Mid - Term Evaluation of the MUSKOKA Project

(Ethiopia)

Final Report

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List of acronyms

ANC	Antenatal Care
CF	Community Facilitator
CIDA	Canadian International Development Agency
CSB	Corn-Soya Blend
FANTA	Food and Nutrition Technical Assistance
FGD	Focus Group discussion
GO	Governmental Organization/Office
HDA	Health Development Army
HEW	Health Extension Worker
HH	Household
IYCF	Infant and Young Child Feeding
KII	Key informant Interview
MAD	Minimum acceptable diet
M2M	Mother- to- Mother
MCH	Maternal and Child Health
MOWCA	Ministry of Women and Children's Affairs
NGO	Non-Governmental Organization
PCU	Project Coordination Unit
PNC	Postnatal Care
PPS	Probability Proportional to Size
VSLA	Village Saving Loan Association
WDA	Woman Development Army
WDD -S	Women Dietary Diversity Score
WHO	World Health Organization

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The Mid-Term Evaluation Team,
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Executive Summary

This is the report of a mid-term evaluation the MUSKOKA initiative for maternal, newborn and child healthcare has been implementing in Haromaya and Kurfachele woredas of East Hararghe zone and Tullo and Doba woredas of West Hararghe zone of Oromia regional state. The project is funded by the Canadian Department of Foreign Affairs, Trade and Development (DFATD). Mothers of children 0 to 23.9 months were the primary respondednts of the quantitative survey. The qualitative study undertook key informant interviews with Woreda Health officials, Kebele leaders, Kebele Women's Affairs focal person, HEWs and HDAs, and FGDs with M2M, mother-in-laws and men group. The data collection took place between August 17 – 25, 2013. Data was collected from 1000 mothers of children 0 to 23.9 months out of which 400 were mothers of children 0 to 5.9 months and 600 of them were mothers of children 6 to 23.9 months.

The major findings were:

- The knowledge of mothers on timing of initiation of breastfeeding that it should be immediately after birth, on the duration of exclusive breastfeeding and the continuation of breastfeeding for two years and beyond was very high which was at 97.0%, 94.7% and 94.2% respectively. However, clear differences in knowledge exist among women, their spouses, and their mothers-in-law. When asked about the four most common myths and misconceptions about infant and young child feeding, 26.3% of mothers believe that plain water should be provided to a child as soon as it is born, while 25.9% of husbands and 41.1% of mothers-in-laws reported sharing this belief. Similarly, 12.4% of mother believe butter should be provided to a newly born baby, while 14.7% of husbands and 30.1% of mothers-in-law reported this belief.

- The practice of key breastfeeding behaviours, i.e. early initiation of breastfeeding, exclusive breastfeeding rate, and children ever breastfed was also very high which was 88.4%, 83.5% and 97.6% respectively.

- Among mothers with children 6 to 8.9 months, 78.6% reported that complementary feeding was initiated in a timely manner. This finding was further validated through FGDs, as most participants narrated the proper timing for introducing complementary foods and that its consistency should be semi-solid.

- The percentage of children 6 to 23.9 months who consumed the minimum diversified diet in the 24 hours prior to interview was 47.3%. However, it was only 6.4% who consumed flesh foods.

- The mean of types of food groups consumed by women was 6.03 out of the 12 food groups.

- Most (88.9%) of the women in the study areas consumed four or more of the food groups, a sign that their diets are diversified enough in terms of micro- and macro-nutrients composition, in the 24 hours prior to interview. The four food groups that were most frequently consumed by women were: cereals; oil/fats; legumes/nuts and vegetables.

- Most of the mothers (91.1% and 91.3%) reported that HEWs and health workers provided information about breastfeeding/feeding practices for their newborn child and about maternal nutrition respectively. This high turn out for ANC ,as explained by the FGD particpants, was attributed to a number of factors, i.e. ownership of the project by the Woreda Health Offices, provision of capacity building trainings by the project, creation of community awareness on maternal and child health services, CARE's provision of material support to health service providers and community members, establishment of a referral linkage system, availability of transportation (ambulance) and formation of Village Savings Loan Association (VSLA) groups. Availability and use of community score-card which improved accountability of the service providers and the promotion of gender equity in knowledge, and decision making by the project have also contributed for the improvement.

- More than half of mothers reported that joint decision-making by her and her husband was made to access health services when she was sick and when the child got sick, 59.8% and 64.4% respectively.

- The decision on how often the baby should be breastfed is most often made by the mother alone, reported by 78.3% of women.

- Most (97.1%) of the mothers of children 0 to 23.9 months have used soap or ash in their households. On a scale from never to sometimes to always, 83.7% of mothers with children 0-23.9 months reported always washing their hands before eating, 83.2% always before preparing food, 82.3% always after using the tolet, and 87.8% always after changing the baby's diaper. Furthermore, 70.1% of women with children 0 to 23 months reported their child either used a toilet or that their feces were sanitarliy diposed off.

- FGD participants have explained that the project has enabled them to understand the inter-relationship between hygiene & sanitation and disease.

- Both the men and women in the community have attributed the change they observed in terms of personal hygiene and environmental sanitation to the MUSKOKA project. They also witnessed that children are getting healthier in their community which has resulted in saving the money they used to spend for health care.

The key recommendations are:

General recommendations:

- The knowledge and practice of optimal breastfeeding behaviours by mothers needs to be maintained through strengthening the existing M2M groups. Addressing those who could influence the behaviours, such as husbands and mother-in-laws, is critical in addition to those who practice the behaviours i.e., the mothers.

- Complementary feeding, especially the consumption of flesh foods, remains to be a challenge for it is not only the behaviours that play role but also the economic capacity of the household. The VSLAs and the M2M groups can be used to suppport increased access to flesh foods through improved financial status and/or household production of meat.

- The high women dietary diversity score that is observed in the study area is very encouraging and needs to be maintained. Women need to be advised to deliberately plan to consume diversified foods specially during pregnancy and lactation.

- The health seeking behaviour of mothers, both for their children and for themselves, have significantly improved. This improvement needs to be embedded as a norm within the community so as to continue after the phasing out of the project. Men's involvement in each and every health activitiy is crucial for the gender inequality is likely to remain in the coming years.

Specific recommendations:

- Women in Haromaya woreda strongly urged to have an ambulance for labouring mothers, to reduce maternal morbidity and even mortality.

- M2M groups suggested they be provided ith additional training and education to enhance their economic capacities. For instance, they suggested seedlings to grow vegetables, even demonstration on how best to produce these things.

- Male involvement should be considered in all aspects of the project, as this is critical to the success of the project.

- Currently, the review meetings and supervision tookplace semi-annually and the frequency need to be increased to quarterly for better interaction. Aligning with the regular quarterly programs is one solution rather than the current biannualmeeting.

- Community trainings should be given in the kebeles, as this will reduce any expectation of perdiems by the participants.

- There is a need for support of supplies and utensils for food preparation demo centers, especially in economically weaker kebeles.

- Coordination of activities, for example with women's affair intervention and others, rather than operating independently and simultaneously on the same kebele to avoid duplication of efforts.

- The focus on sanitation component of the project should be strengthened and the coverage needs to be increased from its current status specially in Haromaya woreda.

- Aligning community training schedules with that of the woreda administration's schedule, as there were overlap of activities in the past.

- It is important to bring teachers, agricultural DAs, league members and other grass root structures on board and provide them trainings on MUSKOKA's packages, as this will enhance sustainability of outcomes and effectiveness of the project implementation. It would also be good if the project extends its support for the WHO in repair of office equipment and fill some gaps such as in supply of stationery.

- Apart from the current discussions on health, nutrition and sanitation issues, strengthen M2M groups on SAA.

- In order to standardize the trainings that are being cascaded, it would be very important to have a clear training manual on gender issues too, as it is one of the key focus areas of the project.

- Revisit overlapping trainings that target same groups. For instance, the training topics on "gender, BF and CF" overlap with the training on "Gender issues and maternal and child nutrition". Delivering these trainings for same groups in different times feels like a waste of time, money and energy, as their contents are not different per se.

The summary of key findings related to the MUSKOKA Project indicators is annexed to this report.

1. Introduction

With support from the Canadian Department of Foreign Affairs, Trade and Development (DFATD now DFADT), MUSKOKA is a three year and half initiative implemented through CARE which focuses on improving maternal, newborn, child health and malnutrition in rural areas of Ethiopia where chronic malnutrition rates are high. The ultimate outcome of the project is to improve the nutritional status of the most nutritionally vulnerable groups, i.e. girls and boys under two years and pregnant and lactating women living in selected Kebeles of Doba and Tullo Woredas of West Hararghe zone and Haromaya and Kurfachele Woredas of East Hararghe zones of Oromia region.

Using the existing government structure and the Women's Development Armies (WDA), MUSKOKA initiative uses an approach commonly referred to as mother-to-mother groups (M2Ms). Through these M2Ms, an adapted participatory approach called Social Analysis and Action (SAA) has been introduced to ensure recurring creative and participary dialogue about key nutrition, health messages, social norms and existing practices. These social norms and existing practices may serve as enablers or barriers to adopting or continuing optimal practices and achieving personal, household, and community wide goals.

The following four intermediate ouctomes are used to monitor the progress of the project's ultimate goal:

1. Improved child feeding practices by mothers and caregivers for children under two years of age;
2. Equal increased consumption of healthy and nutritious foods by men, women, boys and girls;
3. Increased use of nutrition and health services by women, girls and boys;
4. Improved hygiene practice by men, women, boys and girls to prevent diarrhea among boys, girls, and pregnant women.

The project utilizes multi-faceted strategies to build local capacity and ensure ownership of the program in order to achieve its objectives and contribute toward it's overall goal. These include:

- Building local knowledge and skills in child feeding practices;
- Increasing knowledge and access to a more a nutritious and diverse diet;
- Strengthening government health services and improving access to services, and
- Improving household hygiene and sanitation.

At least 5,440 girls and boys under two years, 500 pregnant and lactating women and 18,945 women in reproductive age group in the selected kebeles are expected to directly benefit from the project. All girls and boys under two years of age and all pregnant and lactating women in selected woredas of East and West Hararghe are considered to be indirect beneficiaries. The main objective of the mid-term evaluation was to assess the current situation through selected

indicators that measure the four intermediate outcomes and to identify areas for improvement in the upcoming second half of the life of the project.

Accordingly, the mid-term evaluation looks into knowledge and practices as well as enablers and barriers to achieving optimal practices at the household and community level. Specifically, it explores:

- Maternal and child feeding practices;
- Attitudes and beliefs affecting these practices;
- The support women are getting (or the lackthereof) to independently and positively make decisions to improve maternal and chlid nutrition practices;
- Use and access to health care services;
- How women are leading in decisions that could prevent & provide home remedy for childhood diarrhoea and improve hygienic practices;
- To what extent the project may have influenced and could better influence the availability and consumption of nutritious and diverse food to households with children under two years of age.

2. Methodology

Mothers or caretakers of young children 0 to 23.9 months, pregnant women and lactating mothers were the primary focus of the study. Other key community actors and health care providers including the Woreda Health Offices, Woreda Ministry of Women and Children Affairs (MOWCA), Health Extension Supervisors, HEWs and Health Development Armies (HDA) were included to get insight and broader understanding of the issues and capacity for support.

2.1 Mid-term Review Design

In this study, both primary and secondary data were collected. Primary data were obtained through combination of qualitative and quantitative data collection techniques. The secondary data were gathered through project document reviews such as project proposal, baseline survey, project progress reports and other diagnostic studies as available.

The following primary data collection methods were used:

1. Community level Focus Group Discussions (FGD) with men, women and mother-in-laws.

2. In-depth Key Informants Interviews (KII) from different service providers' at various level (community institutions, woreda health office, woreda women's affairs, health extension workers, health development army groups, and project staff) and

3. A household level quantitative questionnaire with an observation checklist embedded as the final section.

2.2 Survey Area and Sample Size

2.2.1 Quantitative

The household level survey was conducted in the four implementation woredas of the MUSKOKA project, Tullo and DobaWoredas of West Hararghe zone and Haromaya and Kurfachele woredas of East Hararghe zone of Oromia region. Mothers of children 0 to 23.9 months were the primary respondents for capturing data on maternal and child health and nutrition for the specific project indicators to be included in this midterm evaluation. For the household level survey the following standard sampling formula was used to determine the appropriate number of mothers and children 0 to 23.9 month of age.

$$n = \frac{D * (Z_{1-a} + Z_{1-b})^2 * [p_1 (1 - p_1) + p_2 (1 - p_2)]}{(p_2 - p_1)^2}$$

n = required sample size at program level
D = design effect of 1.5 ;
p1 = the value of the key indicator at baseline (or a proxy value), expressed as a proportion between 0 and 1;
p2 = the planned midterm target value of the key indicator at the midterm evaluation, expressed as a proportion between 0 and 1;
Z1-a = the z-score corresponding to the desired confidence level (typically, set a = .05, thus Z0.95 = 1.645); and
Z1-b = the z-score corresponding to the desired power level (typically, set b = 0.8, thus Z.80= 0.84

Using this sampling formula, 550 children 0-23 months were required considering the proportion of children 0-23 months put to the breast within 1 hour of birth, and 847 mothers were required to be covered by the survey considering the proportion of women aged 15-49 years with a live birth who received ANC from a skilled health provider at least four times during pregnancy. However, in order to make the sampling approach compatible with the baseline survey, while meeting the sample size requirements for the these indicators, 1,000 mothers of reproductive age (15-49) with their biological children of age from 0-23 were covered in the current study(See Table 1) for the distribution of the sample by age brackets disaggregated by sex.)

Table 1. Sample Size, by age group and disaggregated by sex

Agein months	# Girls	# Boys	Total Boys & Girls
0-5	185	184	369
6-11	118	121	239
12-24	207	174	381
Total(0-23.9)	510	479	989

Kebele Sampling

A total of 28 kebeles were covered by the household survey. This means 7 kebeles were sampled per woreda using PPS method. At the same time 36 women were covered per kebele, 14 of which with children 0 to 5.9 months and 22 were with children 6 to 23.9 months. This

makes our sampling 28 X 36 (See Table 2 for the distribution of the sample by geographical unit disaggregated by required age brackets.)

Table 2. Sample size, by age group in selected kebeles of intervention area

Intervention Area (Woreda)	Intervention Area (Kebele)	# of all children (0-<24 months)	# of children (0-5 months)	# of children (6-<24 months)
Tullo	90	44	110	244
Doba	99	68	88	255
KurfaChele	90	49	109	248
Haramaya	91	78	81	250
Total	370	239	388	997

Selection Women and Children

As indicated above, the household survey selected and interviewed 36 women (mothers) of reproductive age per kebele who are biological mothers of children 0 to 23.9 months. These women are the reference units for the survey and were identified by supervisors and enumerators using the so called "bottle spinning method". All questions related to child health and nutrition in the survey were directed to these mothers.

Sampling Technique

For the household level survey, the first sampling units (kebeles) were randomly selected using PPS and geographical accessibility considering the fact that the data collection took place during the rainy season. The secondary sampling units were households. When the team arrived in the kebele, they contacted the local authorities for the list of households. If there was no such list, the interviewers started from the first household with children 0 to 23.9 months. It was very challenging specially to get the required number of children under 6 months of age in a kebele and the team has to visit the entire kebele to get this number.

2.2.2 Qualitative

The kebeles where the FGDs are going to be conducted were selected considering geographical accessibility as the evaluation was conducted in rainy season. Once the Kebeles were identified, the FGD participants were selected in collaboration with the community facilitator of CARE and the Kebele administration. The key informants, however, were pre-identified during the planning stage. Verbal consent was sought both from the key informants as well as FGD participants prior to their interviews.

2.3 Tools

2.3.1 Quantitative

The following are the indicators selected to assess in the quantitative household survey. Additional areas were explored and are reported within.

Outcome 1:

- Timely initiation of Breastfeeding: Proportion of boy and girl children 0-23 months put to the breast within 1 hour of birth
- Exclusive Breastfeeding: Proportion of children 0-5 months receiving only breast milk
- Minimum Acceptable Diet: Proportion of boy and girl children 6-23 months with minimum acceptable diet
- Knowledge of three specific IYCF practices
- Women's attitudinal beliefs about the four most common IYCF misconceptions
- Women's perception of their spouses attitudinal beliefs about the four most common IYCF misconceptions
- Women's perception of their mother-in-laws' attitudinal beliefs about the four most common IYCF misconceptions

Outcome 2:

- Minimum Dietary Diversity: Proportionn of boy and girl children 6-23 months who receive food from 4 or more food groups in the past 24 hours
- Minimum Meal Frequency: Proportion of boy and girl children 6-23 months who receive solid, semi-solid or soft foods (including milk feeds for non-breast children) the minimum number of times or more
- Maternal Dietary Diversity: Proportion of women receiving 4+ food groups

Outcome 3:

- Proportion of women aged 15 - 49 years with a live birth who received nutrition counseling during their last pregnancy
- Proportion of women aged 15 - 49 who make decisions about what to do when they become sick/when their child becomes sick

Outcome 4:

- Proportion of women who practice hand washing at a minimum of 3 out of the 4 critical times (before preparing food, before eating, after toilet use, and after changing a baby)
- Proportion of women who practice hand washing at a minimum of 2 out of the 4 critical times (before eating and after toilet use)

2.3.2 Qualitative

A total of 12 of 4 types of focus group discussions and 28 of 7 types of key informant interviews were conducted in the four Woredas. Table 3 describes the purpose of the qualitative assessment in great detail.

Table 3: Purpose and type of qualitative methods

		Purpose	No. per Woreda
FGD Community	M2M group	The discussion with these group focused on infant and young child feeding practices; women's control over breastfeeding, mobility, time and health care access; Household budget management, farm management, land; successes and challenges	1
	Mother-in-law		1
	Men		1
KII Government	Woreda Health office head	These health service providers and Kebele administration staff were interviewed to get insight of the government's view on the progress of implementation, changes they hope to see in response to the project, project's added value to their communities, challenges to implementation, challenges to achieving changes	1
	Woreda MCH/Nutrition focal person		1
	Health Extension Worker		1
	Kebele leader (Manager/Chairman)		1
	Kebele women's affair	The women affairs informant was interviewed in order to see progress of implementation specially on Gender and women empowerment, factors influenced the changes, project added values & challenges	1
KII CARE staff	Community facilitators	MUSKOKA project staff were interviewed as Key Informant in order to obtain insider's account of the project implementation process, key project achievements, challenges, and ways forward	1
	Team leader		1

2.4 Training of Enumerators & Evaluation Schedule

2.4.1 Quantitative

A total of 20 enumerators and 4 supervisors were used for the household data collection. All enumerators were recruited in consultation with CARE field staff. The consultants checked each candidate's qualifications, their data collection experiences, and how conversant they were in the Oromiffa language. The 4 supervisors were all conversant in Oromiffa and were recruited from Addis Ababa and Adama. They have extensive experience of supervising data collection in the field.

Following the recruitment, two days of training was given to the enumerators and supervisors in Chiro, the capital of West Hararghe zone. The first day of training was conducted in a classroom and fully dedicated to discussing each and every question one by one. On the morning of the second day, all the team went out to three nearby rural kebeles which were pre-arranged by CARE field staff, and each enumerator were able to interview a minimum of two mothers with children under two years of age. In the afternoon, discussions were conducted page by page where different issues were clarified based on the field experience.

2.4.1 Qualitative

The qualitative team was composed of 4 professionals with qualification of a minimum of Master's degree. They all have the experience of facilitating FGDs. The qualitative team members were recruited and trained in Addis Ababa. During the training, interview techniques and the methods of analysis were standardized. Emphasis has been given to the importance of triangulating the information that has been collected at woreda and program level.

2.5 Data Collection

Data collection began on the 17th of August in West Hararghe and the following day in East Hararghe. Both the quantitative and qualitative teams completed all data collection by the 25th of August.

2.5.1 Quantitative

In order to ensure quality, each quantitative enumerator was responsible to interview only 7 mothers a day. The supervisors were responsible for the day-to-day checking of the questionnaires for completeness and consistency. Finding children under two years of age in general and those of under 6 months in particular was the biggest challenge. The relative increase in the use of family planning methods these days have made finding infants and young children more challenging.

2.5.2 Qualitative

The qualitative team visits for data collection were carefully planned with the involvement of CARE field staff. A total of 3 FGDs and 7 KIIs were conducted per woreda. The FGDs were conducted by two facilitators, where one was an interviewer while the other was recording. The KIIs, however, were conducted by individual facilitators. Every discussion was tape recorded and local translators were used where necessary.

2.6 Data Management and Analysis

2.6.1 Quantitative

The household level data entry format was developed as per the codes used for questionnaire design in CSPro 4.1 with inbuilt data checking system such as skip and range checks. Data entry clerks were oriented on the questionnaire and the entry format to make the process of data transfer as efficient as possible.

Once the household level data collection was complete the questionnaires were post coded for any response specified as 'other' and checked for consistency at the office level. A system of random spot check was employed while the responses are keyed to determine whether each member of the team is continuing to operate to the required level.

Rigorous data validity and consistency checks were parts of the data cleaning exercises for the household level data before the analysis. The statistician in the study team also ran frequency tables to capture any irregularities in the data and checked against the hardcopies of the questionnaires. Once the cleaning was completed the household data analysis was done using Statistical Package for Social Scientists (SPSS) version 17.0. As a preliminary data analysis, the use of frequency tables, percentages and cross tabulation relevant to nominal as well as ordinal type of measurements was employed.

2.6.2 Qualitative

The qualitative data was transcribed and translated. Triangulation and grouping of commonalities were used in the analysis of the qualitative data. The unit of analysis varies depending on the method used. In the FGDs, the type of the participants were the unit of analysis while in the KIIs, individual opinions were also given due consideration.

2.7 Limitations

- In the household surveys, 24 hour recall method was used in calculating some of the key indicators like exclusive breastfeeding rate, minimum dietary diversity…etc. The method might overestimate the survey findings as the practice might be different in the coming days and weeks.

- In the FGDs, different views had been reflected by the individual participants. Views that were shared by the great majority were given due attention while consideration has also been given to individual opinions.

3. Results and Discussions

Socio-demographic Characteristics of the Study Participants

Social, economic and demographic characteristics of households are believed to affect the nutritional status of women and children. Hence, some important demographic and socio-economic questions have been included in the study and information assessed from mothers of children 0 to 23.9 months.

The study covered 1,000 mothers of children 0 to 23.9 months. Table 4 and 5 below show the socio-demographic characteristics of the mothers. Of all the respondents, the majority of the women were between 20 and 25 years old, most of them (98.6%) were married and live with the husband or partner in 98% of the cases, 29.2% work outside the home, 24.3% can read and write in any language and 3% reported that they are currently pregnant.

Table4: Social, marital and education status of mothers

		n=1000	Percent
Women by age group	15 - 19	75	7.6
	20 - 25	449	45.2
	26 - 29	140	14.1
	30 - 35	278	28.0
	36 - 39	39	3.9
	40 - 45	12	1.2
Marital status	Married	986	99.0
	Single	2	.1
	Divorced	4	.3
	Separated	5	.4
	Widowed	3	.2
Read and write in any language	No	757	76.0
	Yes	243	24.0
Mother attended school	No	728	72.8
	Yes	272	27.2
Highest grade completed	Primary	242	89.6
	Secondary	22	8.1
	Post - secondary	6	2.2
Husband/partner live in the house	No	20	2
	Yes	959	98
Currently pregnant	No	967	97.0
	Yes	30	3.0

As indicated in Table 5 below, nearly a third (29.2%) of the mothers work outside their home in addition to their engagement in different household activities, out of which 40% receive

payment in cash or in kind. This payment most likely associte with the participation the households in a social protection program called Productive Safety Net meant and/or local labour works.

Table5: Working status and kind of work done by mothers

		n=1000	Percent
Work outside the household	No	705	70.8
	Yes	291	29.2
Receive wages or in kind payment	No	166	60.1
	Yes	110	39.9
Kind of work the mothers' do	House wife	119	39.1
	Casual laborers	3	1.0
	Crop production	82	27.0
	Petty trading	84	27.6
	Livestock rearing	8	2.6
	Formally employed	5	1.6
	Other	3	1.0

Table 6, below, describes the demographic characteristics of the children included in the study. As indicated in the table, the sex composition of the sampled children was nearly equal and more than half (56.5%) of them had vaccination cards. The age of children for analysis was taken from the vaccination care for those who have and mothers reports for those who do not have vaccination card.

Table 6: Age and sex composition of the sampled children

		n=1000	Percent
Sex	Male	510	51.5
	Female	480	48.5
Age category	0 to 5 months	369	37.3
	6 to 23 months	620	62.7
Child with vaccination card	No	415	43.5
	Yes	540	56.5

3.1 Outcome 1: Improved under 2 child feeding practices by mothers and caregivers

3.1.1 Quantitative Outcome 1

3.1.1.1 Knowledge of infant feeding practices

Adequate infant and child nutrition is the outcome of appropriate food and health inputs mediated through positive child care practices. This care reduces the level of malnutrition by preventing the occurrence of infectious diseases and nutritional deficiency. According to the Lancet's framework for optimal fetal and child nutrition and development, care giving practices like optimal breastfeeding, optimal complementary feeding with nutrient rich foods, parental stimulation and low burden of infectious diseases are vital components toward improving and promoting child health, growth, cognitive development, and survival. For optimal practices, the knowledge of the mother/caretaker is substantial which will result in improvements in physical growth and mental development that leads to enhanced productivity and increased economic gains and inevitable and sizable reductions in poverty. As indicated in Table 7, 97% of mothers reported newborn babies should be put to the breast immediately or within the first hour after birth, 94.7% reported the newborn babies should be exclusively breastfed for the first 6 months and 94.2% reported breastfeeding should continue for 2 years and beyond.

Table7: Knowledge of the mother on breastfeeding

		n=1000	Percent
Newborn baby should be put to the breast immediately after birth	No	30	3.0
	Yes	956	97.0
Duration of Exclusive Breastfeeding	Not 6 months	53	5.3
	6 Months	947	94.7
Duration of continuation of breastfeeding	Less than 2 years	58	5.8
	2 years and beyond	942	94.2

3.1.1.2 Knowledge and attitudinal beliefs about infant and young child feeding practices

Mothers were asked about the four most common beliefs, myths and misconceptions about infant and young child feeding to assess their knowledge and attitude as well as that of their husbands and mother-in-laws. Accordingly, 40.8% and 43.6% of mothers strongly disagree that

plain water and butter should not be provided to the newborn baby respectively. Similarly, providing rice liquid or soup or fenugreek water and feeding a child under 6 months with bottle were strongly disagreed by 44.4% and 46% of mothers respectively.The difference in what mothers believe and what they perceive their mother-in-laws to believe was most dramatic, but a difference was also present in what mothers believe and what they perceive their spouse to believe (Table 8).

Table 8: Knowledge and attitude of the mother, her husband and mother-in-law

		Mothers	Husband	Mother-in-laws
Plain water should be provided to a child as soon as it is born	Strongly agree	10.7	9.3	11.9
	Agree	12.5	10.7	20.6
	Unsure	3.1	5.9	8.6
	Disagree	32.9	44.1	36.3
	Strongly Disagree	40.8	30.0	22.5
Butter should be provided to a newly born baby	Strongly agree	2.1	1.8	4.7
	Agree	6.9	6.7	15.8
	Unsure	3.4	6.2	9.6
	Disagree	43.9	52.9	45.4
	Strongly Disagree	43.6	32.3	24.5
A small amount of rice liquid or soup or fenugreek water should be provided to a newly born baby	Strongly agree	.9	.6	2.5
	Agree	8.0	7.8	15.9
	Unsure	4.4	7.0	10.9
	Disagree	42.3	51.5	44.2
	Strongly Disagree	44.4	33.1	26.5
It is okay to feed a child under six months with a bottle	Strongly agree	1.5	.9	3.3
	Agree	6.8	8.1	15.1
	Unsure	4.0	6.3	10.3
	Disagree	41.7	49.7	44.5
	Strongly Disagree	46.0	34.9	26.8

3.1.1.3 IYCF Practices: Timely Initiation, Exclusive Breastfeeding, Timely and Complementary Feeding

Breastfeeding provides substantial benefits to the baby and the mother. It meets all the nutritional needs of the baby in the first 6 months of life, and has substantial contribution to the caloric needs of the infant in the second half of the first year. Moreover, it protects the baby against gastro-intestinal infections, enhances motor and psychosocial development as well as boosts the development of teeth and facial muscles.

As indicated in Figure 1, the percentage of children who were reportedly ever breastfed was 97.6%. Adequate nutrition during infancy is essential for lifelong health and wellbeing. Infants

should be exclusively breastfed for the first six months of life to achieve optimal growth, development and health. Also as indicated in Figure 1, 83.5% of infant were exclusively breastfed in the first 6 months of life. Putting the baby to the breast immediately after birth, even before the placenta is expelled, helps to stimulate production of milk, and controls post-partum bleeding in the mother[1]. As indicated in Figure 1, 88.4% of mothers initiated breastfeeding within in the first hour following delivery. During the survey, 95.8% of the mothers were still breastfeeding and 99.4% have at some point breastfed their child in the day prior to interview.

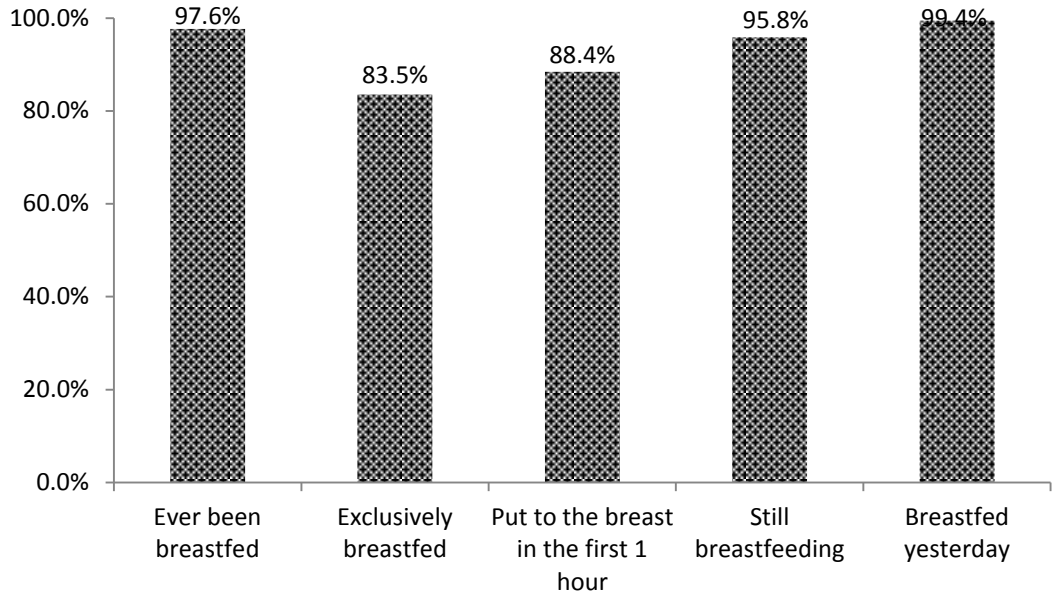

Figure 1: Breastfeeding practices by mothers of children 0 to 23.9 months

In order to meet their evolving nutritional requirements, infants should receive nutritionally adequate and safe complementary foods at the age of 6 months, while continuing to breastfeed for up to two years or more. There were 84 children within the age range of 6 to 8 months in the study sample and timely introduction of complementary foods has been calculated for this age group. Accordingly, 78.6% of these children have been introduced to some kind of semi-solid or soft foods.

Use of bottles with nipples is not recommended at any age. As indicated in Figure 2 below, 11% of children 0 to 23.9 months were fed using a bottle with a nipple, a practice that is discouraged, as it increases the child's risk of illness and reduces the child's interest in breastfeeding, with consequent potential decline in milk production.

[1] National Strategy for Infant and Young Child Feeding, MoH April 2004

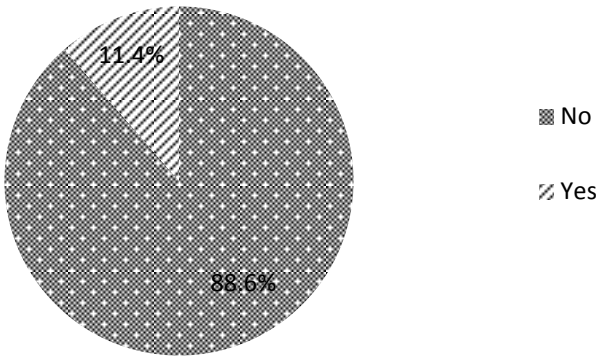

Figure 2: Bottle feeding practices by mothers of children 0 to 23.9 months

3.1.2 Qualitative Outcome 1

3.1.2.1 Breastfeeding

FGD participants, both men and women, also explained that they have been educated and that infants should be exclusively breastfed in the first six months of life. They also indicated that breastmilk is nutritionally sufficient and other food items are not easily digestible and bring about abdominal discomfort during that period of life. They further reported practicing what they were taught. FGD participant mother from Tullo Woreda of West Hararghe Zone explained as follows:

> *"The reason we exclusively breast-feed babies for 6 months is that we have learned that it's only breast milk that should be given and nothing else. There are different vitamins found in the breast milk and we have learned nothing else should be given other than that but after 6 months we feed them different useful foods."*

The knowledge on exclusive breastfeeding in the first six month of life was uniformly high across the different FGD participants. One of the men in the FGD in Haromaya Woreda of East Haraghe Zone said:

> *"Until 6 months of age, the mother feeds the infant only breastmilk at least 10 times a day. Breastmilk is sufficient till 6 months and we start biscuit, "injera" with porrage (shiro) and fenugreek juice at 6 month. After the initiation of the 1 to 5 women's networking groups, the culture of giving different types of foods for the baby to swallow immediately after birth has been avoided."*[2]

[2] 1 to 5 women's networking groups were formed by the government and being used as entry point for knowledge promotion by MUSKOKA project. It is also known as mother-to-mother (M2M) by MUSKOKA Project.

The abandoning of pre-lacteal feeds such as fenugreek or butter has been forwarded as one of the major achievemnts since the initiation of the M2M groups. An FGD participant from Tullo Woreda of West Hararghe said:

> *"In the past, when a mother gives birth, she had no interest in exclusively breast-feeding her child. We used to make the child swallow butter and drink fenugreek juice locally known as "abesh" but after we learned that these practices are harmful to our children we have abandoned such practices and learned the benefits of feeding a child only our breast milk."*

Interviews with different key informants also revealed that there are significant achievements made on practicing exclusive breastfeeding to six month and delayance of introduction of complementary foods until 6 months. The view of a key informant from Haromaya Woreda of East Hararghe strongly support the above statement, presented as follows:

> *"Mothers are now trained on infant feeding. They are feeding their baby exclusively with breast milk to 6 month and introduce complementary feeding there after. At the very beginning of the project, exclusive breastfeeding up to 6 months was challenging for the mothers believe that babies need additional food even before six month of age specially when they are away from home to market and the like. But currently it is a fully accepted practice."*

Range of ideas were reflected by FGDs of mother-to-mother support groups in East and West Haraghe zones. Some argued that breastfeeding needs to be initiated after the placenta is expelled and the mother is given some food, while others reflected it should be initiated within 1 hour of childbirth. The mothers have given a number of justifications supporting their argument. One FGD participant mother from Haromaya Woreda, East Hararghe said:

> *"We initiate breast feeding immediately after placenta is delivered and the mother is given some food because the placenta is delivered immediately following the child expulsion and we wait for delivery of placenta and the mother to get stable to initiate breastfeeding."*

Another mother from Tullo Woreda, East Hararghe has a different view and said:

> *"What we think is that if a mother quickly gives breastmilk to the child within an hour, it helps for the quick expulsion of the placenta."*

A woman FGD participant from Doba woreda of West Haraghe said:

> *"I have learned that, when I give birth, the first drop of breastmilk can serve as a vaccination to my child. It will also help abate my blood flow."*

This clearly shows that the mothers' understanding in terms of the timing and purpose of early initiation of breastfeeding differs. The men FGD participants, however, did not seem to be concerned about breastfeeding initiation, suggesting that the women should be asked about it; while they generally agree that it should be initiated soon after delivery.

On the other hand, there was a different idea reflected by a key informant from Kurfachele woreda of East Hararghe which shows that men's involvement had contributed for achievement of exclusive breastfeeding practice as the next quote witnessed:

> *"Previously women and children used to be highly affected by malnutrition, morbidity and even mortality. But now, it is not only child malnutrition and morbidity that is reduced in our kebele, but also the women's workload. The reason for these changes is that previously we never breastfed children exclusively; we give them water and introduce complementary foods early. Whenever I go to the market, I prepare some food for the baby and leave him behind. But now my husband insists that since the baby should be breastfed well and cannot be given additional food before six months, he tells me to stay at home and goes out to the market by himself."*

3.1.2.2 Complementary feeding

FGD participants knew that additional complementary foods need to be introduced to the baby at the age of six months. One FGD participant from Haromaya Woreda of East Hararghe said:

> *"We start additional food such as potato at 6 months of age."*

Another from Doba woreda of West Hararghe said:

> *"We feed babies only breast milk for about 6 months. We have learned what kind of food to feed after 6 months and now the children are eating balanced diet."*

Key informants also share the views of the FGD participants that the community has began practicing introduction of appropriate complementary foods in terms of variety and consistency at the right time. The training mothers received in the preparation of complementarty foods with demonstration sessions by MUSKOKA Projecthas reportedly influenced their practices, as explained by a key informant from Tullo woreda of West Haraghe:

> *"Mothers themselves run cooking demonstration sessions of complementary foods to their group members based on the recipe at community level. Those mothers who have a child above 6 months of age would be advised to feed their children in their home accordingly."*

Another key informant, a health extension worker, from Haromaya Woreda of East Hararghe Zone explained the adoption of the new caring practices in terms of complementary food preparation as follows:

"Improvement in complementary food preparation and child feeding is being observed in the community during house to house visits. Feeding the children under two years of age with gruel which is watery is no more practiced by the community nowadays."

The change in the feeding pattern since the implementation of MUSKOKA Project has also been reflected interms of dietary diversity of complementary foods, as described by an FGD participant father from Doba Woreda of West Hararghe Zone as follows:

"Before this project (MUSKOKA), we used to have a poor diet. Providing variety of food for our children was not in our culture. However, after involving in M2M group discussions, our wives started to feed the children well. This resulted in healthy growth of the children. They meet on weekly basis and they financially help each other. Those economically well-off women in their group got vegetable seed from the MUSKOKA project. Based on the training they received, they planted the seed in their back yards and also around their living area. As a result, they get vegetables from their plots and cook variety of food for the children. Some of the women are given chicken by the project. So, they could feed their children well and the rest is sold in the market. After six months of breastfeeding, they have learned what kinds of food to feed the children. Their hygienic practices have also improved."

3.1.3 Summary Outcome 1

The knowledge of mothers on timing of initiation of breastfeeding that it should be immediately after birth, on the duration of exclusive breastfeeding and the continuation of breastfeeding for two years and beyond was very high which was at 97.0%, 94.7% and 94.2% respectively. However, there was a difference among mothers, their husbands and mother-in-laws when it comes to their degree of disagreement to the malpractices related to infant feeding, which was generally high among mothers followed by husbands and mother-in-laws. The practice on the key breastfeeding behaviours, i.e. early initiation of breastfeeding, exclusive breastfeeding rate, and children ever breastfed also vary which was 88.4%, 83.5% and 97.6% respectively.

Complementary feeding was timely introduced to 78.6% of children and the percentage of children 6 to 23.9 months who consumed the minimum acceptable diversified diet in the 24 hours prior to interview was 47.3%. However, it was only 6.4% who consumed flesh foods that are rich in providing the essential micronutrients required for prevention of stunting.

The high prevalence of timely initiation of breastfeeding and follow on breat feeding practices reported from qunatiative survey is highly supported by the qualiative findings of this midterm review. For instance, there is a good level of understanding in the early initiation of breastfeeding. However, there are some variations in terms of how early the initiation should be, i.e., some mothers reported this to happen immidiatly after birth while others indicated

that it should be after the expulsion of placenta.

The high attainment of exclusive breastfeeding as opposed to their previous practices has been clearly reflected by the FGD participants. They testified the sufficiency of only breastmilk to their babies in the first six months and its role in the health and welbeing of their babies

Likewises, the knowledge on the proper timing of introduction of complementary foods was very high as narrated by most FGD participants. They also have indicated that there have been significant improvement in terms of the consistency of complementary foods to semi-solid as opposed to the more watery gruel they used to feed their children before the inception of the project.

The FGD participants also reflected the change in practice within their communities after the introduction of the MUSKOKA Project in terms of early initiation of breastfeeding. Moreover, mothers have clearly understood the facilitation role of early initiation of breastfeeding to the quick expulsion of the placenta, and this has been stated to be one of the driving forces.

3.2 Outcome 2: Equal increased consumption of healthy and nutritious foods by men, women, boys and girls

3.2.1 Quantitative Outcome 2

3.2.1.1 Women's Dietary Diversity Score

Women's dietary diversity score (WDDS) reflects the concept that increasing the variety of foods and food groups in the diet helps to ensure adequate intake of essential nutrients, and promotes good health among women of reproductive age (15-49 years of age). There is ample evidence from developed countries showing that dietary diversity is indeed strongly associated with nutrient adequacy, and thus is an essential element of diet quality.[3]

In developing countries, however, monotonous diets, relying mostly on few plant-based staple foods, are typical. Even fewer studies from developing countries have aimed to confirm this association specifically among adult women. The available studies have generally supported the association between diversity and nutrient adequacy.[4]

Women's dietary diversity score measures the mean number of food groups consumed by women of reproductive age. To measure the diversity of their dietary intake, all women of reproductive age group in the sample households were asked about the type of food they consumed in the previous day of the interview. Based on this, the mean number of food groups consumed by women was computed to be 6.0 for MUSKOKA Project area (Table 9).

[3] Randall, Nichaman and Contant, Jr. 1985; Krebs-Smith et al. 1987; Kant 1996; Drewnowski et al. 1997; Cox et al. 1997; Lowik, Hulshof and Brussaard 1999; Bernstein et al. 2002; Foote et al. 2004.
[4] Ogle, Hung and Tuyet 2001; Torheim et al. 2003, 2004; Roche et al. 2007.

Knowing that households consume an average of four different food groups implies that their diets offer some diversity in both macro and micronutrients (FANTA 2006[5]). As indicated in Table 9 below, 88.9% of women in the study areas consumed four or more of the food groups in the last 24 hours.

Table 9: Percentage of women of reproductive age consuming the different food types

Food Groups	N=1000	Percent
Cereals	980	97.9%
Oil/fats	827	82.6%
Pulses/legumes/nuts	637	63.6%
Vegetables	589	58.8%
Milk and milk products	370	37.0%
Sugar/honey	308	30.8%
Roots and tubers	820	81.9%
Fruits	486	48.6%
Eggs	272	27.2%
Meat, poultry, fish	64	6.4%
Organ meat	67	6.7%
Miscellaneous	620	61.9%
Women who consumed 4 or more of the food groups in the past 24 hours	**890**	**88.9%**
Mean number of food groups consumed	**890**	**6.0**

3.2.1.2 Minimum Meal Frequency (children 6-23 months)

According to the WHO, minimum meal frequency (MMF) is defined to be two for children 6 to 8.9 months and is expected to increase to 3 for children between 9 and 23.9 months of age. As indicated in Table 10 below, 79.9% of the children, in MUSKOKA Project woredas, received the minimum number required in the 24 hours prior to the interview. Based on WHO standard and the findings of this study, MMF is better for children 6 to 8.9 months while it is low among children between 9 to 23.9 months. This means that nearly a quarter (23.5%) of the sample children between 9 to 24 months did not fulfill the minimum meal frequency, and hence are not receiving the minimum amount of calories they need for normal growth and development.

[5] Household Dietary Diversity Score (HDDS) for Measurement of Household Food Access: Indicator Guide, FANTA, September 2006.

Table 10: Children 6-23 months who received solid/semi-solid foods the minimum number of times in the 24 hours prior to interview

	Meal Frequency	N	Percent
6 to 8.9 months	1 time	1	2.1
	>= 2 times	47	97.9
9 to 23.9 months	< 3 times	84	23.2
	>= 3 times	290	77.5
Minimum Meal Frequency (6 to 23.9 months)	No	85	20.1
	Yes	**337**	**79.9**

3.2.1.3 Minimum Dietary Diversity (children 6-23 months)

Complementary foods need to be varied and composed of different food groups in order to provide all the nutrients including vitamins and minerals that the infant needs to maintain health and growth. According to the new WHO IYCF indicators, the infant should be fed from at least four of the seven major food groups in order to achieve the minimum dietary diversity (WHO, 2006). As indicated in the Table 11, nearly half (47.3%) of the children consumed the required minimum dietary diversity in the 24 hours prior to the interview, however, it was only 6.4% who consumed flesh foods.

Table 11: Children 6-23 months who received various solid/semi-solid foods in the 24 hours prior to interview

Type of solid/semi solid food	N=1000	Percent
Grain, root & tubers	551	93.4%
Legumes and nuts	331	56.1%
Dairy products (Milk, yogurt, cheese)	325	55.1%
Flesh foods (Meat, fish, chicken, liver/internal organs)	38	6.4%
Eggs	233	39.5%
Vitamin A rich fruits & vegetables	262	44.4%
Other fruits & Vegetables	296	50.2%
No. of the above food types consumed in 24 hour prior to interview		
Not initiated with complementary foods	16	2.7%
Only one type	50	8.5%
Two types	112	19.0%
Three types	133	22.5%
Four and above	**279**	**47.3%**
Minimum acceptable diet (MAD)	279	40.5

3.2.1.4 Minimum Acceptable Diet (children 6-23 months)

According to the World Health Organization, a child is said to have received the minimum acceptable diet when the minimum meal frequency and the minimum dietary diversity are met. In the current study, 40.5% of the children 6 to 23.9 months have received the minimum acceptable diet (Table 11). This result exhibits nearly 59.5% of children aged 6-23.9 receive less than the minimum acceptable diet required for healthy growth and development.

3.2.2 Qualitative Outcome 2:

3.2.2.1 Consumption of healthy and nutritious foods by men, women and children

Community members passionately stated their new knowledge about the importance of nutritional diversity to maintain a health family. They assert that preparing nutritious and separate food for babies is crucial to raise healthy children. In addition, they claim that they have come to realize the importance of giving serious attention to the feeding practice of pregnant and lactating mothers to ensure the health of the mother and the baby. The community's attitudinal change is reflected in the changing pattern of feeding practice by all family members. An FGD participant mother from Tullo woreda of West Hararghe zone states that:

> *"Previously, mothers feed their babies only one type of food. But, now, because of the introduction of this M2M group, mothers feed their babies by combining different kinds of food items. … There are vegetables and fruit seeds like cabbage, tomato, carrot, onion and the like given by MUSKOKA, along with a training. They are cultivating on the backyard of their home and feed their children. For those who did not have cattle, goat or any other income, they were helped to start working on poultry. Now, they all are benefiting from the project. They are able to feed their children well and to take the rest to market for sale. People are now changing because of MUSKOKA."*

Community members have also adopted attitudinal change from the production to the consumption of food. The change in the attitude of the community from selling what is produced at home, especially eggs and vegetables, to feeding their children has been described as one of the achievements of the project. A mother from Kurfachele Woreda of East Hararghe zone attests to this as follows:

> *"Before this program, even if we used to produce sufficient agricultural products for our family, we used to prefer to sell it out for cash. But now we have learnt and realized that we should feed our children and family first."*

The main reason for this attitudinal change is the due to the various trainings they received from MUSKOKA project about the benefits of eating diversified food. These trainings have increased

community's perception over the outweighing of nutritional benefits over cash from sale of vegetables. This change in the feeding pattern has been reflected not only in children's diet but also in that of the mothers' and the family as a whole. A mother FGD participant from Kurfachele Woreda of East Hararghe zone described the current situation as follows:

> *"Previously, since we never used to eat well, mothers used to suffer from shortage of Iron during pregnancy and as a result we used to give birth to a weak baby. But now this is reversed."*

Because of this attitudinal change, even local norms that used to define and govern gender relations are being influenced. For instance, women have started to dine together with their husbands and men have started to give more attention and affection to their wives [than look for a new younger wife]. Men are happy that their wives are appearing much cleaner, healthier and younger. Previously, the men used to pay more attention to younger girls as they saw their wives physically unkempt and aging.. This idea has been strongly supported by an FGD participant mother from Kurfachele woreda of East Hararghe zone:

> *"Previously, babies were fed from the less-tasty food which the mother has prepared for herself and daughters. But now, special food is prepared for the baby separately. As the mother is also dining in the same table with her husband, she is healthier and looks good. As a result, our men are heard saying … 'aha! If I feed my wife well, she will look like a girl, so why should I need for another wife?'"*

As a result of MUSKOKA project, family members have started dining togehter and husbands have started to care fortheir wives. An FGD participant mother from Kurfachele woreda of East Haraghe zone states:

> *"Previously, we women used to cook and serve the best food to our husbands and then to our sons. We, mothers and girls, will eat what is left, by adding water and salt in the pan to increase the amount, when it is not enough. At that time, we mothers used to be sick, pale and look older than our age. But now we eat together. Even when the baby cries out for help during meal time, the husband feeds his wife and shows her his care. This has never been seen before in our setting."*

3.2.3 Summary Outcome 2

The mean number of food groups consumed by women was 6.0 out of the 12 food groups in the list. Most (88.9%) of the women in the study areas consumed four or more of the food groups, a sign that their diets are diversified enough in terms of micro- and macro-nutrients composition, in the 24 hours prior to the interview. However, consumption of flesh foods, and milk and milk products was limited to 6.4% and 30.8% mothers respectively.

Minimum meal frequency is reasonably good among children 6 to 8.9 (97.9%) compared to children from 9 to 23.9 month of age (77.5%). About 59.9% of 6 to 23.9 months children receive the minimum acceptable diet. Based on the qualitative findings, mothers clearly understand the

inter-relationship between disease and diet, and attribute the change in their own feeding and in that of their children in terms of dietary diversity to the project. This change has influenced local norms that used to govern relationships between husbands and wives that they began to eat together as a family and also improved husband's affection towards their wives. However, due to unidentified reasons, still large proportion of children (59.5%) is not receiving the minimum acceptable diet. This reason might be associated with economic condition of households which was beyond the scope of this mid-term evaluation.

3.3 Outcome 3: Increased utilization of nutrition and health services by women and children

3.3.1 Quantitative Outcome 3

One of the intermediate outcomes of MUSKOKA Project is increasing the use of nutrition and health services by women, girls and boys (CARE PIP, 2012). To achieve this outcome, the strategies devised in the program implementation plan include: strengthening government health services by improving health-related service provider's ability and capacity to deliver gender sensitive services; improving and supporting the linkages between health service providers and communities; and promoting women's capacity and increasing their authority to access health services. Based on this program layout, the following section examines if the use of nutrition and health services by women and children has increased in the project areas since the inception of MUSKOKA.

3.3.1.1 Nutrition Counseling and Antenatal Care

The antenatal period presents important opportunities for reaching pregnant women with a number of interventions that may be vital to their health and well-being and that of their infants. Regular visits to health institutions allow health personnels to provide pregnant women with variety of services, which includes treatment of hypertension to prevent eclampsia, tetanus immunization, intermittent preventive treatment for malaria and distribution of insecticide-treated mosquito nets, prevention of mother-to-child transmission of HIV, micronutrient supplementation and birth preparedness, including information about danger signs during pregnancy and childbirth, and information on optimal maternal nutrition and breastfeeding practices. The antenatal period also provides an opportunity to supply pregnant women with information on birth spacing which is recognized as an important factor in improving infant and maternal survival and health.

As indicated in Table 12, 92.8% of mothers of children 0 to 23.9 months have seen someone for ANC when pregnant with their youngest child. Most of the mothers received ANC services from HEWs (66.4%) followed by health workers (27.8%). Among the services provided during ANC, availability of counseling services about the mothers' own nutrition and that of her child was reported by 30.4% and 18.5% of the mothers, respectively. As shown in Figure 3, 91.1% of the

mothers reported that they have received information about breastfeeding or feeding practices for their newborn child during ANC counseling. In the same vein, 91.3% of mothers also stated that they have received counseling regarding maternal nutrition. The difference in the percentages of mothers who received nutrition counseling for their upcoming child and that of information on breastfeeding might be due to the fact that mothers do not consider breastfeeding as nutrition related information.

Table12: Percentage of ANC users and service components

		n=1000	Percent
Seen anyone for ANC	No	70	7.1
	Yes	911	92.8
	DK	1	.1
*Person seen for ANC	Health Professional	315	27.8%
	Health Extension workers	752	66.4%
	Traditional birth attendant	13	1.1%
	Village health worker	41	3.6%
	Family member	9	.8%
	Other	3	.3%
*Services provided at the ANC	Weight or MUAC taken	650	29.7%
	Blood pressure taken	448	20.5%
	Nutrition counsel for mother	665	30.4%
	Nutrition counsel for child	405	18.5%
	Others	18	.8%

**Multiple response possible*

As indicated in Figure 3 below, counselling on infant feeding including breastfeeding and about maternal nutrition has been provided to more than ninety percent of the mothers during antenatal care. Health Extension workers were the primary source of the information followed by health workers.

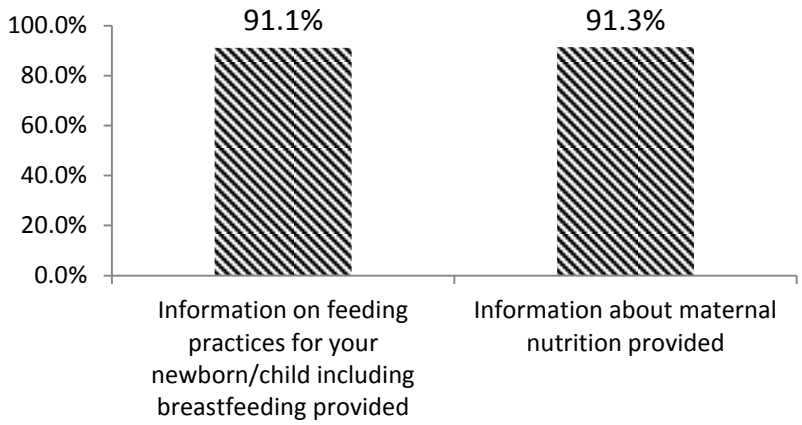

Figure 3: Type of nutritional counseling provided

3.3.1.2 Decision making in health care seeking and infant feeding behavior

One of the domains of womens empowerment is to look at how decision making power is distributed in the household in relation to health care practices. Access to health care is often determined by intra-household resource allocation decision mechanism, which is often influenced by household dynamics and sometimes gender relations in the household. When women were asked who makes the final decision with regards to health care access when a family member gets sick, more than half (59.8%) reported that the decision would be made by both husband and wife. However, nearly one-third (28.2%) of the women reported that the husband makes the final decision when his wife becomes sick. Similarly, when the child falls sick, 64.4% of the respondents stated that both the husband and wife decides whether to seek treatment or not. On the other hand, 24.5% of the women asserted that the husband makes a decision with regards to the health of the child. Women were also asked who makes the final decision on how long the baby should be breastfead, and 78.3% of the participant said that it is the mother that makes the final decision. From these surveys, it is gathered that the mother is likely or very likely to breastfed without the approval of her husband or mother-in-law in 88.5% of the cases. (Please refere to Table 13)

Table13: Women decision making in healthcare seeking and breastfeeding

		n=1000	Percent
Final decision made when mother becomes sick	Respondents	109	10.9%
	Husband	282	28.2%
	Respondent and Husband jointly	599	59.8%
	Mother-in-law	10	1.0%
Final decision made when child becomes sick	Respondents	106	10.6%
	Husband	244	24.5%
	Respondent and Husband jointly	641	64.4%
	Mother-in-law	4	.4%
	Other	1	.1%
Final decision on how often to breastfeed your child	Respondents	779	78.3%
	Husband	41	4.1%
	Respondent and Husband jointly	168	16.9%
	Mother-in-law	7	.7%
	Other	0	.0%
If the husband or mother-in-law did not want you to breastfeed your child, how likely would you be to breastfeed	Not at all	83	8.4
	Somewhat	30	3.0
	Likely	390	39.6
	Very likely	481	48.9

3.3.2 Qualitative Outcome 3

3.3.2.1 Access to health and nutrition services

During the Focus Group Discussions conducted in the four Woredas of East and West Hararghe Zones, most participants stated that they have started going to health facilities for antenatal care:

> *"During pregnancy, we go to health facilities regularly. We are advised to go to hospitals. We have realized the importance of hospitals. When we give birth, they keep us clean and take care of us. Both the mother and the child will be healthy".*

> *"While we are pregnant, we receive training on child care and vaccination. We also learn about child care, child feeding, and the importance of attending health facilities. When we are pregnant, we are advised to be vaccinated. We start going to hospitals for vaccination. And during this time, we learn about health care and child care. We also give birth in the hospital".*

While some mothers state t that due to household chores they are unable to visit a health facility , they still try to see a health specialist because they understandit's the importance of attending totheirhealth. This change in health seeking behaviour is described well by an FGD participant mother from Kurfachele Woreda of East Haraghe zone as follows:

> *"Before, many used to stay at home sick and die because of ignorance. Because we are educated now, priority is being given for health and nobody stays at home while feeling unwell. We take the sick to the health centre immediately or the following day."*

The key informant interviews conducted with various health service providers also corroborate the statements made by FGD participants. Community facilitators and health service providers state that the number of children who get vaccinated, and the number of women who attend health centers for a regular checkup during pregnancy has increased. One health official from Doba Woreda health office said:

> *"We are working with MUSKOKA to implement the 16-health packages. We are seeing major changes; for instance mothers have started using ANC and PNC services at the health centers. Currently, institutional delivery has increased."*

They also said that they or their family members will go to health posts or health centers if they feel unwell. Participants were asked questions to address and better understand their perception of nutrition and health services, and also to compare and analyze previous and current practices. From their response, it was understood that most participants have started abandoning traditional medicine and have begun to frequently interact with health workers and to access health posts. The following statement made by an FGD participant mother from Tullo Woreda of West Hararghe zone describes these behavioral changes:

> *"Those of us who are under MUSKOKA, we received training on maternal and child care. We have stopped calling traditional birth attendants. The ambulance comes to our house and takes us to the hospital. After birth, we take the baby to the hospital for vaccination. We take the baby for vaccination every month. If we could get younger, we would give birth right now."*

Another mother from Kurfachele Woreda of East Hararghe zone added:

> *"In the old days, we used to give herbal medicines to patients, before we take them to modern HFs. However, as we have lost many lives due to such practices, we no longer go there."*

A number of reasons has been given by the health service providers and community members for the increased use of nutrition and health services by women and children.

- **Ownership of the project by the Woreda Health Offices (WHO's)**

Woreda Health Officers, Health Extension Workers, Women Development Armies and Kebele leaders work concertedly to promote MUSKOKA's objectives. CARE uses the existing government structures to facilitate the implementation of the project. Key informant from Tullo Woreda Health office describes the relationship they have with the project as follows:

> *"MUSKOKA turned out to be a success because it works within the government framework. Public workers are the main partners for the MUSKOKA project. They are the ones that help implement the project. Since the beginning, these workers took ownership of MUSKOKA, and as a result the objectives of the project were realized."*

Health service providers arecommitted to creating community awareness and promoting behavioural changes towards health services. This commitment is due to the TOT and other trainings provided by MUSKOKA and Woreda Health Offices. As a result of the trainings, most interviewed health workers state that their knowledge and capacity in maternal and child nutrition and health has increased, and furthermore they have become more aware of the issues the communitys they work with confront. To address some of these problems, health workers believe community awareness need to happen, and behavioral changes towards health services need to be promoted. In order to do this, they provide trainings to WDA leaders concerning maternal and child health and nutrition and the importance of community hygiene and sanitation. They also monitor M2M discussions and activities to ensure community's understanding of MUSKOKA's objectives. In addition,, through the use of community score card, they try to better understand and address the grievances and needs of communities. Furthermore, the commitment of health service providers and the various approaches they apply have greatly helped to improve the linkage between communities and health facilities.

- **Provision of capacity building trainings**

CARE provides capacity building trainings to health service providers and community members on issues pertaining to maternal and child health and nutrition. UNICEF's Infant and Young Child Feeding (IYCF) protocols, micronutrient and food diversity trainings are cascaded from the Woreda Health Office to the Women Development Army. In turn, HEW's and WDA's transfer the knowledge they receive to mother's groups and other community members. The following statements from HEWs, Women Affairs, and Kebele Leaders emphasize the indisputable contribution of trainings in increasing community awareness with regards to health-related services:

> *"MUSKOKA capacitated us strongly. It has trained us and equipped us with new knowledge and also helped us organize our previous knowledge in the way that can be practice in helpful form to the community. It also strengthened our closeness to the community.*" (HEW from Haromaya Woreda of East Haraghe)

> *"Since MUSKOKA, women have become aware of the importance of seeing a doctor while pregnant. Now, the women know that they have to take their children for vaccination."* (Women's Affair informant from Doba Woreda of West Haraghe zone)

"The project proved to be a success because of the various trainings communities received and as a result of their increased awareness. Communities are organized into groups of five or groups of twenty. The leaders of these groups will teach their members with regards to MUSKOKA. And then community members will start practicing what they have learned.(Kebele leader from Doba Woreda of West Haraghe zone)

- **Creation of community awareness on maternal and child health services.**

The WDA plays a major role in raising community's awareness on maternal and child health, and nutrition. With the help of HEW's, WDA's provide trainings to mother's groups in optimal breast and complementary feeding practices, in nutritious food preparation, in ANC and PNC services, in personal and neighbourhood hygiene and sanitation and so on. In the same vein, the weekly Mother's to Mother's (M2M) group meetings help provide a space for mothers to discuss issues related to health and nutrition. An FGD participant mother from Doba Woreda of West Hararghe zone described it as follows:

"While we are pregnant, we receive training on child care and vaccination. We also learn about child care, child feeding, and the importance of attending health facilities. When we are pregnant, we are advised to be vaccinated. We start going to hospitals for vaccination. And during this time, we learn about health care and child care. We also give birth in the hospital."

Another woman from Tullo Woreda of West Haraghe zone added:

"Because of MUSKOKA and Health Extension Workers, we have gained knowledge on how to raise and care for children. Before, we used to feed our babies yeast. Since we got training, we have started exclusive breastfeeding for the first 6 months."

Influential community leaders also play a major role in promoting the increased usage of health services by community members. CARE staff give particular focus to religious leaders, and hence provide trainings (IYCF and ToT) and hold discussions with regards to maternal and child health and nutrition. A community facilitator from Tullo Woreda of West Hararghe zone said:

"We work very closely with influential leaders, especially religious leaders, because the community respects and listens to them. They have the ability to bring behavioural change with regards to health related services such as ANC and PNC."

- **CARE's provision of material support to health service providers and community members**

CARE provides training manuals, educational posters and other supplies to HEW's. Health service providers state that given the low literacy level of most community members, these

illustrative materials help them to easily conduct workshops and educate members. An HEW from Doba Woreda of West Hararghe zone described the materials support as follows:

> *"To support our work, MUSKOKA gave us training manuals. We also got posters, which we use to educate community members by showing them how things are done. Since our community's educational level is minimal, it is easier to train them using pictures."*

- **Establishment of a referral linkage system**

The establishment of a referral network with community members and health care providers greatly contributes to the increased use of nutrition and health services by women and children. This linkage system is considered as a success by HEWs, Woreda Health Officers, and CARE staff. Women Development Army leaders are at the heart of the referral network and play a critical role in promoting the utilization of health services.

To support and strengthen the referral network for health services, CARE rewards the WDA leaders who direct and refer a lot of community members to health posts. According to HEWs, community leaders and CARE staff, this referral linkage system has greatly contributed to the increased use of nutrition and health services by women and children.HEW's train M2M group leaders on how to keep track of pregnant and lactating women members and when to refer them to health posts. The leaders will refer M2M members to health facilities based on their observationof who is using family planning, who needs ANC and PNC services and whose child is sick and so on. A key informant from Tullo Woreda explains the referral system as follows:

> *"Referral linkage is also another project activity. M2M leaders link pregnant mothers immediately to the health extension workers plus when their children are sick they send them to health center. So, ANC and PNC service use is increased in our intervention kebeles."*

Another Key informant from Tullo Woreda added:

> *"M2M leaders link pregnant mothers immediately to the health extension workers plus when their children are sick they send them to a health center. So, ANC and PNC service use is increased in our intervention kebeles. You may raise these issues with the health extension workers. Health seeking behavior is changing. The self-initiation to get health care is good at this time."*

In addition to the establishment of a referral network between communities and health care providers, a strong linkage between health facilities has also been developed through a concerted effort by MUSKOKA and Woreda Health Office. When the HEWs find it beyond their capacity to address the needs of their clients, they will promptly refer them to either health centers or hospitals.

- **Availability of transportation (ambulance)**

During delivery time, community members can call the hospital for free and request for an ambulance. While poor road infrastructure still poses a problem, ambulance drivers try to reach the destination of labouring mothers which is described as follows by an FGD participant mother from Tullo Woreda of West Haraghe zone:

> *"If a woman goes to labour, we call the ambulance the government has placed for us. Women's right is being protected well. We are informed to call for ambulance when labour starts and the car arrives right away."*

A key informant from Tullo Woreda Health office said:

> *"Previously, there was ambulance problem in the health post which hinder mothers from institutional delivery but now there is ambulance service."*

With regards to transportation, woreda health office staff have also stated that the provision of car by CARE has eased their access to communities as described by a key informant from Kurfachele Woreda of East Hararghe zone.

> *"MUSKOKA provides transportation to conduct supervisions, and for vaccination campaigns such as polio and measles."*

- **Formation of VSLA groups**

The formation of Village Savings Loan Association (VSLA) promotes women's economic empowerment, which in turn helps to increase the capacity of women to access health services. During FGD's conducted with mothers and mother-in-laws, most participants stated that the existence of VSLAs makes it easier for them to access health services. They know they can rely on their savings if they or their family members get sick. FGD participant mothers from Kurfachele Woreda of East Hararghe state:

> *"Even if I don't have cash at hand, for medical expenses, I just borrow from my VSLA groups and go to a health facility."*

> *"Previously, if we don't have cash at hand or if there is no one to lend us, we used to stay at home. The problem is individuals are not willing to give you money, or if they do, not without interest. But now we have our VSLA, which is as close as cash at hand. So we are no more scared of not having money for covering unexpected medical expenses."*

- **Community Score-Card**

A community facilitator from Tullo Woreda of West Hararghe zone describes the use and importance of the community score card as follows:

> *"The score-card system is maintained by both elected community members and HEWs, and it is mainly used to address issues concerning health services. By ranking a certain theme on a 1 to 5 basis, community members present their issues to Woreda and Zone*

health offices and provide suggestions on what needs to be improved. Community members and health service providers assert that the Community Score-Card system has improved and strengthened the relationship between communities and health services."

- **Promotion of gender equity in knowledge, and decision making**

While there is still a lot to do in balancing the gender power structure, it is impressive what has been achieved so far in promoting gender equity in household decision making. Both men and women assert that MUSKOKA has played a major role in changing community's attitude towards gender relations. Men receive trainings on maternal and child health and nutrition issues. Through these trainings, they have come to realize that the mother (wife) is not solely responsible for the health of their children. In addition, they have come to see their wives as their partners instead of as their subordinates. As a result, when their wives or children fall sick, they take them to hospitals which is described as follows by an FGD participant mother from Tullo Woreda of West Hararghe zone:

"At the beginning, the husband used to make all the decisions. Now, we [women] are organized under MUSKOKA, and we have started making the decisions as well."

An FGD participant father from Kurfachele Woreda added:

"When she makes "injera", I help her by washing dishes. If I can cook "wot', I will help her in cooking. If she brings water, I will help her by collecting firewood. We have become modern because of the introduction of MUSKOKA. Now, we have learned to help each other for the betterment of our children. If she forgets the vaccination time, or appointment, I will remind her."

3.3.2.2 Decision making in health care seeking and infant feeding behavior

Women's empowerment is one major achievement of MUKOKA project. During the FGDs conducted in four Woredas of the Hararghe zones, women asserted that the establishment of Mother-to-Mothers (M2M) and the formation of VSLA groups have helped them to understand and exercise their rights. The VSLA arrangement has greatly facilitated the economic empowerment of women. They contribute 2 to 10 Birr every week during their M2M meetings. When they need money to trade and improve their household income, the women know that they can depend on the VSLA. Similarly, whenever they need money to go to a health facility, the women can ask for a loan. This easy access to funding has boosted the women's capacity and increased their economic empowerment. According to most FGD participants, the VSLA has helped them to stop being dependent on their husbands for income. An FGD participant mother from Tullo Woreda said:

"Before, we used to ask for permission from our husbands. He used to own everything. Money was in his hand. But now, we are organized under MUSKOKA, and we make our

own decisions. If I need money, I will withdraw from our group savings and attend to my problems."

In addition to the VSLA, the weekly M2M meetings have promoted the empowerment of women. During these meetings, HEWs and WDA leaders provide training to create awareness with regards to maternal and child health, and to build the capacity of women to access health care services. To promote behavioral change towards health services, and positively influence health and nutrition outcomes, IYCF, Family Planning, ANC and PNC trainings are provided. M2M members also receive various trainings that are designed to strengthen VSLA groups and emancipate women from economic dependency. To improve their livelihoods, depending on their economic situation, many women are encouraged to engage in income generating activities. As a result, some have started to participate in poultry and vegetable production. The following statements were recurring themes throughout the FGDs held with mothers and mother-in-laws:

"We are thankful to MUSKOKA because it has provided women with a lot of opportunities. Now, women have rights. They have also started owning property." (Mother-in-law from Tullo Woreda)

"Since Muskoka we have started to save in groups. Now we buy chicken, of which three are devoted for the child's consumption while from sale of egg of the other chicken we cover the costs of our weekly contribution. Thus it is a great benefit that we are organized in groups." (Mother from Kurfachele Woreda)

"Before, we used to not have money. But now, we are saving through our Raya group. Our problems are solved." (Mother-in-law from Tullo Woreda)

It is important to highlight that the weekly M2M discussions, the formation of VSLA groups and the existence of income generating activities have greatly contributed in enhancing women's capacity in household decision making. This empowerment has also translated into their authority to access health care services as explained above.

Additionally it is crucial to assert that the various trainings provided to men have managed to challenge and mitigate social and cultural norms that fuel gender gaps. These trainings have increased men's awareness of maternal and child health and nutrition; and have also helped improve gender relations at household and community levels. FGD participant fathers said:

"After our women started to attend M2M meetings and after we were trained by Muskoka, we started to consult our wives on all family matters and it increased our affection for each other."

"*I could say that the project brought change in our attitudes regarding the division of labor in our HHs. Now there isn't as such men's or women's work in our houses. I do cook stews while she bakes 'injera'."*

Kebele leaders in the different woredas also stated that:

> *"Major resources used to be under my sole control. But now I consult my wife before I make any major decision that affects the family. So decision came out to be a joint practice after Muskoka."*
>
> *"The key for the Household cash is normally kept in the hand of the woman. Yet, before we learnt about joint responsibility and joing decision making of the husband ad wife over HH matter, the man was the one who has al the authority over how to spend the family money. But now, we both have learnt that spending shoud be upon joit decision."* (Kebele leader from Kurfachele woreda)
>
> *"Before, I used to ignore my wife. But now, after receiving trainings, I have changed a lot. For instance, if my wife is working, I will look after the baby. I also help her with other household chores, like collecting firewood or fetching water."* (Key informant Kebele leader from Tullo Woreda)

3.3.3 Summary Outcome 3

Improving access to nutrition and health services by women, girls and boys was one of the intermediate outcomes of MUSKOKA project. About 92.8% of mothers with children 0 to 23.9 months said that they have seen someone for ANC when pregnant with their youngest child, and HEWs were the primary service providers. Nearly 91.1% of mothers reported that they have received information about breastfeeding or feeding practices for their newborn child during ANC counseling. Furthermore, 91.3% of mothers have stated that they have received information concerning maternal nutrition during their ANC visits.

The FGD participants and key informants reported that this high rate of health seeking behaviour in general and that of ANC in particular was attributed to a number of factors, i.e. ownership of the project by the Woreda Health Offices, provision of capacity building trainings by the project, creation of community awareness on maternal and child health services, CARE's provision of material support to health service providers and community members, establishment of a referral linkage system, availability of transportation (ambulance) and formation of Village Savings Loan Association (VSLA) groups. In addition, the use of community score-card has helped improve the accountability of service providers. MUSKOKA Project has greatly contributed in the promotion gender equity in knowledge buildiing and decision making by households with regards to health access.

Concerning health care access when they fall sick, 59.8% of mothers reported that a joint decision is made by them and their husbands. 64.4% of mothers stated that they and their husbands make a decision togethe concerning the health of their child. However, decision on

how often the baby should be breastfed is made by the mother alone in most (78.3%) of the times.

FGD participants indicated that VSLA has empowerd M2M groups economically and has greatly facilitated their decision making to health care access. Both the VSLA and the weekly M2M meetings have also been used to educate women and promote gender equity. Positive attitudinal change has also been observed among men in the community due to the various training they received from MUSKOKA. As a result, they have began assisting their wives in the different household chores which was previously left only for women.

3.4 Outcome 4: Improved household hygiene practices and diarrhea prevention among children under two and pregnant women

3.4.1 Quantitative Outcome 4: Improved Hygiene practices at the household

The World Health Organization has identified the safe disposal of feces and hand washing as two key behaviors that could result in significant reductions in diarrheal disease. These are vital facilities and behavioral issues for the well being of children and the community as a whole. Improvements in sanitation and hygiene are expected to reduce the burdens of disease and improve the overall health and nutrition of the people. A reduction in morbidity, such as diarrhea, as a result of improvements in hygiene and sanitation, improves nutritional status by reducing the impacts of dehydration, fever and mal-absorption of nutrients. Good hand washing is the first line of defense against the spread of many illnesses, from the common cold to more serious illnesses such as meningitis, bronchiolitis, influenza, hepatitis A, and most types of infectious diarrhea. Keeping hands clean through improved hand hygiene is one of the most important steps one can take to avoid getting sick and spreading germs to others. Many diseases and conditions are spread by not washing hands with soap and clean, running water. If clean, running water is not accessible, as is common in many parts of the world, use soap and available water. Washing hands with soap and water is the best way to reduce the number of germs on them (Centres for Disease Control, 2013).

As indicated in Table 14, soap or ash is reportedly being used in 97.1% of the households. According to the U.S. Department of Health and Human Services Centers for Disease Control and Prevention, handwashing needs to take place before, during, and after preparing food, before eating food, before and after caring for someone who is sick, before and after treating a cut or wound, after using the toilet, after changing diapers or cleaning up a child who has used the toilet, after blowing your nose, coughing, or sneezing, after touching an animal or animal waste and after touching garbage. The percentage of mothers who always washed their hands before eating, before preparing food, after toilet use, and after changing baby's diaper were 83.7%, 83.2%, 82.3% and 87.8% respectively.

The sanitary disposal of human feces, particularly those of children, is one of the interventions that could have considerable impact in the reduction of diarrheal diseases in young children. The child either using a toilet or the stool having properly been disposed off was reported by 70.1% of mothers (19.5% toilet use and 50.6% put/rinsed into toilet).

Table14: Hand washing and sanitation practices by mothers

		n=1000	Percent
Soap or ash used in the house	No	29	2.9
	Yes	967	97.1
Usually wash hands before eating	Never	8	.8
	Always	813	83.7
	Sometimes	150	15.4
Usually wash hands before preparing food	Never	6	.6
	Always	805	83.2
	Sometimes	156	16.1
Usually wash hands after toilet use	Never	4	.4
	Always	790	82.3
	Sometimes	166	17.3
Usually wash hands after changing baby diaper	Never	4	.4
	Always	833	87.8
	Sometimes	112	11.8
How the child's stool was disposed	Child used toilet or latrine	195	19.5
	Put/rinsed into toilet or latrine	505	50.6
	Put/rinsed into drain or ditch	71	7.1
	Thrown into garbage	101	10.1
	Buried or disposed in a field	33	3.3
	Left in the open field	88	8.8
	Other	6	.6

According to an observation checklist enbedded into the household survey, 37.3% of the households did not have a specific place for hand washing, and water was available only in 18.7% of the households as indicated in Table 15. Soap/detergent and locally used cleansing agent was available only in 22.6% and 16.4% of the households with children 0 to 23 months respectively.

Table15: Percentage of households with children aged 0-23 months that have water and soap or locally available cleansing agent at a hand washing place

		n=1000	Percent
Places where you most often wash your hands	Inside/within 10 paces of the toilet facility	234	23.4
	Inside/within 10 paces of the kitchen/cooking place	58	5.8
	Elsewhere in home or yard	130	13.0
	Outside yard	205	20.5
	No specific place	373	37.3
Water is available at the specific place for hand washing	No (Water is not available)	811	81.3
	Yes (Water is available)	186	18.7
Soap or detergent present at the specific place for hand washing	None	773	77.4%
	Bar soap	179	17.9%
	Detergent (powder/liquid/paste)/ Liquid soap (including shampoo	47	4.7%
Locally sourced cleansing agent present at the specific place for hand washing	None	823	83.6%
	Ash	118	12.0%
	Mud/ Sand	12	1.2%
	Other	32	3.2%

3.4.2 Qualitative Outcome 4

FGD participants both from the East and West Hararge have expressed significant improvement in hygiene and sanitation behaviours after the initiation of the MUSKOKA project. They also reported that the project has given them the knowledge to understand the inter-relationship between hygiene & sanitation and disease.

The following are quotations from the different FGD participants how the project and their M2Mgroups helped them to keep their personal hygiene, that of their children and the ensironment.

> *"It has been a year since we started to get organized in M2M groups. Since then, we are seeing differences in our practices and in the status of our health. I have learnt a lot about keeping my personal hygiene, ... I also learnt about how to feed my son well and keep him clean."* (FGD participant mother from East Hararghe)

"Through MUSKOKA, we have learned about the importance of hygiene and sanitation. We have learned how to clean our neighborhood. We started cleaning our environment since MUSKOKA gave us training. Before, our children used to contract different diseases because of the dirt in the neighborhood."(FGD participant mother from Doba Woreda)

"After my wife started to attend M2M meetings, our house is no more a messy place. It is clean and well organized, all utensils are washed, kept in a place and covered with textile." When expressing this, his eyes were glowing with excitement."(FGD participant father from Kurfachele Woreda)

"After MUSKOKA is introduced, we have learned a lot and changed in many ways. Previously, we never has toilet, now we have made our own pit latrines. We keep our children clean and learned what and how to cook. We are overcoming the most of our pressing problems."(FGD participant mother from Tullo Woreda)

"It has been a year since we started to get organized in M2M groups. Since then, we are seeing differences in our practices and in the status of our health. I have learnt a lot about keeping my personal hygiene, ... I also learnt about how to feed my son well and keep him clean."(FGD participant mother from Kurfachele Woreda)

"Our child used to suffer a lot from frequent illness. But now this is no more. After my wife started to participate in the M2M group, we nearly don't go to the HFs for child health problem."(FGD participant father from Kurfachele Woreda)

"The MUSKOKA training is very much useful as our financial capacity to cover medical expenses is very weak. We don't earn enough for our living. However, they taught us to clean ourselves and to use simple local products for sanitation. These prevented us from contracting diseases. In other words, since we don't have money for medication, it is too costly to get sick now and then. Now we know that prevention is the best way to save money."(FGD participant father from Doba Woreda)

3.4.3 Summary Outcome 4

Improved household hygiene practices and diarrhea prevention among children under two and pregnant women was one of the intermediate outcomes of the MUSKOKA project. Most (97.1%)of the mothers of children 0 to 23.9 months have used soap or ash in their households. Washing hands always before eating, before preparing food, after toilet use, and after changing baby's diaper were practiced by 83.7%, 83.2%, 82.3% and 87.8% respectively. The children used toilet or their faces have been sanitarily disposed by 70.1% of mothers.

FGD participants have expressed significant improvement in hygiene and sanitation behaviours after the initiation of the MUSKOKA Project. They also reported that the project has given them the knowledge to understand the inter-relationship between hygiene & sanitation and disease.

Both the men and women in the community have attributed the significant change they observed in terms of personal hygiene and environmental sanitation to the project. They also witnessed that children are getting healthier in their community which has resulted in saving the money they used to spend for health care.

4. Visibility of the MUSKOKA project

4.1 Knowledge about MUSKOKA – project goals, objectives, interventions

Participants of the mid-term evaluation, which ranged from grass root community members to heads of worked health offices, which included M2M group members who are working as keeled level health development army, Hews, kebele chairpersons, kebele women's affairs representatives, woreda health office experts, etc. demonstrated their knowledge of the project far beyond its name and mere activities. Most of them fully described the core target groups of the project, its main objectives and the types of interventions as well as the implementation strategies used by the project. Some have even went to the extent of explaining the origin of the term "MUSKOKA", citing it as name of a place in Canada, for it is a country supporting the project financially.

The following direct voices of study respondents may witness the above well:-

> *"MUSKOKA is a project working on improving the health of children, pregnant women and lactating mothers through prevention of malnutrition; educating the community on personal hygiene, latrine building and utilization; organizing M2M group by creating awareness on advantages of saving money for health and other economic and social purposes, etc."* (Kebele leader from Kurfachele Woreda)

> *"MUSKOKA is a project operating in our locality in the past one year, supported with the government of Canada. Its main goal is reducing maternal and child death by working on nutrition, personal hygiene, environmental sanitation and gender equality."*(HEW from Kurfachele Woreda)

> *"MUSKOKA is a project which started in the past 18 months in our locality. In total it has duration of three and half years. The project interventions focus on our major health gap, which is in improving the nutritional status of children. For instance, the community in this woreda is relatively economically well off, yet many children have been suffering from serious malnutrition problems due mainly to lack of awareness on the right feeding practices. Thus MUSKOKA is filling this critical gap in your health interventions. The project's main strategy is through strengthening the existing health development army (HDAs) in order to increase the awareness level of the grass root community***."***(Woreda Health office head, Haromaya)

> *"I know MUSKOKA project in the past one and half year. Derived from name of a place in Canada, MUSKOKA project is implemented in four woredas of East and West Hararghe zones. In our woreda, Kurfachale, we were involved in the implementation since the launching workshop of the project. The project works towards reducing maternal and child morbidity through empowering women by organizing them in M2M groups; educating them on the need to exclusively breast feed children as well as in how to prepare a nutritious complementary food, along with hygiene and sanitation components. A number of trainings were given to various government staff and community groups such as for HEWs, health providers, women's affairs, women and*

youth federations, religious leaders, agricultural development agents (DAs), to women Gere [1 to 5 structure] leaders, etc. I should rather say the training was given to "every relevant body " in the woreda structure."(Woreda Health office head, Kurfachele)

"MUSKOKA is name of a place in Canada. This project is named after it with a goal of reducing maternal and child mortality in our locality. In our kebele we have established many M2M groups. I am also a member of one of these groups. In the M2M groups we mainly discuss on nine topics which includes discussing the benefits of exclusive breast feeding in the first six months and the need for preparing complementary food from variety of food types. We also contribute birr 15/week, of which birr 5 is kept as our saving and the rest birr 10 serves as a revolving fund to help families in purchase of chicken, goat, sheep, etc. that may strengthen the economic capacity of HHs and help them to be able to access nutritious food. We also contribute birr 1/week for social purposes, which are used mainly for helping each other in times of distress and for welcoming mothers who delivered in health facilities."(Kebele Women Affairs from Kurfachele Woreda)

"Our project strives to increase target community's access to nutritious food, including men, women, boys and girls in a HH. This is meant to be achieved through increasing women's decision making power at the HH level and by improving their knowledge on preparation of better quality food for their family members. The project also strives to address unequal food distribution at HH level and to lead that to an equitable and fair distribution. The other component of the project is increasing access to health care services by mothers and children. In addition to these, the project aims at reducing diarrhea through improving hygiene and sanitation at HH and community levels."(Community facilitators from Kurfachele)

One can say that, in such a short period, MUSKOKA has become a local brand in activities related to improving maternal and child health, in improving HH nutrition, hygiene & sanitation, increasing utilization of health care services and in sensitizing and empowering both men and women in making joint decisions at HH levels.

4.2 Achievements of the project, as perceived by key stakeholders

Community members, kebele leaders and woreda level government representatives strongly emphasize that the introduction of MUSKOKA project in their localities has brought visible changes in the health of mothers and children, affected their feeding practices, increased utilization of health care services, invigorated the role of HDAs, empowered women through awareness creation on basic health elements and organizing them in saving groups, even improved relationships at HH levels, particularly of husbands and wives. The following highlight their feelings and observations:-

Because of this intervention [MUSKOKA], even our work loads are reduced, for two reasons.

One is due to the reduced child morbidity, i.e. mothers' time spent on caring for the sick child and her stress has been reduced a lot. Secondly, after the MUSKOKA trainings, our men started to help us in doing our HH chores, for they now have learnt that is a joint responsibility.

For example, my husband now fetches water and gathers fuel wood while I stay at home doing other HH chores and caring for the children. He even helps me when I cook. To your surprise, previously when our baby cries out, instead of caring for the baby, he normally calls me from the kitchen or neighborhood to pick and calm down the baby. But now, he does that and I don't bother about each and everything.

Previously, when I go to the market, I prepare some food for the baby and leave him behind. But now my husband insists that since the baby should be breast feed well and cannot be given additional food before six months, he tells me to stay at home and goes out to the market by himself.

Previously, both men and women would ridicule a man who helps his wife in doing some HH chores. Some even could abuse him physically at water fetching points for degrading his [and that of other men's] dignity. These days this doesn't happen, except by people who are not organized in groups and have not taken the trainings. (Key informant interview, Women's affair's from East Hararghe, Kurfachale Woreda)

As opposed to the local custom, now, thanks to MUSKOKA, women, girls and children are given attention for their diets. The traditional practice used to give priority to men, both in terms of volume and quality of food. Of what is available in the household, the man used to get the best, including milk. They also have a custom of eating only one type of food for successive days or weeks until it is finished and replace it with the other. Babies were considered only as one adult member of the family regarding access to food.

Unlike previous times, in which mothers used to prefer to deliver at home, these days no woman seems to be interested in home delivery. Some of the M2M groups even included facility based delivery in their internal by-laws, indicating that a mother who is not willing to deliver in HFs can no longer be their member. This is their own initiative. No one has imposed it on them. Thus, in MUSKOKA kebeles, I can say that the largest majority of mothers are delivering in HFs. I say the largest majority because there are villages in the intervention kebeles in which we haven't yet reached them through M2M. But, the trend in facility based delivery is very much promising.

The other indicator of increased health service utilization is reflected on use of modern family planning methods, particularly of increasing demand for Norplant as a long-term contraception. We see this as a key achievement because in the previous days there were lots of efforts, even using campaigns, for increasing uptake of Norplant. Yet it didn't succeed as such. There used to be some three or four cases per a certain period. But now, the HEW is overwhelmed by the increased demand from women in the MUSKOKA kebeles. Without including those who go to the HC, the HEW only performed it for 35 women very recently.

Additional indictors in the uptake of health services is reflected on the increased action of families in bringing sick children to HFs, as opposed to previous practices of neglecting symptoms of child illness until they are aggravated. On the other hand, the overall burden of HFs due to child illness has dropped down significantly. (Key informant interview, Community facilitator, East Hararghe)

Observations of project stakeholders about the difference between the MUSKOKA and non-MUSKOKA kebeles:-

> *"If we compare Gero Gerbi ([a neighborhood kebele)] with that of our's, Gudina Muleta; although their HEWs educate them as well, they are not as knowledgeable as we are on BF, CF and on child health issues. When we meet [at woreda level] with other kebeles, they get amazed at the articulation of mothers [from our kebele] on maternal and child health issues."*

During woreda level review meetings, which bring many kebeles together, there is a noticable difference between MUSKOKA and Non-MUSKOKA sites regarding the level of community awareness on different health issues.

> ***"****We have trained the HEWs and health center staff for we have a plan to expand MUSKOKA sites' experiences to Non-MUSKOKA sites. M2M group leaders are not trained in Non-MUSKOKA sites."* (MCH focal person from Haromaya Woreda Health office)
>
> *"As we have observed from reports submitted to woreda health office by the HEWs, the number of malnourished (OTP) children in Non-MUSKOKA sites is higher than that of MUSKOKA kebeles. Not surprisingly, awareness level of mothers from non-MUSKOKA site on correct infant feeding practices is found to be much lower than those in the intervention areas."*(MCH focal person from Kurfachele Woreda Health office)
>
> *"The major difference between the MUSKOKA and non- MUSKOKA intervention kebeles is on the mobilization of the HDAs. Due to the high attention given by the project for the HDAs in training and linking them to the PCU, the maternal and child health in the intervention kebeles is much different from that of others. Mothers in the MUSKOKA intervention kebeles have changed a lot mainly due to the change brought in the health system by mobilizing HDAs."*(Head of Woreda Health office, Haromaya)

The words of the Head of Haromaya Woreda Health Office, Obo Mohammed Ali, may perhaps sum up the local perceptions regarding changes brought in the targeted areas as added value of the project. He says *"Unlike before, now mothers have started to prepare better and separate food for their children. Now they are providing variety of food for the children, due to the training they have received from the project. Apart from this they have started to support each other economically, which particularly helped the low income groups a lot. You have no idea about how high the level of malnourishment in this woreda has been; but now I can say that it is changed dramatically. Even the changes in the area of hygiene and sanitation are too big. Mobilization of HDAs has brought a tremendous change even in other health interventions such as on EPI and use of family planning methods. The investment in the HDAs is a key in strengthening the health system in the woreda. Thus, a lot is being done by the project."*

5. Perceived key enablers of the MUSKOKA project

The project design gives strong emphasis on the role local government agencies play in the implementation of the project. The woreda and kebele level offices of the Ministry of Health, Ministry of Agriculture and the Ministry of Women Children and Youth affairs are identified as primary project partners. They are expected to facilitate and coordinate the implementation of project activities in collaboration with CARE Ethiopia; mobilize local community and volunteer groups in support of project activities; actively participate in Program Steering Committee meetings; responsible for project monitoring and assist project partners in the compilation and analysis of data and in developing reports. Health workers are specifically given a big responsibility of receiving training from CARE project staff, and then transferring that knowledge to mother's groups, VSLA groups and agricultural/health extension workers (i.e. train-the-trainers program).

On the other hand, the main role of CARE is stated as providing guidance and facilitation as well as strengthening the capacity of health workers, volunteers and agricultural extension workers at zonal, woreda and kebele levels. The focus is on improving local knowledge and developing skills in IYCF and related maternal nutrition and working towards the goal of empowering women with knowledge and skills to improve nutrition outcomes. This includes involving husbands and partners to support mothers' decision making at the household level.

Therefore, has the project been implemented in the way it was designed? Is it contributing to the intended effectiveness? The following sub-sections will thoroughly answer these questions.

5.1 The role of local government stakeholders and existing structures

The views of woreda health office heads, nutrition & MCH focal persons, monitoring and evaluation experts, kebele leaders, women's affairs representatives and HEWs indicate that MUSKOKA is their project, implemented directly by the local GO with a support from CARE Ethiopia. All actors, at different levels, affirmed that the project components are in their annual and detail work plans, for which they are accountable to their respective offices and local administrative structures.

> *"Implementation of MUSKOKA is beyond integration. We rather say it is our project, thus we do the annual plans, prepare the detailed work plans, we monitor routine implementations and periodically supervise status of the project. The role of our office is full implementation of the project, mainly using our health extension workers (HEWs) and handling all technical parts. Our staffs are the main actors in the project. It is ours and we are responsible for its implementation! In fact, at the initial stage we had a problem in reporting of activities, which was due to a problem in the part of our staff. Later on we rectified this problem after a review meeting. We know the entire budget allocated for the project, as the documents are shared between us."*(Head of Woreda Health office, Haromaya)

"We believe that implementing MUSKOKA is one of our responsibilities. The project staffs are like one of us. Whenever we plan, we consult them. For e.g. in screening community health development armies (HDA) we work together and we cascade the training. We consider such community focused initiatives as part of our task. To this end we align and jointly work on all our annual and detail work plans, monitoring visit schedules, supervision and review meetings. They never provide any training without our consent and for that matter our staffs are the ones who deliver the trainings for different social groups. We do submit quarterly reports to the zonal health offices, including activities implemented by MUSKOKA. We also report to the project office about activities implemented from MUSKOKA, such as number of people trained."(Key informant from woreda Health office, Kurfachele)

When asked how he is integrating his own work with MUSKOKA activities, kebele leader in Kurfachale woreda explained that "*I and the HEW do jointly plan our kebele activities related to MUSKOKA. Our kebele report is compiled by the HEW. When my schedules for MUSKOKA, at times, overlap with some other tasks, I assign one of the kebele cabinet members to help the HEW to deal with the M2M groups."* The kebele manager in Haromaya also said that his role in MUSKOKA is to organize community groups, cascade trainings, chair community discussions and preparing reports together with the HEWs, emphasizing that MUSKOKA is always on his table.

"The woreda GO officers fully consider MUSKOKA as their own project. It is in their annual plan, always in their detailed work plan, supervised jointly by multi sectoral offices, including Agriculture office but mainly by health and Women, children and youth affairs offices. They conduct a joint quarterly supervision of the performances of the health extension workers and their supervisors in the health centers. Review meetings are held regularly on annual basis and with a special call for." (Community Facilitator from KurfacheleWoreda)

"The MUSKOKA community facilitator calls us a meeting and we plan the kebele level activities together. Then I implement activities and report to MUSKOKA and the woreda GO. Previously, I used to go from house to house mobilize the community for immunization programs. But now I only contact M2M leaders and they inform members of their respective groups. This really reduced my workload immensely." (HEW from KurfacheleWoreda)

The HEW in Haromaya too reported a similar procedure in joint planning, implementation of activities and reporting to relevant parties.

"My role in MUSKOKA is to train health extension workers, their supervisors and M2M group leaders, who in their turn cascade the training to mothers in their groups. I take part in supervisions and review meetings."(MCH/Nutrition focal person from KurfacheleWoreda health office)

His counterpart in Kurfachaleworeda reported that his office, jointly with project's community facilitator, supervises of MUSKOKA's activities at kebele level and the woreda level performance is supervised by the zonal experts. Report format is prepared jointly and the HEWs

report to the woreda. The woreda health office, in its turn, reports to MUSKOKA and to the zonal health department.

> *"Whenever I go out to accomplish any main tasks in the kebele, I make sure that it is aligned with my responsibilities in MUSKOKA. In our Gere, which consists of men, I am the vice chair and together with others we develop a checklist of community works, including that of MUSKOKA. At kebele level we do have an annual plan, which includes activities of MUSKOKA. For instance, we have devised a plan on how to use the saved money for emergencies and purchase of farm inputs. Regarding reports, I used to submit reports of my activities to the HEW, but to be honest not all of the activities are reported and not on regular basis."* (Kebele women Women Affairs from Haromaya)

> *"Since we strongly believe that this project is there for our benefits and is important, it is in our priority list. I always make sure that it is included in all my plans and aligned with my other tasks. I do have annual plans for my responsibilities in the kebele cabinet, in which MUSKOKA is well included."*((Kebele women Women Affairs from Kurfachele)

> *"I serve in MUSKOKA project as a community facilitator for the whole intervention in Kurfachaleworeda. Unlike the in previous practice of Care Ethiopia, where a community facilitator (CF) is assigned in each kebele to run implementation of projects, this time the role of the CF is mainly on coordination and in providing technical assistance to the woreda and in intervention kebeles,* ***as the main project implementer is the local government****. For instance, my current role includes facilitation of project implementation in all the selected kebeles and delivering training of trainers to HEWs, who are supposed to cascade it to the community members. The CF also oversees establishment of M2M groups, which are organized by the HEWs."*(Community facilitator from Kurfachele)

Therefore, as affirmed by the above mentioned project key stakeholders at different levels, the project has been successful not only in being implemented by the existing GO structures (WHOs, HFs, HEWs, gere leaders, kebele leaders, …), but also for the high degree of ownership of the project by these parties, which is demonstrated in the joint plan, monitoring, supervision, review and, most importantly, of the accountability on the implementing bodies.

5.2 The special role of health extension workers (HEWs)

As the project is implemented through the GO structure, in which the HEWs are the frontline army, their role is a decisive one. In the words of the CF in Kurfachale Woreda, wherever they are helpful and willing to collaborate, implementation is incredible while the reverse could also be true. This is because the project is directly implemented by them.

> *"We also are very grateful to our current HEW. She is so nice and close to us. Unlike the previous one, who used to cover her nose when she steps in our home, this one mixes well with us and works together with us. She is extremely nice and we are very happy and grateful to her ..."*(Women FGD participant from Kurfacele)

The project in its part is supporting the HEW by enhancing their capacity through different trainings and providing them with log-books, boxes for cash saving, lockers, etc for easing their support to VSLA.

Their responsibilities in MUSKOKA include organizing M2M groups, cascading trainings to M2M groups, follow-up of regular discussion sessions of the groups, providing clerical support to the M2M, helping in resolving conflicts that arise among the groups, support them in developing their by-laws, as well as providing support in the financial management of VSLA groups.

In the words of one of the HEWs, her role in MUSKOKA is to guide and support the mother groups. *"I educate the mothers on correct breast feeding practices and based on the training I received from MUSKOKA, I train them on how to prepare complementary child food from a different mix of food items. I then supervise them if they are practicing it or not by paying a house to house visit."* Her responsibility also includes supporting women's Gere (M2M) leaders, cascading trainings to community members and women leaders, actively engaging in the screening of beneficiaries for chicken distribution and supply of seed, alongside with the DA, to train the men's development army and other tasks.

In fact, the HEWs do have their own problems which might not necessarily be caused and, hence, not be resolved by MUSKOKA. For instance they complain that they are overburdened with workloads. This includes involvement in distribution of farm inputs and collection of repayments as part of their responsibility in the kebele cabinet and walking to distant places to reach their target groups, which is another challenge they raise and complain about. Despite all these challenges, in kebeles where they are functional and collaborative, the expected results of the project are highly promising to be achieved. Thus, it is important for MUSKOKA to consider such delicate issues while being careful to not disrupt local GO regulations.

5.3 Community participation, acceptance and perception of achievements (M2M groups as catalysts)

(i) Participation in M2M groups and women's empowerment

Many witness that the major reason for the active participation of women in M2M groups is their realization of the issue as their own. For instance, the women usually mention that they used to spend a lot of time and energy on "joleqabri" (a social support mechanism to handle funerals and in helping mourning families for days). Now, they say that "joleqabri" is no longer a major issue for them due to the visibly reduced morbidity and mortality, especially of children. Therefore, when they participate in these meetings, they are aware of its contribution in changing their lives. Apart from this, they have realized their basic rights to participate in household decisions that affect their lives and that of their children. Their participation in M2M has eased their financial stress needed for unexpected medical expenses and also gave them the chance to borrow for economic activities. Therefore, the active community participation and acceptance of the project can be put as one of the engines of the MUSKOKA project. The following expressions of women from the different woredas may perhaps express the situation well:-

"It has been a year since we have started to get organized in M2M groups. Since then, we are seeing differences in our practices and in the status of family health. I have learnt about how well to feed my child and keep him clean. I personally have also learnt about keeping my personal hygiene and about gender equality, in which both men and women are considered equally responsible for decisions in their households." (Men FGD participant from Kurfacele)

"I was involved in MUSKOKA, for the first time as a training participant. We were trained on how to participate in and make decisions. For instance, we were thought that a pregnant or lactating woman may need to prepare separate or additional food for her and eat when she needs to have, without waiting for her husband. She can do so for her children too. We were empowered to negotiate with our husbands on the sale of chat as it is ours too. Same is true in the case of selling bigger animals. As per the culture, we women have very limited say over asset and money. Our rights are confined to sale of only small farm products such as pea, 'abish', chicken, egg and dairy products. Thus, these trainings gave us the energy to involve a lot in HH decisions." (Kebele Women Affairs from Haromaya)

"The change is a big one! You see, as we are saving for our family's benefit, we also do contribute for social supports, in parallel. This is mainly meant for mothers who don't have sufficient resources at home during their delivery. Even other kebeles are following our example in doing this, for they have witnessed the benefits of this social support. Even women and men Geres in the neighbouring and distant kebeles are encouraging us to keep on and are supporting our practices."(Mothers' FGD participant from, East Hararghe, Kurfacheleworeda)

"There is no question that it is important to continue to attend! Having seen the results we have achieved on the health of our children and on that of ours, others are now following our footsteps and even our men are supporting us on this. So why do you think that we should discontinue? We won't!"(Mothers' FGD participant, East Hararghe, Kurfacheleworeda)

"Before we got organized, when a child is seriously sick, there is no time to waste. We urgently borrow money from someone, to be repaid back when we sell domestic animals or other asset. But after the introduction of MUSKOKA, we borrow up to 300 birr from our group savings and repay it back in 3 months." (Mothers' FGD participant, West Hararghe, Tulloworeda)

"In the past, it was only men who decide on spending. There were even times in which women could not go out with their husbands. Now it has been 16 years since I got married and in those many years, women rarely attend meetings. But now, we go and also participate as men do. .(Mothers' FGD participant, West Hararghe, Tulloworeda

(ii) Increased acceptance of gender equality by men

Men, particularly in places like GudinaMuleta, Kurfachale woreda, seem to be extremely excited about the change they are experiencing due to the awareness and the change in their practice related to gender roles at household levels. Many of the FGD participants were eager to tell what they have started to work on at home, which is a new experience in their lives. They mentioned sharing responsibilities with their wives in doing household chores such as fetching water, gathering fire wood, caring for babies, washing, some even preparing child food, consulting their wives before they make important decisions, etc. Surprised by the changes they are claiming, the facilitator asked them if they are not "ashamed" to do such typical women's jobs in the household. One of the FGD participants replied as follows:

> *"I'm not ashamed to do that. Since I focus on the main result of what I'm doing, I don't feel ashamed – for it saves our time and reduces my wife's work burden. In fact, to see a man helping his wife in doing household chores used to be a problem in our community. But it is changing now for good. You know, these days, when our women go out to the market or elsewhere, we do the household chores – cook, make coffee, clean the house and care for the baby. We don't just wait for her to come and do all these things afterwards. Unlike the old days, our wives come to a 'warm house'".*
>
> *"I could say that the project brought change in our attitudes regarding the division of labour in our households. Now there isn't as such men's or women's work in our house. I do cook stews while she is baking injera."*

These bold statements of the men in GudinaMuleta were affirmed by their female counterparts in the kebele when they said that their husbands are helping them in handling household chores as well as caring more and more for their wives and children these days.

> *"In addition to our wives we were also given awareness on similar topics and on the need for joint responsibility on child care. We, in fact, had information about these issues from other sources and the media. However, with MUSKOKA we appreciated the issue and got the point well. Previously we used to think that all child care should be handled by the mother. This project started 12 months ago and we, the men, are involved since the past nine months. Afterwards, we started to understand that child care is a joint responsibility."*(Men FGD participant from Kurfachele)

Another man, who participated in the men's FGD said *"the change I see most in my house is in the decision making. Major resources used to be under my sole control. But now I consult my wife before I make any major decision that affects the family. So decision came out to be a joint practice after MUSKOKA."*

The men, not only appreciated the trainings they have received so far. They have also showed full support for their women to continue to participate in the M2M groups, as they have benefited a lot from such group gatherings.

It is, therefore, important to note that the project's approach of extensively involving community members in the implementation process of MUSKOKA is working very well towards the achievement of the intended goals of the project. However, this wouldn't have been

happening if it merely involved the primary targets of the project – pregnant and lactating mothers. One of the keys for the success in mobilizing the communities is the project's strategic engagement of men as partners in the process of empowering women, in mainstreaming gender equality at grassroots level and in improving maternal and child health.

5.4 Other on-going programs (NGO, GO, community activities, Mass media)

Generally speaking, NGO activities in the MUSKOKA intervention areas are very much limited or are non-existent. Respondents mentioned CARE Ethiopia and WFP programs as the only non-governmental organizations in their areas. Yet, it is still possible that regular GO programs, other community initiatives as well as the mass media may play a role in positively or negatively influencing the pace of the project under consideration.

Government Office

The nutrition focal person in Haromaya woreda mentioned that government's Community Based Nutrition (CBN) program as strengthening MUSKOKA's activity for this program focuses on screening the nutritional status of children and on prevention of malnutrition through growth monitoring. His counterpart in Kurfachale identified the activities of the woreda women's affair office as complementing one of MUSKOKA's key activities in the area of addressing gender issues.

Head of a woreda health office emphasized that MUSKOKA is benefiting from the local government regulations that govern unnecessary incentives such as perdiem payments for GO staff and community members during trainings or workshops. As per the rules, community members get no payments during trainings except that they are served coffee/tea or beverages.

NGO

The monitoring and evaluation officer of the woreda health office in Kurfachale sees MUSKOKA as a complement to the efforts of World Food Program (WFP) and the woreda GO in improving the overall maternal and child health, and particularly in reducing the number of severely and moderately malnourished children. WFP works in the woreda in the distribution of food for moderately malnourished children, along with a specific training on food management for relevant staff. HEWs are actively engaged in the identification/targeting of malnourished children in each kebele and distribution is handled by the kebele administration. WFP program helps in preventing deterioration of moderately malnourished children into a level of severe malnourishment, while the government is taking care of addressing the needs of severely malnourished children. On the other hand, MUSKOKA is working towards complete prevention of both severe and moderate malnourishment. Therefore, it is believed as an important complementary program.

The other nutrition related program is run by CARE Ethiopia, in distributing food and providing training on CSB preparation for supervising nurses. The Nurses cascade the training to HEWs and through these to the community.

These two NGO programs, in turn, do complement MUSKOKA in some way. For instance, in some of the localities, despite the fact that they are well aware (by the project) about the use and preparation of nutritious food, unless they have access to food it becomes meaningless. Thus, these two food distribution programs fill the gap of the needs of some of the households. However, in kebeles like GudinaMuleta, which is relatively well-off, reports indicate that it is hard to find any moderately malnourished child in the kebele after MUSKOKA's intervention. Because of this the Fafa (CSB), kept in the kebele admininstration is just hoarded for months as there is no request filed from the residents.

Mass-media

Community members mentioned Radio Fana, Fana FM, Oromia radio, ETV and Oromia TV broadcasts as additional sources of information on maternal and child health, gender issues, and other health and development topics. Many of the FGD participants in men's groups cited on a serial radio programs which increased their understanding on many development issues. One of them said:

> *"I do have a hobby of listening to radio programs and exploring for sources of information. Because of this I would say that I have learnt a lot from these aired programs on family welfare. For example, at a radio series titled "one thousand days" [Oromia Radio], there is a lot to learn about maternal and child health. The program even highlights on the effects of fasting on lactating and pregnant mothers."*

In the light of the above, though there are more than good reasons to claim that MUSKOKA has brought visible changes in the knowledge, attitudes and practices of communities in its intervention areas, it is also important to note the contributions of other on-going local programs and mass-media effects, which are complementing and facilitating easy implementation of the project. Similarly, it is also important to underline the role MUSKOKA is playing in complementing other on-going programs, which is a plus for its intended goals.

5.5 MUSKOKA's implementation arrangement and strategies

> *"I believe that CARE's approach and strategy in the implementation of MUSKOKA project is very effective."*(Key informant from East Hararghe)

Working through the existing GO structure and adoption of ongoing health strategy:
The zonal team leader explains that as per the project's design, MUSKOKA is fully owned by the local government, particularly of the Woreda Health Offices. In addition, the strong partnership with the kebele leadership, use of women's development army (Gere leaders) as an entry point to the community, active involvement of DAs and HEWs along with the kebele level leadership/cabinet are evidences of the project ownership by its primary stakeholders –

communities and local GO. The alignment of MUSKOKA's health strategy with that of government's prevention strategy is another important element which created synergy between the two.

Local capacity enhancement:

One of the most important achievements of this project is considered as the capacity enhanced at woreda, kebele and HF levels. HEWs, DAs, health providers and woreda health office staffs are well trained in IYCF program. Community members are capacitated to discuss and act on their local health issues including about sanitation and nutrition. Men and women groups of health development army (HDA) are at the heart of the program and they are the ones steering the project implementation through cascading trainings and follow-ups at the community level.

Effective capacity enhancement strategy:

Beside the use of the existing GO structure and establishment of close collaboration, availability of useful training materials as well as the special approach in cascading and monitoring the trainings is mentioned among the most important elements that are contributing to the smooth and progressive implementation of the project.

For instance, the project is praised for having a well-organized IYCF manual, a clear guideline on hygiene and sanitation and also for having SAA discussion guidelines. Establishment of the demonstration centers for food preparation is another important aspect reported as it has increased effectiveness and acceptance of the project. Similarly, use of effective training methods and materials as well as the close follow-up of progress of HHs after delivering training is mentioned as a special feature of the project. One of the community facilitators shares his experience as follows:

> *"The woreda admin officials had a misunderstanding over the apparent "overlap" of the regular IRT (integrated refresher training) program led by the GO and that of trainings planned by MUSKOKA. The IRTs used to be given for 10 consecutive days, incorporating all components of sectoral development issues. Yet their approach has a clear difference with that of MUSKOKA, where the latter is very much focused on ensuring achievement of planned training goals and always accompanied by a follow-up of whether the trainings cascaded are bringing the intended results."*

However, before they understood the difference in the approaches and the key focus areas of the trainings given by the two parties (MUSKOKA and mainstream GO program), there were some hesitations on the part of some GO officers. But with time they have practically seen the effects of MUSKOKA's goal oriented training approach as well as the regular follow-ups to ensure that they are producing the intended results. Therefore, at one time the woreda vice administrator disclosed as follows:

> *"The difference between the MUSKOKA intervention kebeles and other kebeles in which we are working is coming out visibly. At the start of the project we had a reservation on the apparent similarity of trainings for the community members, one by MUSKOKA and by the local GO. Though we also are working through the grassroots women's groups [as MUSKOKA is working through the gere women or M2M], there are clear differences in*

the changes between the MUSKOKA and non-MUSKOKA kebeles. We admit that this is because of the different approach we are using."

"In fact, the role of MUSKOKA in raising their awareness level, enhancing their capacities at village levels and the close follow-up of post training actions is a critical one." (Key informant from Kurfachele)

Progress of discussion groups into economic and social interest initiatives:

Evolving the M2M discussion groups into VSLA, as this is serving for both economic and social purposes. Community focus group discussions with M2M groups also brought up the VSLA issue as an additional strong factor that will keep them together in the group, beyond the reason of improving maternal and child health.

"The benefit we have reaped is not mere education and the model we have set to other kebeles. But we do have a vested interest in the M2M groups as we are contributing on weekly basis. Is that not our money? Thus, we want to build on our savings, continue to benefit from the social supports and use the group [VSLA] as our main source of credit." (Men FGD participant from Kurfachele)

This is a very crucial point in keeping momentum of the group dynamics. Because, despite the fact that they all are excited about what they have and being leant from MUSKOKA, with time, as the knowledge gets mainstreamed in the community, the zeal to participate in the M2M groups might not remain as it is today. Yet as they have additional collective incentives and economic and social support benefits from the group, this will keep them glued together, with a potential to evolve into rural economic interest cooperatives, if nurtured well. It is, therefore, important to strengthen the VSLA aspect of the intervention.

Building good working relationships:

This, together with the effort of CARE's field staff to build a smooth relationship and collaborative spirits at different levels, is believed as contributing a lot for the achievement of the intended results of the project.

Close and regular monitoring and evaluation of activities:

The project is reported as being strong in its close follow-up of all its activities and timely monitoring and evaluation schedules jointly with the local stakeholders.

"Our one way of monitoring the effect of training on targeted community is through conducting random check [by M2M members] on some of the HHs whether they have a stock of child food/flour prepared from a mix of about 17 types of cereals and legumes. As long as she is economically capable of preparing this food, her peers/gere members will hold her accountable if she fails to prepare. Otherwise, they will provide her with some if they are convinced that she is not able to do so. Therefore, every M2M group member, who has a child under two, takes her responsibility very seriously after the training." (Key informant from KurfacheleWoreda Health office)

" … For instance I have a regular house to house visit to check whether women are practicing the training they have taken, whether their situation is improving as well as if all women in the village are organized in M2M groups. I have been reporting all my

activities to the woreda Women, Children and Youth Affairs Office as well as to CARE Ethiopia/MUSKOKA." (Kebele Women's affair from Kurfachele)

No dependencies:

The project is designed in a way to increase effective utilization of available household resources to attain its objectives than through injecting external (aid) resources to households with limited economic conditions. When help is needed to enable the neediest households to cater to their children and improve their family's nutritional intake, the support provided is very minimal, i.e providing chicken. What is rather encouraged and practiced is strengthening the self-help group initiatives to support each other and increasing sense of self-reliance of households. Therefore, the project avoided any "unnecessary expectations" by the community, which is key, not only for the current success but also by laying a promising ground for the sustainability of the project. The following is the experience of one of the community facilitators in MUSKOKA:-

"Participation of the M2M groups is amazing and they usually have hot discussions at their meetings. In some of the places where we are delayed to organize them in groups, they just take the initiatives by themselves and call us for support. Some are even blaming the HEW for a "slow" move in organizing them. However, all this zeal is not because they are expecting any financial or other benefit from the project. Rather because they wanted the changes, they have seen in other villages, to happen to them too. In fact, they are enjoying the discussions and appreciating the changes they are experiencing. Just to give you an example, at one time the project distributed chicken to some households, by way of encouraging destitute women to continue to participate in their VSLA through selling egg and to feed their babies too. However the members said, 'we were not expecting even these things from this project.' Thus, the project is primarily moving forward because of their zeal than our effort. Therefore, I am sure there is no doubt that they will continue their participation and activities even after the phase out of MUSKOKA." (Community facilitator from Kurfachele)

6. Bi-variate analysis

This chapter deals with bi-variate analyses on selected maternal and child nutrition related outcome variables and factors affecting nutritional outcomes on the basis of MUSKOKA Project indicators. The analytic methods undertaken include bi-variate correlation analysis by converting all the relevant variables into binary state (0 or 1 responses). The results these analyses give explanations to some of the descriptive findings this study and empirical expectation on the relationships of outcome variables. The following table indicates the summary the results.

Table 17: Outcomes of bi-variate analysis

	Mothers work outside	Mothers receive wage	Mother age (0 for <=25 & 1 for >25)	Early initiation of breast feeding	Plain water provision for infant	Butter provision for infant	Rice liquid for infant	Bottle feeding	WDD
Literacy of mother	+	+	-***	-	+*	-	+	+	+**
Mothers work outside	1	+***	+	+	-	+***	+***	+***	+
Mothers receive wage		1	+	-***	+***	-	-	-*	+
Mother age (0 for <=25 & 1 for >25)			1	+	+	-	+	+*	-
Early initiation of breast feeding				1	+	+	+	+	-
Plain water provision for infant					1	+***	+***	+***	+**
Butter provision for infant						1	+***	+***	+***
Rice liquid for infant							1	+***	+***
Bottle feeding								1	+***

****. Correlation is significant at the 0.01 level (2-tailed).*

***. Correlation is significant at the 0.05 level (2-tailed).*

**. Correlation is significant at the 0.10 level (2-tailed).*

..... Continued

		WDD	MAD1	Breast feeding	Mother becomes sick	Child becomes sick	See ANC	Soap and/or ash at home	Child stool disposal
Litrace of mother		+**	+*	+	+	+*	+*	+	+**
Mothers work outside		+	+***	+	-	+**	+**	+	+***
Mothers receive wage		+	-	-	+**	+***	+	+	+
Mother age (0 for <=25 & 1 for >25)		-	-	-	+	+***	-	-	+
Early initiation of breast feeding		-	-***	-		-	+	+**	+**
Plain water provision for infant		+**	+***	+	-	+***	+***	+**	+
Butter provision for infant		+***	+	+	-***	-*	+**	-	-
Rice liquid for infant		+***	+**	+	+	+	-	-	+
Bottle feeding		+***	+***	-	-*	-	+**	-	+
WDD		1	+***	+	+***	+	+***	+	+
MAD			1	+*	+	+	+*	+***	+
Decision making role of mother (mother alone or mother and father = 1 if not 0)	Breast feeding			1	+***	+***	+	+***	+***
	Mother becomes sick				1	+***	+	-	+
	Child becomes sick					1	-	-	+
See ANC							1	+***	+***
Soap and/or ash at home								1	+*

****. Correlation is significant at the 0.01 level (2-tailed).*

***. Correlation is significant at the 0.05 level (2-tailed).*

**. Correlation is significant at the 0.10 level (2-tailed).*

Key summaries from the bi-variate analysis

1. Literate mothers have higher women dietary diversity score, and practice proper stool disposal compared to illiterate mothers. This is a clear indication that educating mothers is vital in improving her nutritional status, hygiene and sanitation.

2. Women who work outside home has better income which also leads to the betterment of the feeding of their children in terms of meeting the minimum acceptable diet necessary for growth and development of their child. The economic empowerment also improves women's involvement in the decision making process in many aspects including in the treatment of herself and that of her child when they get sick.

3. ANC attendance is positively correlated to avoidance of inappropriate infant and young child feeding practices like provision of plain water and butter to the newborn baby, avoidance of

bottle feeding and improvement of her own diet as measured by the women's dietary diversity score. This is due to the information they receive during the ANC visits.

Key recommendation:

The MUSKOKA project should strongly continue to engage women in income generating activities. This is because creating income generating opportunities for women will increase their involvement in household decision making process which in turn leads to better nutrition and care for herself and that of her children.

7. Challenges and Proposed Actions

Challenges faced	Actions! (taken/proposed)
Frequent staff turnover rate in government offices is one of the most commonly reported barriers to the successful implementation of the project. The project invested a lot on these staffs, to orient and train them on the overall philosophy, framework and strategies.	MUSKOKA staff in some of the woredas kept on struggling by giving formal and even non-formal inductions to the newly assigned person, including using off-working hours.
Given the crucial role they play in the implementation of the project, frequent turnover of HEW is reported as too expensive for the project to afford. In the case of Haremaya woreda, there has been a serious problem of retaining HEWs and finding them at their workplace. In some of the cases, the community members don't know them even by name indicating their detachment, not only for MUSKOKA but for all other health interventions. Given the critical role of HEWs play in the implementation of a project like MUSKOKA, it is very obvious to see how this is posing a big challenge to the success of the project.	MUSKOKA staff mitigated HEW turnover by providing formal and even non-formal inductions to the newly assigned person, including using off-working hours.
Though the project's strategy of implementing all activities through the existing GO structure is highly praised and appreciated by MUSKOKA's field staff, the human power allocated for handling the "multitudes" of activities is reported as very much limited. The field staff feels extremely overburdened with workload, which is highly likely to affect the overall results expected of the project. For instance, they argue that, despite the progress in the achievement of core project objectives, they seem to be behind schedules in implementing some of strategic areas such as SAA and community score card, which are special tools for enhancing community capacity and for monitoring progress and accountability at community level, respectively.	The project staffs believes that given the support MUSKOKA has from the GO offices and acceptance of the project by the community, they could have achieved a lot more than what is at hand today, had they had at least one more staff per field office.

8. Perception about Sustainability of the Project Outcomes

There are three reasons mentioned by different study respondents for their perception of a promising sustainability of the project outcomes. One is strong community ownership of the project and its outcomes as a benefit, the second is alignment of the projects strategy with government's prevention focused health service and implementation through existing GO structures. In other words, since the project was designed jointly with the local GO from the outset, planning, implementation, review meetings and supervision are conducted fully jointly.

Community members believe all the knowledge, attitude and practice based outcomes ***will sustain***. As one of the respondents stated: *"is this not our life? Is it not to our benefit? Then why should we leave it after MUSKOKA is gone? The results will be retained here forever. For instance, because of what we have learnt, morbidity is reduced; our hygiene is improved; malnutrition is reversed; mothers are delivering at HFs; our women are organized in M2M groups. So why should we leave all these? There is no economic incentive that we're getting from the project, yet we like it. Thus, even if it is gone, we will continue to work on."* All other community respondents replied in agreement with this expression.

Head of a woreda health office confidently said that *"we are sure that all the initiated activities and outcomes will continue without MUSKOKA, for it is working through our existing GO structure. In other words, no parallel structure is created to implement the project. Since strengthening the HDAs is our primary strategy in enhancing the health system, once we get the experience on how to strengthen them, we will continue to do so and scale it up in other parts. We don't think we will have a problem to sustain the outcomes already achieved."*

As compared to the intervention strategies of previous CARE Ethiopia projects, MUSKOKA has a strong base to sustain even after the phase out of the project. The key difference is in the ownership level of the project by the community. For instance, during the implementation period of Pop/AIDS project by CARE Ethiopia in this woreda (which ended about eight years ago), the project was run mainly by community facilitators who were provided with some incentives for their services. At the end of the project, though there was willingness of the government and by the community to continue to work on the project goals and sustain the outcomes obtained, it didn't last long after the project had phased out. But MUSKOKA, being implemented by people organized in the existing government as well as community structures and most importantly, working without expecting any incentives for their services, the project outcomes are certain to sustain after it phases out.

9. Recommendations

GENERAL RECOMMENDATIONS

- The knowledge and practice of optimal breastfeeding behaviours by mothers needs to be maintained through strengthening the existing M2M groups. Addressing those who could influence the behaviours, such as husbands and mother-in-laws, is critical in addition to those who practice the behaviours i.e., the mothers.

- Complementary feeding, especially the consumption of flesh foods, remains to be a challenge for it is not only the behaviours that play role but also the economic capacity of the household. The VSLAs and the M2M groups can be used to suppport increased access to flesh foods through improved financial status and/or household production of meat.

- The high women dietary diversity score that is observed in the study area is very encouraging and needs to be maintained. Women need to be advised to deliberately plan to consume diversified foods specially during pregnancy and lactation.

- The health seeking behaviour of mothers, both for their children and for themselves, have significantly improved. This improvement needs to be embedded as a norm within the community so as to continue after the phasing out of the project. Men's involvement in each and every health activitiy is crucial for the gender inequality is likely to remain in the coming years.

SPECIFIC RECOMMENDATIONS:

- Women in Haromaya woreda strongly urged to have an ambulance for labouring mothers, to reduce maternal morbidity and even mortality.

- M2M groups suggested they be provided ith additional training and education to enhance their economic capacities. For instance, they suggested seedlings to grow vegetables, even demonstration on how best to produce these things.

- Male involvement should be considered in all aspects of the project, as this is critical to the success of the project.

- Currently, the review meetings and supervision tookplace semi-annually and the frequency need to be increased to quarterly for better interaction. Aligning with the regular quarterly programs is one solution rather than the current biannualmeeting.

- Community trainings should be given in the kebeles, as this will reduce any expectation of perdiems by the participants.

- There is a need for support of supplies and utensils for food preparation demo centers, especially in economically weaker kebeles.

- Coordination of activities, for example with women's affair intervention and others, rather than operating independently and simultaneously on the same kebele to avoid duplication of efforts.

- The focus on sanitation component of the project should be strengthened and the coverage needs to be increased from its current status specially in Haromaya woreda.

- Aligning community training schedules with that of the woreda administration's schedule, as there were overlap of activities in the past.

- It is important to bring teachers, agricultural DAs, league members and other grass root structures on board and provide them trainings on MUSKOKA's packages, as this will enhance sustainability of outcomes and effectiveness of the project implementation. It would also be good if the project extends its support for the WHO in repair of office equipment and fill some gaps such as in supply of stationery.

- Apart from the current discussions on health, nutrition and sanitation issues, strengthen M2M groups on SAA.

- In order to standardize the trainings that are being cascaded, it would be very important to have a clear training manual on gender issues too, as it is one of the key focus areas of the project.

- Revisit overlapping trainings that target same groups. For instance, the training topics on "gender, BF and CF" overlap with the training on "Gender issues and maternal and child nutrition". Delivering these trainings for same groups in different times feels like a waste of time, money and energy, as their contents are not different per se.For instance, the following two sets of training were considered as overlaps:

    - Training health service providers in IYCF, maternal and child health, in nutrition and gender issuesvsTrain health service providers in optimal breast and complementary feeding, micronutrient consumption and food diversity, and

    - Refresher training to Community Health Promoters (CHPs) on IYCFvsRefresher training to HEWs and health service providers.

Many agree that the implementation strategy used by MUSKOKA is workable to continue in its efforts. One of the project staffs commented that "*all is going well. The project is on the right track towards achieving its goals. We have made all the necessary adjustments in the project implementation process, such as clearing some overlaps of training with GO programs and clarified some ambiguities in the project document.*"

ISSUES TO FURTHER EXPLORE

- The project is designed to be implemented through the woreda and kebele level offices of health, agriculture and women's affairs. The role and involvement of health offices is very clear both at the woreda and kebele levels while women's affairs have strong visibility at kebele level. However, despite their critical role in promoting and mainstreaming nutritional programs at the kebele level, the contribution of DAs and active participation of the woreda agricultural offices does not seem to be as integrated as planned.

- It is very important to nurture the economic aspect of VSLAs, as these have strong adhesives to glue the groups for long and keep the momentum.

- Refining and scaling-up MUSKOKA's approach for implementing other development interventions.

Annex: Summary of MUSKOKA Project Outcome Indicators Value

	Indicator	Indicator definition	Result
Outcome 1:	• Timely Initiation of Breastfeeding:	Proportion of boy and girl children 0-23 months put to the breast within 1 hour of birth	88.4%
	• Exclusive Breastfeeding:	Proportion of children 0-5 months receiving only breast milk	83.5%
	• Minimum Acceptable Diet:	Proportion of boy and girl children 6-23 months with minimum acceptable diet	40.5%
	• Knowledge of three specific IYCF practices	Newborn baby should be put to the breast immediately after birth Duration of Exclusive Breastfeeding Duration of continuation of breastfeeding	97.0% 94.7% 94.2%
	• Women's attitudinal beliefs about the four most common IYCF misconception (Percentage disagreed)	Plain water should be provided to a child as soon as it is born Butter should be provided to a newly born baby A small amount of rice liquid or soup or fenugreek water should be provided to a newly born baby It is okay to feed a child under six months with a bottle	73.7% 87.5% 86.7% 87.7%
	• Women's perception of their spouses attitudinal beliefs about the four most common IYCF misconception (Percentage disagreed)	Plain water should be provided to a child as soon as it is born Butter should be provided to a newly born baby A small amount of rice liquid or soup or fenugreek water should be provided to a newly born baby It is okay to feed a child under six months with a bottle	74.1% 85.2% 84.6% 84.6%
	• Women's perception of their mothers-in-law attitudinal beliefs about the four most common IYCF misconception	Plain water should be provided to a child as soon as it is born Butter should be provided to a newly born baby	58.8% 69.9%

	(Percentage disagreed)	A small amount of rice liquid or soup or fenugreek water should be provided to a newly born baby It is okay to feed a child under six months with a bottle	70.7% 71.3%
Outcome 2:			
	• Minimum Dietary Diversity:	Proportionn of boy and girl children 6-23 months who receive food from 4 or more food groups in the past 24 hours	47.3%
	• Minimum Meal Frequency:	Proportion of boy and girl children 6-23 months who receive solid, semi-solid or soft foods (including milk feeds for non-breast children) the minimum number of times or more	79.9%
	• Maternal Dietary Diversity:	Proportion of women receiving 4+ food groups	88.9%
Outcome 3:	Proportion of women aged 15- 49 years with a live birth who received nutrition counseling during their last pregnancy		91.3%
	Proportion of women aged 15-49 who make decisions about what to do when they become sick (respondent or joint decision)		70.7%
	Proportion of women aged 15-49 who make decisions about what to do when their child becomes sick (respondent or joint decision)		75.0%
Outcome 4:	Proportion of women who practice hand washing at a minimum of 3 out of the 4 critical times (before preparing food, before eating, after toilet use, and after changing a baby)		80.1%
	Proportion of women who practice hand washing at a minimum of 2 out of the 4 critical times (before eating and after toilet use)		84.1%