

**IMPROVING ADOLESCENT REPRODUCTIVE HEALTH AND
NUTRITION THROUGH STRUCTURAL SOLUTIONS IN WEST
HARARGHE, ETHIOPIA**

(Abdiboru Project)

Triangulated Project Evaluation Report

**BILL & MELINDA
GATES foundation**



Addis Continental Institute of Public Health

August 2020

Contents

List of Figures.....	3
List of Tables	3
Abbreviations and notes.....	4
Executive Summary.....	5
1. Background.....	14
2. Methods	16
3. Implementation fidelity of Abdiboru Project.....	27
4. Main Findings	30
4.1. Which intervention arm had more impact?.....	30
4.2. Comparability of the study participants between baseline and end-line surveys.....	30
4.2.1 Adolescent Girls’ Agency.....	33
4.2.2. Adolescent girls’ social norms around education	33
4.2.3 Adolescent girls’ social norms around SRH	35
4.2.4. Adolescent girls’ social norms around early marriage.....	36
4.2.5. Adolescent girls’ social norms around household food allocation	37
4.3. Emerging changes and backlash either due to the intervention or political instability	38
4.4. Influence of socio-political instability on Abdiboru	39
4.5. Influences of drought on Abdiboru.....	39
4.6. The challenges of working with very young adolescents	40
4.7. Influence of girl’s literacy level on Abdiboru.....	40
4.8. Costing of Abdiboru Project	42
5. Conclusions.....	43
6. Implications for future programming.....	44
Annex: Summary of evidence from the evaluation assessment.....	46

List of Figures

Figure 1: The Abdiboru Comprehensive Monitoring and Evaluation Design.....	16
Figure 2:Map of West Hararghe zone and intervention woredas	17
Figure 3: End-line quantitative survey summary of the analysis plan, West Hararghe, Ethiopia, 2016-19	25
Figure 4: Baseline and End-line quantitative and qualitative evaluation, West Hararghe, Ethiopia, 2016-19	Error! Bookmark not defined.
Figure 5: Magnitude of early marriage by arm in West Hararghe, December 2016-19	Error! Bookmark not defined.
Figure 6: Impact of double intervention compared with the control, Standardized beta with SD, West Hararghe, Ethiopia, 2016-19.....	Error! Bookmark not defined.
Figure 7: Impact of Triple intervention compared with the control, Standardized beta with SD, West Hararghe, Ethiopia, 2016-19.....	32
Figure 8: Impact of Triple intervention compared with double intervention, Standardized beta with SD, West Hararghe, Ethiopia, 2016-19	33

List of Tables

Table 1: Description of the three arms, West Hararghe, Oct 2015- Sept 2020	15
Table 2:Summary of the methods used in the Abdiboru evaluation, West Hararghe 2016-19	Error! Bookmark not defined.
Table 3: Abdiboru Project Interventions Unit Cost	42

Abbreviations and notes

ACIPH	Addis Continental Institute of Public Health
AG	Adolescent Girls
CARE	Cooperative for Relief and Assistance Everywhere
CF	Community Facilitator (CARE's)
CSC	Community Score Card
DID	Difference in Difference
FGD	Focus group Discussion
HEW	Health Extension Workers
HH	Household
IDI	Individual in-depth interview
KII	Key Informant interview
SAA	Social Analysis and Action
SRH	Sexual and Reproductive Health
VSLA	Village Saving and Loan Association
Double intervention arm	Includes interventions at individual level (SRH, nutrition, VSLA and Life skill) and interventions at government/structural level (CSC)
Triple intervention arm	Includes interventions at individual level (SRH, nutrition, VSLA and Life skill), interventions at government/structural level (CSC) and interventions at community level (SAA)
Control arm	No Intervention by Abdiboru Project

Executive Summary

Background:

Ethiopia has the second largest population in Africa, which is predominantly young. Abdiboru (locally means “Hope for the future”) was a 5-year (2015-2020) an implementation research type project aimed at reducing the vulnerability of adolescent girls aged 10 – 14 years, ensuring their agency¹ and improving their health. The Abdiboru project include individual², community³, and government level interventions. The project combined those interventions in different arms to evaluate the effectiveness of different combinations, accordingly: Arm 1 (referred as double-combination arm) combined individual and government level interventions; Arm 2 (referred as triple-combination arm) combined all three levels interventions; Arm 3 (referred interchangeably as delayed intervention or control arm) implemented none of the Abdiboru interventions until the project end line survey. The triple combination arm was implemented in two woredas while each of the double combination and control arms were implemented in one woreda. The project was funded by Bill and Melinda Gates Foundation and implemented by CARE Ethiopia in West Hararghe, Oromia, Ethiopia. The research and evaluation components of the project were undertaken by Addis Continental Institute of Public Health.

Objective:

This project objective was to empower girls through improved reproductive health, nutrition, and education in rural West Hararghe, Ethiopia. It examines the effectiveness of two different set of interventions- a combination of structural and individual interventions Vs structural, individual, and community level interventions against a control group.

Methods:

A quasi-experimental design, employing quantitative and qualitative methods, was conducted in four project districts, divided into three arms, of West Hararghe zone of Ethiopia. The main research question to be addressed with the end-line evaluation was: “which intervention achieved the most change on agency, and social norms around marriage, education, SRH and nutrition –

¹ **Agency** – is the capacity for purposive action, the ability to pursue goals, express voice and influence and make decisions free from violence and retribution

² Individual level interventions includes Village Saving and Loan Association, life skills, Sexual and Reproductive Health, and Nutrition education

³ Community level intervention includes ‘Social Analysis and Action’ (SAA) approach widely used by CARE

Individual and government level interventions alone compared to work that also addresses community level interventions through SAA”. From the project five years life time, the first and the last year of the project was the evaluation period, and the in-between three years was implementation period. The baseline quantitative assessment was conducted in May - August 2016 and the end-line assessment in September – November 2019 among adolescent girls between 13 and 17 year of age and in male and female reference groups. The first year of the project was mainly preparation for the interventions and conducting the baseline assessment, thus the interventions were implemented between the 2nd and 4th year of the project. The fifth year was used to consolidate the interventions and cover areas served as control. A two-stage cluster sampling was employed to randomly select households in each survey round. A total of 3186 AGs in the baseline and 3290 AGs in the end-line survey were included in the analysis. Composite scores with weighted mean and standard deviation were calculated for girls’ agency and social norms around early marriage, education, SRH and household food allocation. Sampling weight was considered in all analyses. The difference in difference (DID) technique was employed to evaluate the impact of the set of interventions in each intervention arm on girls’ agency and these social norms. The analyses were used to estimate the Average Treatment Effect (ATE) or the causal effect among treated population.

Qualitative research was conducted at the beginning and end of the project intervention period to understand the contextual reality and changes in girls lives and in social norms. The qualitative assessment used focused group discussions (FGD), individual in-depth interviews (IDI) and key informant interviews (KII) with adolescent girls, adolescent boys, adult community members, government sector agencies and project implementers. The qualitative assessment utilized purposely developed vignette stories to capture social norms around girls’ education, marriage, food allocation and sexual and reproductive health. In addition, separately prepared semi-structured interview guides were used to gather data from individuals and groups that participated in the study. To capture interventions success, five progress monitoring indicators that were proposed by the project’s results tracker were used. The indicators were acceptability, intensity, conformity to design, efficiency and quality perception. Data analysis followed a thematic framework approach, considering both pre-defined and emerging themes. A qualitative data analysis Atlas-ti software was used to assist the data sorting and coding.

Key Results:

The following were key results of the evaluation assessment:

Early marriage:

- In the community, marriage is perceived as a blessing from God, lucky girls marry early. If a girl is not married, the implication is that there is something wrong with her, she is not beautiful. Although the law in Ethiopia clearly prohibits early marriage with penalty including imprisonment it is rarely enforced. This is because of cover ups and undue influences, even people who are supposed to enforce the law are part of these practices. Even respected community members including religious leaders prefer to keep silent. In addition, there are marriage brokers who benefit economically by arranging such marriages.
- In West Hararghe context, marriage brokers/intermediaries (“*Delalas*”) facilitate young adolescent girls’ marriage. This could be by persuading, convincing, deceiving or intimidating the girls. Marriage brokers could be relatives, neighbours, or peers (friends). Schools are considered suitable places to recruit young girls for marriage. Marriage brokers usually operate in a network and help each other to capture the target girls.
- The two most common types of marriage practiced in the project areas were Jala dema and Chebsa. Jala dema is where a boy and a girl elope together without their parent’s knowledge. In Jala dema, the girls decide on their own to go with the boy and there is no or minimal parental engagement, although notionally the girl decides, pressure can and in some cases is put upon them to do so. Chebsa is the marriage practice in which the boy pursuing marriage asks the girl’s parents’ permission and blessing. In this type of marriage, the parental influence was high.
- The majority of married adolescent girls’ (range 68.7% to 74.84%) reported that they were the ones who chose whom to marry. Compared to the baseline, the proportion of girls who perceived that other girls have a say whether they should marry (from 70.97% to 82.04%), whom to marry (from 76.13% to 88.8%) and when to marry (from 72.85% to 89.14%) has significantly increased in the triple combination arm.

- The majority of girls made their own decision over whether or not to marry, which was consistent with marriage practices explored in the qualitative findings. However, marriage mediators (brokers) are still involved in the process.
- Percentage reduction in early marriage was observed in all arms between baseline and end-line, but a marked reduction was observed in the triple combination arm. The largest reduction (44.1%) was observed in the triple intervention arm, where the SAA intervention was implemented in combination with VSAL and CSC. Age at first marriage among married adolescent girls remained the same between baseline and end-line in all the three arms.
- Among all adolescent girls, the largest reduction in the proportion of girls who ever had been pregnant (3.76%) and ever had given birth (2.55%) was observed in the triple combination arm.
- Favorable social norm scores around early marriage significantly increased in the triple-combination arm compared to the double combination and control arms. Thus, significant impact on early marriage social norms was achieved in the triple- intervention arm.

Education:

- In the study area, education was not considered as important for girls compared to boys. The qualitative baseline study revealed- ‘A girl does not need to go beyond primary level education’. Although enrolling girls as well as boys in school is mandatory and strictly enforced by the government; families are mostly reluctant to promote girls to continue their education, as a girl is not believed to reach anywhere through education. There is a change to that attitude after Abdiboru interventions.
- The proportion of adolescent girls who never attended school has significantly decreased at end line compared to baseline; by 3.68% in double combination arm, 5.97% in triple combination arm and 8.42% in control arm. Significant reduction in school absenteeism was observed only in the triple-combination arm.
- Despite spending time in attending school the reading and comprehension level of the adolescent girls was not up to the satisfactory level. It was difficult to find girls who could read, write, and facilitate the discussions well in the VSLA groups. The end-line survey (N=3291), revealed that 15.28% of the girls were not able to read and write; only 43.94% of the girls were able to read a whole sentence shown to them in the local language. Among girls reported to have completed grades 1-4, 27.15% could not read at all and 53.28% were able to read only parts of a sentence. Among those reported to have completed grades 5-8, only

54.74% were able to read a whole sentence. The adolescent girls had difficulty in fully understanding written instructions in the manuals and properly using registration books. Even girls in higher grades were unable to properly facilitate discussions during VSLA sessions, which include discussions on sexual reproductive health (SRH) and nutrition matters. Strong support and coaching from project staff were required to implement these activities.

- Abdiboru's achievement in terms of increased school attendance and enrolment has been impressive. More than 3,108 girls who were participating in out-of-school girls' groups were able to return to school between 2017 and 2019. Likewise, the girls' dropout rates have also significantly decreased. The result of the end line quantitative survey has also showed adolescent girls' school enrolment has improved across all study arms. Age at school dropout ranged between 13 to 15 years with no significant difference between arms.
- Even when adolescent girls are given the same opportunity in education as boys competing household activities hamper their attendance and success in school. A qualitative finding showed that adolescent girls have equal chance as boys in school enrolment, however, girls going beyond primary level was significantly lower compared to boys in all Arms. The maximum grade levels communities suggest that girls should attend were grades 5-8. Pursuing secondary education was still a challenge for adolescent girls in poor rural households, since they could not afford the expenses of living in the town where high schools are commonly located. Thus, girls are often forced to take alternative routes - such as early marriage and income generating activities instead of transitioning to secondary schools.
- Social norm around education scores significantly increased in the triple-combination arm when compared to the double combination and control arm. Thus, indicating that the intervention package which included the SAA approach was better in bringing about favorable social norms around adolescent girls' education.
- More than 90% of adolescents attending school at the time of the end-line survey reported that their school had separate toilets for girls with doors and walls, a significant increment from the baseline across all arms. Even though, provision of sanitary supplies for girls was higher in triple combination arm, it remained below 30%.

SRH:

- At the end-line quantitative survey, nearly two-in-three interviewed girls had good knowledge about puberty; with highest increment in the triple combination arm.

- Girls who reported using methods to delay or avoid pregnancy generally remained low. However, among girls who reported ever had sexual intercourse, contraceptive use improved in the triple combination arm from 34.8% at baseline to 41.2% at end-line, but decreased in the double combination arm from 26.8% to 13.2% and in the control arm from 25.3% to 7.1%. Since the number of adolescent girls who reported having sexual activity is very small, interpretation of the results should be with caution. Contraceptive use among married girls is more common than unmarried girls. The most commonly used contraceptive methods were injectables followed by pills.
- The proportion of adolescent girls who reported to have initiated sexual activity slightly decreased in the double combination at the end-line compared to baseline (6.94% to 4.05%) and control arm (12.31% to 10.48%); significant reduction was observed in the triple combination arm (18.56% to 9.84%). The qualitative assessments showed that pre-marital sexual engagement and contraception use is considered off-limits to adolescent girls. However, concealed contraceptive use is tolerated than unwanted pregnancy.
- Initially some families withdrew adolescent girls from VSLA groups because of the inclusion of sexual and reproductive rights training; they were not comfortable that very young adolescents are seeing pictures of female and male body organs. However, the resistance has decreased eventually as families understand better the value of the girls having SRH-related knowledge.
- Social norm around SRH scores significantly increased in the triple-combination arm when compared to the double combination and control arm. That indicate the intervention package which included the SAA approach was better in bringing about significant improvement in favorable social norms around SRH.

Life skills:

- In the quantitative survey, percentage of girls who report aspirations for the future has increased across the three arms. This was supported by the qualitative assessments. Girls' aspirations have broadened, and their confidence has increased. This is manifested in many ways, including their improved ability to challenging early marriage and speaking in public space. Previously, marriage was thought to be their ultimate aspiration but now they have started to think more about their own goals, including achieving higher educational status.
- In the end-line, more than 80% of girls reported having moderate to high level of confidence in their own negotiation and communication skills across all arms. Similarly, more than 80%

of adolescent girls across all arms reported moderate to very strong mutual aid, trust, connectedness and social support arrangements with people who matter most to them. The increments were found to be largest in the triple combination arm, indicating the SAA interventions were useful in creating enabling social spaces for girls to exercise those skills.

Autonomy:

- In the triple-combination arm, adolescent girl's agency scores showed significant increase from the baseline when compared against the double combination and control arms.
- While nearly 90% of adolescent girls in all arms reported that they could negotiate financial support for their school needs, however their reported ability to negotiate financial support for their hygiene needs was comparatively lower (range from 66.24 to 81.99%).
- Although there are some improvements across all arms as compared to baseline, more than half of the adolescent girls still reported that other people do not think it is normal for girls to be able to move freely outside the home if they want to.
- The girls' saving habits have improved and they have started to engage themselves in income generation activities, such as poultry and goat fattening. Most people, including the project staff, did not expect the adolescent girls to have capacity to saving regularly, VSLA was rather considered just as an entry platform for discussions on sexual and reproductive rights, nutrition and life skills issues. However, in practice the level of interest and engagement of the adolescent girls in the VSLA groups was remarkable. The VSLA have contributed substantially to adolescent girls' staying in school and covering some school expenses.

Household Food Allocation & Nutrition:

- The proportions of adolescent girls who reported eating the same amount of food (54.78%), and who perceive that most other adolescent girls have the same quality of food as their siblings or husbands (90.31%) in the household was relatively the same between baseline and end0line except in the triple combination arm. Qualitative study also shows, girls can eat what is available in the household equally as their boy counterparts without restrictions. Adolescent girls can also eat their share of the meal if the male household members are not at home during usual meal times.
- The majority (>85%) of the adolescent girls had normal BMI adjusted for their age (BAZ), with no difference between baseline and end-line surveys in all three arms.

- Favorable social norm around household food allocation scores significantly increased in the triple-combination arm compared to the double combination and control arms. That indicate the SAA approach was better in bringing significant improvement in social norms around household food allocation.

Leisure time:

- On average adolescent girls spent more time on household chores and/or providing child care support than the time they spent on leisure or study across all three arms with no significant change between the baseline and end-line surveys.
- The qualitative finding indicated; once the adolescent girls drop out of school due to marriage going back to school was reported as more challenging. Although compared to the baseline, the end-line survey indicated that more girls continued attending school after getting married.

Perceived influence of socio-political instability on Abdiboru Project:

- The rise of the youth revolutionary groups, “Qerros” (Ormiffa term meaning ‘youngsters’), in the Oromia region had significantly changed the political landscape and caused instability in the region as a whole. The instability caused interruption of government services as well as implementation of different interventions by development partners, which included the Abdiboru project activities.
- The instability resulted in blocking of main roads, temporary closing of schools and market places, and dysfunctionality of public services. The disruption of services impacted more the health, education and justice sectors. During these times, people were highly concerned to their personal and family safety and survival; thus, less interested to participate in activities that are not of immediate survival needs.
- Abdiboru project activities were interrupted many times due to security threats and movement restrictions, which resulted in delay of some key activities. At times, the security situation was perilous and community gatherings were banned due to the state of emergency that were declared twice during the life of the project. The turnover of the officials at all levels had also escalated to unmanageable rates. These conditions made the Abdiboru implementation much less conducive than anticipated at the inception. The Abdiboru project involved work with the girls, the community and with government, yet staff often couldn’t engage and do the facilitation, training, monitoring and evaluation required.

-
- Post reform, following the appointments of many female leaders at the ministerial posts, adolescent girls as well as women in the SAA groups reported being highly motivated to become more involved in their community and they were much more eager to attend SAA and girls' group meetings than before.
- On the other hand, several youth groups emerged within the project area adopting the names of the original youth revolutionary groups ("Qeerroo") merely because they were in the age group and started misbehaving; reportedly disobeying their families, teachers and even the police and government officials. This gave rise again to socio-political unrest and security problems. The security problems that occurred before the reform and shortly after the reform had a direct impact on the efficiency of the project and the ability of groups to meet regularly.

1. Background

Improving Adolescent Reproductive Health and Nutrition through Structural Solutions (Abdiboru Project) is a project funded by the Bill and Melinda Gates Foundation in the West Hararghe Zone of Oromia regional State in Ethiopia. The interventions were implemented by CARE Ethiopia and the overall research and evaluation of the project was undertaken by Addis Continental Institute of Public Health (ACIPH). The project was implemented from October 2015 to September 2020 in four woredas of West Hararghe Zone; namely Chiro, Boke, Mesela and Doba.

The project was focused on improving girl's agency, education, nutrition and reproductive health and social norm of adolescent girls aged 10-14 years through a combination of interventions that targeted individuals, community and the government structure. The implementation process was monitored through periodic quantitative, qualitative, and routine monitoring assessments.

The theory of change for the project, which depicted the various components of the intervention and the expected outcomes, was developed by CARE Ethiopia. The components of the interventions including the Village Saving and Loans Association (VSLA) and Social Analysis and Action (SAA) were successfully applied for similar purposes but different target groups to nurture more equitable social and gender norms. The theory of change is based on three structural determinants – government/institutions, community/social norms and values, and individual agency. Abdiboru project examined the impact of two different combination of interventions against a control group, as described below, on girl's empowerment and agency.

The Abdiboru project compares the effect of different set of interventions in the three comparison arms; 1) double-combination arm (combined individual and government level interventions), 2) triple-combination arm (combined individual, community and government level interventions), and 3) a control arm (delayed intervention group). The interventions are presented in Table 1 and briefly described below:

Individual level intervention: This intervention mainly organizes the project target adolescent girls in the age group 10 to 14 years into village saving and loans association (VSLA), which also served a platform to discuss SRH, life skills and nutrition issues relevant to very young adolescent girls. The individual level intervention aims to promote adolescent girls' agency to control decisions that affect their own lives.

Government level intervention: The community score card (CSC) component is a government level intervention that facilitates identifying problems, prioritize and intervene through dialogue in a participatory forum that jointly engages both the community and service providers. The joint actions allow sharing responsibilities among government stakeholders and the community.

Community level intervention: The social analysis and action (SAA) component is an intervention which is designed to engage community members to challenging and changing unfavorable social norms that negatively influence adolescent girls' lives. SAA provides organized community member's opportunities to discuss alternative ways of thinking and behaving, and increase their understanding of how some beliefs, attitudes and norms may have a negative effect on health and wellbeing.

Control arm: Abdiboru did not implement any of the specific project interventions until the final year of the project. In the final year of the project, the better of either Arm 1 or Arm 2, in terms of impact shall be implemented in the control arm, Boke woreda. This group is also referred as the delayed intervention arm.

Table 1: Description of the three arms, West HarargheHararghe, Oct 2015- Sept 2020

Intervention arms	Specific Interventions	Target audience	Intervention woreda
Double-combination (Individual and Government level intervention)	SRH, Nutrition, VSLA and Life Skills training & dialogue	Young adolescent girls	Mesela
	CSC	Government officials	
Triple-combination (Individual, Government & Community level intervention)	SRH, Nutrition, VSLA and Life Skills training and dialogue	Young adolescent girls	Chiro and Doba
	CSC	Government officials	
	SAA	Community members	
Control (No Abdiboru Intervention)	No intervention by Abdiboru, however not restricted from receiving other or similar that intend to empower girls and women services	Young adolescent girls	Boke

The project had an extensive monitoring and evaluation plan that combines both qualitative and quantitative methods, while the quantitative component was designed to assess the impact of the intervention on the main project outcomes, the qualitative component and the routine monitoring components were designed to capture the learnings during the implementation of the project (Figure 1).

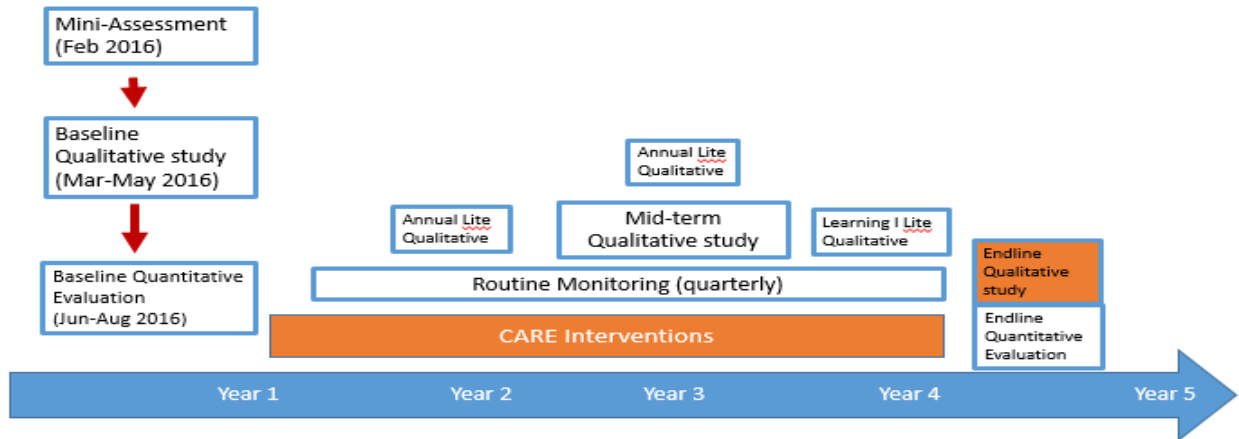


Figure 1: The Abdiboru Comprehensive Monitoring and Evaluation Design

This triangulated report presents findings drawn from all components including evidence from the mini qualitative assessment, the baseline qualitative study, the baseline quantitative survey, three rounds lite-qualitative assessments, and routine process monitoring data, end-line qualitative and end-line quantitative surveys.

2. Methods

The Context

Abdiboru project was implement in West Hararghe zone of the Oromia regional state in Ethiopia. is composed of 13 Woredas (administrative areas) and one town. Based on the 2017 Population projection from Ethiopian CSA, the West Hararghe Zone total population was 2,435,350. Women and girls account for 48.9% of the total population⁴. The majority of the population in the zone resides in rural areas (91.4%) and is from Oromo Ethnic group (90.12%). Affan Oromo is spoken as a first language by 89.47% and Islam religion is practiced by 88.05% of the population. Around

⁴ F. C. S. A. CSA, "Population Projection of Ethiopia for All Regions At Woreda Level from 2014 -2017," Addis Ababa, 2013.

85% of the population depends on agriculture related activities for living⁵. A gender analysis done in Ethiopia revealed that there is generally a strong cultural practice that put men as a primary decision maker in matters that involve household financial management, child marriage and schooling⁶. The study was conducted in four Woredas that were selected in consultation with CARE/Ethiopia based on programmatic needs (Fig 2).



Figure 2:Map of West Hararghe zone and intervention woredas

The research and evaluation component of the project was complex and involved mixed quantitative and qualitative methods as necessary. Each of the method used in the evaluation is briefly described below. A detailed account of each method is available in separate reports.

Mini-Qualitative Assessment

The mini-assessment was conducted in February, 2016 using a qualitative approach. Focus groups discussions and key informant interviews were conducted to collect relevant information. Adolescent girls and boys aged between 10-19 years; and adult women and men aged above 30 years were participants. Data were processed to identify prominent social norms and accordingly to design the baseline qualitative assessment.

⁵ P. C. C. CSA, "Summary and statistical report of the 2007 population and housing census. population size by age and sex," CSA, Addis Ababa, 2008.

⁶ N. Wees, "Resilience through Enhanced Adaptation Action-learning, and Partnership (REAAP) Gender Analysis Report, West Hararghe," Catholic Relief Services Ethiopia, Addis Ababa, October 2015.

Baseline Quantitative survey:

A quasi-experimental study design with two stage cluster sampling method was used. In the first stage, 38 clusters were selected using simple random sampling technique after obtaining a complete list of clusters in the selected woredas from the respective woreda health office. In the second stage, a complete census of households and populations in the selected clusters was done to identify households with eligible adolescent girl's aged 13-17 year and reference groups (both Father and mother). A total of 3420 adolescent girls aged 13-17 were included in the study. A similar number of matched male and female reference group were also included in the study.

Data were collected using structured and pretested questionnaires that were first developed in English and then translated into the local language, Afaan Oromo. The data collection tool was developed based on initial formative research conducted to identify prevailing social norms in the study context. Adolescent girls were interviewed by trained interviewers at home. The Open Data Kit, an electronic data capture program, was used to collect the data and upload it on a secure server. When data collection was completed, the data were transferred to SPSS version 20 for further cleaning to identify and correct logical errors and inconsistencies. The cleaned data were transferred on to STATA/SE version 13 statistical software for data analysis. Weights were produced and applied to ensure the sample represents the population from which it was drawn. Weighted average and standard errors, percentage and confidence intervals were done as appropriate to provide benchmarks for the project key indicators.

Baseline Qualitative Assessment:

The baseline qualitative assessment involved a total of 20 Focus Groups Discussions with married and unmarried adolescent girls, adolescent boys and parents of adolescents. The FGDs used locally developed vignettes to elicit information on social norms. A total of 32 In-depth interviews with married and unmarried adolescent girls, husband of adolescent girls and mothers-in-law was conducted using interview guides. In addition, 36 key informant interviews were involved from 7 woreda level government officials using semi-structured interview guides. Study participants were selected purposively based on their lived experiences, knowledge of the culture and their official roles. Experienced research assistants were recruited and trained about social norms and the use of specific tools (the vignettes) designed to collect data for the study. All FGDs and interviews

were tape recorded with the consent of study participants. Data were transcribed in the language of the interview (Afan Oromo) and later translated in to English for analysis. Data analysis was assisted by a computer software (Open Code version 4.02). A thematic data analysis approach was utilized to summarize the data. The analysis revolves around the three main focuses of the project; which are social norms related to girls' marriage, education and food allocation.

Lite-qualitative assessments:

The lite-qualitative assessments were conducted annually in the selected kebeles of Mesela (Arm 1, double combination) and Chiro, Doba (ARM 2, triple combination). The target audiences for the assessment included girls group members, SAA group members, recently married adolescent girls, adolescent boys, parents, task force members, project staff and other key informants including marriage brokers, religious leaders and youth revolutionary group leaders. The assessments were conducted to appraise the implementation of the interventions with regard to conformity, acceptability, efficiency, intensity of implementation and quality perception by beneficiaries and stakeholders. The third Lite-qualitative assessment was specifically focused in documenting the learnings and experiences related to the socio-political instability that happened due to change of federal government. The respondents included CARE project staff, adolescent girls, parents of adolescent girls, religious leaders, health care providers (HEW), Development Agents (DA), government officials and other influential community members who were directly or indirectly involved in implementing or supporting the Abdiboru interventions.

Midterm assessment:

This midterm assessment was designed to gather evidence on the progress and lessons learned in the first half of the project life. This assessment pulled data from various sources that are part of the monitoring and evaluation system of the project, including mini-qualitative assessment, baseline qualitative and quantitative studies, sectoral office data, monitoring data, lite qualitative study and the mid-term assessment study.

The Mid-term assessment was conducted in May- August 2018. The selection of study kebeles and participants was purposive and the strategies for selection were similar to the baseline qualitative assessment. Various data collection methods and sources were used to gather relevant data during the mid-term qualitative assessment, such as FGD, KII, IDI and Desk/record review. FGDs were conducted with adolescent girls (four groups of married and four groups of unmarried

adolescent girls. In each FGD, 5-12 participants were invited depending on the availability of eligible target participants. The FGDs were conducted using vignettes and semi-structured discussion guides; some of the elements of these instruments were used during the baseline assessment. In-depth interviews were conducted with adolescent girls (married and unmarried), husbands of adolescent girls, and mothers-in-law. In addition, marriage intermediaries (brokers) were interviewed. Key informants were selected based on the relevance of their official role to the project and drawn from the local administration office, women and child affairs office, and education, health, and agriculture sector offices. Key informant interviews were conducted with CARE/Abdiboru staff both at the field and country office levels. Interviews were conducted using semi-structured interview guides focusing on capturing the lessons learned and challenges during the first half of the project life. Various records, reports, implementation plan, and guidelines were reviewed to gather information on the project implementation and performance. The audio records were transcribed verbatim in Amharic and translated into English for further analysis. Analysis was done using a thematic analysis approach.

Routine monitoring:

Monitoring data were gathered to track the various activities/interventions of the Abdiboru project including the type, frequency and outputs of activities related to SRH, nutrition, VSLA, life skill, CSC and SAA intervention implementations. Data were recorded and reported quarterly by the CARE Abdiboru monitoring and evaluation team. The ACIPH team analyze and produce reports on a quarterly basis to inform the project and guide actions. The progress monitoring data were also compiled on annual basis and annual reports produced by ACIPH.

Sectoral Office Data:

Relevant data necessary to monitor impact of the Abdiboru interventions were collected from woreda sector offices on annual basis. The data sources were institutions (schools and health posts at the kebele level) and local government offices including Agriculture, Health, Education, Administration, Women's Association, and Women and Children affairs. A data abstraction sheet was developed to collect relevant data in a systematic way from each office through record review and by interviewing experts at sectoral offices. Data were collected on an annual basis. Data were analyzed and findings were shared to support Abdiboru project implementation.

End-line Quantitative Assessment:

The end-line quantitative survey was conducted during October- December 2019. The study population and the methods used were similar to that of the baseline survey. The primary sampling was based on availability of adolescent girls between 13 and 17 year of age; then matching male and female reference groups were included in each eligible household with an adolescent girl.

Data were collected using a structured and pre-tested questionnaire that was used at the baseline survey with some additional modules to measure exposure to Abdiboru and related interventions. The survey tools consisted of five separate tools including the census form, household questionnaire and questionnaires specifically used to interview adolescent girls, female references, and male references.

Measurements

Agency and norms were measured using a Likert scale and responses were categorized into five: don't know as "0", strongly unfavorable as "1", unfavorable as "2", favorable as "3", and strongly favorable as "4". "Refused" to respond to a specific question was treated as missing response in the analysis. The same Likert scale response options were used to construct scales throughout the study. Responses for questions such as those related to menses, puberty and sexual and reproductive knowledge were categorized into two: incorrect response and don't know were coded as "0", and correct response coded as "1". Summation of all items was used to create an agency and norm scores. The higher the value of the agency score the more adolescent girls having the capacity of purposive action, the ability to pursue goals, express voice and influence and make decisions free from of traditional male domination. The higher the values of the norm scores indicate a more favorable perspective to the respective norm. The composite scales reliability was measured using Guttman's Lambda. The number and type of items used in constructing each of the scores are presented below.

Agency: The agency scale considered five domains of girls' empowerment including: belief in women's right to refuse sex (1 item), opposition to traditional male dominance (11 items), belief in women's health rights (5 items), self-efficacy to negotiate and communicate (2 items) and girls' ability to decide whom and when to marry (2 items). Summation of all items was used to create an

agency score that ranged between 0 and 80. The agency scale showed an acceptable reliability measure Guttman's Lambda 2 of 0.7.

Descriptive early marriage norm: This scale considered 8 items. Two Items on age at first marriage; three items on when, whom and say to marry; two items on decision to marry; and one item on abdication were included. Summation of all items was used to create a descriptive early marriage norm score that ranged between 0 and 32. The descriptive early marriage norm scale showed an acceptable reliability measure Guttman's Lambda 2 of 0.76.

Injunctive early marriage norm: This scale considered 8 items. Two Items on age at first marriage; three items on when, whom and say to marry; two items on decision to marry; and one item on abdication were included. Summation of all items was used to create an injunctive early marriage norm score that ranged between 0 and 32. The injunctive early marriage norm scale showed an acceptable reliability measure Guttman's Lambda 2 of 0.82.

Descriptive education norm: This scale considered 7 items. One item on household chores; one item on pre-marital sex; one item on school attentiveness; one item on school dropout; and three items on financial issues and earning incomes were included. Summation of all items was used to create a descriptive education norm score that ranged between 0 and 28. The descriptive education norm scale showed an acceptable reliability measure Guttman's Lambda 2 of 0.7.

Injunctive education norm: This scale considered 7 items. One item on household chores; one item on pre-marital sex; one item on school attentiveness; one item on school dropout; and three items on financial issues and earning incomes were included. Summation of all items was used to create an injunctive education norm score that ranged between 0 and 28. The injunctive education norm scale showed an acceptable reliability measure Guttman's Lambda 2 of 0.79.

Descriptive SRH norm: This scale considered 8 items. Five items on contraceptive methods; and three items on condom use were included. Summation of all items was used to create a descriptive early SRH norm score that ranged between 0 and 32. The descriptive SRH norm scale showed an acceptable reliability measure Guttman's Lambda 2 of 0.85.

Injunctive SRH norm: This scale considered 8 items. Five items on contraceptive methods; and three items on condom use were included. Summation of all items was used to create an injunctive SRH norm score that ranged between 0 and 32. The injunctive SRH norm scale showed an acceptable reliability measure Guttman's Lambda 2 of 0.88.

Descriptive nutrition norm: This scale considered 9 items. Two items on the amount of food; four items on the order/timing of eating food; one item on the frequency of eating food; and two items on the quality of food were included. Summation of all items was used to create a descriptive nutrition norm score that ranged between 0 and 36. The descriptive nutrition norm scale showed an acceptable reliability measure Guttman's Lambda 2 of 0.79.

Injunctive nutrition norm: This scale considered 9 items. Two items on the amount of food; four items on the order/timing of eating food; one item on the frequency of eating food; and two items on the quality of food were included. Summation of all items was used to create an injunctive nutrition norm score that ranged between 0 and 36. The injunctive nutrition norm scale showed an acceptable reliability measure Guttman's Lambda 2 of 0.84.

Accurate knowledge on menses: This scale considered 7 items. Summation of all items that ranged between 0 and 7 was used to create a composite score of knowledge level on menses. After testing normality, Median value was used as a cut-off point to create a dichotomous outcome of "Girls having accurate knowledge" and "Girls not having accurate knowledge"

Accurate knowledge on puberty: This scale considered 5 items. Summation of all items that ranged between 0 and 5 was used to create a composite score of knowledge level on puberty. After testing normality, median value was used as a cut-off point to create a dichotomous outcome of "Girls having accurate knowledge" and "Girls not having accurate knowledge"

Accurate knowledge on Sexual and reproductive health: This scale considered 4 domains: menses knowledge (7 items), methods of contraception (1 item), Condom knowledge (3 items), STI knowledge: STIs recalled, modes of STI transmission, prevention of STIs and symptoms of STIs (4 items). Summation of all items that ranged between 0 and 37 was used to create a composite score of knowledge level on sexual and reproductive health. After testing normality,

median value was used as a cut-off point to create a dichotomous outcome of “Girls having accurate knowledge” and “Girls not having accurate knowledge”.

Data analysis

Scores for the primary outcomes were constructed. The internal consistency of the items included to construct the respective scores were assessed using Guttman’s lambda 2. Background information and most indicators were summarized using tables and graphs. Percentages, averages with SD and 95% CIs are reported. The average age at first marriage and proportion of AG with early marriage are presented by the different comparison groups. The correlation/similarity within clusters was controlled for during analysis. All analysis is weighted by the sampling weight.

The analysis used the average treatment effect among treated approach. Effect of the intervention (standardized beta values) on summary measures of norms were prepared by controlling socio-demographic characteristics to compare double combination Arm Vs Control Arm; Triple combination Arm Vs Control Arm and Triple combination Arm Vs double combination Arm for descriptive marriage norm, injunctive marriage norm, descriptive education norm, injunctive marriage norm, descriptive nutrition norm, injunctive nutrition norm, descriptive SRH norm, injunctive SRH norm and agency. The higher values of the beta correspond to a better outcome.

The collected data were transferred to SPSS version 20 for further cleaning. Then, the cleaned data were transferred on to STATA/SE version 14 statistical software for data analysis. Weights were produced and applied to ensure the sample represents the population from which it was drawn. To do the comparisons, the difference in difference (DID) method was employed. The following figure summarizes the end-line evaluation analysis approach.

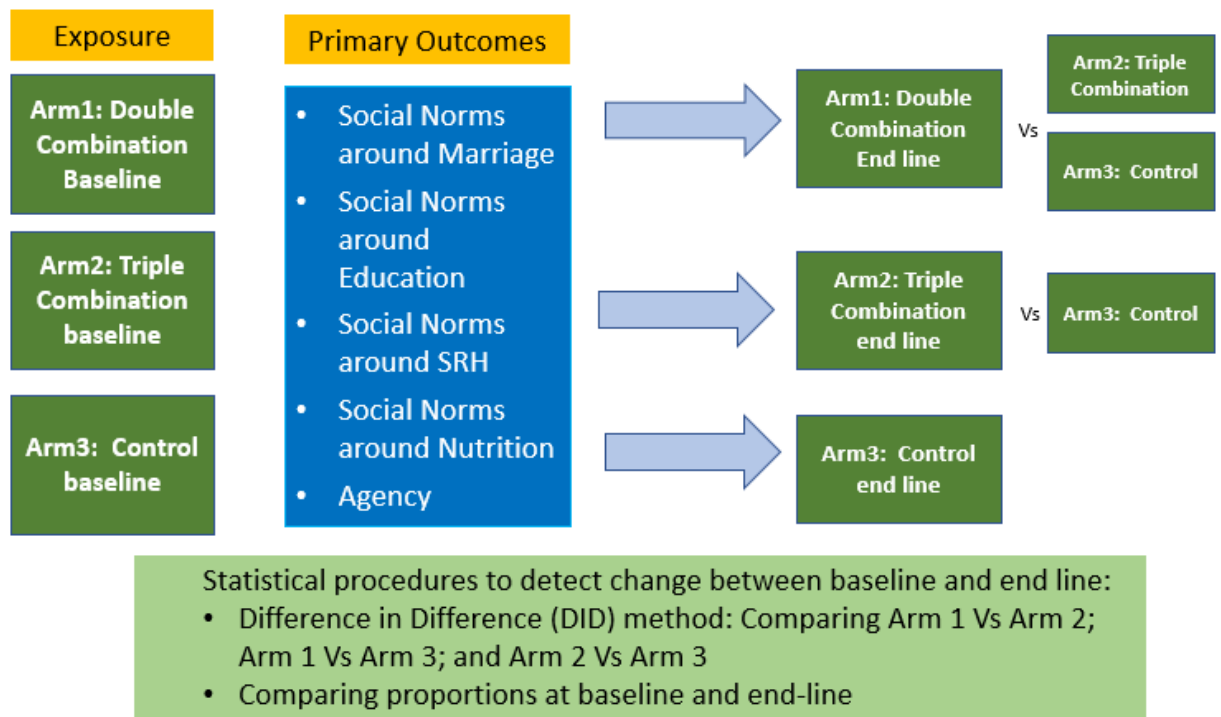


Figure 3: End-line quantitative survey summary of the analysis plan, West Hararghe, Ethiopia, 2016-19

End-line qualitative Assessment:

The end-line qualitative assessment used a similar approach as the baseline assessment. Data were gathered through focus group discussions, in-depth interviews and key informant interviews. Vignettes, that portrayed short stories to reflect the real situations in the study settings, were used to assess social norms during focus group discussions. The in-depth interviews were conducted with married adolescent girls and boys, mother in-law and unmarried adolescent girls. Key informant interviews were conducted with government officials of Education bureau, Women and child Affairs, Women Association. In addition, school teachers and health extension workers were part of the assessment. The final version of the qualitative assessment tools was translated to Afan Oromo. For better efficiency and depth, each data collection session (whether FGD, IDI or KII) had focused on a specific issue. The translated and transcribed data were analyzed thematically.

Cost Analysis:

The cost analysis try to measure the total cost of implementing Abdiboru interventions. The analysis was made separately for each intervention component. Expenditure based (both direct and

indirect) cost analysis is applied to estimate cost of the interventions. Data were gathered from actual financial costs, process evaluation and interviews with project staffs. However, disagreeing cost to activities was not easy. Thus, cost estimation model was developed to cost interventions per local expenses and based on what need to be done and what resources are needed to accomplish tasks per the standard guidelines of each intervention of the project. Cost data were analyzed through activity-based costing. Project activity tracking and activity-based data collection were used to calculate the cost per beneficiary or per group.

Ethical issues:

The research and evaluation protocol was reviewed and cleared by the Addis Continental Institutional Review Board. All the necessary permissions were obtained from the Oromia Regional Health Bureau and West Hararghe zone. Informed consent was obtained from all participants. For participants below the consenting age in addition to their assent parental/guardian consent was obtained. All interviews were conducted in a private space. Confidentiality was maintained by not including the names of the participants and personal identifiers in the dataset.

3. Implementation fidelity of Abdiboru Project

Abdiboru project targeted very young adolescents aged 10 to 14 years. The beneficiary girls were organized in groups and provided support to establish a village saving and loan association (VSLA) and to deliver other interventions such as SRH, Nutrition and life skills. The VSLA intervention was implemented in both intervention arms of the Abdiboru project. The establishment of the girls' groups was started with extensive mapping and community mobilization activities by conducting large meetings in kebeles and in schools.

The number of VSLA girls' groups planned to be established in double combination arm and triple combination arm was 240 and 816, respectively. At the initiation of the intervention, a total of 377 VSLA groups were formed, of which 100 in double combination arm and 277 in triple combination arm. At the end of the intervention, there were a total of 1038 VSLA groups, of which 234 in double combination arm and 804 in triple combination arm, achieving more than 97.5% of target plan. 22,746 adolescent girls were active at the end of the project. The groups were established based on their localities. Hence, even the number of groups looks less, it doesn't mean that the number of girls reached by the intervention are less than what was planned during the project design period.

The girls' groups were not established simultaneously in the two arms of the Abdiboru project; first groups were established in the double combination arm and later in the triple combination arm. The difference in the initiation was due to various reasons including logistics and facilitation challenges.

The interventions such as life skills, SRH, and nutrition were not fully implemented till the later half of the project's life due to fear of overloading the very young adolescent girls with too much information at once as well as due to the project staffs' heavy workload with other project related activities at the beginning of the project. This was done after the mid-term assessment observation of very young girls are unable to catch much information at once. The SRH and Nutrition training of trainers was given to 42 HEW in Chiro in the 2nd year of the project life. Initiation took more time than anticipated to adapt the material, with limited resources, for very young adolescent age group targeted by the project. The training of trainers for life skills intervention was given to 28 Abdiboru/CARE staff and partners in 3rd year of the project. The training was cascaded to 311 (Mesela 61, chiro 112 and Doba 138) teachers in both intervention arms. The life skill training was later cascaded by teachers to 4,171 girls' group leaders from 20 schools in double combination arm and to 11,149 girls group members from 64 schools in triple combination arm. The interventions provided through the girls' group were delivered in rotations; one intervention as each meeting to avoid overloading of information.

There was some adaptation to the VSLA procedures as well. For example, VSLA groups were allowed to share out their savings before the standard VSLA maturity time, if necessary, to allow members to buy school materials and meet other urgent needs; but very few groups shared out their saving before the standard VSLA maturity. Although most girls' groups managed to meet weekly as per the standard; . the regularity of group meetings has been also affected in some groups by external factors such as drought and political instability. The number of girls' groups and the total number of young adolescents embraced in the project were too many, the project was very ambitious in that sense, in the context of the project resources, the adaptation needed to make interventions suitable to very young adolescent girls, poor geographic access, poor road access, and security concerns.

The girls highly appreciated the saving component but also highly engaged in the discussion topics and interactions with their peers. The VSLA groups in schools increased school attendance as most girls did not want to miss their saving meetings. However, there was some initial resistance to discussing family planning and sexual related topics. Exposing very young girls to such culturally sensitive topics was thought to increase the girls' desire to premarital sex.

The Social Analysis and Action (SAA) intervention was implemented only in one of the intervention arms of the project, in Chiro and Doba woredas. The SAA was an intervention to explore social dimensions of health, empowering communities to understand the connection between health and socio-cultural factors and engaging communities to take action to improve their health and wellbeing.

A total of 497 The SAA groups were established in triple combination arm (218 in Chiro and 229 in Doba woredas). The SAA groups involved more than 13,000 community members. The establishment of SAA groups was facilitated by SAA core group in each kebele; totally 50 core groups involving 1,488 members. The core group members could be up to 30 and include kebele leader, kebele manager, woman development army leader, development agent (DA), Health Extension Worker, school director, school supervisor, DA supervisor, women league, local police (militia), religious leader (2-3), development zone representatives, village representative, elders, respected/influential people, health post manager, youth league, kebele representative, traditional birth attendant, political representative and harmful traditional practice (HTP) committee. The SAA intervention was well accepted by the community as it gave people a platform to come together and address young girls' issues, such as early marriage, household food allocation, girls' education and gender equality, through engaging community members.

The SAA groups started regular discussion initially but some have not been meeting regularly due to the prevailing socio-political instability, which distracted the attention of some SAA members. Some SAA groups initiated saving scheme similar to the of the VSLA groups in order to motivate regular attendance. The saving initiative was supported by CARE to enhance the motivation of the SAA group.

The Community Score Card (CSC) intervention was intended to address the structural determinants of SRH, nutrition and the general wellbeing of adolescent girls. The intervention was started in a total of 39 kebeles in the triple and double intervention arms. A total of 9280 adolescent girls and 660 service providers received CSC orientation in before participating in the scoring process. Interface meetings to generate locally relevant issues were conducted in all intervention arms. The interface meetings were conducted with 204 government officials from West Hararghe zone and each woreda, 1838 community members', 3420 adolescent girls and 797 service providers participated and a total of 294 work plans were developed. The CSC intervention was not so much prominent, compared to the individual and community level interventions, because of its frequency (conducted once a year) and frequent turn of officials that made the institutional memory to be weak. In addition, the implementation of the CSC intervention was the delayed Due to several challenges including unanticipated need for more resources to develop detailed work plans, shortage of transport for field work, security issues and frequent turnover of personnel in government offices, after receiving training, as a result of political unrest.

In general, additional efforts and unintended expenses were incurred to maintain the quality of the interventions during the extended period of socio-political instability in the project areas and generally in the country. Those conditions had also created a very stressful operating environment for the project staffs who were already operating in a resource constrained project.

4. Main Findings

This report triangulates evidence generated by various components of the research and evaluation activities of the Abdiboru project. The following sections provide evidence of the project impact. Separate detailed quantitative and qualitative survey reports are available for those interested in detailed information. In addition, the annex presents some more data.

4.1. Which intervention arm had more impact?

Overall, the study arm (arm 2) with combined individual, government and community level interventions had brought a significant reduction in early marriage practices compared to arm 1 (individual and government intervention) and the control arm. That indicates the community level intervention using the social analysis and action approach was important. Furthermore, the study arm consisting of the SAA intervention had significantly improved the girls' agency score, favorable SRH norms score, favorable nutrition related norms score, and favorable education norms score. These findings suggest that active engagement of the community through the SAA groups was effective even under difficult socio-political circumstances and in a relatively short time.

4.2. Comparability of the study participants between baseline and end-line surveys

In both surveys the study participants were adolescent girls aged 13 – 17 years. The majority were followers of Islamic religion. The majority of the adolescent girls were students, although school enrollment increased at the end-line the reading ability of the adolescent girls has decreased in the end-line survey. The data also show that adolescent girls spent more time for doing Household chores/caring of children, followed by leisure and study across all arms. Compared to baseline, hours/day spent on HH chores/care of children has seen a decline.

4.2. Early Marriage

A significant percentage reduction in early marriage was observed in all arms compared to the baseline, with the largest reduction observed in the triple intervention arm consisting of the SAA intervention (Fig 5). Early marriage was reduced by 44.1% in the triple intervention arm. Overall, early marriage reduction is one of the major impacts of the Abdiboru project.

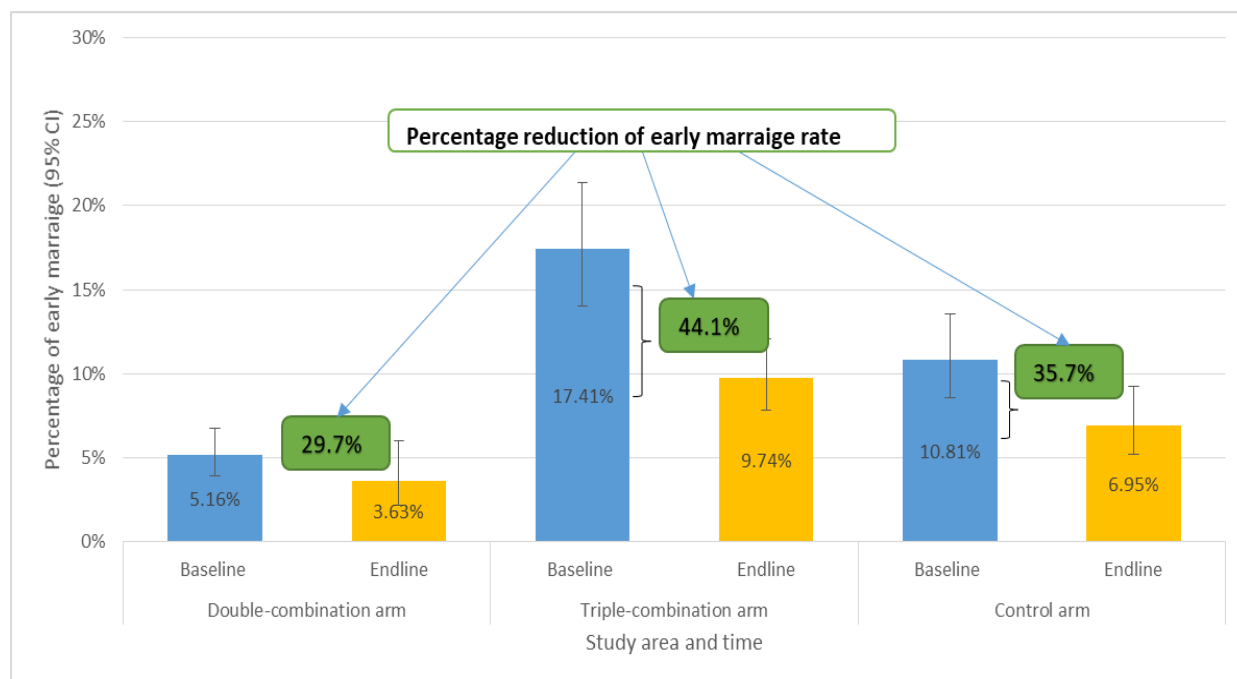


Figure 4: Impact of Triple intervention compared with double intervention, Standardized beta with SD, West Hararghe, Ethiopia, 2016-19

The adolescent girls' influence whether to marry or not, whom to marry, the timing of their marriage has significantly increased at the end-line survey compared to baseline. School continuation after marriage also improved significantly at the end of the project, two in ten girls reported continuing school after getting married during the baseline, while almost half of girls continued school after marriage during the end-line survey.

The majority of the adolescent girls (>80%) also reported high confidence in their own negotiation skills, with significant change observed in the triple-combination and control arms when comparing baseline and end-line results. With regards to free movement, more than one third of girls across all arms thought that girls can go out from their homes if they want to. There is improvement in the percentage of girls who reported free movement of other girls out of the house across the three arms with varying degrees.

4.2. Social Norms and Girls' Agency

The social norms on early marriage, education, SRH and nutrition have favorably and significant improved in the triple combination arm compared to Arm 1 and the control group. Adolescent girl's agency has also improved significantly from the baseline to the end-line survey. The impact of the interventions on the social norms (related to early marriage, education and nutrition) and agency scores, after adjusting for background characteristics (individual and household variables), was significantly higher in the triple-combination arm (Fig 6 & 7).

In the triple combination arm, all norm and adolescent girl’s agency scores except injunctive SRH norms still showed significant increase from the baseline when compared to the control arm. Similarly, in the triple-combination arm, all norms and adolescent girl’s agency scores except descriptive SRH norms still showed significant increase from the baseline when compared to the double-combination arm, after adjusting for background characteristics. The highest impact of the intervention was seen on descriptive ($\beta=0.23$) and injunctive ($\beta=0.22$) early marriage norm scores in the triple combination arm when compared to the double combination arm. The next highest impact was on descriptive ($\beta=0.19$) and injunctive ($\beta=0.19$) nutrition norm scores and descriptive ($\beta=0.19$) education norm scores. The lowest impact was on injunctive ($\beta=0.05$) and ($\beta=0.06$) SRH norm scores in double-combination vs control and triple-combination vs double-combination arm comparisons, respectively.

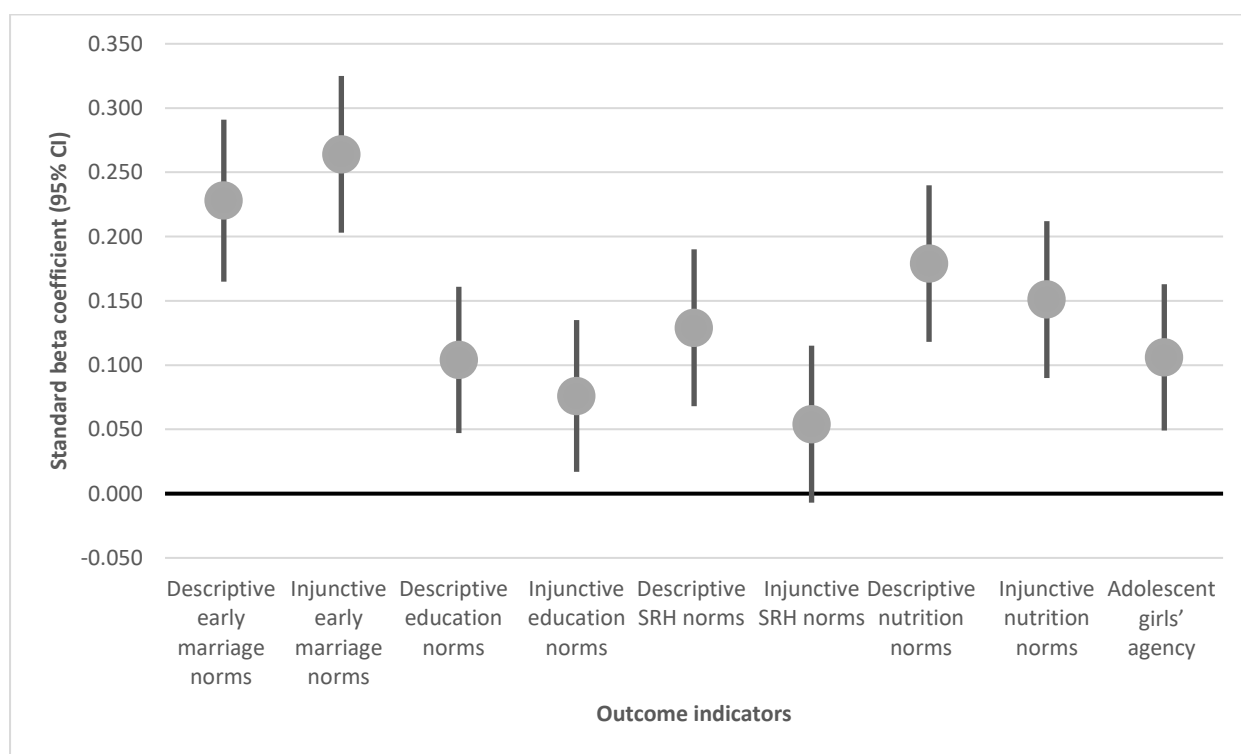


Figure 6: Impact of Triple intervention compared with the control, Standardized beta with SD, West Hararghe, Ethiopia, 2016-19

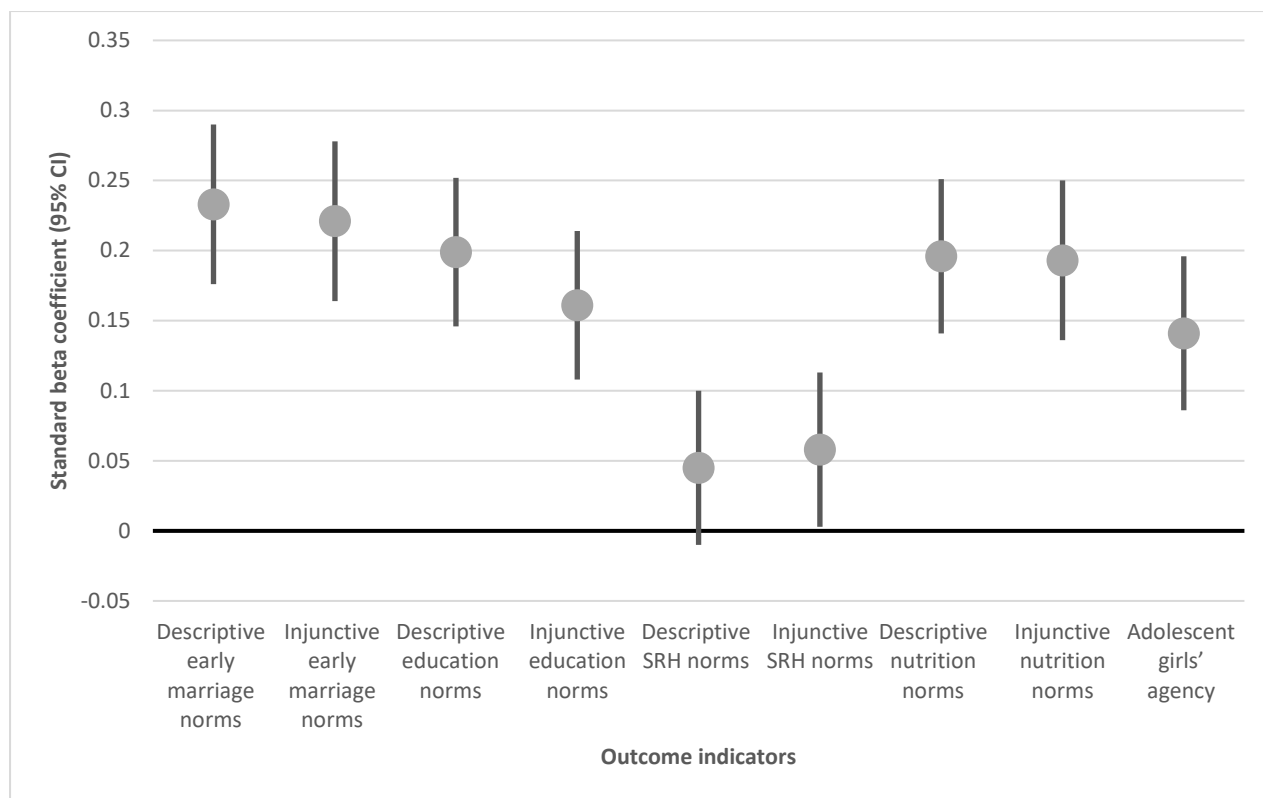


Figure 7: Impact of Triple intervention compared with double intervention, Standardized beta with SD, West Hararghe, Ethiopia, 2016-19

4.2.1 Adolescent Girls' Agency

In the triple combination arm the adolescent girls' influence on when and whom to marry improved significantly after the intervention. The proportion of girls who reported being able to influence when to marry increased from 60.57% at baseline to 67.93% at the end line study. In addition, the proportion of adolescent girls who report being able to influence who to marry increased from 58.19% at baseline to 68.7% at end-line. Those changes were also noted by the qualitative study participants at the end-line assessment.

“Most families send their girls to school; now the decision is made by the adolescent. She can decide whether to learn or marry, even after marriage she can continue her education”. FGD _SAA Arm 2.

4.2.2. Social norms around adolescent girls' education

Abdiboru has brought significant changes in education social norms⁷, more so in the triple combination arm. The proportion of girls who agreed that ‘most girls in the community now have

⁷ Social norm: People choose to perform some behavior because they expect that others (that matter to them) perform the behavior and because they expect that others believe they should perform that behavior.

the same opportunity in education as boys' increased from 63.01% at baseline to 85.02% at end-line in the triple combination arm. This finding was also supported by the qualitative Assessment:

"Most parents support and encourage their adolescent girls to continue their education as much as possible." FGD _SAA Arm 2.

However, there is still reluctance to send girls beyond primary school level and household chores are still barriers to succeed in school.

The average time (hours/day) adolescent girls spend studying at home has not changed significantly in all arms; it was 2.59 hours in triple-combination, and 2.62 in double combination at end-line. At times of economic difficulties, families may prefer boys to girls for schooling that involve travelling outside the village which is the case for most high schools. Poor families despite their positive attitude to girls' education struggle to fully support adolescent girls to succeed in their education, of course, some parents expressed more determination than others as reflected in one of the quotes below.

"A girl may need to wait her turn...until her brother completes high school, to go for high school education, if her parents can't afford sending both together at the same time." An adolescent girl father

"The most common reasons which result in school drop out for girls are economic problems, marriage, academic weakness, and business opportunities... I know two girls in the village who dropped out of school to join the khat business." An adolescent girl mother

"I rather prefer to suffer (economically) instead of forcing them (my daughters) to discontinue their school." An adolescent girl father

The adolescent girls' improved attentiveness in school was also noted by the study respondents; 9 out of 10 adolescent girl respondents thought they were more attentive in school than boys.

However, poor employment opportunities and lack of role female models still hold back parents from investing strongly in girls' education.

"the most common reasons for not investing on girls education is family economic problems, due to that some of girls withdraw from school during Khat harvest times to trade kaht and help out their families." Married adolescent girl Arm 1

4.2.3 Social norms around adolescent girls' SRH

Premarital sex is generally considered unacceptable and was not commonly reported among young adolescent girls and boys in the community. The percentage of adolescent girls who reported ever having sexual intercourse decreased between the baseline and the end line study; from 18.56% to 9.84% in the triple combination arm and from 7.08% to 4.05% in the double combination arm. However, the difference was not statistically significant both between the baseline and end-line survey and between arms. The community more strongly condemn premarital sex for girls than boys.

“Premarital sex is considered as a great shame... though it is more serious for girls; it will not pose that much condemnation for boys; it is unacceptable for girls.” Arm 1 married adolescent girls

Community members would insult girls engaging in premarital sex as well as using contraceptives before marriage, calling them prostitutes and ill-mannered women. The community would also gossip on the girl's and her families, calling her “korofe” meaning a girl who has lost her virginity. Mothers would insult and corporally punish their daughters as they would be disgraced for raising such daughters. In severe cases, they might kick their daughter out of the house or force her to marry the man she was caught with.

Newly married girls are expected to prove their fertility by giving birth soon after their marriage. Thus, using contraceptives is not acceptable and is even perceived to cause infertility if used by young girls. The use of contraception could be better accepted after the desired number of children are born, which is high. If a girl fails giving birth soon after marriage, her in-laws doubt her fertility and may force a divorce. In such community, the commonly held view is that infertility is always failure on the side of the women. If it is known that she is using contraceptives; she is considered as a rude girl, and in-laws may tell her to leave their house. It is common that young couples live with the husband's family until they are well established.

“If the parents know such things, they would not allow her to use contraception. Most parents would say she should not use contraception i.e. they do not allow” Arm 2 FGD participant Fathers

Interestingly, contraceptive use among sexually active, mostly married, adolescent girls increased from 34.8% (baseline) to 41.23% (end-line) in the triple arm but decreased in the double from 26.79% to 13.8% and in control arm from 25.15% to 7.4%.

According to the community members, there is a slight change in the attitude towards contraception use for married women. It is now acceptable for married couples to use family planning methods after their first birth.

“...using contraceptive after giving a birth is acceptable now-a-days, the purpose is mainly to avoid short pregnancy intervals and occurrence of unintended pregnancies.”

Arm 2 adolescent girl’s husband

4.2.4. Adolescent girls’ social norms around early marriage

The ideal age for marriage for adolescent girls increased by one year at end-line survey compared to the baseline quantitative survey; from 16 years to 17 years. In the qualitative study, however, most adolescent girls mentioned the ideal age of marriage for the girls to be 15 and above as compared to 20 and above for boys. We also found that, among already married adolescent girls, the common age for marriage improved from 13 to 14 years at baseline to 14-15 years at the end-line. From the qualitative assessment we also observed that the chances that early marriage end up in divorce is high. Due to the sanctions on premarital sex, young girls opt to marry to have sexual relationship. That also exacerbate the vulnerability of the young adolescent girls and increase the chance of divorce. Although girls have the chance to remarry after divorce, their fate is likely to marry a man who either have another wife, widowed or divorced.

“...a divorced girl has a chance to remarry in this area, she could be married even within a week after divorcing...but she would have very little choice whom to marry....”

Arm 3 key informant

The descriptive and injunctive social norms around marriage have changed favorably in the triple combination arm compared to both double combination and control arms. However, there were some tendency to perpetuate early marriage by intermediaries, locally referred as *delala* (broker).

The two most common types were *Jala dema* (the couples eloping together without parental blessings) and *Chebsa* (marriage with parental blessing). In *Jala dema*, although notionally the girl is said to have agreed undue pressure cannot be ruled out and, in some cases, this happens to cover up consensual premarital sex or even rape. Elders and other intermediaries could also pressure the girl to accept the marriage.

“The common marriage practices in this community is Jala dema. Both (boy and girl) agree to elope together, however it is common that eventually the husband will send elders to negotiate settlement with her families.” Arm 1 married adolescent girl

“...elders who are respected in the community can influence decisions. They persuade her father to accept the proposal...and the father in turn put pressure on the girl to accept the marriage. They conduct the khat chewing ceremony and confirm acceptance by undermining her decision”. Arm 2 key informant

In Chebsa type of marriage the boy pursuing marriage has to ask the girl’s parents’ blessing, which usually involves some negation rituals and has more expense than Jela Dema type marriage as some families may ask for dowry. Even in this type of marriage, the girl’s consent would be asked these days before parents make the final decision.

“...even in Chebsa, she (the adolescent girl) will be asked if she is interested whether she is interested to marry at this time and the person, before decision is made; and if she tells to her parents ‘I am not interested in him’ or if she refuses to chew/receive the Khat prepared for the ceremony, she will not be forced”. Arm 1 mother

Adolescent girls agency to say whether they want to marry or not has improved, the proportion of girls who had that agency on whether to marry or not increased from 60% at baseline to 77% at the end-line survey in the triple intervention arm. Their perceived ability to decide whom they marry also increased from 84% at baseline to 91.4% at the end-line in the triple combination group. Early marriage and girls’ education social norms also overlapped in many ways. Fewer chances to higher education increase the vulnerability of adolescent girls to early marriage. On the other hand, marriage intermediaries may target girls on the way to and from school. Thus, the fight against early marriage has to be multifaceted to succeed.

4.2.5. Social norms around household food allocation

During the Abdiboru project implementation period, social norms on nutrition have improved significantly. The impact of the intervention on the nutrition norms after adjusting for background characteristics, both the descriptive ($\beta=2.06$, 95%CI: 1.38, 2.45) and injunctive ($\beta=1.92$, 95%CI: 1.17, 2.67) scores increased significantly in the triple-combination arm compared to the control arm. Similarly, both the descriptive ($\beta=2.31$, 95%CI: 1.66, 2.95) and injunctive ($\beta=2.57$, 95%CI: 1.83, 3.31) scores increased significantly in the triple-combination arm compared to the double-combination arm.

The qualitative assessments also revealed that husbands/fathers were the primary decision makers on the type and amount of food items to be produced, stored and sold at the household level, and women decide on small purchases and the type of food consumed in the household. Across all arms, women and girls were expected to prepare food for the family.

“Preparing food is the responsibility of a wife. Supporting each other is something expected of couples, unfortunately that kind of experience doesn’t exist in our area. It is not the role of husbands to prepare food; preparing and serving food are responsibilities of wives.” Adolescent girl’s husband Arm 2

Household food allocation has shown remarkable changes since the Abdiboru baseline survey; girls can now eat what is available in the household equally as their boy counterparts; it (the food) is the same in terms of quality, amount and order of eating. Gender based discrimination in household food allocation is a rapidly fading practice. Unlike in the past times, now husband and wife are expected to eat together at home. Eating before her husband or parents is considered a shame. However, the expectation that women and adolescent girls have to wait for their husbands/fathers for having meal together or after them has declined.

“All would eat together without any discrimination. Earlier the males would eat the best food and first, but not so much these days.” Adolescent girl’s Husband Arm 1

Food taboos are also abandoned to a large extent. For instance, consuming pepper, some part of animal products such as organs and nuts were taboo for adolescent girls. However, those things had improved in present days.

“If adolescent girls eat pepper or hot food, there was a belief that their sexual desire increases. Not many people believe that anymore.” Adolescent girl husband (Arm 2)

4.3. Emerging changes and backlash either due to the intervention or political instability

The increasing agency of young girls to make marriage related decision by themselves has caused concerns to the families and elders; as some girls are persuaded to early marriage and end up in divorce. Thus, the Kadhimuma⁸ type of marriage which was largely abandoned appears reemerging. These days, religious leaders and elders encourage parents to practice Kadhimuma instead of Jala dema and Chebsa marriage type and reintroduce sanctions on parents who marry off their daughter through either Jala dama or Chebsa.

⁸ “Kadhimummaa” where the boy asks the girls parent at her early age around 12 but has to wait until her parents decide that she is ready to live with her husband.

“Sanctions to parents include social and monetary punishment through “Afosha” or “Idir”. ... elders (religious leaders) would not make Nika (Islamic engagement ceremony) for marriage types other than kadhimuma” (Doba_FGD_out of school Girls Group_Tarkanfata).

4.4. Influence of socio-political instability on Abdiboru

The unexpected change in government in march 2018 and the rise of the youth revolutionary groups, “Qerros” (Ormiffa term meaning ‘youngsters’) has caused instability and social unrest. That caused interruption of government services as well as implementation of different interventions by local development partners. During those periods of instability roads were blocked, schools and markets were closed, and in some instance led to burning down of houses and business. Those actions in turn impacted public services such as health, education and justice. Peoples’ attention in such situations predictably shifted to personal safety and mere survival. The declarations of the state of emergency in two occasions, during the life of the Abdiboru project, to control the instability have imposed further restrictions on people’s movement and banned gatherings. Unfortunately, such events cover the large portion of the Abdiboru project implementation period. Thus, there were multiple interruptions to the evaluation and intervention activities due to security problems and movement restriction, which resulted in delayed activities and high turnover of government officials and to some extent project staff. These conditions made the implementation environment of the Abdiboru project much less conducive than anticipated. Those conditions are likely to have minimized the potential impact of the Abdiboru interventions.

4.5. Influences of drought on Abdiboru

Drought has both positive and negative influence on early marriage practices. During times of drought people focus on survival thus it is not common to plan marriage thus spares young girls from an early marriage. On the other hand, poorest families may easily give away their daughters for marriage economic gains; if the husband can support the family to overcome the food shortage. During difficult times adolescent girls could be taken out of school, and forced to take on household chores and child care responsibilities while other family members go searching opportunities for labor work elsewhere, mostly in nearby towns and large state projects.

“... Due to the economic problems drought caused, people (families) gave their daughter to marriage. In drought times, there would not be enough food in the house for everyone.”

Adolescent girl_IDI

The movement of people in search of job opportunities and the inability to make saving during drought periods negatively impact the implementation of Abdiboru project. Not having enough resources to support families during such difficult times was very stressful to the project staff. Thus, considering an adaptive design is critical in working in low-income settings with a lot of natural and man-made emergencies.

4.6. The challenges of working with very young adolescents

The Abdiboru project was framed based on the experiences gained by working successfully with married and older adolescent girls. The very young adolescent girls were different in two ways: as they were still growing children, they lacked skills in negotiating and settling differences amicably. The most significant and unexpected challenge for staff was around conflict between the girls participating in the VSLA processes. The young girls experienced more conflict compared to adult women, and the conflicts emerged during the selection of VSLA management members, and specifically during discussing saving and loan disbursements. Resolving the disputes were time consuming at the beginning, but that steadily decreased as the girls became more familiar with the VSLA approach. Thus, the project had to invest more time and resources to adapt the materials and facilitate group sessions than it was anticipated at the design stage. The ratio of staff needed to support target girl's groups was underestimated. This made it impossible to provide the level of support required to meet expectations, especially as it became evident that the girls were requiring a substantial amount of support. The original VSLA, as a tool, had its own implementation challenges. It proved to be difficult for young adolescent girls to fully align with the model's principles and approaches. Therefore, the project staff modified the training content and approach to make these more user-friendly for the young adolescent girls. The flexibility of CARE to quickly fix the remedial actions was critical to successful implementation of Abdiboru interventions.

4.7. Influence of girl's literacy level on Abdiboru

The literacy level of the adolescent girls involved in the Abdiboru project was much less than expected. The majority were not able to fully comprehend written materials. In addition, many girls in the targeted age group were out of school at the start of the project. Adolescent girls enrolled in school were not having optimum education to acquire sufficient reading and writing skills. Even girls in higher grades were unable to properly facilitate discussions. Although Abdiboru project intervention manuals were prepared in the local language and contextualize to the Hararghe (local) culture the young adolescent girls were not able to fully follow the steps outlined in the manual. That was a big challenge during the implementation of VSLA as well as during discussing sexual reproductive health (SRH) and nutrition issues in the girls' groups. Strong support and coaching

from project staff were required during those sessions. That deficiency in literacy level of girls required adaptation in the process and more resources than originally anticipated. In addition to low literacy levels, the girls' self-expression, documentation and facilitation skills were poor. The level of the challenge was not anticipated during the project design and it was difficult to meet the new resource requirements during implementation. For instance, the number of community facilitators was much lower than what was required and CARE succeed only to partially fill in the resource gaps from other sources. Overall, the low literacy level of the girls indicated that the education they are receiving was of poor quality, which is worrisome as it may not be to make them competent in the labor market later on. The Abdiboru impact is likely to have been undermined by this deficiency.

4.8. Costing of Abdiboru Project

Considering the importance of having a cost information during scale up decision making Abdiboru tried to compile the information based on the local experience. It is however important to take into account cost may vary by context and level of the personnel involved in the implementation of interventions in making the interpretation.

Three scenarios are presented below; 1) as implemented by CARE and with budget deficiencies to account for unforeseen situations such as instability, young age, and low literacy; 2) if it was implemented by an NGO as per the standard guidelines; 3) if it was implemented by a government entity. Data for cost were gathered from actual expenses incurred by CARE for Abdiboru project and based on cost estimation model developed based on the required activities as per the standard guidelines. Cost data were analyzed through activity-based costing, and total and unit costs were computed for major activities of the project per beneficiary for different scenarios presented above (Table 3). The major outcomes were depicted in the following table (Table 1). Accordingly, the cost for establishing the girls group was the highest, followed by organizing SAA and least for supporting CSC. The cost increment when using girls group is used as a platform to deliver specific interventions (such as VSLA, SRH, Life skills and nutrition) was marginal. Considering the societal contributions (monetizing time spent in the meetings) for successful implementation of SAA, the cost substantially increases indicating the importance of acknowledging the societal contributions. Thus, although the triple-intervention group had the most impact on girls agency and social norms around marriage, education and nutrition it came at a high cost considering the country's economic capacity.

Table 2: Abdiboru Interventions Unit Cost (in U.S. Dollars) per beneficiary

Implementor	Girls Group only VSLA	Girls group as platform- VSLA, SRH, Life Skills, & Nutrition	SAA	SAA with Societal cost	CSC	CSC with societal cost	Double combination arm	Triple combination arm
CARE	38	41	38	44	9	9	50	88
Any NGO	103	107	63	92	9	9	116	180
Government entity	38	39	16	45	4	4	43	59

5. Conclusions

- The triple- intervention arm had better impact on the girls' agency and shifting favorably social norms around marriage, education and nutrition compared to the double combination and control arms. Although positive changes were happening in all arms. The reduction in the magnitude of early marriage was observed in all arms in a relatively short intervention period but the largest percentage reduction was observed in the triple intervention arm where the community level intervention (SAA) was implemented. The SAA groups were influential even under unfavorable political circumstances providing a unique opportunity to holistically address societal issues by engaging adult stakeholders.
- Targeting the young adolescents (10-14 years) was highly appreciated by relevant government sector agencies and by the community at large.
- Implementation of the project as per the design was seriously challenged by the socio-political instabilities, declarations of state-of-emergency, and very young age and low literacy level of the beneficiaries. These happenings had negatively impacted the project implementation. The weakening of the local administration and the security threats shifted everyone's attentions to a more survival mode than enthusiastically engage in such projects.
- Social norms evolve and are influenced by many circumstantial events/incidents; the power struggle by formal and informal leaders in which old guards trying to reestablish old norms, emerging influencers from the young revolutionary groups, and intermediaries that broker marriage required skillful project management.
- The project was under financed and lack flexibility to overcome the many unforeseen challenges that happened during the actually implementation of the project on the ground, which emphasizes the complexity of project implementation in low income settings.
- The cost of implementing the interventions and the estimated costs are substantially high, even if it implemented by a government entity, relative to the economic status of the country.
- The integrated research and evaluation component of the project was very powerful in documenting the lessons learned and improving the project implementation in an ongoing basis-learning by doing.
- Overall, it is likely that the impact of the Abdiboru interventions were undermined by the many constraints mentioned above. Thus, one can anticipate a greater impact if interventions were implemented in a more stable political environment and over a longer period of time.

6. Implications for future programming

- Programming multiple interventions together on complex set of issues is difficult and requires high investment level, and also requires a more adaptive project implementation strategy. Relationships between structure and social norms holders are intertwined and requires a well thought engagement strategies to strengthen collaboration and cooperation between the parties. Integrating and mainstreaming Abdiboru like projects with the government development programs can benefit from achieving project goals at scale. Such approach also improve accountability and responsiveness to the needs of adolescent girls.
- Girls need to be provided with a comprehensive education, counselling and support to prevent early marriage. Agency is beneficial if it includes internally driven motivations that inspire girls positively including establishing core values and future aspirations in order to overcome undue external influences including peers and brokers.
- Adolescents who are not supported to develop as an independent rational decision-making person and who are simply liberated from the umbrella of parental protection and guidance may fall victim to an early marriage. Empowering girls economically and with essential life skills are critical to help them aspire bigger goals.
- Improved the quality of education is critical for the girls' success and independence, establishing link to the school's system to improve quality and involving female teachers to support implementation need to be considered seriously.
- Serious attention needs to be given in the education system of the country. Attaining age- and grade appropriate literacy and education level must be the goal of education than just merely increasing school enrollment and attendance rates,
- A holistic cross-sectoral approach of agency, social norm and institutional change is most likely to be effective to tackle early and forced marriage. Furthermore, the Abdiboru project perhaps could have done even better in this regard if it could explore how to link these all up more strongly, rather than approach them as separate tools and approaches, for example, linking the SAA groups with justice offices and/or the Harmful Traditional Practices Committees.
- Ideally, the project could have undertaken some training with boys, particularly around SRH issues even though a limited budget would have meant less funding for the girls. Staff, the girls themselves, the community and government officials, almost without exception, felt that some support to the boys would be beneficial.
- Projects such as Abdiboru, involving large segments of the community should be sensitive and well equipped for unforeseen interruptions of the implementation process due to security and

political instability reasons. Better budgeting and more donor flexibility are critical for the success of such projects in low income settings with complex socio-political challenges.

- Further exploration of the interventions in the field with strong research and evaluation component, and adequate investment is necessary before making decision for scale up.

Quantitative findings				Base line Qualitative Findings	End line Qualitative Findings	
Overall		Double-combination intervention arm (VSLA+CSC)	Triple-combination intervention arm (VSLA+CSC+SAA)			Control arm (Standard government interventions)
1) % of Respondents reported that girls have the same opportunity for education as boys. - Attitude	Baseline	88.68%	86.91%	83.34%	<p>Community enroll girls and boys equally (due to government laws enforced by local authorities) but girl’s education is just a formality and they don’t stay in school.</p> <ul style="list-style-type: none"> ○ “Most of the residents in this community send girls to school ... but with no exercise books and educational materials; girl plainly attend classes. They simply get back with no benefit.” IDI_MAG ○ “Yes. (Girls are enrolled). Though we (parents) send them, or enroll them to school, they dropout; for instance two of my daughters dropped out and went away...” IDI_MAG 	<p>Majority of respondents in all arms mentioned adolescent girls have equal opportunity in schooling as boys but competing household activities make their attendance challenging.</p> <ul style="list-style-type: none"> ● “The community awards best performing girls, when they stand 1st and 2nd, with their teachers at the end of the year.” IDI_MAG ● “Most parents support and encourage their adolescent girls to continue their education as much as possible.” FGD_SAA ● “Most families send their girls to school; now the decision is made by the adolescent she can decide whether to learn or marry, even after marriage she can continue her education” IDI_MIL
	End-line	91.41%	95.24%	93.56%		
2) % of girls agreed that most girls in the community have the same opportunity in education as boys. - EE	Baseline	66.84%	63.01%	60.66%		
	End-line	80.6%	85.02%	82.92%		
3) % of girls said that they always have same opportunity in education as boys. - Behavior	Baseline	52.99%	52.86%	49.07%		
	End-line	66.71%	77.28%	59.04%		
4) % of female references reported that they give same opportunity for education for girls and boys - Behavior	Baseline	83.99%	82.84%	77.31%		
	End-line	94.33%	91.54%	91.16%		
5) % of male references reported that they give same opportunity for education for girls and boys - Behavior	Baseline	85.39%	86.28%	79.85%		
	End-line	92.73%	92.99%	93.13%		

Abdiboru Project in Ethiopia

6) % of girls agreed that most people expect girls in the community to have the same opportunity in education as boys. - NE	Baseline	70.45%	70.41%	69.45%		
	End-line	82.32%	84.93%	81.56%		
	Baseline	In summary: Girls do have the same opportunity in education as boys and enroll in school, but they drop out eventually				
	End-line	In summary: Girls do have the same opportunity in education as boys but competing household burdens are challenging their school attendance				

* Attitude – What I think, Behavior – What I do, Empirical expectation (EE) – What I think others do, Normative expectation (NE) – What others think I should do

Quantitative findings					Base line Qualitative Findings	End line Qualitative Findings
Overall		Double-combination intervention arm (VSLA+CSC)	Triple-combination intervention arm (VSLA+CSC+SA A)	Control arm (Standard government interventions)		
7) Mean Age at which girls commonly drop out - Behavior	Baseline	10.91 ± 0.34	12.15 ± 0.33	11.85 ± 0.32	<p>According to most participants, for girls further education beyond primary level is considered as a ‘waste’ of time. It was reported to be enough for a girl if she can read and write.</p> <ul style="list-style-type: none"> ○ “Based on the attitude and perception of the community, it is expected to be enough if they attend up to grade 5 and 6: If they are able to write their name it is thought to be enough.” IDI_MAG ○ “After girls start education, if she starts writing her name, and reading little people say this is enough for her. They believe education for girls is till writing her name...”KII_Teacher 	<p>Most of participants mentioned that maximum grade attended by adolescent girls were grade 5-8.</p> <ul style="list-style-type: none"> ● “Most of the girls in this community continue their school up to grade 8... after grade 5-8 but there are few who continue up to grade 12 or Universities” IDI_MAG ● “they do attend to grade 6, 7 and they also attend up to grade 8, but it is not like that of lower grade. They attend their education up to grade 8 and then they go to marriage; family also pushes them to marriage. For some of them intermediaries facilitated their marriage.” IDI_husbands
	End-line	14.5 ± 0.32	13.16 ± 0.78	15.23 ± 0.79		
8) Mean grade level up to which girls thought adolescent girls ideally should get educated - Attitude	Baseline	11.04 ± 0.14	10.22 ± 0.27	10.15 ± 0.14		
	End-line	12.77 ± 0.07	12.26 ± 0.12	12.49 ± 0.07		
9) Mean grade level which adolescent girls thought most people expect them to attend school - NE	Baseline	10.04 ± 0.18	9.41 ± 0.28	9.35 ± 0.12		
	End-line	11.99 ± 0.10	11.493 ± 0.12	11.83 ± 0.11		
10) Mean grade level which adolescent girls thought most girls in the community attend school - EE -	Baseline	9.79 ± 0.15	9.12 ± 0.28	9.04 ± 0.15		
	End-line	11.28 ± 0.09	11.33 ± 0.13	11.12 ± 0.12		
11) Mean Grade level at which girls commonly drop out – Behavior	Baseline	4.68 ± 0.19	4.27 ± 0.19	3.35 ± 0.16		
	End-line	4.57 ± 0.67	3.85 ± 0.49	3.60 ± 0.78		

Abdiboru Project in Ethiopia

						<ul style="list-style-type: none"> Most of girls continue their education up to grade 10 -11.” IDI_MIL
	Baseline	In summary: Even though girls thought other girls learn well into secondary school, being able to read and write is thought to be enough and they usually don’t complete Primary school				
	End-line	In summary: Even though girls thought other girls learn well into secondary school and university, they usually attend to grade 8 at their locality				

Quantitative findings					Base line Qualitative Findings	End line Qualitative Findings
Overall		Double-combination intervention arm (VSLA+CSC)	Triple-combination intervention arm (VSLA+CSC+S AA)	Control arm (Standard government interventions)		
12) % of girls that think girls that are less attentive to their education compared to boys - Attitude	Baseline	43.64%	48.47%	53.04%	Majority of respondents perceive girls are less performers, less smart, less interested and less motivated for education compared to boys. <ul style="list-style-type: none"> ○ "...but education is difficult to females; they can't perform high and fall in stress, and look for any other alternatives." IDI_MAG ○ "Exams are difficult for girls' capacity. The problem is when she fails matric Exam she may face demoralization from the communities" KII_HEW ○ "Boys have more attention for school than girls. Also they have better understanding" IDI_UAG ○ "Most of the girls don't have an interest of education. Those who have an interest for the time being as culture of this village they get married..." KII_Teacher 	Currently, the Community perceived girl's ability to excel in education as comparable or, according to few respondents, even better than boys. <ul style="list-style-type: none"> ○ "Since the initiation of Abdiboru project in our kebele people would say girls are even better than boys on their education" FGD_Non-SAA Fathers. In resource scares families, priority would be given for boys to continue their education up to secondary school and above. This is because parents believed the, boys can return back the costs while girls could not. <ul style="list-style-type: none"> ● "the community prefer to send boys to school than girls because they expect girls did not go further with education they expect them to marry" IDI_MAG ● "After Abdiboru intervention adolescent girls become aware, and attended their school with purpose... now they understood they can reach higher level with their education." KII_HEW
	End-line	39.62%	27.48%	40.54%		
13) % of female references that think girls are less attentive to their education when compared to boys - Attitude	Baseline	54.15%	59.52%	58.22%		
	End-line	46.76%	32.65%	59.3%		
14) % of male references that think girls are less attentive to their education when compared to boys - Attitude	Baseline	53.28%	61.23%	63.67%		
	End-line	45.99%	29.56%	50.35%		
15) % of girls that think that most girls are less attentive in their education than boys - EE	Baseline	50.13%	52.67%	54.60%		
	End-line	38.68%	27.74%	40.28%		

Abdiboru Project in Ethiopia

16) % of girls that think that parents think adolescent girls are less attentive in their education than boys - NE	Baseline	51.29%	54.72%	59.65%	
	End-line	37.19%	30.46%	38.77%	
17) % of girls that think that girls are attentive in school compared to their brothers/other adolescent boys - Behavior	Baseline	89.19%	89.79%	85.18%	
	End-line	90.06%	91.68%	88.78%	
	Baseline	In summary: Half of adolescent girls and more than half of references from the quantitative study and majority of the respondents from the qualitative study thought that girls are less attentive to their education than boys, but 9 out of 10 adolescent girls thought they are attentive their education when compared to boys			
	End-line	In summary: Half of adolescent girls and less than half of references from the quantitative study and majority of the respondents from the qualitative study thought that girls become more attentive to their education after Abdiboru project than boys, 9 out of 10 adolescent girls thought they are attentive their education when compared to boys			

Quantitative findings					Base line Qualitative Findings	End line Qualitative Findings
Overall		Double-combination intervention arm (VSLA+CSC)	Triple-combination intervention arm (VSLA+CSC+SAA)	Control arm (Standard government interventions)		
18) % of girls allowed to continue school by their parents' or husband after marriage - Behavior	Baseline	22.27%	22.11%	17.11%	Once married, girls mostly drop out of school <ul style="list-style-type: none"> “It is difficult to go to school after getting married. They rarely return back to school” IDI_MIL “After she (adolescent girl) marries, the possibility of turning to school is very rare” IDI_HAG 	Girls rarely go back to school after getting married due to competing responsibilities <ul style="list-style-type: none"> “Those girls who continued their education after marriage are for instance if their husbands are government employees. If her husband is farmer, he would not allow her to continue.” FGD_HAG ”Most husbands want their wives to drop out of their school because they want their wives to help them in farming activities.” FGD_ Non girls group MAG
	End-line	41.04%	45.95%	51.98%		
19) % of mother-in-law that allowed adolescent girls to continue school after marriage - Behavior	Baseline	23.22%	35.93%	23.52%		
	End-line					
20) % of Male in-laws that allowed adolescent girls to continue school after marriage - Behavior	Baseline	9.49%	25.23%	11.68%		
	End-line					
21) % of girls that thought an adolescent girl should drop out of school once she is married - Attitude	Baseline	45.92%	48.89%	54.30%		
	End-line	33.44%	24.97%	29.52%		
22) % of female references that thought female in-laws should make their adolescent girls drop out of school once they get married - Attitude	Baseline	49.60%	51.85%	54.12%		
	End-line	34.18%	23.84%	32.94%		
23) % of male references that thought male in-laws should make their adolescent girls drop out of school once they get married - Attitude	Baseline	51.67%	56.95%	58.65%		
	End-line	34.56%	25.99%	39.53%		
	Baseline	In summary: It is rear for adolescent girls to continue to go to school once they are married, but 2 out of 10 girls managed to do so, but almost half of the references thought other references shouldn't make adolescent girls drop out of school once they get married				

Abdiboru Project in Ethiopia

	End-line	In summary: few adolescent girls continue to go to school after they are married, but 5 out of 10 girls managed to do so, but more than half of the references thought other references shouldn't make adolescent girls drop out of school once they get married	
--	----------	--	--

Quantitative findings (Baseline + Further Analysis)					Base line Qualitative Findings	End line Qualitative Findings
Overall		Double-combination intervention arm (VSLA+CSC)	Triple-combination intervention combined arm (VSLA+CSC+SAA)	Control arm (Standard government interventions)		
24) % of girls that thought girls going to school have an increased chance of engaging in premarital sex - Attitude	Baseline	13.62%	24.32%	21.62%	Girls schooling is perceived to give them the opportunity for secretly engaging in sexual activities <ul style="list-style-type: none"> “Community perceive girls education open a chance for infidelity and unwanted pregnancy on the part of female students” KII_EO “girls will learn bad manners when they stay long in school” 	Schools are reported to be places where girls can get the opportunity to have premarital sex. As a result, parents were restricting their daughters from going to schools in the previous times however this practice has lessened currently. <ul style="list-style-type: none"> “Most of the time girls practice sexual activity before marriage with their classmate boys, additionally they may practice sexual activities when they participate on some wedding parties at this time, they practice sexual activity with their boyfriends.” KII_HEW “There is equality currently but if you consider the scenario in the previous times, the community had fears regarding girls’ education in that, girls at school might get involved in sexual practices with boys and acquire related problems. Because of this reason, they used to avoid them from school and initiate them for marriage instead of attending their education. They send girls to school at the current times.” IDI_MAG
	End-line	14.27%	11.08%	14.69%		
25) % of female references that thought girls going to school have an increased chance of engaging in premarital sex than girls staying at home - Attitude	Baseline	19.42%	30.1%	30.3%		
	End-line	14.86%	11.76%	16.37%		
26) % of male references that thought girls going to school have an increased chance of engaging in premarital sex than girls staying at home - Attitude	Baseline	17.02%	26.75%	25.86%		
	End-line	15.22%	10.99%	17.37%		
27) % of female references that thought they are expected to think adolescent girls who go to school	Baseline	18.67%	29.02%	28.96%		
	End-line	22.2%	13.93%	18.89%		

Abdiboru Project in Ethiopia

engage in premarital sex - NE						
28) % of male references that thought they are expected to think adolescent girls who go to school engage in premarital sex - NE	Baseline	19.01%	32.59%	34.44%		
	End-line	19.49%	12.16%	17.96%		
	Baseline	In summary: A quarter of adolescent girls and references thought girls who go to school engage in premarital sex while the qualitative result showed community perceive girls schooling as a place for learning “bad manners”				
	End-line					

Quantitative findings (Baseline + Further Analysis)					Base line Qualitative Findings	End line Qualitative Findings
Overall		Double-combination intervention arm (VSLA+CSC)	Triple-combination intervention combined arm (VSLA+CSC+SAA)	Control arm (Standard government interventions)		
29) % of girls who often and sometimes get absent from school and do household chores when compared to their brothers/other adolescent boys - Behavior	Baseline	6.54%	6.29%	3.81%	<p>Most adolescent girls’ time is consumed in a number of household chores. When their responsibility becomes too great and the family depends on their help, it becomes impossible for the girls to attend school. Therefore, even if they register for school, being repeatedly absent and eventually dropping out is common to attend to their families’ needs.</p> <ul style="list-style-type: none"> ○ “They (parents) send the girl (to school) but they do not give attention towards her education. She has many responsibilities in home” IDI_HAG ○ “The family may say you don’t need to go to school and you better keep our cattle or do other house hold chores like “Moyee tumaa” (manual grinding of grain)-services, take grain to milling, and fetch drinking water. It is in lieu of these services that they are prevented from going to school.” IDI_MAG ○ “girls are not able to learn like that of boys, because they do have workload in the household level, due to this they are not showing good performance like that of the boys. Yes, in the household we do have many works to do. We also arrive to school very late, compared to boys.” IDI_UAG 	<p>Respondents mentioned caring for a child and supporting their husband on farming activity took their majority of time.</p> <ul style="list-style-type: none"> • “parents don’t know about the importance of education as a result they want their daughter’s dropout of school and support them in routine household activities.” FGD_UAG • Most adolescent’s dropout of school due to household chores burden, running to marriage, some parents have many children then troubled to fulfilling exercise books & pen for all as a result girl forced to dropout” IDI_MAG
	End-line	32.9%	32.69%	40.38%		
30) % of female references who often and sometimes make their adolescent girls absent from school to do household chores when compared to adolescent boys - Behavior	Baseline	7.86%	11.55%	11.12%		
	End-line	26.91%	24%	29.58%		
31) % of male references who often and sometimes make their adolescent girls absent from school to do household chores when compared to adolescent boys - Behavior	Baseline	5.76%	11.04%	6.66%		
	End-line	22.49%	13.19%	21.48%		
32) 46.14% of female references though most female references take their girls outs of school for household chores - EE	Baseline	8.04%	11.28%	10.01%		
	End-line	22.92%	25.23%	29.54%		
33) 43.65% of male references though most male references take their girls outs of school for household chores - EE	Baseline	6.64%	13.17%	7.00%		
	End-line	23.42%	14.46%	24.76%		
32) 46.14% of female references though most female references take their girls outs of school for household chores - EE	Baseline	40.97%	46.83%	51.58%		
	End-line	28.24%	24.23%	28.14%		
33) 43.65% of male references though most male references take their girls outs of school for household chores - EE	Baseline	36.83%	45.67%	48.81%		
	End-line	36.78%	24.71%	34.81%		

Abdiboru Project in Ethiopia

	Baseline	In summary: 4 out of 10 girls said that they get absent from school to do household chores going along with the findings from the qualitative study. Almost half of the references thought most references take their girls out of school for household chores	
	End-line	In summary: 2 out of 10 girls said that they get absent from school to do household chores going along with the findings from the qualitative study. Less than half of the references thought most references take their girls out of school for household chores	

Quantitative findings (Baseline + Further Analysis)					Base line Qualitative Findings	End line Qualitative Findings
Overall		Double-combination intervention arm (VSLA+CSC)	Triple-combination intervention arm (VSLA+CSC+SA A)	Control arm (Standard government interventions)		
1) Adolescent girl’s reported ideal age for marriage - Attitude	Baseline	17.36 ± 0.12	16.74 ± 0.13	16.86 ± 0.09	<p>Most adolescents thought that most other adolescent girls in the community would accept a marriage proposal at the perceived ideal age; which is around 15 years and most parents thought most other mothers in the community would accept a marriage proposal for their adolescent girls at the similar perceived ideal age.</p> <ul style="list-style-type: none"> ○ “She should marry at the age of 15” IDI_MIL ○ “In this community the ideal age is 15 years” IDI_HAG ○ “The community expects the adolescent girl to be married at the age of 15 if not then 16” IDI_UAG 	<p>Most adolescents thought that most other adolescent girls in the community would accept a marriage proposal at the perceived ideal age; which is around 15 years and above most parents thought most other mothers in the community would accept a marriage proposal for their adolescent girls fearing they might miss their chances.</p> <ul style="list-style-type: none"> ● “the actual practice of our community, they mostly say “it is better to let a girl marry” when her age approaches 15 years, or even mostly when their age passes over 13 years” FGD_FAG ● “They simply start considering marriage as girl’s age slightly passes 10 years” KII_Teacher
	End-line	17.82 ± 0.06	17.42 ± 0.07	17.38 ± 0.14		
2) Female reference’s reported ideal age for girls - Attitude	Baseline	17.88 ± 0.09	17.40 ± 0.12	17.51 ± 0.08		
	End-line	18.32 ± 0.06	17.85 ± 0.05	17.62 ± 0.07		
3) Male reference’s reported ideal age for girls - Attitude	Baseline	17.97 ± 0.09	17.49 ± 0.08	17.49 ± 0.07		
	End-line	18.29 ± 0.05	17.97 ± 0.06	17.76 ± 0.09		
4) Age at which female references said that community members expect them to marry off their adolescent girls - 18 -NE	Baseline	17.22 ± 0.13	16.76 ± 0.13	16.85 ± 0.08		
	End-line	17.291 ± 0.05	17.31 ± 0.13	17.51 ± 0.15		
5) Age at which Male references said that community members expect them to marry off their adolescent girls- NE	Baseline	17.22 ± 0.14	16.54 ± 0.13	16.61 ± 0.08		
	End-line	17.91 ± 0.06	17.22 ± 0.09	17.49 ± 0.09		
	Baseline	In summary: According to the qualitative study, the ideal age for girls marriage was 15 which was slightly less than the ages of 16 and 17 which was considered ideal by respondents of the quantitative survey				
	End-line	In summary: According to the qualitative study, the ideal age for girls marriage was 15 which was slightly less than the ages of 16 and 17 which was considered ideal by respondents of the quantitative survey				

Quantitative findings (Baseline + Further Analysis)					Base line Qualitative Findings	End line Qualitative Findings
Overall		Double-combination intervention arm (VSLA+CSC)	Triple-combination intervention arm (VSLA+CSC+SAA)	Control arm (Standard government interventions)		
6) Age at which Adolescent girls commonly marry – behavior	Baseline	14.59 ± 0.16	14.45 ± 0.11	14.89 ± 0.14	Girls commonly marry between the ages of 12 – 16 years. <ul style="list-style-type: none"> ○ “In this community girls marry at early age between the age of 12 and 15” IDI_UAG ○ “It is tradition of the community that girls marry at the ages between 12-15 years.” IDI_MAG 	Girls commonly marry between the age of 13 to 14 years. Older girls also get married easily, usually after divorce, but not as respected or appreciated as the younger ones <ul style="list-style-type: none"> • “The common age for marriage is about 15, 17 or 18 years, though the one whose age has arrived 20 or more might also marry but not the first choices” IDI_MAG • KII “Yes, she has the chance to marry after divorcing; a divorced girl in this area for example shall get married even within a week after divorcing.” • “The common age for marriage in our community is 13/14 Adolescent girls who are not incorporated in saving groups are unconscious and as a result they get married at these ages” IDI_MAG
	End-line	14.17 ± 0.22	14.47 ± 0.18	14.68 ± 0.13		
7) Age at which Adolescent girls said that most girls marry - EE	Baseline	16.38 ± 0.11	15.89 ± 0.12	16.19 ± 0.07		
	End-line	16.24 ± 0.08	16.09 ± 0.07	15.89 ± 0.12		
8) Age at which most female references marry off their adolescent girls - EE	Baseline	16.86 ± 0.13	16.23 ± 0.14	16.45 ± 0.07		
	End-line	16.69 ± 0.12	16.67 ± 0.09	16.74 ± 0.1		
9) Age at which most male references marry off their adolescent girls - EE	Baseline	16.82 ± 0.13	16.13 ± 0.13	16.35 ± 0.07		
	End-line	16.77 ± 0.08	16.69 ± 0.12	16.88 ± 0.09		
	Baseline	In summary: The age at marriage of 14 is consistent with results of the quantitative study which indicated a marriage age of 12 to 15				
	End-line	In summary: The age at marriage 14 is consistent with results of the quantitative study which indicated a marriage age of 13 to 17				

Quantitative findings (Baseline + Further Analysis)					Base line Qualitative Findings	End line Qualitative Findings
Overall		Double-combination intervention arm (VSLA+CSC)	Triple-combination intervention arm (VSLA+CSC+SAA)	Control arm (Standard government interventions)		
10) % of adolescent girls that agreed that they should have a say whether they want to marry or not – Attitude	Baseline	82.6%	82.81%	84.81%	<p>In the areas, according to the dominant marriage type ‘Jalaa-deemaa’ or ‘eloping with the chosen partner’, girls can decide on their own marriage (to marry or not to marry)</p> <ul style="list-style-type: none"> ○ They (girls) can decide, girls can decide about their marriage. They agree with the boy and go with him, even if her father refuse and annoyed, since it is her decision lastly he would also agree. ”IDI_MAG ○ “Adolescent girls have full says on their marriage. They do whatever they want here. Family respect her opinion all in all.” IDI_HAG ○ “But most of the adolescents decided by themselves about their marriage. It is similar for boys and girls. They have full 	<p>In the study area, intermediary facilitated ‘Jala dema’ is the common marriage type. girls decide by their own to elope with the boy</p> <ul style="list-style-type: none"> ● “The marital ceremony which has been practiced currently is by marriage facilitated by broker, when girls go for marriage through broker, they will mention as if they engaged in by their own interest and say “I went being interested and love to marry” FGD_NB husband ● “Girls decide to marry for themselves most of the time but sometimes family decide for her” IDI_MAG ● “Parents don’t have any information, they heard
	End-line	79.77%	91.04%	91.5%		
11) % of adolescent girls that agreed that parents expect them to have a say whether they want to marry or not - NE	Baseline	71.48%	70.23%	71.45%		
	End-line	72.36%	72.04%	69.27%		
12) % of adolescent girls that agreed that most adolescent girls have a say whether they want to marry or not - EE	Baseline	72.89%	70.97%	74.3%		
	End-line	72.46%	82.04%	73.95%		
13) % of adolescent girls that said that they had a say over whether they wanted to marry or not- Behavior	Baseline	73.92%	59.93%	71.85%		
	End-line	79.04%	77.38%	82.86%		

Abdiboru Project in Ethiopia

					right to decide about their marriage” IDI_MIL	after she is gone with somebody else Everything is finished outside” IDI_MAG
	Baseline	In summary: Majority of girls made the decision whether or not to marry, which was consistent with marriage practices explored in the qualitative findings				
	End-line	In summary: Majority of girls made the decision whether or not to marry, which was consistent with marriage practices explored in the qualitative findings but mediator involvement is high				

Quantitative findings (Baseline + Further Analysis)					Base line Qualitative Findings	End line Qualitative Findings
Overall		Double-combination intervention arm (VSLA+CSC)	Triple-combination intervention arm (VSLA+CSC+SAA)	Control arm (Standard government interventions)		
14) % of adolescent girls that agreed they should get to decide when to marry – Attitude	Baseline	86.43%	83.88%	83.48%	<p>Jalaa-deemaa’ offers girls and boys a fairly equal saying when and whom to marry, parents have limited or no say. Girls have a say as to the time choice of their marriage.</p> <p>“If she is determined and said I don’t marry by stopping my education, her parents would say that is her right.” IDI_MAG</p>	<p>In Jala Dema’ girls can decide on who, when and how to marry without parental influence. This may not always hold true when marriage intermediaries engaged</p> <ul style="list-style-type: none"> “these brokers drive them for marriage without the awareness or know how of her family, there are no fathers or mothers within this community who let their girls to marry; they encourage them to learn” IDI_MAG
	End-line	80.74%	90.23%	77.84%		
15) % of adolescent girls that agreed that parents expect them to choose when to marry – NE	Baseline	71.05%	68.04%	70.14%		
	End-line	69.11%	78.18%	61.77%		
16) % adolescent girls that agreed that most girls in the community choose when they would marry - EE	Baseline	77.19%	72.85%	73.98%		
	End-line	82.77%	85.13%	80.01%		
17) % of married adolescent girls that said that it was their intention to marry at the time of their marriage - Behavior	Baseline	69.92%	60.57%	65.58%		
	End-line	59.32%	67.93%	68.62%		
18) % of female references that said other female references let Adolescent girls mostly choose the timing of their marriage - EE	Baseline	67.33%	62.22%	64.95%		
	End-line	61.77%	77.68%	71.28%		
19) % of male references that said other male references let Adolescent girls mostly choose the timing of their marriage - EE	Baseline	72.26%	76.05%	78.32%		
	End-line	63.06%	79.32%	63.18%		
	Baseline	In summary: Consistent with the results of the qualitative study, majority of adolescent girls from the quantitative result said that girls get to decide when to marry				
	End-line	In summary: Consistent with the results of the qualitative study, majority of adolescent girls from the quantitative result said that girls get to decide when to marry but brokers played major role				

Quantitative findings (Baseline + Further Analysis)					Base line Qualitative Findings	End line Qualitative Findings
Overall		Double-combination intervention arm (VSLA+CSC)	Triple-combination intervention arm (VSLA+CSC+SAA)	Control arm (Standard government interventions)		
20) % of adolescent girls that agreed they should get to decide whom to marry – Attitude	Baseline	84.34%	84.35%	85.07%	Girls usually have a choice as to the boy/man they would marry. A girl and a boy usually decide marriage by themselves. (jala dema) “...the boy may wish to marry the girl; but if the girl doesn’t want to marry him, the only chance is the marriage will be canceled. No one will force her.” IDI_MIL	Most of adolescent mentioned they are able to decide whom, and when to marry but marriage brokers, religious leader and peers play avital role in their decision., fathers’ and community elders’ influence girls’ marriage decision indirectly. A father would refuse his girl’s formal engagement process if she goes out of parents’ guidance and use it as a means to control her agency. In addition to this, Elders would pressurize parents to give their girls for marriage at an early age through traditional influences and sanction parents if their girls marry through ‘Jala dema’, where girl’s agency is demonstrated partially or fully.
	End-line	81.5%	91.41%	80.4%		
21) % of adolescent girls that agreed that parents expect them to choose whom to marry – NE	Baseline	73.59%	67.95%	71.13%		
	End-line	71.94%	81.15%	66.1%		
22) % adolescent girls that agreed that most girls in the community choose whom they would marry - EE	Baseline	81.41%	76.02%	81.97%		
	End-line	83.19%	88.8%	79.63%		
23) 60.82% of married adolescent girls said they chose the person they married - Behavior	Baseline	73.09%	58.19%	60.14%		
	End-line	72.24%	68.7%	74.84%		
24) % of female references that said that other female references let Adolescent girls mostly choose the person they marry - EE	Baseline	68.67%.	65.88%	71.21%		
	End-line	62.43%	81.39%	62.88%		
25) % of male references that said that other male references let Adolescent girls mostly choose the person they marry - EE	Baseline	75.05%	82.25%	82.24%		

Abdiboru Project in Ethiopia

						<ul style="list-style-type: none"> • key informant “There are elders who are respected in the community. They negotiate to allow father his daughter for marriage. They chew khat and then confirm their acceptance of the marriage”. • Earlier it was decided by the fathers and mothers but currently we do nothing it is based on the interest of couples” IDI_MIL
	End-line	63.55%	81.52%	65.87%		
	Baseline	In summary: Consistent with the results of the qualitative study, majority of adolescent girls from the quantitative result said that girls get to decide whom to marry				
	End-line	In summary: Consistent with the results of the qualitative study, majority of adolescent girls from the quantitative result said that girls get to decide whom to marry but marriage brokers, religious leader and peers play avital role in their decision				

Quantitative findings (Baseline + Further Analysis)				Base line Qualitative Findings	End line Qualitative Findings	
Overall		Double-combination intervention arm (VSLA+CSC)	Triple-combination intervention combined arm (VSLA+CSC+SAA)			Control arm (Standard government interventions)
26) 9% of adolescent girls that agreed that they were pressured by their peers to marry - Behavior	Baseline	20.19%	11.83%	10.67%	Peers play the most influential role in girls marriage <ul style="list-style-type: none"> ○ “Peers pressure girls saying ‘you have to get married at right time, you see I am also married, we don’t see the importance of education, and you have to keep quiet and decide to marry. After marriage you can make your own personal business, we can construct house in the town, what is the benefit government employees got from education? They just earn 2000birr per month, but we can make 20,000birr from farming.” IDI_MAG ○ “My friend, who is at same age with me is married but I am not, she called me ‘HAFTUU’. This feels bad, very much. for this reason I also may decide to marry” IDI_UAG 	Peers play the most influential role in girls’ marriage <ul style="list-style-type: none"> ● “Peers who are in school advice their friends to learn and those who are married advise them to get married.” IDI_NB MIL ● They are the peers whom the girls are learning with; both married and unmarried ones would engage on the marriage brokering” IDI_MIL
	End-line	18.41%	17.49%	17.89%		
	Baseline	In summary: Peer pressure on marriage practices were identified in both of the studies conducted				
	End-line	In summary: Peer pressure on marriage practices were identified in both of the studies				

Abdiboru Project in Ethiopia

Quantitative findings (Baseline + Further Analysis)					Base line Qualitative Findings	End line Qualitative Findings
Overall		Double-combination intervention arm (VSLA+CSC)	Triple-combination intervention combined arm (VSLA+CSC+SAA)	Control arm (Standard government interventions)		
1) % of adolescent girls that think girls should have the same amount of food as boys – Attitude	Baseline	66.06%	65.54%	59.75%		Unlike the previous findings, girls can eat what is available in the household equally as their boy counterparts without restriction. According to the participants, gender-based allocation food order, amount and quality is a fading practice. If they are at home, every one eats together what is available. “now they all eat equally and the one in which males eat more was in the past it is not applicable now.” IDI_MAG
	End-line	72.26%	79.16%	76.65%		
2) % of adolescent girls that think community members expect girls to eat the same amount of food as boys - NE	Baseline	64.49%	61.77%	60.55%		
	End-line	71.41%	81.11%	76.21%		
a. % of adolescent girls that believe most girls in the community have the same amount of food as boys – EE	Baseline	59.33%	52.94%	52.92%	Girls eat whatever is left from the boys. Boys get the larger portions. ○ “With such order (males eating first) children, especially daughters do not get enough and best food, hence their development is affected from	
	End-line	68.16%	80.18%	71.21%		
	Baseline	28.26%	24.78%	27.33%		

Abdiboru Project in Ethiopia

b. % of adolescent girls that often eat the same amount of food as boys - Behavior	End-line	35.48%	54.78%	32.9%	shortage of food” KII_HO ○ “The amount of food given for male and female are different, male gets much food and females get smaller amount.” KII_HEW	
c. % of female references that often let their adolescent girls eat the same amount of food as boys – Behavior	Baseline	31.11%	38.88%	37.67%		
	End-line	43.17%	66.49%	42.65%		
d. % of male references that often let their adolescent girls eat the same amount of food as boys - Behavior	Baseline	31.95%	33.29%	34.17%		
	End-line	50.1%	66.33%	40.83%		
	Baseline	In summary: Attitude and Normative norm on food amount consumed by girls and boys were slightly better than the behavior and empirical norm of the quantitative study, was consistent with the findings of the qualitative study				
	End-line					

Quantitative findings (Baseline + Further Analysis)					Base line Qualitative Findings	End line Qualitative Findings
Overall		Double-combination intervention arm (VSLA+CSC)	Triple-combination intervention combined arm (VSLA+CSC+SAA)	Control arm (Standard government interventions)		
% of adolescent girls that think girls should eat at the same time as boys – Attitude	Baseline	76.93%	75.16%	69.83%	<p>Generally, eating patterns are typically the same in the study areas where males are served first with a larger portion, and females are served last with what is left. “...a woman eating before serving her husband is considered a bad woman, who does not care about her husband... people would say... she is killing him by providing him inadequate food...they insult her by saying... Do you know any other thing other than filling your stomach?... ”- mother-in-law, IDI, Chiro</p> <p>Eating order is generally males first, females last. Adolescent boys are served food (usually by their peer sisters) and the girls eat afterwards.</p> <p>o “If mother lets girls eat before boys, her husband, would be angry saying ‘she gave food for her daughters, and leave my son starved.’” IDI_MAG</p>	<p>unmarried adolescent girl “<i>Father commonly eats first but all families can eat together too. Just it is for the respect that food will be given for the father first. Next mother eats. She deserves respect also. The mother prepares food and she give for father, then she eats with her children. There is exceptions for pregnant women, ill family members, and physically week women who need special food.</i>”</p>
	End-line	78.43%	83.48%	80.78%		
% of adolescent girls that think others expect girls to eat at the same time as boys - NE	Baseline	67.82%	69.41%	65.73%		
	End-line	78.56%	85.06%	81.05%		
5) % of adolescent girls believe that most girls eat after adolescent boys have eaten – EE	Baseline	78.37%	79.07%	79.62%		
	End-line	70.99%	58.15%	60.09%		
% of adolescent girls that often eat at the same time as boys – Behavior	Baseline	28.83%	25.39%	24.52%		
	End-line	35.75%	54.92%	36.29%		
% of female references that often let their adolescent girls eat at the same time as boys– Behavior	Baseline	34.68%	43.09%	38.23%		
	End-line	49.89%	69.72%	46.47%		
% of male references that often let their adolescent	Baseline	32.38%	37.15%	33.15%		
	End-line	52.99%	68.84%	45.41%		

Abdiboru Project in Ethiopia

girls eat at the same time as boys– Behavior					○ “Following husband and wife or mother and father, boys eat and finally daughters who have been serving can eat.” IDI_UAG	
	Baseline	In summary: Attitude and Normative norm on eating disorder were slightly better than the behavior and empirical norm of the quantitative study, which was consistent with the findings of the qualitative study				
	End-line					

Quantitative findings (Baseline + Further Analysis)					Base line Qualitative Findings	End line Qualitative Findings
Overall				Control arm (Standard government interventions)		
) % of adolescent girls that think adolescent girls should have the same type of food as boys – Attitude	Baseline	95.2%	92.7%	92.77%	<p>Males get priority in getting the best quality of food in the household</p> <ul style="list-style-type: none"> “In every aspect, in everything priority is for males. Concerning food allocation at meal time, priority is for male. Male are given best quality food, while females are given small and least quality one, people say, ‘this is enough for girls’.” KII_WA 	<p>Husbands or fathers get the best quality of food in a household however there are situations in which all family members eat the same quality as there is no disparity during preparation and serving.</p> <p>“Husband should get best food. He should eat first because if the best food is finished, he can’t cook immediately.” FGD_UAG</p> <p>“In terms of quality food all family members would eat the same but the sequence is as it is. There is no food type which females would be restricted to eat.”</p> <p>IDI_MAG</p>
	End-line	93.53%	94.13%	92.13%		
0) % of adolescent girls that think that community members expect girls to eat the same type of food as boys - NE	Baseline	87.58%	87.14%	87.59%		
	End-line	87.45%	90.73%	86.25%		
1) % of adolescent girls that believe other girls in the community have the same type of food as boys – EE	Baseline	87.56%	85.45%	89.6%		
	End-line	88.63%	90.32%	83.22%		
2) % of adolescent girls that often eat the same type of food as boys – Behavior	Baseline	28.15%	24.58%	25.87%		
	End-line	58.63%	74.9%	56.06%		
% of female references that often let their adolescent girls eat the same type of food as boys – Behavior	Baseline	56.29%	63.64%	63.55%		
	End-line	65.92%	79.78%	57.78%		
4) % of male references that often let their adolescent girls eat the same type of food as boys– Behavior	Baseline	58.58%	64.88%	64.45%		
	End-line	66.22%	78.75%	56.43%		
	Baseline	In summary: Only a quarter of adolescent girls said that they eat the same type of food as boys which was consistent with the qualitative study results. Attitude, empirical and normative norm were deviant from the common triangulated findings and showed desirable results unlike the behavior				
	End-line					

Quantitative findings (Baseline + Further Analysis)					Base line Qualitative Findings	End line Qualitative Findings
Overall				Control arm (Standard government interventions)		
5) % of adolescent girls that agreed that wife and husband should commonly eat at the same time – Attitude	Baseline	88.93%	88.76%	85.57%	<p>Mostly, husband eats first, gets larger amount and best quality of food. Some of the respondents however, reported that husband and wife can eat together, as long as the wife is not busy with household chores at the time.</p> <ul style="list-style-type: none"> ○ “The father of the house eat first since he has power. Since he is the one who ‘drops sweat’ for family income, it is important to give him first.” IDI_UAG ○ In our culture, husband eats first, following husband other family members and mother eat food finally after all family members eat. Mother may eat with daughter or alone.” IDI_HAG ○ “If mother is not busy with making food and/or coffee for family, there 	<p>If family members are not eating together, mostly male community members are served first since they leave for farming or other non-domestic activities early. When husbands are away, girls wait their husbands and eat together unless their returning time is unknown. Sanctions for eating before their husbands has been diminishing over time.</p> <p>“She waits sometime after she finished cooking. Many mothers expect her to wait her husband before eating. Many people expect her to wait her husband before eating. But there is a change from the previous times. In the previous time if she eats before her husband, he will fight her. But today if she eats before him, he does not complain. FGD_MAG</p> <p>“Husband eats first for example early in the morning she takes out the cattle, fetch water then prepare food for her husband so that he goes to farm.” IDI_NMIL</p>
	End-line	89.87%	89.59%	85.64%		
6) % of adolescent girls that believed that other community members expect wives and husbands to eat at the same – NE	Baseline	80.16%	79.86%	78.83%		
	End-line	83.54%	88.16%	83.17%		
7) % of adolescent girls that believed that most adolescent girls usually eat together with their husbands – EE	Baseline	80.06%	82.00%	81.05%		
	End-line	84.38%	85.68%	79.75%		
8) % of adolescent girls that said it is often common for a wife and husband to eat at the same time – Behavior	Baseline	37.39%	47.34%	49.5%		
	End-line	53.58%	74.09%	49.49%		
% of female references said that it is often common for them to eat at the same with their husbands – Behavior	Baseline	38.05%	45.8%	45.9%		
	End-line	51.14%	66.78%	44.84%		
9) 47.97% of male references said that it is often common for them to eat at the same with their wives – Behavior	Baseline	43.14%	52.42%	46.59%		
	End-line	55.06%	68.32%	44.78%		

Abdiboru Project in Ethiopia

					no way to have food with her husband but if she is free and doesn't have household work she can eat with her husband." IDI_UAG	
	Baseline	In summary: Half of adolescent girls and references said that wives and husbands eat at the same time which was consistent with the qualitative study results, although there were conditions for them eating together				
	End-line					

Quantitative findings (Baseline + Further Analysis)						
Overall		Double-combination intervention arm (VSLA+CSC)	Triple-combination intervention combined arm (VSLA+CSC+SA A)	Control arm (Standard government interventions)		
1) The mean \pm SD score of the 13 favorable (positive) education norm variables out of a total core of 26 is 10.19 ± 5.51	Baseline	10.74 ± 5.47	10.12 ± 5.59	9.64 ± 5.41		
	End-line					
2) The mean score of the 16 favorable (positive) marriage norm variables out of a total core of 32 is 16.29 ± 7.15	Baseline	16.98 ± 7.19	15.92 ± 7.01	15.89 ± 7.21		
	End-line					
3) The mean score of the 22 favorable (positive) nutrition norm variables out of a total core of 44 is 17.77 ± 7.68	Baseline	17.77 ± 7.72	17.73 ± 7.58	17.83 ± 7.75		
	End-line					
4) The mean score of the 19 Girls' agency variables out of a total core of 38 is 13.23 ± 4.65	Baseline	13.25 ± 4.32	13.55 ± 4.97	12.86 ± 4.63		
	End-line					
In summary: There is no major differences in social norms and agency scores across the three intervention areas.						