13982.54 (2583.620)	15933.59 (2419.224)	16524.49 (2983.512)
Food Security					
Food insecurity - over 12 months - Baseline	4.36 (0.125)	4.92 (0.118)	4.76 (0.116)	4.99 (0.118)	4.97 (0.112)

Food insecurity - last 7 days - Baseline	2.10	2.17	2.24	2.22	2.17
	(0.063)	(0.051)	(0.054)	(0.053)	(0.052)
Food insecurity 7 - binary - Baseline	0.85	0.85	0.84	0.86	0.85
	(0.017)	(0.013)	(0.014)	(0.013)	(0.013)
# meals prepared yesterday for family - Baseline	2.68	2.59	2.59	2.67	2.57
	(0.023)	(0.021)	(0.021)	(0.019)	(0.021)
Food Diversity					
Food diversification - Baseline	6.01	6.02	6.19	6.07	6.09
	(0.060)	(0.052)	(0.045)	(0.050)	(0.045)
Financial Health					
Total income	657163.81	708942.25	718234.94	712139.31	698721.13
	(29097.711)	(29974.445)	(28363.359)	(27268.781)	(26125.377)
Food crop income - Baseline	68019.4	48697.6	55807.3	46243.4	51912.8
	(6553.241)	(4338.234)	(5367.052)	(3776.182)	(5682.496)
Export crop income - Baseline	23407.35	19365.75	8874.45	7725.09	8076.20
	(3852.910)	(5305.295)	(1527.742)	(1455.269)	(3023.781)
Industry crop income - Baseline	4553.06	1816.20	593.39	991.27	3050.55
	(1411.944)	(734.121)	(264.237)	(231.581)	(1230.413)
Borrowed money - Baseline	0.48	0.56	0.57	0.54	0.54
	(0.023)	(0.018)	(0.018)	(0.017)	(0.017)
Paid back loans - Baseline	0.29	0.26	0.27	0.31	0.29
	(0.030)	(0.021)	(0.021)	(0.022)	(0.022)
Future Behaviors					
Livestock Index - Baseline	5.31	4.68	4.30	4.64	4.33
	(0.323)	(0.246)	(0.228)	(0.226)	(0.223)
Member of savings association - Baseline	0.01	0.04	0.04	0.03	0.03
	(0.005)	(0.007)	(0.007)	(0.006)	(0.006)
Total health expense - Baseline	41354.08	32437.79	36691.83	35545.57	39276.76
	(5485.375)	(2274.787)	(3568.785)	(3571.341)	(3614.347)
Total education expense - Baseline	32682.39	38218.08	38577.07	33203.77	37406.96
	(2488.322)	(2522.539)	(2038.748)	(1817.085)	(1979.483)
Parenting					
Interact with 2 youngest children - Baseline	2.65	2.54	2.58	2.56	2.57
	(0.095)	(0.075)	(0.079)	(0.074)	(0.071)
Female Empowerment					
Female empowerment - Baseline	3.92	4.01	4.06	3.99	4.04
	(0.050)	(0.041)	(0.040)	(0.040)	(0.039)
N	1200	1204	1200	1205	1197

Proportion	0.20	0.20	0.20	0.20	0.20
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Baseline balance checks for education variables

Orthogonality Table	Control - No Cash	Cash only	Cash*ML	Cash*ML*affirm	Cash*ML*plan
Advanced school class (overall)	0.48	0.49	0.48	0.48	0.46
	(0.016)	(0.012)	(0.012)	(0.012)	(0.012)
Advanced primary school class	0.54	0.57	0.56	0.56	0.53
	(0.019)	(0.015)	(0.015)	(0.014)	(0.015)
Attendance rate in 2015-2016 (Overall)	0.87	0.88	0.88	0.88	0.86
	(0.005)	(0.004)	(0.004)	(0.004)	(0.004)
Attendance rate in 2015-2016 for primary school children	0.88	0.88	0.89	0.88	0.86
	(0.006)	(0.004)	(0.004)	(0.004)	(0.005)
N	7771.00	7729.00	7765.00	8065.00	7852.00
Proportion	0.20	0.20	0.20	0.21	0.20

Appendix B: Results Tables by Outcome

A. Consumption Behavior

Log of total expenditure

	Model I	Model II	Model III	Model IV
Commune-level treatments				
Cash	0.11 [0.09]	0.1 [0.10]	0.1 [0.08]	0.1 [0.10]
Intercept	13.88	13.86	13.58	13.86
N	2404	2404	1268	1268
R-squared	0.01	0.05	0.15	0.04
Village-level treatments				
Mother Leaders (T1)	-0.02 [0.06]	-0.03 [0.06]	-0.06 [0.06]	-0.06 [0.07]
MLs and Affirmation (T2)	-0.08 [0.06]	-0.11** [0.06]	-0.15** [0.06]	-0.14** [0.06]
MLs and Planning (T3)	0 [0.06]	-0.01 [0.06]	-0.04 [0.06]	-0.03 [0.06]
Intercept	13.99	13.88	13.76	13.82
N	4806	4061	2762	2762
R-squared	0	0.05	0.08	0.05
T1 and T2	-0.06 [0.06]	-0.08 [0.05]	-0.09 [0.06]	-0.08 [0.06]
T2 and T3	0.08 [0.06]	0.10* [0.06]	0.11* [0.06]	0.10* [0.06]
T1 and T3	0.02 [0.06]	0.02 [0.06]	0.02 [0.06]	0.03 [0.07]

Note: '*' denotes significance at $p < 0.1$ level, '**' at $p < 0.05$

Log of total food expenditure

	Model I	Model II	Model III	Model IV
Commune-level treatments				

Cash	0.13 [0.13]	0.11 [0.13]	0.05 [0.11]	0.05 [0.14]
Intercept	13.35	13.55	13.56	13.81
N	2404	2404	1268	1268
R-squared	0	0.02	0.08	0.02

Village-level treatments

Mother Leaders (T1)	-0.03 [0.08]	-0.06 [0.08]	-0.08 [0.10]	-0.09 [0.10]
MLs and Affirmation (T2)	-0.11 [0.08]	-0.14 * [0.08]	-0.17** [0.08]	-0.16 * [0.08]
MLs and Planning (T3)	0.01 [0.09]	-0.01 [0.08]	-0.02 [0.08]	-0.01 [0.08]
Intercept	13.48	13.72	13.67	13.73
N	4806	4061	2762	2762
R-squared	0	0.02	0.04	0.02
T1 and T2	-0.08 [0.08]	-0.08 [0.08]	-0.09 [0.09]	-0.08 [0.09]
T2 and T3	0.12 [0.08]	0.12 * [0.07]	0.14 * [0.08]	0.14 * [0.08]
T1 and T3	0.04 [0.08]	0.05 [0.08]	0.07 [0.09]	0.07 [0.10]

Note: '*' denotes significance at p<0.1 level, '**' at p<0.05

Log of total non-food expenditure

	Model I	Model II	Model III	Model IV
Commune-level treatments				
Cash	0.08 [0.07]	0.1 [0.07]	0.17** [0.08]	0.17** [0.08]
Intercept	12.37	12.41	11.87	12.06
N	2404	2404	1268	1268
R-squared	0	0.08	0.13	0.08
Village-level treatments				
Mother Leaders (T1)	0	-0.01	-0.04	-0.04

	[0.06]	[0.06]	[0.07]	[0.07]
MLs and Affirmation (T2)	-0.03	-0.06	-0.09	-0.09
	[0.05]	[0.05]	[0.06]	[0.06]
MLs and Planning (T3)	0.02	0.02	-0.03	-0.02
	[0.05]	[0.05]	[0.06]	[0.06]
Intercept	12.45	12.33	12.25	12.28
N	4806	4061	2762	2762
R-squared	0	0.07	0.1	0.07
T1 and T2	-0.02	-0.05	-0.05	-0.05
	[0.06]	[0.05]	[0.06]	[0.07]
T2 and T3	0.04	0.08	0.06	0.07
	[0.05]	[0.05]	[0.06]	[0.06]
T1 and T3	0.02	0.03	0.01	0.02
	[0.06]	[0.06]	[0.07]	[0.07]

Note: '*' denotes significance at p<0.1 level, '**' at p<0.05

Log value of food produced for auto-consumption

	Model I	Model II	Model III	Model IV
Commune-level treatments				
Cash	0.11	0.18	0.05	0.05
	[0.22]	[0.21]	[0.25]	[0.25]
Intercept	1.09	1.48	1.19	1.19
N	2404	2404	1268	1268
R-squared	0	0.01	0	0
Village-level treatments				
Mother Leaders (T1)	-0.06	-0.02	-0.08	-0.08
	[0.17]	[0.18]	[0.20]	[0.20]
MLs and Affirmation (T2)	-0.1	-0.07	0.11	0.11
	[0.18]	[0.19]	[0.21]	[0.21]
MLs and Planning (T3)	-0.12	-0.07	0.2	0.2
	[0.19]	[0.21]	[0.24]	[0.24]
Intercept	1.21	1.72	1.91	1.91
N	4806	4061	2762	2762
R-squared	0	0	0	0

T1 and T2	-0.04 [0.17]	-0.05 [0.18]	0.2 [0.20]	0.2 [0.20]
T2 and T3	-0.02 [0.20]	-0.01 [0.21]	0.08 [0.25]	0.08 [0.25]
T1 and T3	-0.06 [0.18]	-0.05 [0.20]	0.28 [0.23]	0.28 [0.23]

Note: '*' denotes significance at $p < 0.1$ level, '**' at $p < 0.05$

B. Food Security

Food insecurity – 12 months

	Model I	Model II	Model III	Model IV
Commune-level treatments				
Cash	-0.36 [0.31]	-0.4 [0.29]	-0.60** [0.29]	-0.57 * [0.31]
Intercept	4.89	3.79	3.64	3.8
N	2404	2404	1268	1268
R-squared	0	0.02	0.04	0.04
Village-level treatments				
Mother Leaders (T1)	-0.25 [0.19]	-0.28 [0.19]	-0.2 [0.20]	-0.21 [0.21]
MLs and Affirmation (T2)	-0.11 [0.19]	-0.2 [0.19]	-0.26 [0.20]	-0.26 [0.21]
MLs and Planning (T3)	-0.28 [0.18]	-0.38** [0.19]	-0.34 * [0.20]	-0.34 [0.21]
Intercept	4.53	3.05	2.63	2.88
N	4806	4061	2762	2762
R-squared	0	0.02	0.03	0.02
T1 and T2	0.14 [0.18]	0.09 [0.18]	-0.05 [0.19]	-0.04 [0.20]
T2 and T3	-0.17 [0.17]	-0.18 [0.18]	-0.08 [0.19]	-0.08 [0.19]
T1 and T3	-0.02 [0.17]	-0.09 [0.18]	-0.13 [0.19]	-0.12 [0.19]

Note: '*' denotes significance at p<0.1 level, '**' at p<0.05

Food insecurity – last 7 days

	Model I	Model II	Model III	Model IV
Commune-level treatments				
Cash	0.21 [0.24]	0.14 [0.21]	0.08 [0.23]	0.08 [0.24]

Intercept	0.94	0.37	0.19	0.32
N	2343	2343	1155	1239
R-squared	0.01	0.05	0.08	0.05

Village-level treatments

Mother Leaders (T1)	-0.37** [0.13]	-0.40** [0.13]	-0.38** [0.15]	-0.36** [0.15]
MLs and Affirmation (T2)	-0.25 * [0.14]	-0.26 * [0.14]	-0.34** [0.15]	-0.32** [0.15]
MLs and Planning (T3)	-0.18 [0.14]	-0.23 [0.14]	-0.28 * [0.15]	-0.28 * [0.15]
Intercept	1.15	0.12	-0.19	-0.03
N	4652	3927	2483	2666
R-squared	0.01	0.05	0.08	0.06
T1 and T2	0.11 [0.12]	0.13 [0.12]	0.03 [0.13]	0.03 [0.13]
T2 and T3	0.07 [0.13]	0.03 [0.13]	0.05 [0.13]	0.04 [0.13]
T1 and T3	0.19 [0.13]	0.17 [0.13]	0.11 [0.14]	0.09 [0.14]

Note: '*' denotes significance at p<0.1 level, '**' at p<0.05

Food insecurity – last 7 days (binary)

	Model I	Model II	Model III	Model IV
Commune-level treatments				
Cash	0.05 [0.08]	0.04 [0.08]	0.05 [0.08]	0.03 [0.08]
Intercept	0.46	0.28	0.12	0.24
N	2343	2343	1155	1239
R-squared	0	0.03	0.06	0.04
Village-level treatments				
Mother Leaders (T1)	-0.12** [0.04]	-0.12** [0.05]	-0.11** [0.05]	-0.10** [0.05]
MLs and Affirmation (T2)	-0.11** [0.05]	-0.11** [0.05]	-0.12** [0.05]	-0.11** [0.05]
MLs and Planning (T3)	-0.07	-0.08	-0.09 *	-0.09

	[0.05]	[0.05]	[0.05]	[0.05]
Intercept	0.52	0.15	-0.01	0.13
N	4652	3927	2483	2666
R-squared	0.01	0.04	0.06	0.04
T1 and T2	0.01 [0.04]	0.01 [0.05]	-0.02 [0.05]	-0.01 [0.05]
T2 and T3	0.04 [0.05]	0.03 [0.05]	0.03 [0.05]	0.02 [0.05]
T1 and T3	0.05 [0.05]	0.04 [0.05]	0.02 [0.05]	0.02 [0.05]

Note: '*' denotes significance at p<0.1 level, '**' at p<0.05

Number of meals prepared yesterday

	Model I	Model II	Model III	Model IV
Commune-level treatments				
Cash	-0.06 [0.10]	-0.03 [0.10]	0 [0.07]	-0.02 [0.09]
Intercept	2.71	2.72	2.07	2.65
N	2404	2404	1268	1268
R-squared	0	0.05	0.09	0.04
Village-level treatments				
Mother Leaders (T1)	0.08 [0.06]	0.09 [0.06]	0.08 [0.05]	0.09 [0.06]
MLs and Affirmation (T2)	0.11 * [0.06]	0.11 ** [0.06]	0.12 ** [0.05]	0.14 ** [0.06]
MLs and Planning (T3)	0.04 [0.06]	0.07 [0.06]	0.07 [0.06]	0.07 [0.06]
Intercept	2.65	2.86	2.33	2.9
N	4806	4061	2762	2762
R-squared	0.01	0.05	0.1	0.06
T1 and T2	0.03 [0.05]	0.02 [0.05]	0.04 [0.05]	0.06 [0.06]
T2 and T3	-0.06 [0.05]	-0.05 [0.05]	-0.05 [0.05]	-0.07 [0.06]

T1 and T3	-0.04	-0.02	-0.01	-0.01
	[0.05]	[0.05]	[0.05]	[0.06]

Note: '*' denotes significance at $p < 0.1$ level, '**' at $p < 0.05$

C. Food Diversity

Food diversification

	Model I	Model II	Model III	Model IV
Commune-level treatments				
Cash	0.30 * [0.15]	0.27 * [0.15]	0.32 * [0.17]	0.32 * [0.17]
Intercept	8.03	8.01	6.99	7.67
N	2404	2404	1268	1268
R-squared	0.02	0.04	0.06	0.05
Village-level treatments				
Mother Leaders (T1)	0.01 [0.09]	-0.01 [0.09]	-0.06 [0.10]	-0.05 [0.10]
MLs and Affirmation (T2)	-0.08 [0.09]	-0.06 [0.09]	-0.09 [0.10]	-0.09 [0.10]
MLs and Planning (T3)	-0.01 [0.10]	0 [0.10]	-0.06 [0.11]	-0.05 [0.11]
Intercept	8.32	8.05	7.63	7.91
N	4806	4061	2762	2762
R-squared	0	0.01	0.02	0.02
T1 and T2	-0.09 [0.09]	-0.04 [0.09]	-0.03 [0.10]	-0.03 [0.09]
T2 and T3	0.08 [0.10]	0.06 [0.10]	0.03 [0.10]	0.03 [0.10]
T1 and T3	-0.01 [0.09]	0.01 [0.09]	0 [0.10]	0 [0.10]

Note: '*' denotes significance at $p < 0.1$ level, '**' at $p < 0.05$

Behavioral change (diverse meals)

	Model I	Model II	Model III	Model IV
Commune-level treatments				
Cash	0.02 [0.05]	0.02 [0.04]		0.03 [0.04]

Intercept	0.32	0.51	0.53
N	2163	2163	1143
R-squared	0	0.01	0.01

Village-level treatments

Mother Leaders (T1)	0.13** [0.03]	0.12** [0.04]	0.10** [0.04]
MLs and Affirmation (T2)	0.11** [0.03]	0.11** [0.04]	0.11** [0.04]
MLs and Planning (T3)	0.16** [0.04]	0.15** [0.04]	0.13** [0.04]
Intercept	0.34	0.47	0.47
N	4462	3801	2589
R-squared	0.01	0.02	0.01
T1 and T2	-0.02 [0.04]	-0.01 [0.04]	0.01 [0.04]
T2 and T3	0.05 [0.04]	0.04 [0.04]	0.02 [0.05]
T1 and T3	0.03 [0.04]	0.03 [0.04]	0.02 [0.05]

Note: '*' denotes significance at p<0.1 level, '**' at p<0.05

D. Financial Health

Log of total income

	Model I	Model II	Model III	Model IV
Commune-level treatments				
Cash	0.2 [0.26]	0.18 [0.25]	-0.58 [0.40]	0.11 [0.25]
Intercept	12.3	12.93	14.03	12.84
N	2404	2404	235	1268
R-squared	0	0.03	0.07	0.02
Village-level treatments				
Mother Leaders (T1)	0.08 [0.16]	0.1 [0.15]	0.61 * [0.35]	-0.09 [0.16]
MLs and Affirmation (T2)	0.09 [0.16]	0.11 [0.16]	0.57 [0.37]	-0.01 [0.16]
MLs and Planning (T3)	0.03 [0.15]	0.03 [0.14]	0.17 [0.41]	-0.04 [0.14]
Intercept	12.5	13.4	12.74	13.54
N	4806	4061	519	2762
R-squared	0	0.03	0.05	0.03
T1 and T2	0 [0.14]	0 [0.14]	-0.14 [0.30]	0.06 [0.17]
T2 and T3	-0.06 [0.14]	-0.09 [0.13]	-0.39 [0.34]	-0.05 [0.15]
T1 and T3	-0.06 [0.13]	-0.07 [0.13]	-0.5 [0.33]	0.05 [0.15]

Note: '*' denotes significance at $p < 0.1$ level, '**' at $p < 0.05$

Log of food crop income

	Model I	Model II	Model III	Model IV
Commune-level treatments				
Cash	-0.59 [0.58]	-0.57 [0.59]	-0.18 [0.50]	-0.31 [0.59]

Intercept	4.94	7.13	5.66	6.31
N	2404	2404	1268	1268
R-squared	0	0.02	0.06	0.02

Village-level treatments

Mother Leaders (T1)	0.16 [0.38]	0.35 [0.40]	0.1 [0.43]	0.19 [0.46]
MLs and Affirmation (T2)	0.25 [0.35]	0.70 * [0.38]	0.66 [0.41]	0.67 [0.43]
MLs and Planning (T3)	0.41 [0.36]	0.70 * [0.38]	0.48 [0.40]	0.54 [0.42]

Intercept	4.35	5.11	4.87	5.08
N	4806	4061	2762	2762
R-squared	0	0.02	0.06	0.02

T1 and T2	0.1 [0.38]	0.33 [0.41]	0.56 [0.43]	0.45 [0.47]
T2 and T3	0.16 [0.37]	0.01 [0.39]	-0.15 [0.41]	-0.12 [0.43]
T1 and T3	0.26 [0.39]	0.31 [0.40]	0.33 [0.43]	0.3 [0.45]

Note: '*' denotes significance at p<0.1 level, '**' at p<0.05

Log of export crop income

	Model I	Model II	Model III	Model IV
Commune-level treatments				
Cash	-1.1 [0.86]	-0.9 [0.80]	-1.02 [0.91]	-1.03 [0.97]
Intercept	2.45	1.88	2.29	2.12
N	2404	2404	1268	1268
R-squared	0.02	0.05	0.09	0.05
Village-level treatments				
Mother Leaders (T1)	0.1 [0.33]	0.17 [0.32]	0.21 [0.36]	0.14 [0.38]
MLs and Affirmation (T2)	0.23 [0.34]	0.33 [0.33]	0.31 [0.36]	0.23 [0.38]
MLs and Planning (T3)	0.62 * [0.37]	0.78** [0.37]	0.93** [0.41]	0.83 * [0.43]

Intercept	1.35	0.85	0.76	0.77
N	4806	4061	2762	2762
R-squared	0	0.02	0.04	0.02
T1 and T2	0.14 [0.33]	0.16 [0.33]	0.12 [0.33]	0.1 [0.36]
T2 and T3	0.39 [0.37]	0.46 [0.37]	0.67 * [0.39]	0.61 [0.42]
T1 and T3	0.53 [0.36]	0.60 * [0.36]	0.75 * [0.39]	0.66 [0.42]

Note: '*' denotes significance at p<0.1 level, '**' at p<0.05

Log of industry crop income

	Model I	Model II	Model III	Model IV
Commune-level treatments				
Cash	-0.36 * [0.20]	-0.34 * [0.19]	-0.39 * [0.21]	-0.44 * [0.23]
Intercept	0.63	0.96	0.64	0.64
N	2404	2404	1268	1268
R-squared	0.01	0.01	0.06	0.01
Village-level treatments				
Mother Leaders (T1)	-0.12 [0.08]	-0.01 [0.06]	0.04 [0.07]	0.04 [0.07]
MLs and Affirmation (T2)	0.18 [0.11]	0.30** [0.10]	0.27** [0.09]	0.27** [0.09]
MLs and Planning (T3)	0.09 [0.11]	0.19 * [0.10]	0.20 * [0.11]	0.21 * [0.11]
Intercept	0.27	0.01	-0.09	-0.09
N	4806	4061	2762	2762
R-squared	0	0.01	0.01	0.01
T1 and T2	0.30** [0.10]	0.31** [0.10]	0.22** [0.10]	0.23** [0.10]
T2 and T3	-0.09 [0.12]	-0.1 [0.12]	-0.06 [0.13]	-0.05 [0.13]
T1 and T3	0.21**	0.19 *	0.15	0.15

[0.09] [0.10] [0.12] [0.12]

Note: '*' denotes significance at p<0.1 level, '**' at p<0.05

Log of livestock income

	Model I	Model II	Model III	Model IV
Commune-level treatments				
Cash	-0.45 [0.55]	-0.33 [0.56]		-0.53 [0.63]
Intercept	3.85	5.13		5.62
N	2404	2404		1268
R-squared	0	0.02		0.02
Village-level treatments				
Mother Leaders (T1)	0.24 [0.33]	0.29 [0.33]		0.13 [0.37]
MLs and Affirmation (T2)	0.5 [0.33]	0.52 [0.34]		0.57 [0.38]
MLs and Planning (T3)	0.42 [0.30]	0.47 [0.31]		0.70** [0.34]
Intercept	3.41	4.1		3.82
N	4806	4061		2762
R-squared	0	0.02		0.02
T1 and T2	0.27 [0.34]	0.23 [0.36]		0.47 [0.40]
T2 and T3	-0.08 [0.32]	-0.04 [0.34]		0.12 [0.36]
T1 and T3	0.19 [0.32]	0.19 [0.33]		0.56 [0.36]

Note: '*' denotes significance at p<0.1 level, '**' at p<0.05

Borrowed money

	Model I	Model II	Model III	Model IV
Commune-level treatments				

Cash	0.02 [0.03]	0.02 [0.03]	-0.02 [0.04]	-0.01 [0.04]
Intercept	0.35	0.5	0.52	0.64
N	2404	2404	1268	1268
R-squared	0	0.02	0.04	0.02

Village-level treatments

Mother Leaders (T1)	0.03 [0.03]	0.03 [0.03]	0.04 [0.03]	0.04 [0.03]
MLs and Affirmation (T2)	0.01 [0.03]	0.03 [0.03]	0.03 [0.03]	0.03 [0.03]
MLs and Planning (T3)	0.01 [0.03]	0.02 [0.03]	0.03 [0.03]	0.03 [0.03]
Intercept	0.37	0.5	0.4	0.52
N	4806	4061	2762	2762
R-squared	0	0.01	0.05	0.02
T1 and T2	-0.02 [0.03]	-0.01 [0.03]	-0.01 [0.03]	-0.01 [0.03]
T2 and T3	0 [0.03]	0 [0.03]	0 [0.03]	0 [0.03]
T1 and T3	-0.02 [0.03]	-0.01 [0.03]	-0.01 [0.03]	-0.01 [0.03]

Note: '*' denotes significance at p<0.1 level, '**' at p<0.05

Paid back loans

	Model I	Model II	Model III	Model IV
Commune-level treatments				
Cash	0 [0.05]	0 [0.06]	-0.01 [0.06]	0.01 [0.05]
Intercept	0.43	0.55	0.32	0.44
N	861	861	306	474
R-squared	0	0.01	0.03	0.03
Village-level treatments				
Mother Leaders (T1)	0.07 *	0.05	0.07	0.05

	[0.04]	[0.04]	[0.06]	[0.05]
MLs and Affirmation (T2)	0.08**	0.07 *	0.11**	0.09 *
	[0.04]	[0.04]	[0.05]	[0.05]
MLs and Planning (T3)	0.05	0.05	0.02	0.04
	[0.04]	[0.04]	[0.06]	[0.05]
Intercept	0.43	0.52	0.5	0.52
N	1841	1596	757	1110
R-squared	0	0.01	0.04	0.02
T1 and T2	0.01	0.03	0.05	0.03
	[0.03]	[0.04]	[0.05]	[0.05]
T2 and T3	-0.03	-0.03	-0.10 *	-0.05
	[0.04]	[0.04]	[0.05]	[0.04]
T1 and T3	-0.01	0	-0.05	-0.02
	[0.04]	[0.04]	[0.05]	[0.05]

Note: '*' denotes significance at $p < 0.1$ level, '**' at $p < 0.05$

E. Future Behaviors

Livestock index

	Model I	Model II	Model III	Model IV
Commune-level treatments				
Cash	-0.17 [0.60]	0.14 [0.54]	0.44 [0.57]	0.43 [0.63]
Intercept	6.09	4.27	2.92	2.7
N	2404	2404	1268	1268
R-squared	0	0.04	0.15	0.06
Village-level treatments				
Mother Leaders (T1)	-0.04 [0.44]	-0.08 [0.44]	-0.28 [0.43]	-0.27 [0.49]
MLs and Affirmation (T2)	0.84 * [0.48]	0.75 [0.51]	0.64 [0.52]	0.7 [0.57]
MLs and Planning (T3)	0.3 [0.42]	0.32 [0.44]	-0.03 [0.42]	-0.04 [0.47]
Intercept	5.93	3.97	3.07	3.6
N	4806	4061	2762	2762
R-squared	0	0.05	0.15	0.06
T1 and T2	0.87 * [0.48]	0.82 * [0.49]	0.91 * [0.50]	0.97 * [0.58]
T2 and T3	-0.54 [0.46]	-0.44 [0.50]	-0.63 [0.50]	-0.71 [0.55]
T1 and T3	0.33 [0.42]	0.37 [0.42]	0.19 [0.42]	0.17 [0.48]

Note: '*' denotes significance at p<0.1 level, '**' at p<0.05

Membership of savings association

	Model I	Model II	Model III	Model IV
Commune-level treatments				
Cash	0.04 [0.03]	0.04 [0.02]	0.03 [0.02]	0.03 [0.03]

Intercept	0.03	0.1	0.12	0.13
N	2404	2404	1268	1268
R-squared	0.01	0.02	0.04	0.02

Village-level treatments

Mother Leaders (T1)	0 [0.02]	0 [0.02]	0.01 [0.02]	0.01 [0.02]
MLs and Affirmation (T2)	0.02 [0.02]	0.03 [0.02]	0.04 [0.03]	0.04 [0.03]
MLs and Planning (T3)	0 [0.02]	0.01 [0.02]	0.02 [0.03]	0.02 [0.03]
Intercept	0.07	0.15	0.16	0.18
N	4806	4061	2762	2762
R-squared	0	0.01	0.04	0.01
T1 and T2	0.02 [0.02]	0.03 [0.02]	0.04 * [0.02]	0.04 [0.02]
T2 and T3	-0.02 [0.02]	-0.02 [0.02]	-0.02 [0.03]	-0.02 [0.03]
T1 and T3	0.01 [0.02]	0.01 [0.02]	0.02 [0.02]	0.02 [0.02]

Note: '*' denotes significance at p<0.1 level, '**' at p<0.05

Log total health expenditure

	Model I	Model II	Model III	Model IV
Commune-level treatments				
Cash	-0.13 [0.29]	-0.18 [0.28]	0.08 [0.30]	0.04 [0.32]
Intercept	8.96	7.77	7.61	7.64
N	2404	2404	1268	1268
R-squared	0	0.02	0.03	0.02
Village-level treatments				
Mother Leaders (T1)	-0.19 [0.21]	-0.28 [0.20]	-0.33 [0.22]	-0.31 [0.22]
MLs and Affirmation (T2)	-0.06 [0.19]	-0.06 [0.18]	-0.02 [0.20]	-0.02 [0.21]

MLs and Planning (T3)	-0.12 [0.20]	-0.18 [0.20]	-0.34 [0.22]	-0.32 [0.23]
Intercept	8.83	7.07	6.91	6.82
N	4806	4061	2762	2762
R-squared	0	0.03	0.04	0.03
T1 and T2	0.13 [0.20]	0.22 [0.20]	0.31 [0.21]	0.29 [0.21]
T2 and T3	-0.06 [0.19]	-0.13 [0.19]	-0.33 [0.21]	-0.31 [0.21]
T1 and T3	0.07 [0.21]	0.09 [0.21]	-0.03 [0.23]	-0.02 [0.23]

Note: '*' denotes significance at p<0.1 level, '**' at p<0.05

Log total education expenditure

	Model I	Model II	Model III	Model IV
Commune-level treatments				
Cash	0.89** [0.31]	0.88** [0.32]	0.70** [0.31]	0.79** [0.36]
Intercept	8.55	6.74	7.05	7.04
N	2404	2404	1268	1268
R-squared	0.01	0.11	0.12	0.07
Village-level treatments				
Mother Leaders (T1)	0.44** [0.20]	0.18 [0.16]	0.22 [0.17]	0.24 [0.18]
MLs and Affirmation (T2)	0.25 [0.19]	-0.08 [0.16]	-0.05 [0.17]	-0.1 [0.18]
MLs and Planning (T3)	0.27 [0.19]	0.04 [0.15]	0.11 [0.16]	0.13 [0.18]
Intercept	9.45	8.84	8.76	8.82
N	4806	4061	2762	2762
R-squared	0	0.09	0.12	0.08
T1 and T2	-0.18 [0.19]	-0.25 [0.15]	-0.28 * [0.16]	-0.34** [0.17]
T2 and T3	0.02	0.12	0.16	0.22

	[0.17]	[0.15]	[0.15]	[0.16]
T1 and T3	-0.17	-0.13	-0.1	-0.1
	[0.18]	[0.14]	[0.15]	[0.16]

Note: '*' denotes significance at $p < 0.1$ level, '**' at $p < 0.05$

F. Parenting

Interactions with two youngest children

	Model I	Model II	Model III	Model IV
Commune-level treatments				
Cash	0.33 * [0.17]	0.25 * [0.14]	0.33** [0.16]	0.33** [0.16]
Intercept	2.27	0.84	0.59	0.69
N	2404	2404	1268	1268
R-squared	0	0.38	0.39	0.39
Village-level treatments				
Mother Leaders (T1)	0.1 [0.14]	0.17 [0.12]	0.24 * [0.14]	0.25 * [0.14]
MLs and Affirmation (T2)	0.13 [0.15]	0.18 [0.12]	0.24 * [0.14]	0.25 * [0.14]
MLs and Planning (T3)	0.32** [0.15]	0.19 [0.15]	0.19 [0.15]	0.19 [0.16]
Intercept	2.6	1.24	0.89	1.11
N	4806	4061	2762	2762
R-squared	0	0.38	0.41	0.4
T1 and T2	0.03 [0.14]	0.01 [0.12]	0 [0.14]	-0.01 [0.14]
T2 and T3	0.19 [0.15]	0 [0.15]	-0.04 [0.16]	-0.05 [0.16]
T1 and T3	0.21 [0.15]	0.02 [0.14]	-0.04 [0.16]	-0.05 [0.16]

Note: '*' denotes significance at $p < 0.1$ level, '**' at $p < 0.05$

Behavior change in parenting

	Model I	Model II	Model III	Model IV
Commune-level treatments				
Cash	0.19** [0.09]	0.18** [0.09]		0.21** [0.09]

Intercept	2.17	2.31	2.4
N	1840	1840	994
R-squared	0.01	0.03	0.04

Village-level treatments

Mother Leaders (T1)	0.04 [0.04]	0.08 * [0.04]	0.08 [0.05]
MLs and Affirmation (T2)	0.04 [0.05]	0.06 [0.04]	0.06 [0.05]
MLs and Planning (T3)	0.09** [0.04]	0.11** [0.05]	0.11** [0.05]
Intercept	2.37	2.34	2.37
N	4055	3521	2399
R-squared	0	0.03	0.03
T1 and T2	0 [0.04]	-0.02 [0.04]	-0.02 [0.05]
T2 and T3	0.05 [0.05]	0.05 [0.04]	0.05 [0.05]
T1 and T3	0.05 [0.04]	0.03 [0.04]	0.02 [0.05]

Note: '*' denotes significance at p<0.1 level, '**' at p<0.05

G. School Advancement

Advanced school class (overall)

	Model I	Model II	Model III	Model IV
Commune-level treatments				
Cash	-0.01 [0.01]	-0.01 [0.01]	-0.02 [0.02]	-0.01 [0.02]
Intercept	0.77	0.71	0.66	0.71
N	4605	4605	2614	2614
R-squared	0	0	0.03	0.01
Village-level treatments				
Mother Leaders (T1)	0.01 [0.01]	0.01 [0.01]	0.02 [0.02]	0.02 [0.02]
MLs and Affirmation (T2)	-0.01 [0.01]	-0.01 [0.01]	0 [0.02]	0 [0.02]
MLs and Planning (T3)	0.02 [0.01]	0.02 * [0.01]	0.03 * [0.02]	0.03 * [0.02]
Intercept	0.76	0.71	0.66	0.71
N	10091	8787	6272	6272
R-squared	0	0	0.02	0.01
T1 and T2	-0.02 [0.01]	-0.02 [0.01]	-0.02 [0.02]	-0.02 [0.02]
T2 and T3	0.03** [0.01]	0.03** [0.01]	0.03** [0.02]	0.03 * [0.02]
T1 and T3	0.01 [0.01]	0.01 [0.01]	0.01 [0.02]	0.01 [0.02]

Note: '*' denotes significance at $p < 0.1$ level, '**' at $p < 0.05$

Advanced primary school class

	Model I	Model II	Model III	Model IV
Commune-level treatments				
Cash	-0.03** [0.02]	-0.04** [0.02]	-0.03 [0.02]	-0.03 [0.02]

Intercept	0.8	0.7	0.64	0.68
N	3134	3134	1761	1761
R-squared	0	0.01	0.02	0.01

Village-level treatments

Mother Leaders (T1)	0.04** [0.02]	0.03 * [0.02]	0.03 * [0.02]	0.03 [0.02]
MLs and Affirmation (T2)	0.01 [0.02]	0.01 [0.02]	0.02 [0.02]	0.02 [0.02]
MLs and Planning (T3)	0.04** [0.02]	0.03 * [0.02]	0.03 * [0.02]	0.03 [0.02]

Intercept	0.76	0.69	0.62	0.67
N	6517	5674	4061	4061
R-squared	0	0.01	0.02	0.01

T1 and T2	-0.03 [0.02]	-0.02 [0.02]	-0.02 [0.02]	-0.02 [0.02]
T2 and T3	0.03 [0.02]	0.02 [0.02]	0.02 [0.02]	0.01 [0.02]
T1 and T3	0 [0.02]	0 [0.02]	0 [0.02]	0 [0.02]

Note: '*' denotes significance at p<0.1 level, '**' at p<0.05

Attendance rate in 2016-2017 (Overall)

	Model I	Model II	Model III	Model IV
Commune-level treatments				
Cash	0.01** [0.00]	0.01** [0.00]	0.01 * [0.00]	0.01** [0.00]
Intercept	0.93	0.92	0.91	0.92
N	4605	4605	2041	2614
R-squared	0.01	0.01	0.01	0.01
Village-level treatments				
Mother Leaders (T1)	-0.00 * [0.00]	-0.00** [0.00]	-0.01 * [0.00]	0 [0.00]
MLs and Affirmation (T2)	0 [0.00]	0 [0.00]	0 [0.00]	0 [0.00]
MLs and Planning (T3)	0 [0.00]	0 [0.00]	0 [0.00]	0 [0.00]

Intercept	0.94	0.94	0.92	0.94
N	10091	8787	4877	6272
R-squared	0	0	0.01	0
T1 and T2	0 [0.00]	0 [0.00]	0 [0.00]	0 [0.00]
T2 and T3	0 [0.00]	0 [0.00]	0 [0.00]	0 [0.00]
T1 and T3	0 [0.00]	0 [0.00]	0 [0.00]	0 [0.00]

Note: '*' denotes significance at p<0.1 level, '**' at p<0.05

Attendance rate in 2016-2017 for primary school children

	Model I	Model II	Model III	Model IV
Commune-level treatments				
Cash	0.01** [0.00]	0.01** [0.00]	0.01 [0.00]	0.01** [0.00]
Intercept	0.93	0.92	0.9	0.93
N	3134	3134	1521	1761
R-squared	0.01	0.01	0.01	0.01
Village-level treatments				
Mother Leaders (T1)	-0.01** [0.00]	-0.01** [0.00]	-0.01 * [0.00]	-0.01 * [0.00]
MLs and Affirmation (T2)	-0.00 * [0.00]	-0.01** [0.00]	0 [0.00]	-0.01 * [0.00]
MLs and Planning (T3)	0 [0.00]	-0.00** [0.00]	0 [0.00]	-0.01 * [0.00]
Intercept	0.94	0.95	0.93	0.95
N	6517	5674	3583	4061
R-squared	0	0	0.01	0
T1 and T2	0 [0.00]	0 [0.00]	0 [0.00]	0 [0.00]
T2 and T3	0 [0.00]	0 [0.00]	0 [0.00]	0 [0.00]
T1 and T3	0	0	0	0

[0.00] [0.00] [0.00] [0.00]

Note: '*' denotes significance at $p < 0.1$ level, '**' at $p < 0.05$

H. Female Empowerment

Female empowerment

	Model I	Model II	Model III	Model IV
Commune-level treatments				
Cash	0.16** [0.06]	0.11** [0.06]	0.08 [0.07]	0.07 [0.07]
Intercept	4.04	4.02	3.74	4.18
N	2163	2163	1142	1143
R-squared	0	0.08	0.08	0.07
Village-level treatments				
Mother Leaders (T1)	0.01 [0.05]	-0.01 [0.06]	0.04 [0.07]	0.05 [0.07]
MLs and Affirmation (T2)	-0.06 [0.05]	0.01 [0.05]	0.05 [0.07]	0.04 [0.07]
MLs and Planning (T3)	-0.01 [0.05]	-0.02 [0.05]	0.02 [0.06]	0.02 [0.07]
Intercept	4.2	4.55	3.96	4.59
N	4462	3801	2588	2589
R-squared	0	0.07	0.09	0.08
T1 and T2	-0.07 [0.05]	0.02 [0.05]	0 [0.06]	-0.01 [0.06]
T2 and T3	0.05 [0.05]	-0.02 [0.05]	-0.02 [0.06]	-0.01 [0.06]
T1 and T3	-0.02 [0.05]	0 [0.05]	-0.03 [0.06]	-0.03 [0.06]

Note: '*' denotes significance at p<0.1 level, '**' at p<0.05

I. Child Development

Composite Malawi Development Assessment Test Score

	Model I	Model II	Model III	Model IV
Commune-level treatments				
Cash	0.14 *	0.13 *	0.14**	0.12

	[0.07]	[0.07]	[0.07]	[0.07]
Intercept	-0.18	-0.32	-0.17	-0.33
N	1353	1353	624	738
R-squared	0.01	0.02	0.07	0.02

Village-level treatments

Mother Leaders (T1)	0.13 *	0.09	0.08	0.13
	[0.07]	[0.07]	[0.08]	[0.09]
MLs and Affirmation (T2)	0.07	0.08	0.09	0.12
	[0.07]	[0.07]	[0.08]	[0.08]
MLs and Planning (T3)	0.11	0.09	0.05	0.12
	[0.07]	[0.07]	[0.08]	[0.08]
Intercept	-0.04	0.04	0.15	0.07
N	2757	2395	1402	1629
R-squared	0	0.01	0.08	0.01
T1 And_T2	-0.06	-0.01	0.01	-0.01
	[0.07]	[0.07]	[0.08]	[0.08]
T2 And_T3	0.04	0	-0.03	-0.01
	[0.07]	[0.07]	[0.08]	[0.08]
T1 And_T3	-0.02	-0.01	-0.03	-0.02
	[0.07]	[0.07]	[0.08]	[0.08]

Note: '*' denotes significance at p<.1 level, '**' at p<.05

Language Learning (MDAT) Score

	Model I	Model II	Model III	Model IV
Commune-level treatments				
Cash	0.08	0.07	0.18**	0.17**
	[0.08]	[0.07]	[0.07]	[0.08]
Intercept	-0.15	-0.2	-0.09	-0.21
N	1353	1353	624	738
R-squared	0	0.01	0.1	0.02
Village-level treatments				
Mother Leaders (T1)	0.14**	0.11 *	0.1	0.12
	[0.06]	[0.06]	[0.07]	[0.08]

MLs and Affirmation (T2)	0.1 [0.07]	0.1 [0.07]	0.09 [0.08]	0.09 [0.09]
MLs and Planning (T3)	0.15** [0.07]	0.12 * [0.07]	0.09 [0.07]	0.12 [0.08]
Intercept	-0.06	0.06	0.24	0.11
N	2757	2395	1402	1629
R-squared	0	0.01	0.07	0.01
T1 And_T2	-0.04 [0.07]	-0.01 [0.07]	-0.01 [0.08]	-0.03 [0.08]
T2 And_T3	0.04 [0.07]	0.01 [0.07]	0.02 [0.08]	0.02 [0.08]
T1 And_T3	0 [0.07]	0.01 [0.06]	-0.01 [0.08]	-0.01 [0.07]

Note: '*' denotes significance at p<.1 level, '**' at p<.05

Social Skills (MDAT) Score

	Model I	Model II	Model III	Model IV
Commune-level treatments				
Cash	0.14 * [0.07]	0.14 * [0.07]	0.03 [0.09]	0.02 [0.09]
Intercept	-0.18	-0.31	-0.18	-0.24
N	1353	1353	625	738
R-squared	0	0.01	0.02	0.01
Village-level treatments				
Mother Leaders (T1)	0.14** [0.06]	0.09 [0.07]	0.12 [0.09]	0.13 [0.09]
MLs and Affirmation (T2)	0.09 [0.06]	0.11 * [0.06]	0.18** [0.08]	0.18** [0.08]
MLs and Planning (T3)	0.12 * [0.07]	0.09 [0.07]	0.11 [0.09]	0.14 [0.09]
Intercept	-0.04	0.06	-0.01	0.05
N	2757	2395	1402	1629
R-squared	0	0.01	0.04	0.01

T1 And_T2	-0.04 [0.06]	0.01 [0.06]	0.06 [0.08]	0.06 [0.08]
T2 And_T3	0.02 [0.07]	-0.02 [0.07]	-0.06 [0.08]	-0.05 [0.08]
T1 And_T3	-0.02 [0.07]	-0.01 [0.07]	0 [0.09]	0.01 [0.09]

Note: '*' denotes significance at p<.1 level, '**' at p<.05

Fine Motor (MDAT) Score

	Model I	Model II	Model III	Model IV
Commune-level treatments				
Cash	0.14 [0.09]	0.11 [0.08]	0.09 [0.07]	0.05 [0.08]
Intercept	-0.1	-0.25	-0.2	-0.34
N	1353	1353	625	738
R-squared	0	0.02	0.06	0.03
Village-level treatments				
Mother Leaders (T1)	0.01 [0.07]	-0.01 [0.07]	-0.03 [0.08]	0.05 [0.09]
MLs and Affirmation (T2)	-0.05 [0.07]	-0.03 [0.07]	-0.04 [0.08]	0.02 [0.08]
MLs and Planning (T3)	-0.02 [0.07]	-0.03 [0.07]	-0.05 [0.08]	0.02 [0.08]
Intercept	0.04	-0.06	0.03	-0.08
N	2757	2395	1402	1629
R-squared	0	0.01	0.05	0.01
T1 And_T2	-0.06 [0.07]	-0.03 [0.06]	-0.01 [0.08]	-0.04 [0.08]
T2 And_T3	0.03 [0.06]	0 [0.06]	0 [0.08]	0 [0.07]
T1 And_T3	-0.03 [0.07]	-0.03 [0.06]	-0.03 [0.08]	-0.04 [0.08]

Note: '*' denotes significance at p<.1 level, '**' at p<.05

Appendix C: Data Collection Note

The following was provided by CAETIC Développement to summarize the methodology used and constraints faced in collecting data for the midline survey.

As with the baseline survey, Ideas42 designed the mid-term survey methodology. It consists in a representative survey which includes two components: a household survey and an administration of a test, called MDAT, for children aged from 24 to 71 months old. The sampling method, the different parts of the household questionnaire, the MDAT test, and the different concepts of the mid-term survey were kept identical to those of the baseline survey, except some minor changes on the household questionnaire in order to keep a certain harmonization with the FIAVOTA questionnaire.

Sample size for the mid-term survey was 6006 households, comprising 1522 additional households, distributed among 925 beneficiary households and 597 control households. It is important to stress that these additional households were drawn from the same fokontany (primary unit) as for the baseline survey. For the MDAT test, sampled children were randomly drawn from an exhaustive list of eligible children (aged from 24 to 71 months old) identified within the sample of household.

As the main task of CAETIC Développement was to implement the established survey protocol and to make all the necessary effort to ensure high data quality, the overall approach adopted by CAETIC Développement was established upon the following aspects:

1. Investigators' recruitment and training: Investigators were preselected on the basis of various criteria, including but not limited to intellectual, physical, and moral quality. Preselected investigators followed a 12 days training. For the MDAT test, preselected investigators were assessed on their ability to perform high quality child observations, and were certified later on. Only certified investigators were recruited for the data collection. It should be stressed that even the investigators who participated for the baseline survey were trained and assessed on the same way as the new candidates;
2. Use of CAPI (Computer Assisted Personal Interview) approach for data collection: this means using an electronic questionnaire during the interview. The CAPI approach allows data entry directly on the computer during the interview and exhaustive control of the questionnaire, with a special focus to completeness, jumps, coherences, and likelihoods;
3. Implementation of an operational plan to insure optimal control in the field: The survey was carried out by 22 teams. Each team was formed by two or three pairs of investigators, under the supervision of a team leader, whom could be a controller or a supervisor. For the MDAT test, investigators worked in a team formed by an examiner and an assistant. Fieldwork was organized in such a way that each team of investigators doesn't work out of reach of their supervisors.

Data collection mobilized a total of 144 individuals including 6 supervisors, 16 controllers, 122 investigators. Teams were endowed of all the necessary tools and equipment to carry out properly the survey (4x4 cars, laptops, generators, converters, GPS systems, and kits for children tests). Data were collected at rather a month after the last transfer, from 23rd May until 30th June 2018, while respecting the duration fixed by the terms of reference, namely 30 days after the last transfer payment.

In sum, 6006 households were surveyed for the mid-term survey, with a 100% success rate. Replacement rate for the TMDH household survey was about 13.5% (816/ 6006 households). Among these 816 households, 651 households were replaced because of their absence during the survey, 114 households were not found, and 45 households refused to participate in the survey (no consent).

From the 6006 surveyed households, 3748 were eligible for the MDAT test, representing 62.4% of the sample, from which 4903 children could be observed. For the MDAT test in particular, 591 children were replaced because of diverse reasons. Thus, in sum only 3376 children were tested, at a rate of 1 child per household. Indeed, 342 eligible households for the MDAT test were not surveyed because of refusal or unavailability of the child. Besides, no households' nor mothers' refusal were recorded during the administration of the MDAT test.

The mid-term survey didn't encounter any major problem which could negatively impact data quality. Nonetheless, the following remarks should be emphasized:

- The reluctance of some control households to participate in the survey: even if the investigators got easily the consent of the beneficiary households, this was not the case for the control households. Indeed, 45 refusal cases were recorded, indicating that households, in particular, those who didn't benefited from the program, contrary to the beneficiary households, were beginning to reject the survey,
- The determination of the age of the child: if it was not possible for the mother to present the birth certificate or the health record of her child, the age was obtained only from the mothers' declaration. To minimize the bias linked to a possibility of a bad statement, investigators tried to calibrate the age of the child with known events.

The realization of this survey received a prior approval from the CCISE (Comité de Coordination des Informations Statistiques et Economiques) through the National institute of statistics (INSTAT), who is in charge of the secretariat. Besides, the MDAT test obtained a notice of non-objection from the Ethics Committee of the Ministry of Public Health.